

THE ROLE OF PRIVATE PRACTITIONERS IN A RURAL
DISTRICT OF MALAYSIA AND THEIR INTERACTIONS WITH PUBLIC
HEALTH SERVICES.

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ABSTRACT

A study was carried out to examine the role of private practitioners in a rural district in Malaysia and to identify the nature of their interactions with public health services. Underlying null hypotheses were that there is no difference in the nature of the services, the characteristics of the health workers or the clientele of public and private sector facilities and that the interactions between both types of providers were mutually beneficial.

Five sub-studies were conducted among 15 private clinics and six public health facilities in Kuala Selangor district. Quantitative and qualitative techniques were used and efforts made to triangulate and validate findings.

The nature of services in private clinics is influenced by competition with other facilities, the demand for the services by users and the attempt to maximise profits by the providers. Most private clinics offered a wider range of curative services, operated for longer and had more flexible hours than public facilities. However, private practitioners had a limited role in providing preventive services. Private clinics were mostly run by older doctors supported by younger and untrained staff while public facilities were run by younger doctors supported by older and more experienced staff.

Users of private facilities were more likely to be non-Malays, of higher socio-economic status, seeking curative care for acute illnesses and financed by third party cover. Users of private facilities were prescribed more drugs and expensive investigations than those using public facilities.

Weak and inappropriate policies, lack of incentives, poor inter and intra-agency collaboration and negative attitudes between the providers were among the problems identified in public-private interactions.

Malaysian policy makers need to engage in a consultative process in order to define the best mix of regulations, incentives and other methods aimed at improving the services offered by the providers and improving their interactions.

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GLOSSARY OF TERMS

Private practitioners	Medically qualified private doctors working for-profit in private clinics.
Public doctors	Medically qualified doctors working in government facilities.
Public and private interactions	Activities in which there are interconnections between public and private sector.
Health workers	All personnel working in public or private health facilities.
Health staff	Non-doctor personnel working in public or private health facilities.
Clinical staff	Health staff directly involved with patient care in their daily work.
Non-clinical staff	Health staff not directly involved with patient care in their daily work.
Public health facilities	Health facilities owned by government.
Private health facilities	Health facilities in the private sector.

Households	Person or persons who have made arrangements individually or in groups, for providing themselves with food or other essential for living (Department of Statistics, 1990 a).
Acute illnesses	Illnesses which do not require long term treatment. In this study all illnesses other than diabetes mellitus, hypertension, bronchial asthma and ischaemic heart diseases are considered to be acute.
Chronic illnesses	Illnesses which require long term treatment. In this study chronic illnesses are diabetes mellitus, hypertension, bronchial, asthma and ischaemic heart diseases. Other illnesses are considered to be acute.
Waiting time	Duration from the time patient arrives at the clinic until s/he is called in for consultation.
Consultation time	Time a patient spend on consultation with health workers.
Preventive care	All services related to antenatal and post-natal care, child health and immunisation, contraception and medical examination for employment (MOH 1988 b).

Curative care

All services other than preventive care (antenatal and post-natal care, child health and immunisation, contraception and medical examination for employment) are considered as curative care.

ABBREVIATIONS

A&E	Accident and Emergency
CA	Clinic assistants
CAT	Computerised Axial Tomography
CME	Continuing Medical Education
DH	District Hospital
DHO	District Health Office
EDP	Essential Drug Programme
EPU	Economic Planning Unit
FGD	Focus Group Discussion
FPMPA	Federation of Private Medical Practitioners Associations
HC	Health Centre
HIMS	Health Information System
ID	In-depth Interviews
KDM	Koperasi Doktor-Doktor Malaysia
km	Kilometer
MA	Medical assistant
MC	Medical certificate
MCGP	Malaysian College of General Practitioners
MMA	Malaysian Medical Association
MMC	Malaysian Medical Council
MO	Medical Officers
MOH/MMA-HB	Ministry of Health/Malaysian Medical Association Hepatitis-B Immunisation project
MOF	Ministry of Finance
MOH	Ministry of Health
MOIC	Medical Officer In-Charge
MRI	Magnetic Resonance Imaging
OPD	Out-Patient Department
PC	Private Clinics
PHC	Primary Health Care
PPs	Private Practitioners
PSP	Public sector personnel
RM	Ringgit Malaysia
Rs	Indian Rupees
TRANS	Translation

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I. INTRODUCTION

1.1 ORGANISATION OF THE THESIS

This thesis is presented in twelve chapters. After this introduction (Chapter I), a review of relevant literature is presented in the second chapter. The third chapter provides background on Malaysia and Kuala Selangor District, the study area. The study objectives and methodology are discussed in Chapter IV. The next five chapters (Chapter V-IX) present findings of the sub-studies undertaken in this research. Discussion is presented in Chapter X followed by policy implications (Chapter XI). Conclusion and further research is given in the Chapter XII.

1.2 RATIONALE FOR THE STUDY

The aim of this study is to define the role of private modern practitioners and their interactions with public practitioners in the provision of health services in a rural district of Malaysia. The justification for this study is as follows:

i) Financial crises faced by many developing countries coupled with pressure from influential international agencies have shaken policy makers into considering policies to mobilise resources through private health care. Efforts to develop such policies are being hampered by the lack of information: as a result there have been calls for more research into the nature, function and potential of private health care.

ii) Malaysia is among the few developing countries which have developed an extensive network of public rural health services (Ming, 1988). Although very few studies have been carried out, there is evidence suggesting that private modern practitioners are abundant in rural areas of Malaysia (Heller, 1982). Yet the role of private practitioners in rural areas has rarely been studied in Malaysia or other developing countries.

iii) The Ministry of Health in Malaysia views private practitioners as complementary to the government services in the country (MOH, 1991 a). Since both providers are serving the same population, interactions between them are inevitable. However, very little evidence is available about the nature of interaction between public and private providers, particularly in rural areas. This study explores the form of existing interactions between the two providers.

iv) A rural district is the focus of this study since it is the basic unit in the administration of non-urban health services in the country. The district level is where policies formulated at national level are implemented. However, how the policies were being conceived, interpreted and implemented by health workers at the ground level has rarely been reported in Malaysia. Results of this study will provide valuable feedback to national level policy makers in terms of improving existing and future policies.

v) Limitations in government health service in rural areas such as shortages of manpower may force the rural community to rely on the other providers including private medical practitioners. On the other hand rural populations were generally disadvantaged group because of their lower income and educational status. Their ability to choose and utilise health services will be affected. This study explores problems faced by the rural community in utilising health services both in the public and private sector. It is hoped that by understanding these problems, action could be taken by both providers to improve their services.

This study attempts to answer the following questions:

- i) Who are the private practitioners operating in a rural district ?
- ii) What services are provided by private practitioners? How do these differ from those available in the public sector?

- iii) What is the distribution of health problems seen by private practitioners? How does this differ from those seen by public providers?
- iv) What are the characteristics of the users of private facilities? Are they different from the users of public services?
- v) What are the perceptions of the community with regard to the services provided by the private and public sector?
- vi) What is the nature and form of interaction between public and private providers? What problems are present in their interactions ?

II. LITERATURE REVIEW

2.1 INTRODUCTION

This literature review examines evidence on the role of private practitioners and their interactions with public practitioners in developing countries. Relevant studies from developed countries are occasionally cited.

The first section discusses the definition of private practitioners. This is followed by the debate on the public and private mix. Empirical evidence on the significance of private health care is discussed in the third section. The fourth section describes evidence of factors which influence the utilisation of health services. Section five reviews the interactions between private and public practitioners. Finally a summary is given in section six.

2.2 DEFINITION

The private sector may be defined as all those organisations and individuals working outside the direct control of the state, that is both for-profit companies and individuals, and not-for-profit private organisations (Bennett, 1991). In health care, this is a heterogenous group consisting of a wide range of providers with different motives. This definition may lead to some confusion; for example in some African countries there are hospitals managed by the church which are heavily subsidised and controlled by the state (Green, 1987).

Claquin (1981) defined private practitioners as **"individuals who were perceived by the community to provide resources and assistance in illness but were not employed by the government health service."** This definition makes a clear distinction between public and private practitioners in relation to their employer. Following this, he grouped private practitioners in Bangladesh into seven categories: allopathic practitioners with MBBS qualification or Medical Board license, unqualified allopathic practitioners, homeopathic practitioners, ayurvedic

or unani practitioners, spiritual healers, traditional midwives and others that do not fall into any of the earlier categories such as bone setters.

The private practitioners or providers that form the object of this study are those who are the allopathic practitioners with MBBS qualification or its equivalent. Within this group, the providers may have either a profit or non-profit motive. The former usually pursue profit maximisation in contrast to the latter who provide health care for humanitarian, religious, charitable or other non-specified reasons. For-profit private practitioners include general practitioners in group or solo practice and doctors working in private clinics and hospitals. Church and mission hospitals and clinics are examples of non-profit providers. To add to the complexity, some non-profit providers may identify their organisations only for tax purposes, since in many countries non-profit organisations are given tax relief and subsidies (Green, 1987).

Most of the discussion in this literature review will be on private-for-profit practitioners, the main focus in this study and the focus of economic arguments on the role of non-government providers.

2.3 DEBATE ON PUBLIC AND PRIVATE HEALTH CARE

The acceptance of the Primary Health Care (PHC) concept by 134 countries in the world in the Alma-Ata declaration in 1978, was perhaps the first move to recognise the role of non-state providers. With "Health for All by the year 2000" as the goal, the PHC concept stresses the need for multi-agency collaboration, appropriate health care and the promotion of equity.

Whilst many countries which signed the Alma Ata Declaration tried to implement and absorb the PHC concept into their national health policies, the global financial crisis in the 1980's increased the pressure for greater private sector development. Donor agencies such as the World Bank have been

campaigning in the recipient countries for this particular agenda. Slow economic growth and record budget deficits in the 80's forced reductions in public spending, including health sector in many countries. Public spending on health in some countries has declined on per capita basis. Some countries faced with debts have been required to cut public expenditure as a prerequisite for further loans from international agencies (Abel-Smith, 1985). The World Bank, one of the largest lenders of health programmes in developing countries since 1983, believes that government efforts to improve health are unlikely to be able to rely on increased public spending financed by debt or taxes or on reallocation of public expenditure from other sectors (World Bank, 1987). Under the reforms proposed by the World Bank, four main policies were promoted in developing countries: introduction of user fees in government health facilities, provision of insurance or other risk coverage, effective use of non-governmental resources and decentralisation of government health services.

Through these proposed reforms, the role of the private sector will be enhanced. The World Bank argued that private sector expansion guided by market forces will increase both allocative and technical efficiency in financing and providing health services. Private sector expansion in health care was further promoted by the World Bank through its World Development Report, Investing in Health in 1993 (World Bank, 1993). This report urged governments to promote greater diversity and competition in the financing and delivery of health services. Suggestions for private sector involvement in publicly financed health services and for government to encourage efficiency by promoting competition among private providers were made.

The propositions of the World Bank were being promoted in both developed and developing countries and had sparked international debate. Opponents criticised the assumption that private health care guided by market forces would be more efficient than public services. The absence of perfect competition in health care leading to market failure, were the

main points of their argument. Langwell et al (1982) defined perfect competition as "a dynamic process of interactions between independent buyers and independent sellers which results in a tendency for prices of goods and services to move toward the minimum level at which sellers are willing to produce and offer goods and services."

For perfect competition to operate, Mills and Gilson (1988) stated that the following conditions must be met :

i) there are many buyers and sellers freely interacting; each small in relation to the total number so that they are unable to control price or output

ii) there should be no barrier to entry where the producers are free to enter or leave the market

iii) there should be no significant economies of scale which would give a price advantage to large-scale producers and imply a tendency towards monopoly.

iv) no product differentiation or brand names; products are homogenous, without quality differences.

vi) there is an assumption of self-interest; producers aim to maximise profits and consumers aim to maximise benefits.

vii) there should be no externalities or spill-over effects.

viii) there should be no risks or uncertainty where there is existence of perfect knowledge of prices, of products, of the implications of consuming or not consuming a product.

In the health care market, competition is imperfect. Various factors differentiate health care from other goods and services which contribute to the market failure. In the market for other goods, consumers are rational and use their economic resources to maximise their benefits. In health care, consumers' rationality may be absent as they may not know when to seek treatment due their illness such as when a patient is unconscious or mentally ill. Because of this, health care is sometimes regarded as a merit good. Merit goods are goods or services where government believes that individuals should not be allowed free choice of whether to consume or not since

individuals are not always rational in their decisions (Mills and Gilson, 1988).

Risks and uncertainty also differentiate health care from other goods. The need for health care is unpredictable and the costs of seeking care are usually large.

Imperfect information is an important factor leading to market failure of health care. For other goods, the consumers have some understanding of the product or can acquire such information by experience. On the other hand, patients come into markets of health care without knowing how to choose which services or type of treatment to consume. Individuals consulting a medical practitioner are generally unable to either diagnose their complaints or to determine the most appropriate treatment (Bennett, 1991). Due to this most of the decision-making by the patients is delegated to the practitioner (Maynard, 1982), and thus demand for health care is often initiated by the supplier. Patients may be exploited when practitioners generate demand for their own services. The concept of supplier-induced demand stated that the supplier, acting as agent for the consumer, may bring about a level of consumption different from that would have occurred if a fully informed consumer had been able to choose freely (McGuire et al, 1988).

The presence of externalities in health care further differentiates it from other goods. Externalities refer to the benefits or detrimental effects which are not captured in the main transaction between the producer and consumer (Bennett, 1991). Examples of this are immunisations against infectious disease which benefits the individual who is immunised as well as the whole society due to reduced transmissions as immunisation coverage expands. Services considered to be public goods will not be produced at all or will be produced in inappropriate amounts, if they are left to market mechanisms due to the presence of externalities.

Barriers to entry of the health care market are another reason for market failure. Professional licensure and drugs licensing are two examples of such barriers (Mills and Gilson, 1988). Friedman (1962) argued that professional regulation has been used by the profession to further their own interests. The profession controlled the entry into medical schools and restricted the supply. He also argued that through the licensing system, professionals have used their power to raise their income above the market rate. He put forward the idea of making the health care market competitive by abolishing the professional licensure to ensure that professionals such as doctors and dentists will have to compete with non-professionals.

Proponents of private health care and the market approach have argued that increased private sector involvement can augment the supply of health services, remove the unnecessary burden from government and allow it to target its resources to the poor and the needy (Griffin, 1989; Roth 1988; Ferranti, 1985). Ferranti (1985) classified health services into two groups of curative and preventive services. He suggested that curative services in which the benefits are enjoyed by individuals consuming the services, are private goods rather than public goods and should be targeted for take-over by private providers. He argued that these services, which consume more than 70% of total health expenditure, would, if shifted to the private sector, increase resources for health care on the whole.

Roth (1988) split preventive services into two groups, the non-patient-related services and patient-related services. The non-patient related preventive services are considered to be public goods, the benefits of which are long term and not normally received by individuals but shared by the community. Public goods are defined as commodities or services that a) can be used, consumed or enjoyed by an increasing number of people without diminishing the amount available to others b) are available to everyone in the catchment area independent of the size or existence of payment and c) cannot be held from

non-payers (Mills and Gilson, 1988). Examples of non-patient related preventive services are disease control programmes, sanitation and health education. These services are normally carried out by government but private practitioners may have a role. In the control of communicable diseases, for example, private providers may still be needed to notify cases. Patient-related preventive services lie between the two extremes of public and private goods. The benefits from these preventive services are enjoyed by individuals. Some of these services have already been provided by private providers although in some countries government has given priority to these services in their public health programmes. An example of patient-related preventive services are Maternal and Child Health care including immunisations.

Empirical evidence on competition and the market approach in health care has been drawn from developed countries as studies in developing countries are rare. One of the earlier studies on competition was by Fuchs (1978) in USA where he used national aggregate cross-sectional data to relate the supply of surgeons and the number of operations performed. He showed a positive relationship between the physician-to-population ratio and the number of operations performed. The main criticism of this study is that the number of operations performed was exclusively related to physician inducement, ignoring other factors such as income of patients, their methods of payments for the services and incidence of illness in the community (Wilensky and Rossiter, 1983).

Wilensky and Rossiter (1983) in a community-based study in USA measured visits initiated by physician and expenditure as dependent variables for physician induced demand. The expenditure was calculated from the costs of waiting time, travel time, treatment time and costs of tests. They showed that patients with insurance coverage with a lower share paid out-of-pocket are associated with higher physician initiated visits and higher expenditures. They also found an increase in physician to population ratio would increase the likelihood of physician-initiated visits.

Williams et al (1985) studied the differences in duration of stay for eight surgical procedures in NHS hospitals and independent private hospitals in England and Wales. Beds in NHS hospitals were divided into two groups; the pay-beds and non-pay beds. It was found that NHS pay-bed patients has the shortest stay followed by patients from independent private hospitals and NHS non-paying patients has the longest stay. This suggested that the independent private hospitals might have prolonged the stays of their patients to get revenue from the occupied beds. NHS non-paying patients had the longest stay probably due to more severe illness resulting from long waiting lists. Differences in severity of illness and the presence of complications between various groups of patients were not, however, taken into account in calculating the duration of stay.

The negative impact of competition in health care was demonstrated in a study by Robinson and Luft (1987) in the USA. They compared the costs of providing care in hospitals with different competitive environment. The degree of competition between hospitals was measured by the number of neighbouring hospitals within a 24 km radius. It was found that the average costs per admission were 26% higher in hospitals with the most competitive market (more than 10 hospitals within 24 km radius) than in hospitals with no competitors within the same radius. The average cost per patient day was 15% higher in hospitals with most competitive market than in hospital with no neighbours. They concluded that these results are consistent with 'medical arms race' hypothesis which suggests that competition in the hospital sector took the form of cost-increasing acquisition of new technology to attract patients and physicians. Nevertheless no comparison was made on the actual equipment or technology acquired by the hospitals in the various competitive environment.

McCarthy (1985) found that the primary care physician market in USA is monopolistically competitive; the consumers were sensitive to dollar and time prices and physicians were forced

to offer lower waiting times if higher dollar prices were to be introduced. It was also shown in this study that increase in the number of physicians in the market would produce downward pressure on prices. He went on to conclude that competition has forced physicians to become better agents for their patients. Inducement activities by physicians were constrained by consumers who were sensitive to physician behaviour. Although this study reported positive effects of competition, these were limited by the use of only the consultation fee to measure the price of care: costs of drugs prescribed and diagnostic tests were not included.

One study suggestive of supplier-induced demand done in developing country was by Barros et al (1986) in Brazil where it was shown that attendance at antenatal clinics and the rate of caesarean sections increased with family income but not with gestational risks. Mothers in the poorest group had mean antenatal visits of 4.7 while the richest had 9.3 visits. Fifty-four percent of wealthy patients covered by private insurance had caesarean sections compared to only 13% of indigent mothers.

In conclusion, promotion of the private sector as a remedy for inadequate resources for health care is a complex issue. Assumptions that the efficiency of the private health sector can be raised through competition have been challenged due to market failure in the sector.

2.4 SIGNIFICANCE OF PRIVATE HEALTH CARE IN ASIAN COUNTRIES

This section considers the significance of private health care in Asian countries. The importance of private health care will be highlighted by empirical evidence on the extent to which private sector services are utilised, the availability of human resources in the sector and expenditure on private health care.

In Malaysia, a National Morbidity Survey was conducted by the Ministry of Health in 1986-87. This nationwide household

survey using a two-week recall period showed that private clinics were most commonly utilised for out-patient care. During the two week period, for every 100 ill persons, 5.2 visits were made to the private clinics as compared to 2.1 visits to health centres, 1.4 visits to government hospitals and 0.4 visits to traditional practitioners (MOH, 1988 b). One obvious limitation of this study was the use of health workers as the interviewers, which might affect the way respondents report the providers visited. An example of this problem is shown in a study in rural Kenya by Schulpen and Swinkels (1980), where they found gross under-reporting of the use of traditional healers when health personnel were employed as interviewers.

Another study conducted in two Malay rural villages in the state of Selangor in Malaysia, found that 32.5% of adults above 18 years of age utilised the public services and 22.2% sought treatment at private clinics, 33.6% used self-medication and 11.7% visited traditional healers (Aljunid, 1992). The study was limited by the use of a six month recall period which would lead to under-reporting, especially of visits for trivial conditions.

In Indonesia, most of the doctors and a large number of nurses and other paramedical staff working at private hospitals were public sector employees either seconded or working part-time in the private sector. Only 15% of the country's health workers were directly employed full-time in private institutions (Gish et al, 1988). Berman et al (1987) showed that in Western Java, among the 3322 treatments contacts, 12.8% were made with private providers (doctors and paramedics), 16.8% with public providers and rest with traditional healers or self-treatment. In 1986, the private sector accounted for 63.2% of the total health expenditure of Indonesia (Brotowasisto et al, 1988).

Smith (1982) showed that among 132 physicians in the Northern Thailand Provinces that he studied, more than two thirds of the public sector doctors reported having after hours private

practice. In 1985 it was estimated that there were more than 12,000 private clinics in the country as compared to 7,800 public health centres (Griffin, 1989). Private health care expenditure in Thailand increased from 66.7% of the total health expenditure in 1978 to 73.2% in 1987 (Wibulpolpraset, 1991 a).

In 1974, 69% of primary care facilities in the rural areas of the Philippines were owned and run by private practitioners (Griffin and Paqueo, 1993). A study among 399 households in the Bicol region, a poor rural region of the Philippines showed that 31% of the adults visited private practitioners as compared to 18% using government clinics; the remainder visited traditional healers or did not seek any medical help (Akin et al, 1986). In 1980, the per capita expenditure on health for the country was US\$18.23; US\$ 13.39 was spent in the private sector and only US\$4.84 in the public sector (World Bank, 1987). Roemer (1991) reported that in 1981, 59% of physicians in the Philippines were engaged entirely in private practice. Among the 41% of public doctors, nearly all did some private practice part of the time.

In India, 56% of hospitals and 49% of dispensaries in the country were owned by private organisations in 1988. Furthermore it was thought that the figures for private ownership are even greater as information on clinics and nursing homes which exhibited strong private control were not available (Bhat, 1991). It was estimated that about 73% of qualified physicians in the allopathic system were in private practice and only 27% worked in public services (Bhat, 1993). Duggal and Amin (1989) in a household survey in a rural district of Maharashtra found that 77% of the illness episodes were presented to private practitioners and hospitals as compared to only 13% to government facilities. In another study (Visvanathan and Rohde, 1990) it was shown that 65% of diarrhoeal cases sought medical treatment, 80% of these cases went to private practitioners and only 10% to government health facilities. In terms of health expenditure, Nichter (1980) found that 82 poor families in South Kanara district of

Karnataka spent 7% of their family expenses on health, 60% of which was spent for private consultations and drugs.

In Papua New Guinea, Kolehmainen-Aitken et al (1990) reported that the percentage of doctors in full time private practice increased from 13% to 18% between 1984 and 1990. In 1974 only 15% of the patients of all expatriate private practitioners were nationals; ten years later this had increased to 50%.

Hillier and Zheng (1990) reported that China has 160,000 private doctors (including paramedics), 70% of them work in rural areas and 45% of villages had at least one private doctor.

These studies show that private practitioners are important health care providers besides government and the indigenous healers in rural areas. In some of these studies private practitioners were utilised more frequently than the government services.

2.5 FACTORS INFLUENCING UTILISATION OF HEALTH SERVICES

This section aims to review evidence of factors which influence the utilisation of services by private and public providers. Identifying such factors could assist in understanding the barriers faced by users using the services. These barriers which limit accessibility to services need to be considered by policy makers when promoting private or public sector services.

The classification used by Kroeger (1983) were used to classify factors influencing utilisation of health services. He broadly divided these factors into three groups: characteristics of the subjects, the disorder and the service.

2.5.1 Characteristics of the subjects

i) Socioeconomic status

Cortinovis et al (1993) argued that socio-economic classifications based on income, occupations and literacy used in industrialised countries were inappropriate to use in developing countries because of structural and economic heterogeneity between the countries. Many studies in developing countries still use income or occupation as socio-economic indicators but these classifications were tailored according to the local situation (Benyoussef and Wessen, 1974; Heller et al, 1981 and Berman et al, 1987). Others used a combination of more than one variable such as occupation, ownership of land and educational level to classify the socio-economic status (Cortinovis et al, 1993; Ramachandran and Shastri, 1983; and Amin et al, 1989). Recently, Dye and Lee (1994) reported using only ownership of cows and sheep as an adequate indicator of the socio-economic status of households in rural Kashmir.

Socioeconomic status is commonly mentioned as an important factor affecting the choice of provider in rural communities. More importantly it also affects the decision of whether or not to seek treatment (Fiedler, 1981).

Heller (1982) found that households with higher income level shifted their demand from public to private clinics in Malaysia. The National Morbidity Survey by the MOH showed that lower income groups (monthly income of RM 500 and below) had lower utilisation rates and have higher tendency to use public services than higher income groups (MOH, 1988 b). However, private clinics were utilised by 35% of the those in the lowest income groups (less than RM 300 per month) while 25% of those in upper income group (RM 2,000 and above per month) used the subsidised public facilities. These two studies however considered the whole country and did not disaggregate urban and rural areas.

Aljunid (1992) in a community based-study in a rural village in Malaysia showed that utilisation of private clinics by adults aged 18 years and above increased significantly as income increased. The percentage of respondents who utilised private clinics increased from 7% for those with monthly per capita income of less than RM 50.00 to 36.5% for the group with income of RM 150.00 and above. The percentage of respondents who visited traditional practitioners decreased as income increased.

Berman et al (1987) showed that in Indonesia at all levels of severity of illness, higher income groups were more likely to seek treatment; he pointed out that the use of private physician was primarily restricted to the upper income group. Heller et al (1981) found that in Mexico, those in lower socio-economic class were less likely to have a stable source of medical care and more likely to use public rather than private facilities.

ii) Ethnicity

Different ethnic groups have different patterns of utilisation. In Malaysia, Heller (1982) found that, Chinese people used out-patient services more frequently than Malays and Indians even after controlling for socioeconomic status. No explanation was offered for these findings. The National Morbidity Survey in Malaysia also showed that the Chinese were more likely to use private care facilities than Malays and Indians (MOH, 1988 b). These findings are likely to be confounded by income, not controlled in the analysis. The explanation offered for the ethnic differentials in this study was the distance to services: the Chinese population is more urbanised than the other two population groups. Kroeger (1983) suggested that differences in symptom sensitivity in different ethnic groups may be one explanation for inter-ethnic variations in utilisation. The patients' desire to choose doctors from the same ethnic group who speak the same language might be another reason for the observed ethnic pattern of utilisation.

Senior and Bhopal (1994) recently suggested four problems in using ethnicity as a variable in research: difficulty of measurement, heterogeneity of populations being studied, lack of clarity about the research purpose and ethnocentricity affecting the interpretation and use of data. Among other things they suggested that ethnicity should be perceived as different from race, that researchers should appreciate the complex and fluid nature of ethnicity and that higher priority be given to research on methods for ethnic classifications. Such issues are as relevant in industrialised as in less developed countries.

iii) Age

Health needs at different ages influence utilisation pattern. A study by Benyoussef and Wessen (1974) in Tunisia found a "U" shape utilisation rate with peaks at both extreme ages; this was explained by the high morbidity rates in the very young and elderly.

Heller (1982) found that the school children and households members in the working age group in Malaysia were more likely to consume out-patient services (public or private services) despite their relatively lower morbidity rate. He showed that the high morbidity group in the age 0-4 and more than 45 years consume the smallest amount of out-patient care. He postulated that this unusual finding might be due to household choices to treat a significant fractions of minor illnesses of the dependent age groups within the home. Another interesting finding was that those aged 5-15 and those over 45 were more likely to use traditional medical care rather than modern treatment. The later finding might be due to the confidence of older age groups to traditional practitioners but the former finding has not been able to be explained by Heller.

In Singapore, Fong and Phua (1985) found that at all age groups private general practitioners were more frequently utilised than government outpatient services. For both

services, their utilisation rate peaked at the age group 5-9 and over 50. There is another peak in the utilisation rate of private general practitioners at the age group of 20-30. The researcher suggested that this peak might be due to a number of employees who require medical certificate for absences from work.

iv) Gender

Studies from various countries have shown different utilisation patterns between males and females. In Tunisia, for instance, it was found that females had higher rate of utilisation than men in both rural and urban areas in almost all age groups (Benyoussef and Wessen, 1974).

Akin et al (1986) in their study on the demand for adult outpatient services in the Philippines reported a statistically significant increase in the probability of a private versus a public sector visit if the sick person was male. He suggested that such findings may be indicative of a diversion of resources towards males to improve the quality of their care.

The priority of men over women in receiving health care was also found by Feldman (1983) in his study in Bangladesh. He found that men are more likely to use allopathic treatment than women. He suggested that allopathic medicine which has a quicker effect and is more powerful may be reserved for the males since male labour is assumed to be of greater value than women's labour. This is particularly true for poor families where males seek quick cures in order to be available for employment opportunities. It is also possible that when men control the family finances, they might give priority to their own health needs.

In contrast Fong and Phua (1985) in Singapore found that female visited private general practitioners 1.7 times more often than males. Women also visited government out-patient services 1.6 times more often than men.

v) Sources of finance

Source of finance is one barrier to use of private health care providers in developing countries. Third party payment mechanisms such as health insurance coverage are poorly developed in most of the developing countries; however, this trend is increasing rapidly as part of health system reform package. Coverage of such scheme tend to be limited to certain sections of the population, usually those employed in the formal sector. Services covered tend to be mostly hospital admissions rather than out-patient services. Ron et al (1991) reviewed health insurance schemes in 14 developing countries and reported that in most countries public services were utilised to deliver services under the scheme except in South Korea, Philippines and Thailand where private practitioners were selected through an accreditation process. In contrast, Bennett and Tangcharoensathien (1993) noted that in Thailand formal sector employees covered by national health insurance demanded access to the private sector in return for their contribution.

In Malaysia, only 6.5% of users of government facilities paid by through third parties, 70% had free services and the remaining paid out-of-pocket. Among the users of private facilities 20.9% paid through third parties and the majority paid out-of-pocket. Most with third party coverage in the private sector received this privilege as employees benefit (MOH, 1988 b).

In Indonesia, 13% of the population, almost all of them government employees and their families, were covered by some form of health insurance. Nevertheless direct out-of-pocket payment comprise by far the greatest part of all household care payments to public and private sector facilities (Brotowasisto et al, 1988).

2.5.2 Characteristics of the disorder

In a study in a Malay rural village in Malaysia, Colson (1971) found that acute and fatal diseases were presented more frequently to modern practitioners whereas chronic non-fatal illnesses to traditional healers. In another study among villagers attending a rural clinic in Malaysia, Heggenhougen (1979) found that most people used the public clinic for minor problems and presented their more serious health problems directly to a private physician.

Lim (1991) reviewed 3,164 patients attending eight private clinics in two rural districts of Pahang, an east coast state in Malaysia, and found that 87% of patients came for medical treatment and only 13% for preventive care. Minor conditions, mostly acute illnesses represented 82% of the cases; major disorders (mainly chronic illnesses such as hypertension, asthma and diabetes mellitus) accounted for 18% of cases. Upper respiratory tract infections were the commonest minor conditions while hypertension was the most common major condition. He suggested that chronic illnesses were not commonly treated in the private sector because of the expense of obtaining long-term treatment which were treated free of charge in the public sector.

In Kenya, Mwabu (1986) reported that different illnesses gave rise to different consultation patterns. He found that although government clinics were more frequently visited on the first consultation episode, villagers visited private mission clinics for diseases like diarrhoea, malaria, leprosy and tuberculosis.

A disease-specific utilisation pattern emerged in a study by Sarder and Chen (1981) in Bangladesh. They found that although some problems like diarrhoea and fever were treated by all practitioners, others such as respiratory infections and parasitic diseases were treated by allopaths and homeopaths while jaundice, snake bites and headache were treated by traditional healers. They stated that client selection of

practitioners was influenced by availability, cost and the perceived effectiveness of technology in relation to a particular disease.

Yesudian (1994) in his study in Bombay India, showed for all socioeconomic strata that patients with minor and chronic illnesses more commonly used private sector provider than other sources. However for acute illnesses, the level of utilisation of private health care increased with socioeconomic status. Criteria for grouping the diseases into minor, acute or chronic were not stated.

2.5.3 Characteristics of the service

i) Geographical accessibility

In rural areas of developing countries, a low degree of geographical accessibility to modern health services is a major reason for use of other services such as traditional care. In a study in rural Nigeria, Stock (1983) found that rural populations living further from health facilities tend to delay using its services and preferred alternatives such as self treatment with traditional or patent medicines. He also noted that various factors affect utilisation in relation to distance, including perceived effectiveness of Western-type treatment and perceived quality of service. Males travelled further than females to obtain treatment. This was attributed to religion of Hausa people where married women must obtain permission from their husbands before leaving their homes. Adults were found to travel further for treatment than children.

In the West Indies, a study by Poland et al (1990) showed that distance to permanent health care services was a significant predictor of utilisation. This was supported by a study in Southern Iraq, where a decline in utilisation rates at modern health care centres (both public and private) with increasing distance travelled was noted. They concluded that the single most important factor related to variation in

utilisation was distance travelled by people to reach the service, once variation due to sickness or need was taken into account (Habib and Vaughan, 1986).

Mode of transport were also affected utilisation. In Ethiopia patients in the cities use private or government cars to get to private clinics; those in the periphery made the trip on foot, overcrowded buses or taxi and used a mix of government facilities and traditional remedies (Kloos et al, 1987).

In Malaysia, it was found that utilisation rates of both the government and private services decreased with increasing travel time and travel cost in the clinics (MOH, 1988 b). Earlier in 1982, Heller reported that among households using both government and private clinics, an increase in travel time lowered the utilisation rate of government clinics but not the private facilities.

Studies done in developed countries such as Joseph and Bantock (1982) in Canada, Dutton (1986) in the USA and Haynes and Bentham (1982) in UK have also found that distance is a barrier to utilisation or affects the poor more.

ii) Quality of care

Patient satisfaction, component of quality of care, has been given high priority in developed countries. Fitzpatrick (1991) cited three reasons for the importance of patient satisfaction: it determines compliance with recommended treatment and influences patient choice of provider; it is a measure of patient involvement in decisions about care; and it can be used to choose alternative methods of organising and providing health care.

Research in developed countries has focus attention on the theoretical and methodological issues in assessing patient satisfaction. Pascoe (1983) suggested that research on patient satisfaction has not been guided by a well supported definition or psychological model of satisfaction. He reviewed

the Linder-Pelz value expectancy model and Lawler's discrepancy and fulfilment theories and found that empirical evidence failed to support these theories. Williams (1994) supported Pascoe's views on the theoretical weaknesses and identified the impact of different methodological approaches on the results of patient satisfaction research. He showed that in quantitative studies, satisfactions tended to be high while greater levels of disquiet were revealed through qualitative methods. The reductionism which characterised some quantitative research has been seen as one reason for the loss of meaning in such studies. Hall and Dornan (1988) in his meta-analysis of 221 consumer satisfaction studies showed that the overall satisfaction levels in these studies were high and in three quarters of them, new study instruments were used. In another recent literature analysis on patient satisfaction in general practice, Wensing et al (1994) found very little progress has been made as researchers focused more on development of questionnaires and neglected other aspects such as sample size and questioning procedures.

Few studies on patient satisfaction in developing countries have exposed the weakness of public services and higher patient preference for private health care. Gilson et al (1994), using both quantitative and qualitative methods, studied community satisfaction with primary care facilities in Tanzania and found that services provided by church dispensaries were much more appreciated than government facilities. Drugs were more consistently available and health workers in these services exhibited more positive attitudes towards their patients.

Long waiting times, shortage of drugs, poor attitudes of nurses and physicians were among the complaints about public facilities gathered in group discussions in a study in Mali (Ainsworth, 1983). The respondents indicated that personal connections were important in skipping registration queues and that the only way to obtain adequate care was to arrange for private care after office hours.

Kloos et al (1987), in a household study in a suburb of Addis Ababa and four rural villages, showed that patients preferred services from private physicians rather than government clinics because of their personalised services and shorter waiting times. He found that 60% of wealthy traders and 13% of people from other socio-economic groups used private services even though the charge was 10 to 15 times higher than in government facilities.

In Malaysia, 90% of the patients bypassed the community clinics manned by community nurses to seek treatment at health centres, district hospitals and private clinics where doctors were available (MOH, 1988 b). Patient perceptions on the quality services by the doctors might be one reason for this finding. On average patients have to spend a longer time in government health centres as compared to private clinics (MOH, 1988 b).

Annis (1981) reported poor utilisation of government health posts due to under-staffing, badly under-equipped services and poor quality of services in rural Guatemala.

In rural Mexico, people preferred private physicians over the better accessible health centres which were staffed with young and inexperienced doctors (Walt, 1977).

In most of the studies mentioned earlier, patients perceived quality of care given by private provider to be higher than public services. However some studies using professionally defined criteria for quality of care found contrary results. Uplekar and Shepard (1991) studied the prescribing patterns of 143 private allopathic and non-allopathic doctors in treatment of tuberculosis in a slum area of Bombay. They found that the doctors prescribed three times more expensive drugs than the national standard and also used unnecessary drugs. Eighty different regimes were used by the doctors in their treatment although only four of these conformed with the regimes under the National Tuberculosis Programme. He suggested that poor participation of private doctors on continuing medical

education and the lack of integration with the national health system were the reasons for the poor quality. In another study on management of leprosy by 106 private practitioners from the same area, Uplekar and Cash (1991) found that none of them followed WHO recommended regime for treating leprosy.

Recently, Hooi (1994) reported that of 100 tuberculosis cases treated in a public hospital in Malaysia, 48 of them had consulted private practitioners and 67% percent of these had delays in diagnosis and treatment compared to only 15% of those in the government facilities. Furthermore he showed that only 14.6% of those who had first consulted private practitioners had undergone chest X-rays and only 2.1% had undergone sputum analysis on their first visit. He suggested that private practitioners may be unaware of proper diagnostic and management regimes for tuberculosis. This study suffered from selection biases as only those cases eventually treated in public hospitals were studied.

A study in India showed that private doctors prescribed a greater number of drugs and injections than public doctors and that the most commonly prescribed drugs were vitamins and tonics. Among the patients who visited private practitioners, 55% of them were given an antibiotics; of these, 23% received two or more types. In contrast to patients who attended government primary health care centres, only 18% of them were prescribed with an antibiotics; of these only 6% of them received more than one drug (Greenhalgh, 1987). This study did not indicate whether the type and severity of illness suffered by both groups of patients were comparable. In the same study, the management of diarrhoeal cases differed, with private doctors being less likely to recommend oral rehydration therapy and more likely to prescribe an inhibitor of gut motility or a binding agent than the doctors in government primary health care centres and teaching hospitals.

Wyatt (1992) suggested that injections were very popular in developing countries because these may epitomise western medicine, reenforce traditional belief about healing and

disease and may be the most profitable part of the doctors work especially in the private sector. She cautioned against the excessive use of injections for the danger of provocation of paralysis in poliomyelitis cases and transmission of hepatitis B and HIV virus if unsterile needles and syringes were used.

Ahmad and Bhutta (1990) studied the prescription of four types of non-essential drugs (anti-diarrheals, appetite stimulants, multivitamins and brain tonics) promoted by pharmaceutical industry among 100 private physicians in Karachi. Most of these drugs were ineffective and some may be hazardous: 55% of all drugs prescribed by the doctors were in this category. He suggested that poor prescribing resulted from the dependence of doctors on salesmen and promotional materials from drug companies, the lack of involvement in continuing medical education (CME) among private practitioners and the absence of a national drug policy in the country. No comparison was made with doctors in public services and the information was gathered by questioning the practitioners rather than studying their actual prescribing habits.

Gilson et al (1993) using retrospective data from patient registers compared drug prescriptions from four church dispensaries and 16 government facilities in Tanzania. Church dispensaries prescribed 24% more drugs per visit than governments units. Antibiotics, chloroquine and injections were given in higher proportions by church compared to government units. Most of the non-essential drugs were in church dispensaries. It was suggested that the prescribing pattern observed was due to the success of the Tanzanian Essential Drugs Programme (EDP) in the government services. Church dispensaries which were outside the EDP system, charged fees for treatment and may prescribe more drugs to gain revenue and to satisfy patient demand resulting from payment of fees.

iii) Price of care

In most developing countries, public services are usually highly subsidised and private health care is often expensive. The high utilisation rate in private sector facilities, despite the high charges has been used as evidence that demand in services was not primarily determined by price of care. For example, Akin et al (1986) in rural Bicol region of the Philippines, showed that private clinics and hospital charges were over 28 times higher than charges at government clinics and hospitals. Despite this private facilities were still utilised more frequently than public facilities.

In Malaysia almost all out-patients visits to government health centres were free, and in 60% of visits to government hospitals the charge was only RM 1.00 for both consultation and medication. The average payment in a private clinic was RM 12, with 32% paying RM 5 to RM 9 and a further 30% paying RM 10 to RM 14. Despite the great difference in the fees, private clinics were utilised twice as frequently as public clinics (MOH, 1988 b). Heller (1982) showed that demand for out-patient and in-patient care among Malaysian users was highly inelastic to cash price. Price elasticity of demand measures the responsiveness of demand to changes in price; he concluded that the demand of out-patient and in-patient care in Malaysia was not responsive to changes in the price of care. A 10% increase in the price of public out-patient care would only reduce demand by 1.5%. Nevertheless, consumers were responsive to the relative cash prices of private and public out-patient clinics. He showed that the cross elasticity of demand for public care due to changes in the private out-patient prices is approximately +0.15. Cross elasticity of demand measures the response in quantity demanded of certain good or services which arise from changes in the prices of other goods or services. In this study, a 10% increase in the price of private-out patient care increased the demand for public out-patient services by 1.5%.

Gilson (1988) and McPake (1993) criticised both studies by Aikin et al (1986) and Heller (1982) for their failure to estimate their impact of price on demand in relation to income level. The impact on utilisation resulting from price would probably be greater in lower than the upper income. Akin et al (1986), however attributed his findings partly due to the difference in quality of care between the public and private sector and severity of illness. These two factors were not controlled in his demand model: it is possible that patients are willing to pay more for higher quality care and when their disease is severe.

Yoder (1989) showed that in Swaziland the increase of fees in government services led to a 32.4% decline in the attendance at government facilities and an increase of 10% of attendance at mission facilities. There were also declines in patient visits to both government and mission facilities for BCG, DPT immunisations, and for treatment of dehydration in children, each showing substantial declines in average attendance at 16, 19 and 24% respectively. The negative impact of user fees on utilisation of public facilities was also shown in Kenya (Moses et al, 1992), Zimbabwe (Hongoro and Chandiwana, 1994) and Zaire (Bethune et al, 1989; Haddad and Fournier, 1995).

iv) Types of services available

The types of service available also affects the choice of facility. In developing countries the types of services of private providers were rarely documented. This is basic information needed before greater role of private providers were to be promoted in developing countries. Tsui and Donaldson (1987) suggested that lack of systematic and careful record-keeping by private practitioners was one reason for poor documentation of services by private providers.

It is generally assumed that curative services are the main focus of private practitioners' activities although the actual nature and extent of services has been little documented. In

a survey among 17 private practitioners in the state of Perak, Malaysia, they were asked to list their services (Diong, 1988). The practitioners indicated curative and preventive services, including procedures and diagnostic investigations. The list has limited value since it did not really reflect what is actually provided by the private doctors. Some of the procedures listed (eg: deep lymph node biopsy and removal of breast lump) can only be carried out by trained specialists. The profile of the providers were not given in this study.

Leopando (1988) reported that 74% of family physicians (mostly private practitioners) in the Philippines provide immunisation services in addition to other curative care.

Family planning services are widely provided by private practitioners in developing countries. A study in Kenya among 592 private physicians using mailed questionnaires showed that family planning services were being dispensed on patient demand, the pill was the method largely prescribed, and sterilisations were being done for older female clients (Mugo-Gachuhi, 1977). Surveys carried out in 25 countries in Africa, Asia, Latin America and the Middle East between 1979 and 1984 showed that an average of 13% of rural and 18% of urban family planning users reported using private clinics (London et al, 1985).

Antenatal services were also reported to be provided by private practitioners. In Egypt 71% of the households in a rural area received antenatal services from government facilities as compared to 21% from private clinics (Abu-Zeid and Dann, 1985). The extent and comprehensiveness of this service by private practitioners was not reported. Among the urban poor in Kuala Lumpur, 13% of pregnant mothers received antenatal care in private clinics and hospital and 11.5% of children were delivered in these facilities (Gan and Yusof, 1993).

Private practitioners were also found to provide services not provided by government services. House calls by doctors are common among private practitioners in Indonesia (Berman et al, 1987). In the Philippines, private clinics generally operate longer hours than public clinics. Almost all private clinics (96%) open on holidays compared to only 10% of the public clinics. Nearly three quarters of the private clinics provide services after office hours compared to only 6% of the public clinics (Griffin and Paqueo, 1993).

2.6 INTERACTIONS BETWEEN PUBLIC AND PRIVATE PROVIDERS

Interactions between health workers in public and private sector have been poorly documented particularly in developing countries. It was argued that interactions between the two providers were inevitable because of their coexistence but were often ignored (EPU, 1985). Given that many health programmes affect both private and public providers, understanding the kinds of interactions and problems faced by them provide valuable feedback to health planners seeking to improve effectiveness and efficiency of such programmes. Due to limited evidence in the literature, the interactions between the two sectors on enforcement of regulations, human resources, patient referrals and diseases notification will be discussed.

2.6.1 Enforcement of regulations

Perhaps the commonest form of interaction between the public and private health sector is through the regulation of private health care. Proponents of the market approach are not in favour of regulation even in the presence of market failure as state intervention is not seen as providing any better solution than that reached by market adjustment (Bennett, 1991). They blame excessive government regulation as the cause for many of the current problems in health care. Regulation in health services was argued to cause greater administrative costs, greater inequality in attendance access, greater chance of unnecessary or iatrogenic interventions and unjustified

development of complex technology inadequately evaluated (Belmartino, 1994).

Roemer and Roemer (1982) believe that the existence of free market in health care provision may lead to monopoly or oligopoly, turbulent competitive disequilibrium in favour of providers and long term contractual arrangements between the consumers and providers. He further suggested that these outcomes might be very deleterious to consumers unless regulated. It was argued that the government is responsible for regulating the private health sector because it has obligations to protect its citizens and to ensure that resources are not wasted (Garner and Thaver, 1993).

Regulation of the private health sector in many developing countries is weak because of lack of resources, poorly decentralised government services, lack of information on activities of the private provider and professional self-interests of the regulatory agency (Bennett et al, 1994). The World Bank while suggesting a greater role for the private health sector recognises the need for government to strengthen their capacity to regulate the private sector to ensure quality of care (World Bank, 1993).

Registration of doctors and other health workers is usual in most countries. In Malaysia, under the Medical Act (1971), Malaysian Medical Council (MMC) was established to register the practitioners and take care of ethical issues. The MMC is a quasi-governmental body with government maintaining control through nominations of 13 of 24 members. The nominated members are government officers in MOH and the remaining members are elected by the profession. Reports of the activities of the MMC showed that there very few cases were reported and investigated despite many complaints of medical negligence in the media. Between 1989 and 1991, 72 cases were reported to MMC, although only 35 were investigated and disciplinary action was taken against only seven doctors (New Sunday Times, 1993).

In India, Yesudian (1994) reported that people's confidence in Maharashtra Medical Council had decreased because it tended to protect the doctors rather than the public in cases of medical negligence. He cited a case of medical malpractice where the Council had to be forced to take action through court orders.

In 1990 in Malaysia there were 79 health laws and regulations and 36 health-related laws in the country: it is commonly held that these are poorly enforced. The Private Hospital Act (1971) is the main act which regulate the private hospitals in the country. It has provision for annual inspections and registration of private hospitals. This is enforced by the Ministry of Health. This Act is now being amended to extend its coverage to private clinics in the country. It was envisaged that under the amended act the minimum standards for private clinics and their distributions in the country would be spelled out (MMA, 1993 a). The existence of similar regulations have been reported in Thailand (Bennett and Tangcharoensathein, 1994), Singapore (MMA, 1993 a) and Malawi (Ngalande-Banda and Walt, 1995).

Regulation regarding location of practice is applied in developed countries but has rarely been reported in developing countries. In Tanzania, regulations to control the location of clinics and types of personnel to be employed were present but were not properly enforced (Mujinja et al, 1993). Under the Medical Practitioners and Dental Act, 1987, paramedicals in Malawi were allowed to open private clinics but only in rural areas. This regulation were not strictly enforced as most paramedicals open their clinics in peri-urban areas (Ngalande-Banda and Walt, 1995)

Government control over new investments has been applied in many countries through the certificate of needs. This is aimed at controlling cost escalation due to excessive use particularly of expensive medical equipment. In developed countries such as France and Canada, investments on expensive medical technology were controlled by the government. Yang (1993) reported that Magnetic Resonance Imaging (MRI) in Korea

had not been regulated by the state and the service was more accessible to the rich than the poor. He further suggested the formation of a corporate body responsible to assess new technologies before adoption. Foote (1986) assessed the Medical Device Amendments of 1976 which authorised the Food and Drug Administration in USA to regulate medical equipment for safety but concluded that it was not effective and failed to stop the entry of unsafe medical devices into markets.

Bhat (1991) raised the issue of uncontrolled use of high technology equipment in private clinics to attract customers. He argued that this would lead to unnecessary waste of resources and exposure of patients to unnecessary risks. One example is the study by Hillman et al (1990) in USA: it was found that patients were at least four times as likely to have diagnostic imaging (ultrasonography and radiography) done if they sought care from a physician who had the facilities in his office rather than from one who refer patients to a radiologist. This suggest the presence of supplier-induced demand.

In Thailand, where there is no legislation to control the purchase of sophisticated medical equipment, 35 out of 57 CAT scanners in the country were in the private hospitals. Six out of the total of eight MRI scanners in the country were owned by the private hospitals (Wibulpolpraset, 1991 b). It is difficult to argue the justification for prescribing a particular investigation in a patient when there is no standard of practice among medical doctors. However this issue is important to address since in rural areas where population may be less vigilant, unscrupulous practitioners may take advantage of the situation for their own gain.

2.6.2 Human resources

Roemer (1984) expressed concern about how the private health sector competes with public services to attract trained workers in developing countries. He stated that most developing countries spent only 2-4% of the GNP on the public

health sector leading to low salaries for public health workers. Health workers such as physicians and nurses are normally trained by government to serve the public health sector. The private health sector attracts these trained and sometimes experienced workers by offering high incentives which are not able to be offered by the government services.

One way of retaining the health workers is through regulation where health workers are required to serve in the public sector for a certain period of time before being allowed to leave for the private sector. In Malaysia, all doctors are required to serve three years in government services under the Medical Act. This was extended to five years in 1992. Those sponsored by government for their training are bonded for between seven to ten years to serve in government services. Nevertheless, many doctors leave the public services after the compulsory services and some pay their bond to be released to work in the private sector (MOH, 1988 a).

Incentives to retain doctors in the public services by allowing them to work in private clinics after office hours were reported in Jamaica, Egypt, Sri Lanka, Thailand, Indonesia and Malawi (Roemer, 1984; Ngalande-Banda and Walt, 1995). However this is not favoured in some countries for fear of abuses or neglect government facilities. In Nigeria, government doctors were reported to refer patients they see in the government facilities to their own private clinics (Attah, 1986). In Egypt, even though newly graduated doctors are required to work for least two years in government health units in rural areas, they only saw public patients in a few hours in the morning and spent the afternoon in private clinics where he could earn more than their government salaries (Roemer, 1984).

To solve shortages of manpower, private doctors were sometimes employed to work in public facilities. In India for example, private specialist were employed as honorary consultants in public facilities. However these honorary consultants abused the privilege by admitting their private patients to

government facilities and charging them (Yesudian, 1994).

The Malaysian Medical Association has been urging the government to allow government doctors to work part-time in private clinics to reduce the influx into the private sector (MMA, 1991 c). This suggestion was turned down by the MOH on the grounds that public services would be neglected (The Star, 1992 a).

In India and the Philippines government doctors were not allowed to open private practice (Roemer, 1984). Nepal, Pakistan and Thailand had similar regulations but also paid non-private practice allowance incentives to the public doctors. However this financial incentives failed to stop government doctors engaging in private practice (Bennett et al, 1994).

2.6.3 Patient Referrals

The referral system is the most important link between different health providers and is the system through which medical practitioners communicate with one another. Private practitioners refer two groups of patients to public providers: those who cannot afford to be treated by private practitioners and those who cannot be treated or investigated due to lack of facilities and expertise (Lachman and Stander, 1991).

In rural areas of Malaysia, private practitioners do not, normally have in-patient services. Since most of the private hospitals are located in urban areas, private patients needing secondary care and in-patient services will be referred to public hospitals (Ming 1982 a).

Interaction between providers have been studied through analysis of referral letters in many studies in developed countries. For example, studies in the UK and Netherlands have focused mostly on interactions between general practitioners and their colleagues in hospitals. The complaints of general

practitioners include the failure of hospital doctors to return the patient to their care and the failure of hospital doctors to read the referral letters (Doeleman, 1987). General practitioners have also accused hospital doctors of not understanding the problems of the patient outside hospitals (Grace and Armstrong, 1987) and considered the replies to referral letters by specialists to be irritating, discourteous and belittling (Westerman et al, 1990). Grace and Armstrong (1986) studied 213 referrals in UK and found that only in 48.4% of the cases there was agreement between hospital consultants and general practitioners on the reasons for the referrals. The hospital consultants criticised the general practitioner's management of patients before the referral and felt that most of the referrals were unnecessary (Grace and Armstrong, 1986).

The quality of referral letters by general practitioners has also been studied. Creed et al (1990) found that doctors who write detailed referral letters refer the least patients. Westerman et al (1990) showed that 60% of referral letters sent by general practitioners to specialists in Netherlands were of poor quality.

A standard referral letter has in some setting been introduced in health care system in attempt to improve the quality of communication between providers. Yet, Jones et al (1990) showed that despite the introduction of a standard ophthalmic referral form, 19.2 % of the general practitioners did not use it when referring patients to an eye hospital in Manchester, UK.

The studies reviewed so far have been carried out in developed countries. In developing countries assessment of referrals between public and private practitioners had rarely been reported. In South Africa, of 1143 referral letters received in a children hospital, only 4.8% were considered to be complete in terms of patient history, examination, diagnosis, appropriate investigations and treatment at primary level

(Lachman and Stander, 1991). It was suggested that the varying quality of referral letters found in this study was due to the workload of referring doctors, lack of understanding of the need for comprehensive details about patients and lack of contact between the hospital and referring doctors. Yesudian (1994) reported medical malpractice in referral system in India whereby money was paid to general practitioners to encourage referrals to consultants.

2.6.4 Disease notification

Disease notification is one component of communicable disease surveillance programmes in many countries. Since disease surveillance programmes is normally carried out in the public sector, public and private provider may interact through this programme. Disease notification is useful in advising appropriate medical therapy, detecting outbreaks, and for planning and evaluation of prevention and control programmes (Chorba et al, 1989). Despite its importance, under-reporting of notifiable disease has been identified in many developing countries. Studies in seven East Mediterranean countries (Pakistan, Sudan, Somalia, Syria, Yemen Arab Republic, Democratic Yemen and Egypt) and five Asian countries (Bangladesh, Bhutan, India, Indonesia and Thailand) showed that only 2 to 5% of neonatal tetanus cases in 1980-81 were notified (WHO, 1982). This estimate was based on the number of deaths from neonatal tetanus in the various countries and the total number of reported cases. The low percentage of notifications may also be due to people not seeking medical treatment at all because of poor accessibility to health services. However, a study in the Philippines in 1980-81, found that although 85% of polio cases were seen by medical practitioners during the acute phase, only 12% of cases were notified (WHO, 1981 b). Whether a correct diagnosis was made by the medical practitioners during the initial consultation was not reported.

Under-reporting of notifiable diseases is also faced by health authorities in developed countries. In the USA for example, a

study of discharge records in 11 hospitals in Washington DC revealed that only 35% of selected notifiable diseases were officially reported (WHO, 1982). In the Netherlands, it was estimated that only 3% of measles cases were reported by general practitioners (WHO, 1981 a). Clarkson and Fine (1985) estimated that 40 to 60% of measles cases and only 5-25% of pertussis infections were notified in England and Wales in the period of 1957-1980.

Although various studies reviewed here demonstrated under-reporting of notifiable diseases, none has shown concrete evidence that medical practitioners are wholly responsible for that, even though they are required to do so once they are suspicious or have diagnosed a notifiable disease (Galbriath, 1990). There are several events that must occur before correct notification by a medical practitioner is made. First, the infected individual must suffer some clinical disease. The patient must be seen by a medical practitioner. The practitioner must make a correct diagnosis and then notify the case (Clarkson and Fine, 1985). The first two steps are beyond the control of medical practitioners. However, Konowitz et al (1984) found that medical practitioners in USA failed to report notifiable diseases despite making the diagnosis. They found that some practitioners did not know which diseases should be reported, others assumed that the laboratory workers would notify the case. Practitioners may also fear that notification will affect their patient's confidentiality and violates doctor-patient relationship (Rothenberg et al, 1980; Cleere, et al 1967).

Lack of uniformity in case definition also leads to confusion among the medical practitioners as to whether or not to notify. For example in the USA, in some states, Salmonellosis infections are required to be notified if culture results are positive; whereas in other states notifications are required only when culture results are positive and the individual is symptomatic (Chorba et al, 1989).

Kirsch and Harvey (1994) suggested that private physicians failed to notify cases because it was time consuming, lack of reward, feedback and supervision. Nevertheless, as with all the literatures reviewed earlier there were no evidence whether private practitioners were any worse than those in the public sector in disease notification.

Various ways to improve the notification rates were reported such as by sending stamped reporting forms to the practitioners (Hall and Douglas, 1976), actively telephoning the practitioners (Rothenberg et al, 1980; Weiss et al, 1988; Vogt et al, 1983), sending them feedbacks (Spenser and Warren, 1979) and by paying them (McCormick, 1987). Except by actively telephoning the practitioners, all the other methods failed to increase the notification rates significantly. In developing countries, efforts to encourage notification and problems facing medical practitioners in disease notifications have not been reported.

2.7 SUMMARY

Box 2.1: Summary of the literature reviews

- * Medically qualified for-profit private practitioners are the main focus of the study.
- * Campaigns by influential agencies to enhance the role of private health providers have been met with opposition from those citing uniqueness of the health care market and problems of imperfect competition.
- * There is evidence to show that private practitioners are important health care providers in many Asian countries even in the rural areas.
- * Existing literature showed that patient characteristics (socio-economic status, ethnicity, age, gender, source of finance), types of illnesses and characteristics of the service (geographical accessibility, quality of care, price and types of services offered) influence the utilisation of public and private health care.
- * Very little information is available on interactions between public and private providers.
- * In most developing countries, regulations on private health sector are either absent or poorly enforced.
- * Influx of human resources trained at the public expense into private sector are common in developing countries. Mandatory public services, payment of non-private practice allowance, permission to work in private sector are among the ways to retain health personnel in the public sector.
- * When private practitioners are primary care providers, they may interact with public providers through the referral system.
- * In communicable disease surveillance, public and private providers may interact through disease notification.
- * This thesis will contribute to provide the basic information on the types of services provided by the private providers and characteristics of their users. It will also describe and analyse the interactions between both types of providers leading on to consideration of policy implications.

III. STUDY SETTING

3.1 MALAYSIA - THE COUNTRY

Malaysia consists of 13 states and a Federal Territory covering an area of 329,758 square kilometres (Figure 3.1). Eleven states are in Peninsular Malaysia (also known as West Malaysia) and two in East Malaysia. The population of Malaysia in 1993 was estimated to be 19 million with an annual growth rate of 2.3%. Malays form 61.4% of the population, Chinese 29.9%, Indians 7.9% and 0.8% others. Fifty one percent of the population live in the urban areas (MOH, 1993). The population is relatively young with 36.2% between the age of 0-14 years, 59.8% between 15-64 years and only 4% over the age of 65. The dependency ratio is 67.2 and the adult literacy rate is 78% (Department of Statistics, 1990 a).

The main exports are electrical and electronic products, petroleum, timber, palm oil and rubber. Malaysia achieved strong economic growth after the 1985 recession. Between 1988 to 1992 the annual growth in GNP was between 8.5 to 9.7% (MOF, 1992). The per capita GNP was US\$ 3,022 in 1992 and eligible to be classified as middle income country (MOF, 1992; World Bank, 1993). However it has been estimated that 21.8% of urban and 17.1% of the rural population lived below the poverty line (monthly household income RM 350 per month) (Prime Minister Department, 1991 a).

3.2 HEALTH STATUS

The health indicators of the country improved markedly over the last ten years particularly in Peninsular Malaysia (Table 3.1). Data for the East Malaysian States (Sabah and Sarawak) is considered to be inaccurate. The infant mortality rate (12.1 per 1000) is lower than many other South-East Asian countries except for Singapore, but were still higher than most other developed countries (Figure 3.2).

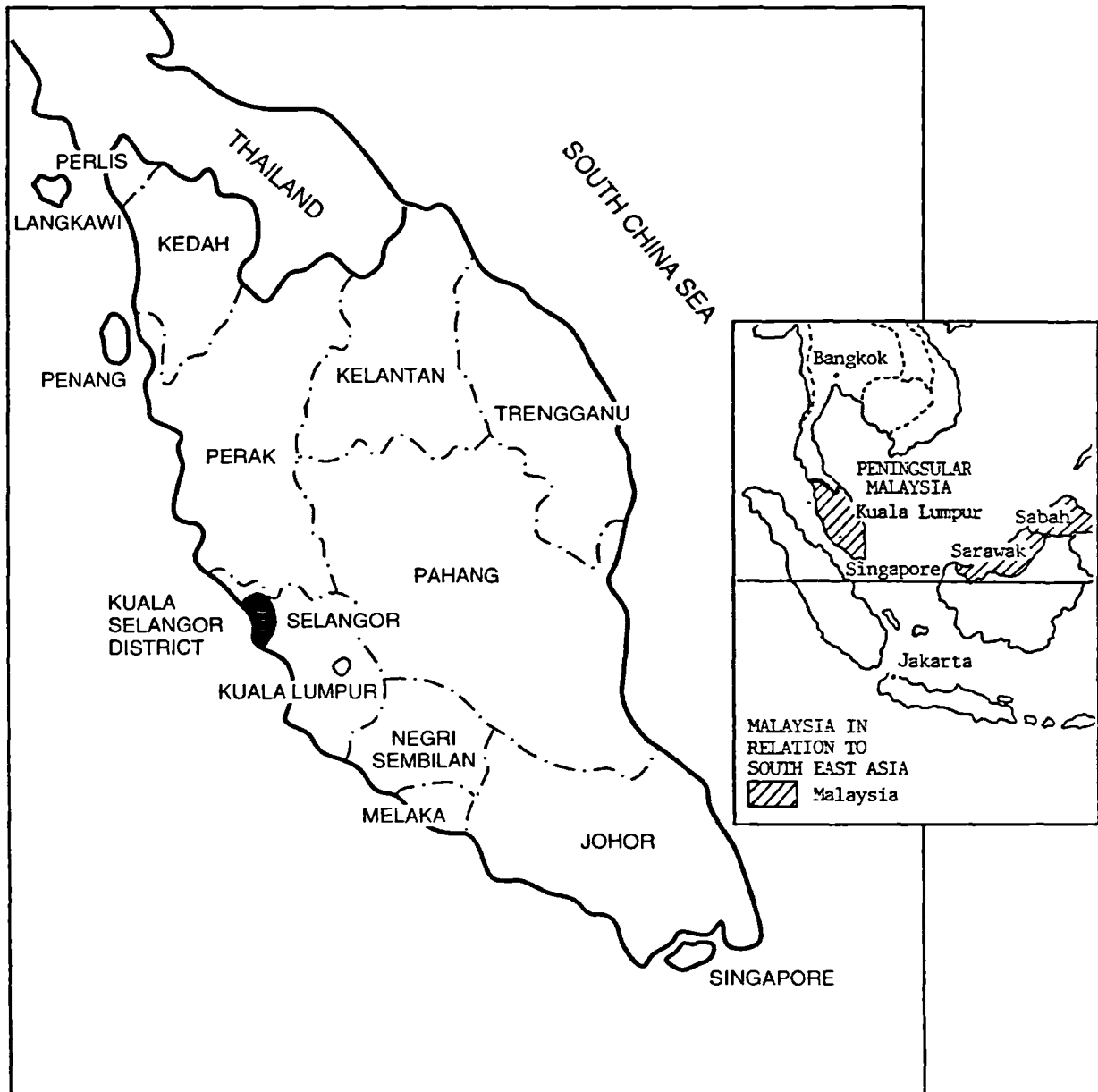


Figure 3.1: MAP OF PENINSULAR MALAYSIA

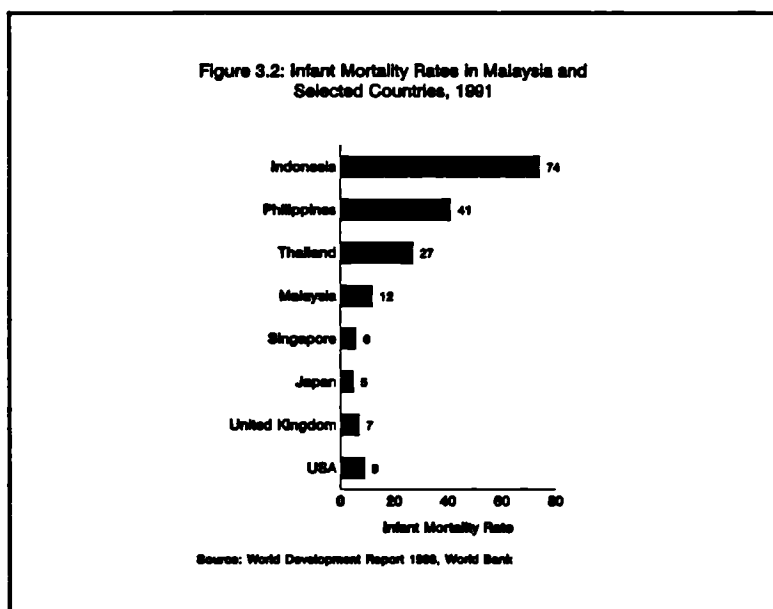
Table 3.1: Health Indicators for Malaysia in 1981 and 1991

	Peninsular Malaysia		Sabah		Sarawak	
	1981	1991	1981	1991	1981	1991
Crude Death Rate	5.2	4.8	4.6	4.0	3.7	3.8
Life expectancy						
Male	68.0	68.8	n.a	n.a	n.a	n.a
Female	72.9	73.4	n.a	n.a	n.a	n.a
Perinatal Mortality [*]	23.8	12.3	n.a	14.4	n.a	7.3
Neonatal Mortality ^{**}	12.3	7.6	15.3	13.2	8.9	6.7
Infant Mortality ^{**}	19.7	12.1	26.3	15.7	15.1	9.5
Toddler Mortality ^{***}	1.8	0.9	2.6	1.0	1.4	n.a
Maternal Mortality ^{****}	6.0	2.0	2.2	3.0	3.0	1.1

(* : per 1,000 births)
(** : per 1,000 live births)
(***) : per 1,000 children age 1-4)
(**** : per 10,000 live births)

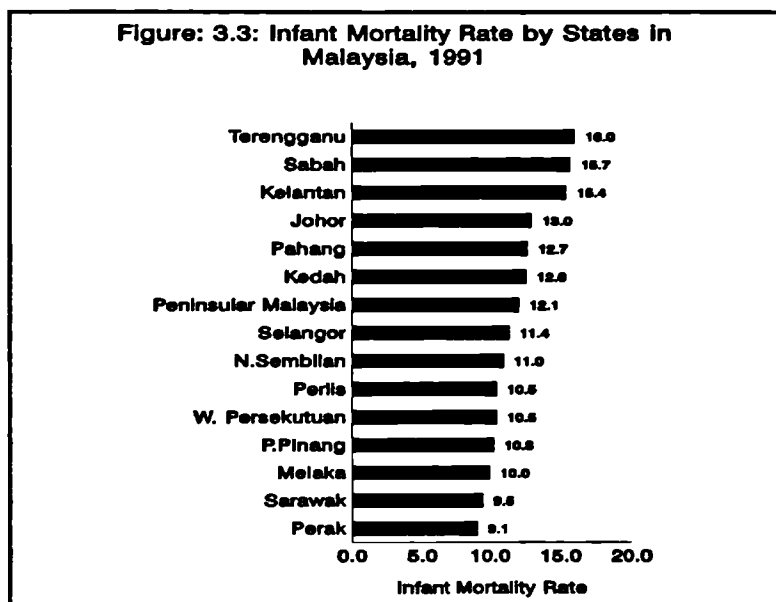
(Source: MOH, 1991 b) n.a = Not available

However within the country, the improvement in health status was not homogenous. The East Malaysian states had worse health indicators than Peninsular Malaysia. In Peninsular Malaysia, most of the west coast states had better



health indicators than the east coast states. The lower figures in Sarawak are probably due to under-reporting (Figure 3.3). Poorer states (Kelantan, Terengganu, Kedah and Perlis) which have higher infant mortality rate, were also shown to have poorer distribution of health resources. Coverage of doctors and hospital beds were in favour of the more developed states in the country such as the Federal Territory, Penang

and Selangor (Appendix 1).



There were also inter-ethnic differences in the health indicators of the country with the Chinese generally having better indicators (Table 3.2).

Table 3.2: Ethnic differentials in selected health indicators for Peninsular Malaysia, 1990

	Malays	Chinese	Indians	Peninsular Malaysia
Infant Mortality*	13.4	8.2	13.9	12.2
Toddler Mortality**	1.0	0.6	0.8	0.9
Maternal Mortality***	2.5	0.9	1.5	2.0
Life Expectancy at birth (Years)				
Male	69.2	71.1	65.6	68.8
Female	72.6	76.6	70.5	73.4

(* : per 1,000 live births)
(** : per 1,000 children age 1-4)
(***) : per 10 000 live births
(Source: Department of Statistics, 1990 b)

The "epidemiological transition" had arguably taken place in Malaysia; the country has moved away from infectious and parasitic diseases as major cause of death in the 1950's towards cardiovascular diseases as major causes of mortality from the 1980's (Omran, 1971; Phillips, 1991). Between 1986 and 1991 heart diseases and neoplasms were the two major cause

of medically certified death in the country (59% of all deaths in the country were medically certified in 1991) (Appendix 1). Proportions of certified deaths due to motor vehicle accidents increased from 2.7% to 4.7% in the same period and it was the third commonest cause of hospital admissions in 1991, the commonest being normal delivery and complications of pregnancy (Appendix 2). Cardiovascular diseases mortality rate increased slightly more than two fold between 1981 and 1991 from 15.3 to 37.2 per 100,000 while number of road traffic accidents increased by 22% (MOH, 1992 e). A community based study carried out in the state of Selangor found that the prevalence of hypertension among adults was 16.8% in urban areas and 12.3% in rural areas (Kandiah et al, 1980). Osman and Rampal (1989) found that the prevalence of diabetes mellitus, was 3.9% among the Malays in three villages in the rural district of Kuala Selangor and 60% of the cases were newly detected.

However, the epidemiological transition is not complete as infectious diseases still present in certain areas of the country. In 1991, 39,189 cases of malaria were notified to the MOH; 74.8% of these cases were reported in East Malaysia (mostly in Sabah) while the remainder mostly from the east coast states of Pahang, Terengganu and Kelantan. 10.4% of all malaria cases were among immigrant workers mainly from Thailand and Indonesia (MOH, 1992 e).

Two other important infectious diseases were tuberculosis and sexually transmitted diseases (Appendix 2). In 1991, 16.7% of notifiable diseases was tuberculosis and it accounted for 1.3% of medically certified deaths. Despite under-reporting, it was estimated that the incidence rate of gonorrhoea and syphilis were 14.8 per 100,000 and 10.4 per 100,000 population respectively in 1991. Most of the STD cases were reported in the East Malaysian states (Sabah and Sarawak) and more urban states in Peninsular Malaysia (P.Pinang and Federal territory). AIDS was first detected in 1986 in Malaysia and until 1992 there were 49 cases of AIDS and 2,377 people who were HIV positive; 82% of those HIV positive carriers were intravenous drug users (MOH, 1992 e).

3.3 HEALTH SERVICES IN MALAYSIA

3.3.1 Public Health Services

The Ministry of Health is the main government agency (others are listed in Appendix 3) responsible for providing health services in the country. The health system is highly centralised with most planning and organisation of health services being done centrally. The Minister of Health is a cabinet member. There are three main divisions in MOH at the central level: the health division, hospital division and finance division. The health division is responsible for all preventive care programmes, the hospital division for curative care and the finance division control the budget and expenditure of all health programmes in MOH. At the state level, each state has an Office of Medical and Health Services headed by a state director who is responsible on all MOH programmes in the state. At the district level, the Medical Officer of Health is responsible for all the preventive activities in the district and the services in health centres while the Medical Officer In-Charge (MOIC) heads the district hospital. Both officers report to their respective deputy director at the state level. This build in a degree of fragmentation within the public health sector at least at the district level.

There were 131 districts in the country in 1991, each with a population of about 100,000 to 200,000. From 1959 to 1975, health services in the district were delivered through a three-tier system. Each rural health unit in a district covered a population of 50,000 and had three different types of health centres: one main health centre, four health sub-centres and 20 midwifery clinics. A doctor is stationed at the main health centre and is overall in-charge of the rural health unit. Operational research conducted from 1969 to 1971 revealed that the actual coverage for each rural health unit under this three tier system was more than 100,000. The government decided to convert the three-tier system into a two tier-system. Under the two-tier system each rural health unit is

supposed to cover a population of 15,000 - 20,000 with two types of health facilities; one health centre and four community clinics. In the conversion, health sub-centres were upgraded to health centres and midwifery clinics were upgraded to community clinics. A doctor and a dentist were stationed at each health centre and the community clinics which functioned as multipurpose rural clinics manned by a new category of staff, the community nurse. The conversion from three to two tier system supposed to be completed by 1985 was slow due to lack of financial resources to build new buildings and inadequate human resources particularly doctors and dentists to be posted to the health centre. In 1991 of 422 health centres in Peninsular Malaysia, 257 (61%) of them were still health sub-centres. The ratio of health centre (health centre, main health centre and health sub-centre) and community clinic/midwife clinics to populations was 1:15,287 and 1:3,804 respectively in 1991 for the whole country. However four states in the north and the east coast of Peninsular Malaysia (Kedah, Perlis, P.Pinang and Kelantan) and both the East Malaysia states had lower coverage than the national average.

The district hospital typically has between 100 and 200 beds and were normally run by six to 10 medical officers. Specialists are not usually posted to district hospitals but arrangements are made for specialists from bigger hospitals to consult. District hospitals provide out-patient services, delivery services and general in-patient care. There were 81 district hospitals in the country in 1991 (MOH, 1991 b).

State general hospitals have 500 to 1500 beds. Each state has one state general hospital except for Sabah which has two. These hospitals provide out-patient and in-patient care in general surgery, paediatrics, medicine and obstetrics and gynaecology and psychiatry. Services were provided by both specialist and non-specialist medical officers.

The National Referral Centre is the highest level of hospital in the hierarchy. This hospital has 2,600 beds and located in Kuala Lumpur (MOH, 1991 b). Although it receives referral from

other parts of the country especially for cases which need specialist care not available in state general hospital such as neurosurgery and radiotherapy, it also provides out-patient and in-patient care for the surrounding population.

There are seven special medical institutions which provide in-patient services for specific diseases in the country: the National Tuberculosis Centre, the Hospital for Leprosy and 5 Mental Hospitals.

In 1991, there were 26,364 beds in public hospitals under MOH, which is 78.5% of the total beds in the country. The bed occupancy rate in the district hospitals was 51.9% while in the State General Hospital is 70.6% (MOH, 1991 b).

There are six government hospitals not under the MOH with a total of 2,336 beds. Two of these hospitals are teaching hospitals under the Ministry of Education, three are army hospitals under Ministry of Defence and one is a hospital for the Aborigines under the Ministry of Internal Affairs.

Doctors and other health personnel in the public sector are paid salaries and not allowed to engage in private practice. Shortage of human resources is a problem in the public sector. The government's target for a doctor-population ratio under the Fifth Malaysian Plan (1986-1990) was 1:2,000. In 1991 the ratio was 1:2441 with considerable maldistribution of doctors between urban and rural areas and between states (MMA, 1991 b). By the end of 1990 there were 370 vacancies for doctors and 171 specialists in the government service (Prime Minister Department, 1991 b). Most of the doctors in the country are in the private sector; in 1991 out of 7,198 doctors in the country 42.6% worked in the public sector and 57.4% in the private sector (Table 3.3). In the public sector, only 15.7% are specialists while the rest were non-specialist (MOH, 1991 b). Most of the specialist were trained overseas especially in the United Kingdom. It was estimated that 70% of all medical specialists in the country were in the private sector (MMA, 1993 d).



In 1991, the three medical schools in the country produced 382 doctors and another 200 returned from overseas. Among actions taken by government to solve the shortage of doctors has been to extend compulsory service for doctors from three to five years starting from 1992, to start training medical specialists in local medical schools and to establish two more medical schools in the country by the end of 1995. Through contractual agreements the MOH has also employed private medical specialists to work in government hospitals.

Table 3.3: Distribution of manpower and facilities in public and private health sector in Malaysia, 1991

	Public sector		Private sector	
	Numbers	%	Numbers	%
Doctors	3,069	42.6	4,129	57.4
Nurses	12,876	88.7	1,644	11.3
Hospitals*	97	35.7	174	64.3
Hospital beds*	28,700	85.4	4,898	14.6

(* : MOH and Non-MOH hospitals)

There was also a shortage of nurses in the country. By the end of 1991, 400 vacancies for nurses existed in the government service. The government started to employ foreign nurses as a short term measure from 1991. The capacity for nursing schools under MOH has been extended and private hospitals were encouraged to set up private nursing schools. In 1992, the government approved the setting up of Faculty of Nursing in two medical schools. In 1991, 339 nurses were trained in MOH nursing school and three private nursing school has started their first intake of 141 trainees (MOH, 1991 b).

3.3.2 Private health services

Private health providers in Malaysia can be divided into four main groups: private practitioners, private hospitals, private non-governmental organisations and practitioners of traditional medicine.

i) Private Practitioners

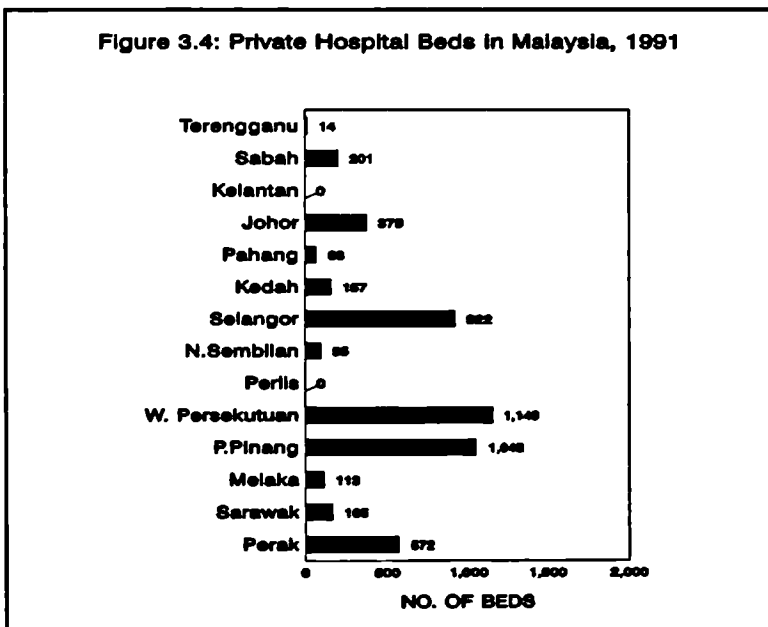
Private practitioners are registered doctors who provide services through private clinics. Little information is

available. Basic information such as the number of private clinics in the country and the range of services provided were not available. In 1991, 79.6% of 4,129 doctors in the private sector were private medical practitioners and 20.4% worked in private hospital (MOH, 1991 b). Assuming that each private practitioner owns one clinic, there were at least 3,300 private clinics in the country in 1991. Private practitioners can practice anywhere in the country as long as they are registered with the MMC and have completed their compulsory service in the public sector. Currently private clinics are not licensed and there is no regulation concerning their location.

Most private clinics in rural areas were run by a single doctor who owned the clinic. In urban areas private clinics may also be run by group practices with chains of clinics (Rajakumar, 1984). Private clinics generally provide ambulatory services and dispense medicines and operate on fee-for-service basis.

ii) Private hospitals

Private hospitals are licensed under the Private Hospital Act, 1971 and defined as any private facility with more than one bed. There were great variations in the size of the hospitals in the country, ranging from 2 to 406 beds in 1991. The number of private hospitals has grown over the past 10



years. Between 1980 and 1991, private hospital beds increased nearly five-fold from 1,171 to 4,898. Most of these private

hospitals were located in the cities and in the more developed states of Malaysia (Figure 3.4). In 1991, 11.7% of all doctors and 13.8% of nurses in the country were employed by private hospitals (MOH, 1991 b).

iii) Private non-governmental organisations

Red Crescent Society, St. John Ambulance, National Cancer Society, Society for the Prevention of Tuberculosis, Association for Mentally Retarded Children and Family Planning Association are among the important private non-governmental organisations involved in health functions in Malaysia (EPU, 1985). Some of these organisations which provide services complementary to government were supported with grant mostly through MOH (Roemer, 1991). For example Red Crescent Society and St. John Ambulance which provide ambulance services in urban areas and Family Planning Association which provide contraceptive services in some rural and urban areas.

iv) Practitioners of traditional medicine

Ethnic diversity in Malaysian population were responsible for the presence of variety of traditional practitioners in the country; the Malay 'bomohs', 'Chinese sinsehs' and Ayurvedic and Unani practitioners among the Indians (Chen, 1981). However, the use of traditional healers in Malaysia has decreased due to declining of illiteracy and increase in the availability of modern health services (Roemer, 1991). Nevertheless, Chen (1971) voiced the concerned on illegal selling of patent drugs such as vitamins pills, cough mixtures and antibiotics alongside traditional Chinese medicine in many 'sinseh' herb stores in the country.

3.4 HEALTH SERVICES FINANCING

The latest published figure on the country's health expenditure was in 1983 whereby 76.6% was spent in the public sector and the remaining 23.4% in the private sector (EPU, 1985; MOH, 1991 a) (Table 3.4). The expenditure for private

sector was underestimated because direct payment to the private doctors and hospitals was likely to be under-reported. However based on this figure, the health expenditure is only 2.85% of the GNP. It was estimated that national health expenditure will increase to 3.37% by 1995 and is projected to be 4.4% of GNP by the year 2000 (MMA, 1992 a). This is very low compared to most developed nations.

Public health services are financed mainly from taxes on earned income. Other sources of financing for health services are private voluntary insurance, social security and user fees. Private voluntary insurance is not very popular and at present there is no compulsory insurance or national health insurance in Malaysia. It is estimated that only 250,000 people (1.5% of the population) are covered by voluntary health insurance in Malaysia (EPU, 1985). Highly subsidised user fees are charged for in-patient and out-patient services in all public hospitals. However in a study in one state general hospital, it was found that 27.5% of the user fees were unable to be collected from the users (EPU, 1985). Services in the health centres of rural health units are free of charge.

Table 3.4 : Health sector expenditure in Malaysia, 1983

Components of health sector	Expenditure		
	Amount	Percent	‡ GNP
PUBLIC SECTOR			
Ministry of Health	969,661,000	53.1	1.51
Other Ministries	155,837,847	8.5	0.24
State and local government	79,534,333	4.4	0.12
Foreign Aid	3,380,200	0.2	0.01
Statutory bodies	189,590,801	10.4	0.30
Sub-total Public	1,398,004,181	76.6	2.18
PRIVATE SECTOR			
Hospitals	69,050,462	3.8	0.11
Mines and Estates	4,200,000	0.2	0.01
Voluntary bodies	1,636,093	0.1	0.00
Private doctors	343,412,568	18.8	0.54
Insurance	10,117,401	0.6	0.02
Sub-total Private	428,416,524	23.4	0.67
TOTAL	1 826,420,705	100.0	2.85

(Source: EPU, 1985)

The Social Security Organisation (SOCSO) was established under Employees Social Security Act of 1969 covering all establishments employing 5 or more workers and workers earning less than RM 1,000.00 per month. It was estimated that 62.5% of the total labour force and 25% of the total population of the country would be covered by SOCSO in 1991. Under SOCSO, employees contribute 1.75% of their salary and employers contributed 0.5% of the salary to the fund. In return, the employees were given free medical care due to accidents in public and selected private clinics. Other benefits in the scheme includes cash compensation, provision of artificial limbs and rehabilitation in cases of disability related to occupational injuries (EPU, 1989).

The total budget allocated for MOH continued to shrink as a proportion of GNP over the years because the increase in public funding for health was not as rapid as the increase in GNP over these years (Roemer, 1991) (Appendix 4). In 1992, MOH was allocated RM 2.3 billion, 70.7% were operating and 29.3% developmental allocation. Hospital based curative services received most of the operating allocation (58.4%) while public health services which include preventive and rural health services were allocated only 20.2% and the remaining went to eight other programmes in MOH. Salaries of staff absorbed 66.8% of the operating budget. The hospital services were given 62.4% of the development allocation and only 6.7% were allocated for rural health services (MOH, 1993).

The government is now looking into the possibility of introducing National Health Insurance in the country as a means of sharing the cost of health care between the state and the public. Feasibility studies have been carried out by contract consultants funded by the World Bank (EPU, 1985; EPU, 1989). One of the major recommendations made in the report is to merge the Employees Provident Fund (EPF) and SOCSO to form National Security Fund to pay for services given by public and private providers. EPF is a compulsory saving scheme contributed by all employers and employees working in public and private sector to provide funds for pensions on

retirement. However, among the problems that need to be solved before national health insurance can be applied are the need to establish ways to collect premiums from the self-employed and those working in non-formal sectors such as farming and fishing, to establish mechanisms for exemption for the poor, methods of reimbursement for the providers, ways to improve quality of care and to contain cost of health care.

3.5 KUALA SELANGOR DISTRICT

Kuala Selangor district is the second largest district in the state of Selangor. It covers an area of 1,173 square kilometres. The district is located about 120 km north-east of Kuala Lumpur, the capital of Malaysia. There are 11 small towns, 47 villages and 16 rubber and oil palm estates in the district. It has a population of 123,095 in 1991 of which 58.6% are Malays, 20.0% Chinese, 21.3% Indian and 0.1% of other ethnic groups (MOH, 1992 a). About 75% of the population live in villages and estates and the remaining 25% in small towns. Agricultural activities were the main source of income for the population; where 46% of the land is utilised for agricultural purposes. Rice, rubber and palm oil are the main crops grown. In a survey in 1987 it was found that 44.7% of households were below the poverty line (MOH, 1988 c): more than twice the poverty incidence for rural areas of Peninsular Malaysia in 1989 (19.3%). There were 23,662 households in the district, 96% of which received pipe water and had sanitary latrines (MOH, 1992 a).

The mortality rates for the district are lower than for the whole country except for perinatal and maternal mortality rates. The district received lower health resources than the country as a whole; the doctor to population ratio, the health facilities to population ratio and percapita allocation of MOH budget were lower for the whole country (Table 3.5).

Table 3.5: Social-economic and health indicators of Kuala Selangor District, 1991

	Kuala Selangor District	Peninsular Malaysia
	1991	1991
Crude Death Rate	6.6	4.8
Perinatal Mortality Rate	13.1	12.3
Neonatal Mortality Rate	5.7	7.6
Infant Mortality Rate	8.0	12.1
Toddler Mortality Rate	0.3	0.9
Maternal Mortality Rate	5.0	2.0
Doctors/10000 population	2.2	4.6
Beds/1000 population	9.3	17.4
Health centres to population ratio	1:24,619	1: 15,287
Mean household income/month	RM 715.00	RM 1,254.00
Percapita allocation of MOH budget	RM 62.77	RM 119.83

(Source: MOH, 1991 b)
MOH, 1991 c)

Table 3.6: MOH operating and development allocation for Kuala Selangor District, 1992

	Public Health	District Hospital	Total
Operating	2,752,891	4,242,340	6,995,231
Development	333,322	398,551	731,873
Total	3,086,213	4,640,891	7,727,104
Revenue collected	9,155	91,868	101,023
% of operating budget	(0.3%)	(2.0%)	(1.3%)

(Source: MOH, 1992 a)
MOH, 1992 b)

The MOH delivers public health services through health centres and the district hospital. There were five health centres, 12 midwife clinics, eight community clinics and a district hospital in 1993. Out of the five health centres, two of them are main health centres and another three health sub-centres. All the three health sub-centres were still in the process of being upgraded into health centres. The district hospital has 114 beds and provides in-patient and out-patient care for the district (MOH, 1992 b). Apart from government health centres, private health services are provided by 15 private clinics in the district, three dental clinics and one private pharmacy.

In 1992, MOH allocation for the district was RM 7,727,104; 60% of the budget was allocated for the district hospital while the district health office received 40% of the budget to run preventive services and the health centres, midwife and community clinics in the district (Table 3.6). Of the total allocation, 90.5% of the budget covered operating costs and only 9.5% for development. Salaries comprised a major portion of the operating allocation (75.6%) while only 22.9% were allocated for supplies and services including allocations for drugs and for purchasing and maintenance of equipments. The revenue collected from the users accounts comprised 1.3% of the total operating costs. The district hospital collected RM 91,868.00 which is 74.6% of all the total monies due to be collected from the users.

Chronic illnesses, accidents and poisoning were the main health problems in the district. In 1992, the main cause of death in the district hospital was heart diseases (Appendix 5). The prevalence of hypertension in the district is 17.5% (Community Health Department, 1984) and diabetes is 3.9% (Osman and Rampal, 1989). Motor vehicle accidents were the third most common reason for admission to the district hospital after normal deliveries and complications of pregnancy in 1992 (Appendix 5). The second most common cause of death in the district hospital was poisoning particularly by agricultural pesticides. The incidence of infectious diseases were grossly under-reported in the district. In 1992 only 56 cases of notifiable diseases were reported. Most of these cases were dengue haemorrhagic fever (17 cases), tuberculosis (16 cases) and food poisoning (10 cases) (MOH, 1992 a).

IV. MATERIALS AND METHODS

4.1 AIM

The aim of this research is to study the role of private practitioners and their interactions with public health services in a rural district of Malaysia.

4.2 SPECIFIC OBJECTIVES

The specific objectives of the study were to :

i) Describe and compare services provided by private practitioners and the public services in terms of the types of health services provided, methods of payments for services and the availability of diagnostic services, drugs and medical equipment.

ii) Identify the health workers available in the private sector and to compare them with those operating in public services in terms of their demographic characteristics, training, satisfaction with their jobs and attitudes towards their patients.

iii) Describe the interaction between public and private practitioners in patient care and to identify problems faced by the providers in their interactions.

iv) Identify the users of private and/or public services and to assess perceptions of the community on the services by both providers.

v) Recommend guidelines concerning private and public interactions in Malaysia and to consider ways of improving such interactions.

4.3 METHODS

The study was divided into three phases: preparatory, based in

London for 12 months; fieldwork in Malaysia (10 months) and data analysis and writing up in London (18 months).

4.3.1 Preparatory Phase

This first phase was spent in developing the research proposal and planning the research. The literature was reviewed and key documents identified. Application for funds was made. Regular meetings were held with the supervisor and members of the research advisory committee and other researchers with experience of researching private providers. MOH officers and members of the Malaysian College of General Practitioners (MCGP) who came to London either for visits or to attend courses, were consulted.

The researcher attended courses on research methodology and qualitative methods organised by the London School of Hygiene and Tropical Medicine (LSHTM) and other institutions in the UK. Letters were sent to the President of MMA and Chairman of MCGP to seek their consent and support for this study. An application for approval to carry out the study was made to the Socio-economic Research Unit, in the Prime Minister's Department. In order to obtain suggestions and opinions from other researchers, the proposal was presented as a poster presentation at a departmental PhD open day at LSHTM. Four months before leaving for the field work, the proposal was presented in an upgrading seminar to obtain views from other researchers and also for the assessment by the PhD research committee. Based on feedback gathered from the various discussions and meetings, changes were made to the original proposal. It was agreed that the study should be designed as an exploratory one since very little work had been done on private practitioners in developing countries especially in rural areas. In this design, room would be made to accommodate and explore new issues as they emerged in the study. For example, on the interactions between private practitioners and the public health services, it was decided that the activities to be examined would be decided after interviewing key-informants in the country. Drafts of interview guides and

questionnaires were prepared in the first stage, keeping in mind that they would require revision as the study progressed. Funds for the study were approved by the National University of Malaysia about two months before the fieldwork commenced.

4.3.2 Fieldwork

The fieldwork was divided into three stages.

i) First stage

The first stage focused on eliciting the views of policy makers in public services and influential private practitioners organisations at the national level. The aim of this step was to understand current concerns regarding the role of private practitioners in the country and to identify those activities where interactions between the private practitioners and public health services occur. A period of eight weeks was spent interviewing personnel and reviewing documents.

All interviews were conducted by the researcher. Each informant was interviewed for one to one and a half hours. An interview guide (Appendix 6) identifying major topics to be discussed was used; this was revised as more interviews were done to incorporate new issues emerging. All the interviews were tape recorded and transcribed.

The informants in the public sector were selected after discussion with senior officers from the Ministry of Health and the Economic Planning Unit. A snowball sample was generated: additional names were added upon the suggestion of those interviewed. The informants interviewed in this stage were both the national level managers and senior officers involved in activities which had interactions with the private health sector.

In the private health sector, three organisations namely the MMA, Federation of Private Medical Practitioners Associations

(FPMPA) and Malaysian College of General Practitioners (MCGP) were approached. Other informants were included after the key officials in these organisations were consulted (Appendix 7).

Information gathered in the first stage were analyzed as the interviews progressed and by the end of this stage, issues to be pursued in the subsequent stage were finalised. Questionnaires and interview guides were revised to incorporate issues identified in these interviews.

ii) Stage two

A pilot study was conducted in Sabak Bernam district, a rural district with similar characteristics and located near the study district. Private clinics and public facilities in the district were used to test the questionnaires and interview guides. The pilot study also provided an opportunity to study the logistics for carrying out the study and anticipate problems that might occur in the actual study. Discussions were held with two private practitioners, two public health physicians and members of the Community Health Department, Faculty of Medicine, National University of Malaysia to get their comments on the questionnaires and the interview guide. Questionnaires and interview guides were then revised and re-tested. Dr Anthony Zwi of the Health Policy Unit, LSHTM visited the field at the end of this stage and meetings were held to finalise the revised study tools.

iii) Stage three

Kuala Selangor rural district was selected as the study area. The population size, ethnic mix and economic activities are typical of a rural district in the west coast of Peninsular Malaysia. The district has both private and public health facilities present. It is not too far from the capital where the first stage of the study was undertaken; travelling expenses were much reduced by choosing this district. The district has been used by the funding body i.e National University of Malaysia to train undergraduate students in

community surveys. Existing facilities such as the university offices, computer facilities and accommodation could be used by the researcher throughout the study; secondly, the community surveys undertaken by the students provided valuable basic background information on the district.

All 15 private clinics in the district were included in this study. All the five health centres and the out-patient clinic of the district hospital where medical doctors were posted were included in this study. Other public facilities where medical doctors were not posted, such as midwifery and community clinics were excluded from this study.

4.3.3 Source of data

The study was divided into five sub-studies:

- a) Survey of health facilities
- b) Survey of health workers
- c) Study of interactions between public and private sector.
- d) User interviews
- e) Study of community satisfaction.

A combination of both qualitative and quantitative methods were used thus enabling information collected by one method to be supplemented and validated by others. A combination of these methods would provide a powerful means for analysis and interpretation of data by triangulation; divergent findings, uncover biases in study tools or methods used while convergent findings support the study findings (Yach, 1992).

At the end of the field-work preliminary results of the study were presented to senior officers of the MOH in their annual conference (14th July, 1993).

i) Survey of health facilities

The sources of information for this sub-study were: semi-structured interviews with the doctors in-charge of the facilities, structured observations, clinic drug lists, one-

week prospective recording of cases and spot-checks

a) Semi-structured interviews

Interviews lasting 45 minutes to one hour were done by the researcher using a semi-structured questionnaire (Appendix 8). The respondents were the doctors in-charge of the health centres and the owner of the private clinics. They were asked about the ownership of the clinics, duration the clinics were established, number and type of personnel providing the services, clinic operating hours, types of services provided, type of diagnostic investigations conducted and the average numbers of patients attending daily. The doctors were also asked about charges for their services.

b) Structured observations

Structured observations were carried out in the clinics. The check-list included medical equipment available, stationery and drugs. The assessment of medical equipment was divided into three groups: the basic (sphygmomanometer, microscope, infant weighing scale, sterilizer, disposable syringes and refrigerator), emergency (laryngoscope, Ambu bag set, suction and intravenous canula) and diagnostic (urine testing sticks, calorimeter, glucometer, ECG machine, X-ray machine, ultrasound scan machine and blood chemistry machine) equipment. These items were checked for availability and working order.

The stationery examined included out-patient cards, appointment cards, antenatal cards, immunisation records, referral forms, communicable disease notification forms, medical certificate and drug register.

The drugs and supplies checked for their availability and condition (expired or not) were all types of vaccines and emergency drugs (hydrocortisone injections, adrenaline injections, intravenous saline and Oxygen supply).

c) Clinic drug lists

To assess the variety of drugs available in the public and private clinics, the doctors were asked to list all the drugs they kept in their clinic. Each clinic received a drug list form to be completed by either the doctor him/herself in the case of the private clinics or by the pharmacist assistant in the health centre or by pharmacist in the district hospital (Appendix 9). They were told to list all the drugs available in the clinic for the following one week period.

d) Prospective recording

Cases attending the clinics were recorded prospectively for one week in order to compare the variety of cases seen by each sector. This was originally planned for one month but the private doctors argued that such record-keeping would increase their workload substantially. Each recorder in public and private clinics was paid RM 15.00 per day.

In each public facility one medical assistant and one staff nurse were responsible for recording. In the private clinic, the most senior clinic assistants were responsible for the recording. Doctors and other staff who treated the patients were instructed to write on the out-patient cards the diagnosis, investigations ordered, the charges, methods of payment and name of the referral centre for cases referred from the clinics. The cards were collected after each day by the recorders who transferred the contents into the record book (Appendix 10).

The study was conducted in a typical week of the year, for seven consecutive days from 0800 hours, 19 April 1993 to 2400 hours, 25 April 1993. About two weeks before the actual study was carried out, three days were fixed for training. After the training, the record books were collected and checked. Further visits were made to the clinics to give feedback to the recorders and all those who treated the cases. Record books for the actual recording were then distributed to the

recorders. One day before the recording started, all the clinics were contacted by telephone and the staff reminded to start the recording the next day. During the week, all the clinics were visited at least once to monitor the exercise. The record books were recollected after the one week period.

e) Spot checks

Spot checks were conducted to check information given by the doctors' in-charge in the semi-structured interviews. There were two main problems in doing the spot checks. First, it was not possible to check all items of information given in the semi-structured interviews; secondly it had to be done in way that it would not embarrass the doctors if they knew about the spot check.

The spot checks examined the operation days and hours of the clinics and checked the type and the number of staff actually treating patients in the clinics (Appendix 11). They were carried out over a three week period from 6th May 1993 to 27th May 1993. During this period, the clinics were visited at least twice; one of the two days was either a public holiday or a week-end day. During the visits the researcher approached the counter staffs and asked to see the doctor in-charge. Neither the doctor nor the staff were told about the main purpose of the visits. While waiting to see the doctor, the researcher observed the type and the number of staff running the clinics for that day. The staff were asked informally how many of them were working that day and what the clinic opening hours were for that day. When he was called in to see the doctor, the researcher had a short informal discussion with the doctor regarding the progress of the research. The idea of seeing the doctor was to determine whether he/she was present at that particular time.

ii) Survey of Health Workers

Four sources of information were used: self-administered questionnaire, in-depth interviews, participant observation

and focus group discussions.

a) Self-administered questionnaires

Self-administered questionnaires were carried out about one month before the other three qualitative methods were undertaken. The questionnaires (Appendix 12) were printed in two languages, Malay and English. The first part was designed to collect basic information on the health workers such as their age, sex, occupation, educational level, salary and level of training. The second part was aimed at studying the health workers' level of satisfaction towards their job and their attitudes towards patients. There were 28 statements, 19 of which were used to measure their degree of satisfaction with their jobs and the remaining nine to study their attitudes towards their patients.

Assessment of satisfaction covered the following aspects of their jobs: salary, allowances, promotion, relation with subordinates, relation with colleague, transfers, equipment and office vehicles; training (two questions), workload (three questions) and relation with their seniors (six questions) (Appendix 13).

Nine statements to elicit attitudes of the health workers towards their patients is listed in Appendix 14. These statements explored the relationship between health workers and their patients and considered patient demands, patients' understanding towards the workers' needs, tolerance of the patients' behaviour, patients' compliance to their advice and appreciation towards the service they provided.

For each statement respondents were asked whether they strongly disagree, disagree, undecided, agree or strongly agree with the statement. The respondents remained anonymous. The questionnaires were distributed to all the health workers and were re-collected back after two weeks.

b) In-depth interviews

Respondents for in-depth interviews were selected based on their occupations and the length of employment in the services: all categories of staff who had direct contact with patients in their daily work were included, the seniors and juniors.

Among the private doctors eight of 13 were selected to be interviewed. One of the private doctors who had practised less than two years refused to be interviewed.

Among the public doctors, ten in-depth interviews were planned and all were carried out. All the six doctors serving the health centre and the district health office and four of the eight doctors in the district hospital were interviewed.

Among the clinical staff in the private clinics, ten clinic assistants were planned to be interviewed but nine were done. For the non-doctors in the public sector, 15 interviews were planned and carried out.

Appendix 15 list the characteristics of the respondents interviewed from public and private sectors.

An interview guide (Appendix 16) was used in these interviews: the first part considered satisfaction and the second part attitude towards patients. The respondents were asked to discuss those things with which they were satisfied or not satisfied within their service. The attitude towards their patients were assessed by asking the respondents problems they face with their patients in their daily work and they were asked to suggest ways to solve these problems. Their attitudes were assessed by examining the ways in which they solved the problems they faced. The respondents were presented with a scenario of a common problem they face in their daily work and were asked to discuss their views on how to solve the problem. The scenario given was on a "mother who refused her child to have an immunisation". Each interview took about one to one

and a half hours. Interviews were private and were conducted in a closed room in both private and public clinics. In those private clinics with limited space, the interviews were done outside clinic hours when the doctors in-charge and other staff were not present. Respondents were reassured that their identity would not be revealed and their views would not be disclosed. All the interviews were tape-recorded.

c) Participant observation

Three weeks were available for the researcher to participate in the daily activities in public and private clinics. In the private sector, seven of the 10 'long hours clinics' and two out of five short hours clinics were randomly selected. In the public sector, the researcher visited all the health centres and the district hospital.

One whole day was spent in each of the clinics except the district hospital where two days were spent.

In all facilities, the researcher divided his time between various areas and units of the facilities: these included the waiting room, consultation room, treatment room, laboratory, registration and dispensing counter.

d) Focus Group Discussions

Two focus group discussions (FGD) were carried out in this sub-study: one for the private clinic workers and another for the public facilities. Participants for these FGDs were health workers other than doctors, who were involved directly with patient management. Each private clinic was asked to send the most senior clinic assistant for the discussion. However only six of the 15 private clinics were willing to send their workers. The following categories of staff in the public facilities were identified and invited to the discussion; staff nurses, midwives, attendant, medical assistants and community nurses. Two staff from each category were invited, one from the health centres and another from the district

hospital except for community nurse where no staff in that category works in the district hospital. The selection of participants were made by the researcher after consulting the doctor in-charge of both type of facilities. Participants are listed in Appendix 17.

Discussions were held in a seminar room in UKM office in Tanjung Karang. The researcher facilitated the discussions assisted by two recorders. The facilitator used FGD's guide containing topics for the discussions (Appendix 18). The discussions were tape recorded and lasted for about two hours.

iii) Study of interactions between public and private sector

After the first stage of the study it was found that the private practitioners interact with the public providers around a range of activities: immunisations, patients' referrals, disease notifications, collection of health information, medical examination of foreign workers, drug enforcement, utilisation of public health facilities by private practitioners, health education and private practice by public sector personnel. Among these activities, the following activities were examined in the district: MOH/MMA Hepatitis B immunisation project, patients' referral, medical examination of foreign workers, utilisation of public ambulance services by PPs, disease notifications, private practice by public sector personnel and immunisations returns by PPs. The source of information for this sub-study included in-depth interviews, focus group discussions and document reviews.

a) In-depth interviews

All 13 PPs were selected for interviews. One private doctor declined citing that he was very busy running two other clinics outside the district. Twelve PPs were therefore interviewed (Appendix 19).

In the public sector, the public sector personnel selected for this study were those who would be able to provide information on interactions between the two sectors. Eleven key informants were initially selected for interviews; another eight were later included (Appendix 19).

In the private clinics the interviews were done in the evening after clinic hours or at the end of the morning session. The public health workers were interviewed during office hours. All the interviews were tape recorded.

The researcher used an interview guide (Appendix 20) itemising the major topics to be discussed. The guide had two sections: general questions to elicit opinions on the relationship between the public and private practitioners in the district and a second section in which specific topics identified in the first stage were reviewed. The guide was modified as the interviews progressed to incorporate new issues emerging. The researcher introduced himself and the purpose of the interview, stressing personal particulars would be confidential and their opinions would not be used against them in any way. They were told that the interviews would be taped recorded but were allowed to inform the researcher to stop the recording at any point if desired. The researcher answered any queries by respondents before starting the interviews. Each interview took about one to one and a half hours to complete.

The respondents were not asked all the topics or questions in the guide. To maximise the value of the interview, a particular focus relevant to each informant were identified. For example in the interviews with Public Health Inspectors, the discussion was mainly on disease notification and visits by public health workers to the private clinics (Appendix 21).

b) Focus Group Discussions

Two focus group discussions, one for PPs and another for the

public doctors were carried out in the district. All 13 private doctors were invited to attend the discussion and were offered RM 200.00 to attend. Six of the 13 doctors attended; the remaining seven indicated that they were unable to get locum doctors to run their clinic during the discussion.

In the public sector, seven doctors (five from the health centres and two medical officers from the district hospital) were invited, and all attended the discussion. Appendix 22 shows the list of participants in both FGDs and the interview guide used. Each discussion lasted for about 2 hours facilitated by the researcher, assisted by two recorders. The discussions were tape recorded.

c) Document review

Documents containing information on the interactions between the two sectors were selected to be reviewed. In the public sector, the documents included the Annual reports of District Health Office (1989-1992), the Annual reports from the District Hospital (1989-1992), the MOH Plan of Implementation of MOH/MMA Hepatitis B project (MOH, 1990 b) and MOH Guidelines on Referral System (MOH, 1992 d). In the private sector, the MMA Newsletters from January 1991 to March 1994 were reviewed. In addition to this, newspaper cuttings related to private practitioners kept by the MMA from January 1990 to June 1993 was also reviewed.

iv) User Interviews

Information for this study was collected through interviews with patients attending the public and private facilities in the district.

a) Interviewers

Fifteen school leavers aged 18 - 22 years old were employed: eight were female and the rest males. Two of the interviewers were Indians, four Chinese and the rest Malays. They received

two weeks training.

b) Questionnaire forms

Two sets of questionnaires were used in this study; Form Q9 (Appendix 24) and Form Q10 (Appendix 25). Information collected included socio-demographic characteristics of patients, present and past medical conditions, treatment they received during the visit and time spent in the clinics. The second set of the questionnaires (Form Q10) were completed by the health personnel who treated the patients: this included the diagnosis, investigations done, surgical procedures and treatment prescribed. If the respondents were referred, reasons for referral and the referral centre were recorded. The questionnaire was first prepared in English and then translated into Malay, Chinese and Tamil.

c) Sampling of respondents

Public and private doctors estimated the number of patients seen weekly. For each clinic, approximately 10 percent of the total number of patients per week were reviewed. Patients in the public sector were selected from the four clinic sessions in a week: antenatal, child health, hypertension/diabetes clinic and general out-patient clinic. Patients attending each clinic were selected using systematic random sampling to spread out the selection to cover the entire operating period.

d) Data collection procedures

Respondents were selected when they registered at the reception. The second questionnaire (Form Q10), completed by health personnel, was clipped to the patient's OPD card. The respondents were interviewed in the waiting room while waiting to be seen. The respondents refusing to be interviewed were skipped and the next patient selected. For emergency cases, patients were interviewed after receiving treatment. Accompanying adults were interviewed for children and patients who were too sick to talk.

Distance travelled by patient was measured from the centre of their villages to the health facilities using the usual route travelled. One of the interviewers was employed to measure the distances.

To check the reliability of the questionnaires, 10 percent of the patients were randomly selected and re-interviewed at their homes within 48 hours of their visit to the clinic.

v) Study of Community Satisfaction

Focus group discussions and in-depth interviews were employed among three major ethnic groups. Three typical villages representing each ethnic group were selected for the study. In selecting these villages, discussions were held with the district agricultural officers and the district health team. The district agricultural department kept the latest census of district villages and had regular meetings with the community leaders under their extension programmes. District health workers conduct routine surveillance to control communicable disease in the district and have reasonably reliable background data on each village in the district. Figure 4.1 shows the location of the three villages in the district. Details of the three selected villages are given in Appendix 26.

i) Focus Group discussions

FGDs were carried out among the community in the three villages; four in each village (two male and two female groups). In addition two further FGDs were conducted among government servants in the district to elicit views from this section of the community. Technique suggested by Dawson et al (1992) in conducting FGD in the community were used in this study.

The researcher contacted the village headmen in each village and visited them to introduce the study and obtain their cooperation. Following the visits, meetings were held with the

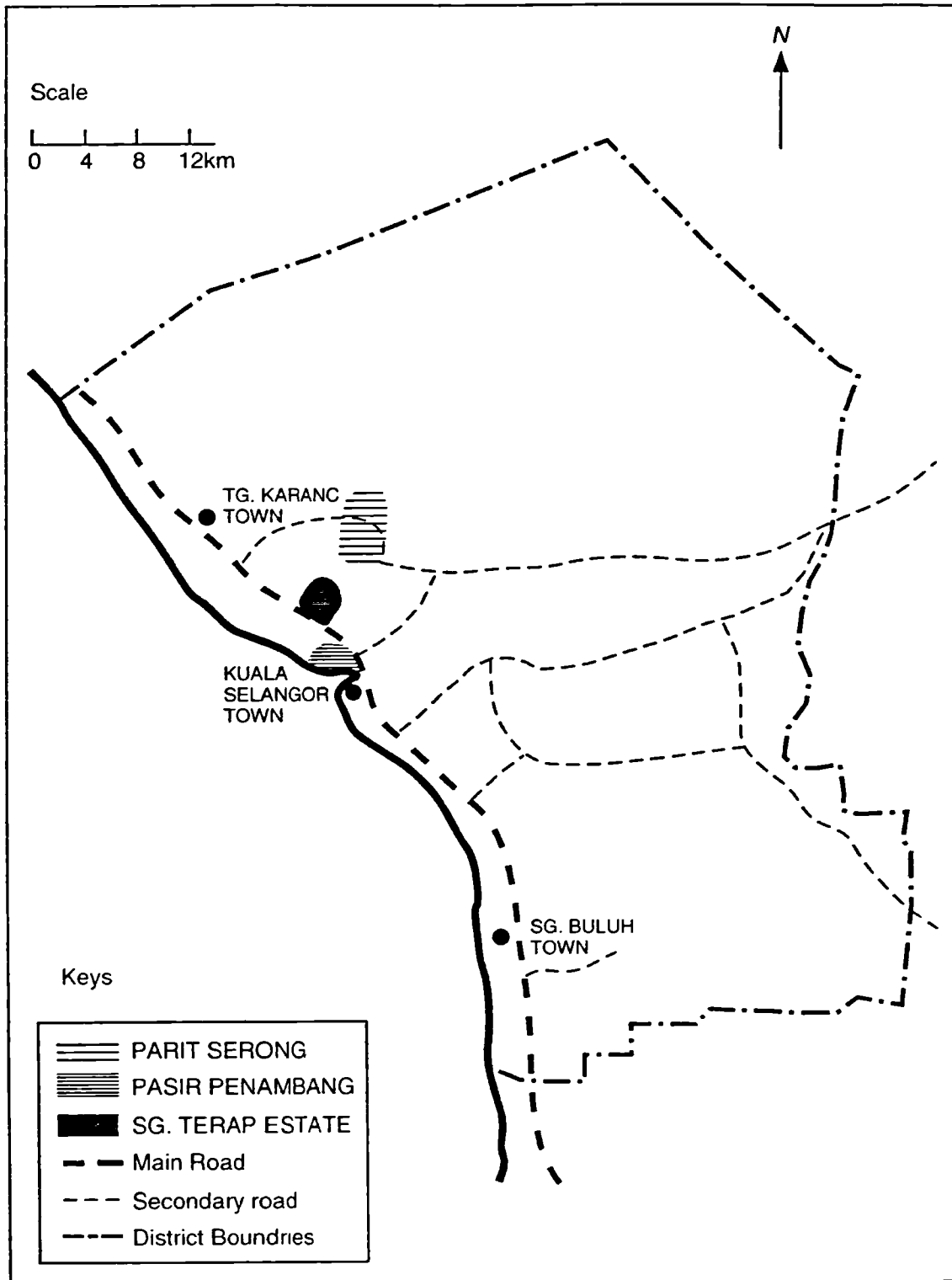


Figure 4 1 MAP OF KUALA SELANGOR DISTRICT SHOWING THE LOCATION OF THE THREE VILLAGES

village committees. In these meetings the researcher again explained the project to the committee members. Criteria for participants were stressed and the leaders suggested 15 people for each discussion group. The time and the venue for the discussions was fixed.

The first criteria for the participants in this study was that they must not be community leaders but ordinary people in the community, was to avoid the leaders dominating the discussions. Secondly the participants should be married with children. This was important since the presence of unmarried men or women would inhibit discussions: married men or women would not discuss matters related to pregnancy and child-birth in the presence of these single men or women. Thirdly, only participants between the age of 25 and 50 years old were selected. Older people were respected in the community and enjoyed almost the same status as community leaders and would overly influence the discussion.

The community leaders were asked to suggest 15 people about two weeks before the discussion. The researcher and his team then ensured that all prospective participants met the criteria. Those who did not meet the criteria such as leaders in the community, those below 25 or single men or women, were removed from the list and replaced. Finally 15 people were invited for each discussion; each was offered RM 5.00 for their time. In each community, four focus group discussions (two for men and two for women) were planned.

In the FGD among the government servants, the same criteria for age and marital status of the participants used in the villages were applied. Health workers and those whose spouses work in the government health services were excluded so that the participants would not feel reluctant to discuss issues related to the public health facilities. Senior civil servants were also excluded to prevent them from dominating the discussions. The lists of participants were received about one week before the FGD and were checked by the researcher to make sure that all of them met the criteria.

For each village, a team of workers was formed comprising six people, three males and three females. Two of them served as moderators, two were observers and another two were general assistants. The selected FGD workers were from the same ethnic group and spoke the same language and dialect as the villagers. The workers were also married and fell within the same age group as the participants. It was necessary to ensure that the members of the team were not working in public or private clinics so that the villagers would not hesitate to express their views during the discussions. All members of the team were school teachers but they were not from the same village as the participants. They were employed for a period of three months and paid RM 25.00 per day. Three teams were formed, one for each village, 18 workers in all.

The workers were trained for three weeks by the researcher and his research assistant with the help of two other lecturers from the Department of Community Health Faculty of Medicine, National University of Malaysia. Six focus group discussions were carried out by the workers during this training period. The FGDs were video recorded and the video used to provide feedback to the workers.

The FGD guide was piloted during the training of the workers in the three selected villages. The guide (Appendix 27) was prepared in English and translated into the three different languages. Based on the pilot study the guide was modified to include local terminology and dialects.

About one week before the FGDs, the list of participants to be invited was finalised; all participants were invited through the village committee. The team also visited the place where the discussions were to be held to ensure their suitability: away from noise was desirable. A space to set up a creche was identified especially for FGD's for the women's group.

The discussions were started when at least 10 of the 15 invited participants had arrived. Those who arrived late were

kindly asked not to join the discussions. The moderator was assisted by an observer in the discussions. Besides these two workers and the participants, no one else was allowed into the room during the discussions. The discussions were tape recorded. Each discussion took one and a half to two hours to complete.

After each FGD, all the workers returned to the headquarters for a short discussion: the moderator and observer provided feed back on whether the discussions were successful and discussed any difficulties they had faced. The tape recorder and the recorded tape were briefly checked.

Another discussion on the FGD was held the next day. In this meeting, the suitability of the place chosen for the FGD, the clarity of the guide, the participants and the team performance in the FGD were discussed. The meeting also discussed the notes taken by the observer and clarified any ambiguities. Plans for transcribing and translating the tapes were made.

ii) **In-depth Interviews**

Unstructured in-depth interviews were carried out among the community leaders in the three villages. Formal leaders such as village headman, village committee members or political party leaders in the district and informal leaders such as teachers and religious leaders were selected for the interviews. All the respondents were married with children and stayed in the district.

Altogether 12 in-depth interviews were done, two males and two females in each village (Appendix 28). All the interviews were conducted by the researcher.

The interview guide had two parts (Appendix 29): including two questions about usual health providers and reasons for their choice, four questions about their satisfaction and dissatisfaction about the public and the private facilities,

and other topics related to health services were listed. These topics included operating hours, types of services available, waiting time, charges, drugs, equipment and relation with the health workers. This list was used to remind the researcher of the various aspects of health services to cover with the respondents in the interviews.

Respondents were asked to describe both the community perspective and their personal opinions on issues being discussed.

Some interviews were carried out in the respondents homes, others were in the community hall or in their workplace. All interviews were tape recorded. Each interviews took about one to one and a half hours to complete. All the interviews were done in Malay.

4.3.4 Data Analysis

i) Qualitative data

Qualitative data analysis commenced during the field work following the methods suggested by Dawson et al (1992) and Krueger (1991). Since this study was designed to be exploratory, information collected in the first stage of the field work needed to be analysed as the field work progressed. This was to enable relevant issues to be followed up in the subsequent stages of the study. During the second and third, stages of the study, some analyses were carried out to ensure that the respondents understood the questions in the interview guide. Local terminology was also clarified based on these analyses.

All the tapes of the FGD and in-depth interviews were transcribed by the FGD workers and the researcher. Once completed, the researcher and the team members went through the transcripts and the notes from the observer. Any mistakes were clarified and when necessary the tape was listened to again. After the team were satisfied, the transcripts were

sent for typing using WordStar, later converted into Wordperfect 5.1. The transcripts were then converted into ASCII files and prepared to be analyzed using Ethnograph software.

Contents analysis (Stewart and Shamdasani, 1990) was carried out on the transcript. After initial reading, a coding scheme was developed based on topics listed in the interview guide and the emerging themes. Transcripts were coded and the coded segments grouped according to topic. The coded segments were the unit of analysis. Descriptive and interpretative analysis were then carried out.

ii) Quantitative data

Quantitative data were entered into computers using Dbase 3+ and then cleaned. This was carried out during the field work. Statistical analyses were done using SPSSPC+ 3.1 programme. Cross tabulations comparing the public and private sector were prepared: Chi square tests and Fisher exact tests were performed for categorical variables and t-tests for continuous variables. Multiple regressions and multiple logistic regressions were carried out to control the relevant confounders when comparisons were made between public and private sector.

V. SURVEY OF HEALTH FACILITIES

5.1 RESULTS

5.1.1 Clinic location

Six of the 15 private clinics, one health centre and the district hospital were located in Tanjung Karang, the biggest town of the district (Table 5.1). The other health centres and the private clinics were located in other small towns in the district (Appendix 30).

Table 5.1: Location of public and private facilities in Kuala Selangor district

Towns	Population	Private Clinics	Health Centres	District Hospital
Tg. Karang	4,441	6	1	1
Kuala Selangor	3,411	1	1	-
Sungai Buluh	2,478	3	1	-
Btg. Berjuntai	2,983	2	1	-
Ijuk	1,695	1	1	-
P. Penambang	2,336	2	-	-

5.1.2 Providers

There were a total of 27 doctors serving the district, 13 of them worked in the private and 14 in the public sector. Eight of the 14 public sector doctors worked in the district hospital and the remaining six in the health centres. Twelve of the 14 public doctors were medical officers and the other two were administrators (the district health officer and medical officer in-charge of the district hospital). Five of the 13 private practitioners (PPs) had more than one clinic. Four of the PPs with multiple clinics had at least one of their clinics in the nearby district. Two of them had two clinics, another two had three and one had four clinics. Two of the 15 private clinics were run by two doctors while the rest were run by a single practitioner.

There were 401 supporting staff in the public sector and 49 in the private sector. The staff to doctor ratio was about 7.5 times higher in public than private sector (28.6 vs 3.8).

5.1.3 Clinic Operation

i) Operating hours

The public facilities follow the usual government office hours and opened for 38.5 hours per week. Private clinics operating less than 38.5 hours per week were grouped as 'short hours clinics' and the rest were considered 'long hours clinics'. Five of the private clinics were 'short hours clinics' and the other 10 were 'long hours clinics'. The five 'short hours clinics' were all owned by PPs who had more than one clinic. These doctors travel from one clinic to another in one day. The average operating hours per week for 'short hours clinics' was 15.3 hours (SD = 7.0 hours) whereas the 'long hours' private clinics were open on the average for 62.8 hours (SD = 11.7 hours), about 1.5 times longer than the operating hours of the public facilities.

The public facilities open Mondays to Saturdays, with Saturday a half day. The public facilities generally did not provide services on Sundays and public holidays except for the district hospital. The district hospital provided services through the Accident & Emergency Unit only for emergency cases on Sundays, public holidays and after normal office hours. The health centres were closed on Sundays and public holidays but the medical assistant and staff Nurses 'on-call' provide services for emergency cases during these period. In the private sector, seven (one 'short hours' and six 'long hours' clinic) of the 15 private clinics open on Sundays. On public holidays, six of the 15 clinics all of them 'long hours clinic' were open.

On average, 93.8% of the operating hours of the 'long hours' private clinics had their doctors present compared to be only 60.5% of total operating hours of 'short hours' clinics. Health centres had the lowest hours covered by doctors (47.3%) while in OPD clinic of the district hospital, doctors were present all the time.

Table 5.2: Operating hours of public and private facilities

Facilities	No. of services	No. open on Sundays	Av hours on week days	Av. hours on Sundays	Av total hour/week	Av % of doctor hours
Short hours PC	5	1	2.6	4.0	15.3	60.5
Long Hours PC	10	6	10.1	7.9	62.8	93.8
Health Centres*	5	0	7.0	0	38.5	47.3
District hospital*	1	0	7.0	0	38.5	100.0

No. = Number of facilities

Av. hours on week days = Average number of operating hours per day from Mondays to Fridays

Av. hours on Sundays = Average number of operating hours on Sundays

Av. total operating hours per week = Average total operating hours for one week from Mondays to Sundays

Average % of doctors hours = Average percentage of doctors hours to total weekly operating hours

* = Health centres and A&E Unit of District Hospital accept emergency cases on weekends and public holidays.

ii) Workload

The 15 private clinics were estimated to be visited by 3,918 patients per week while the six public facilities were estimated to receive 3,926 patients per week. The district hospital received the highest number of patients while the 'short operating hours' private clinics the least (Table 5.3). The PPs had a lower workload than public sector doctors. PPs in the short hours clinic saw the least number of patients per hour (2.8 per hour) while the public doctors working in health centres treated the most patients per hour (8 per hour).

Table 5.3 : Workload in public and private facilities

Facilities	Av. No. of patient per week	Av. opening hours per week	No. of patient per clinic per hour	No. of patient seen per doctor per hour
Short hours PC (N = 5)	71	15.3	4.6	2.8
Long hours PC (N = 10)	356	62.8	5.7	5.3
Health centres (N = 5)	515	38.5	13.4	8.0
District hospital (N = 1)	1350	38.5	35.1	7.5

iii) Range of services

a) Curative services

All the private clinics provide general out-patient services. Among the public facilities only one health centre did not provide this services, HC1, which is located in Tanjung Karang town and only about half a kilometre from the district hospital which has an out-patient service.

Emergency services were defined as services given to patients with conditions which need urgent medical attention. It ranges from minor trauma to life threatening conditions such as bleeding and shock. One health centre (HC1) and five private clinics did not provide emergency services and patients were asked to go to the district hospital (Table 5.4). None of the private clinics provide this service on 24 hour basis as the district hospital and health centres.

House calls, whereby doctors from the clinics visited the patient's home for treatment, was not available in the public sector. Most private clinics (nine of the 15 clinics) mostly with long operating hours offered this service.

None of the private clinics has any ambulance. The ambulance services were provided by the district hospital and three of the health centres.

Available services for treatment of three communicable diseases (malaria, sexually transmitted disease (STDs) and tuberculosis) and two chronic disease (diabetes mellitus and hypertension) were assessed. In the district, only the district hospital treats malaria cases. Cases of malaria when detected by the health centres or the private clinics were referred to the district hospital for management. All the private clinics treated STDs. In contrast, none of the health centres treated these cases. All STDs diagnosed in the health centres were referred for treatment to the district hospital. All the public facilities managed tuberculosis cases but only five of the 15 private clinics treated this disease.

All the public and private facilities in the district treated patients with hypertension and diabetes mellitus. In the public facilities one day per week was allocated for the treatment and follow-up of these cases. None of the private clinics allocated any special day for these cases and patients were free to come any day for treatment and follow-up.

b) Preventive services

The provision of antenatal, family planning and immunisations was examined in all services. These three services were readily available in public facilities.

Antenatal services was provided by only two of the 15 private clinics but by all the public facilities. Patients in these two private clinics were referred to the health centres or district hospital at the end of the second trimester or early part of the third trimester to be followed up until delivery. In the district hospital, antenatal clinics was held for one and a half days in the week. Once a fortnight an obstetrician from the state general hospital visited the hospital to see cases referred by the medical officers. All the health centres allocated one day per a week for antenatal clinics run by medical officers and public health nurses. In public facilities antenatal mothers with normal pregnancy were followed up once a month in first 28 weeks of pregnancy, then once a fortnight until 36 weeks and thereafter weekly until delivery.

Family planning services were available in all private clinics and the health centres but not in the district hospital. Oral contraceptives and condoms were the two most common methods of contraception in both types of facilities. Intrauterine devices (IUD) were not inserted in the public facilities since none of the public doctors were trained to carry out this procedure. IUD insertions were available in five of the 15 private clinics. In the health centres one afternoon was allocated for family planning sessions where women who wanted contraception came for consultation with public health nurses. For new cases physical examination were done, PAP smears were taken and they were advised on methods of contraception. Oral contraceptives and condoms were given free of charge.

Table 5.4 Curative and preventive care provided by public and private facilities

	Curative care									Preventive care		
	General OPD	Malaria Treatment	Tuberculosis Treatment	STD Treatment	Hypertension Treatment	Diabetes Treatment	Ambulance Service	Emergency Services	Housecalls	Antenatal services	Family Planning	Immunisations
Short hours PCs												
PC4	1	X	1	1	1	1	X	1	X	X	1	1
PC9	1	X	X	1	1	1	X	1	1	X	1	1
PC12	1	X	X	1	1	1	X	X	X	X	1	1
PC13	1	X	X	1	1	1	X	X	X	X	1	1
PC18	1	X	X	1	1	1	X	X	X	X	1	1
Long hours PCs												
PC1	1	X	X	1	1	1	X	X	1	X	1	1
PC2	1	X	1	1	1	1	X	1	1	X	1	1
PC3	1	X	X	1	1	1	X	1	X	1	1	1
PC5	1	X	X	1	1	1	X	X	X	X	1	1
PC6	1	X	X	1	1	1	X	1	1	X	1	1
PC7	1	X	1	1	1	1	X	1	1	1	1	1
PC8	1	X	1	1	1	1	X	1	1	X	1	1
PC10	1	X	X	1	1	1	X	1	1	X	1	1
PC11	1	X	1	1	1	1	X	1	1	X	1	1
PC14	1	X	X	1	1	1	X	1	1	X	1	1
Public Facilities												
DH	1	1	1	1	1	1	1	1	X	1	1	1
HC1	X	X	1	X	1	1	X	X	X	1	1	1
HC2	1	X	1	X	1	1	X	1	X	1	1	1
HC3	1	X	1	X	1	1	1	1	X	1	1	1
HC4	1	X	1	X	1	1	1	1	X	1	1	1
HC5	1	X	1	X	1	1	1	1	X	1	1	1

1 = Services available
X = Services not available

Women who needed to use intrauterine devices were referred to the private clinics. Oral contraceptives were only given to those below the age of 35 years without any contra-indications such as high blood pressures and the presence of varicose veins. In the private clinics no standard procedures were being followed. New cases were not normally screened and PAP smears were only done on the patients request. Patients could buy contraceptives pills from the private clinics without seeing the doctor. Women who were disallowed to take oral contraceptives pills for health reasons when they visited the health centres, came to buy the pills from the private clinics.

In the health centres, all immunisation for children were provided during child health clinics on a specified day of the week. The district hospital only provided BCG and first dose of Hepatitis B vaccine for the newborn; others were provided by the health centres. The private clinics provided all immunisations for the children except for BCG, which was kept by none of the clinics. Home visiting was undertaken by health personnel in the public sector to trace children who defaulted an immunisation schedule. This was not done in the private sector.

Vaccine storage was assessed against guidelines used by the Ministry of Health which were circulated to the PPs through the MMA newsletter in 1990 (MMA, 1990). The cold chain is poorly maintained in the private clinics and the condition is, worst in 'short hours' clinics (Appendix 31). Two of the 15 private clinics do not even have a refrigerator. In these two clinics (PC 9 and PC 15), the vaccines were transported from the other clinics using containers not suitable to maintain cold chain. In three of the private clinics, the fridge was in poor condition and not suitable for vaccine storage. In most of the private clinics (10 out of 13), medicine and food stuffs were stored together with vaccines in the same fridge.

Cold chain maintenance is satisfactory in all the public facilities. All the fridges in the public clinics used to

store vaccines were in good condition. In the public facilities, at least two fridges are available and one of them is used solely for vaccine storage.

Power failures were quite frequent in the district and sometimes lasted for more than 24 hours. Although all private clinics had a back-up generator these generators were only used for lighting and fans and not for the fridges during power failure. In the private clinics, vaccines were normally left in the fridge during the power failures. The district hospital is the only public facility with a generator used for fridges during power failures. When power failures were anticipated to last for more than eight hours, the vaccines were transported from health centres to the district hospital. Ice packs in the freezer compartment to cool the fridge temporarily during power failures were found in all the fridges in the public facilities but only three of the 13 fridges in the private clinics. All the fridges for vaccine storage in the public facilities had a mini-max thermometer to record refrigerator temperature. This was done twice a day and the reading charted in a log book. None of the fridges in the private clinics had such thermometers and temperatures in the fridge were not monitored. Vaccines were stored in door shelves of the fridges in all except two of the private clinics. All the vaccines were arranged in the general compartment of the fridges in public facilities. Expired vaccines were also found in two of the private clinics.

c) Medical procedures

All the private clinics and the public facilities study except one health centre (HC1) conducted medical procedures such as wound dressings, toilet and suturing as well as simple incision and drainage (Appendix 32). Male circumcisions were conducted by six of the 15 private clinics, the district hospital and four health centres provided this kind of service. Reduction of fractures and application of Plaster of Paris (POP) were conducted only in the district hospital and three of the 15 private clinics; the absence of X-ray

facilities in the health centres and most of the private clinics was the main reason cited for this.

d) Diagnostic Service

Urine analysis (tests for glucose, protein and microscopic examination) were provided in all public facilities and four of the 15 private clinics (Table 5.5). Although all the private clinics did urine for glucose and protein examination, most of them did not do microscopic examination. Urine pregnancy test (UPT) were available in all private and public facilities. The UPT kit in the public facilities was only allowed to be used for women who took contraceptive pills from the health centres and missed their periods. Other women wishing to have the test were asked to go to private clinics.

Table 5.5: Diagnostic services in public and private facilities

Clinics	Urine Analysis	UPT	HB	G6PD test	Sputum FEME	Stool FEME	BFMP	Blood glucose	Blood cholesterol	PAP Smear	ECG	X-ray	Ultrasound Scan
Long Hours PCs													
PC1	1	1	1	X	X	X	X	1	1	1	1	1	1
PC2	1	1	1	X	X	X	X	1	1	1	1	1	1
PC3	X	1	X	X	X	X	X	1	X	1	1	X	X
PC5	X	1	1	X	X	X	X	1	1	1	1	X	1
PC6	1	1	1	X	X	X	X	1	1	X	1	X	X
PC7	X	1	X	X	X	X	X	X	X	1	1	X	X
PC8	1	1	1	X	X	X	X	X	X	1	X	1	1
PC10	X	1	1	X	X	X	X	X	X	1	X	X	X
PC11	X	1	X	X	X	X	X	1	X	1	1	X	X
PC14	X	1	1	X	X	X	X	1	1	X	1	X	1
Short Hours PCs													
PC4	X	1	X	X	X	X	X	X	X	1	X	X	X
PC9	X	1	X	X	X	X	X	X	X	X	X	X	X
PC12	X	1	X	X	X	X	X	X	X	X	X	X	X
PC13	X	1	X	X	X	X	X	1	X	X	1	X	X
PC15	X	1	X	X	X	X	X	X	X	X	X	X	X
Public clinics													
DH	1	1	1	1	1	1	1	1	1	X	1	1	X
HC1	1	1	1	1	1	1	1	X	X	1	X	X	X
HC2	1	1	1	1	1	1	1	1	X	1	1	X	X
HC3	1	1	1	1	1	1	1	X	X	1	X	X	X
HC4	1	1	1	1	1	1	1	X	X	1	1	X	X
HC5	1	1	1	1	1	1	1	X	X	1	1	X	X

1 = services available X = services not available
 HB = Haemoglobin BFMP = Blood film malaria parasites
 FEME = Full examination including microscope
 G6PD = Glucose-6-phospho-dehydrogenase deficiency

Blood for haemoglobin level were available in all public facilities but only in seven of the 15 private clinics. Measurement for blood glucose and cholesterol level were more commonly available in private than public facilities. Blood glucose were available in one health centre and the district hospital in the public sector but eight of the 15 private clinics. Blood for cholesterol level were available in five of

the 15 private clinics but only in the district hospital among public facilities.

PAP smears were taken by all five health centres and nine of the private clinics. None of the private clinics examined blood films to detect Malaria Parasite (BFMP), Glucose-6-Phosphate Dehydrogenase deficiency screening (G6PD), sputum and stool microscopic examination (FEME). These investigations were available in all the public facilities

The district hospital provided all the diagnostic services except for ultrasonography and PAP smear. All the five ultrasonography machines in the district were owned by the PPs. Three of the five private practitioners had the ultrasonography for eight years, one for two and a half years and another one just for six months before the interview. Two of the five private practitioners who owned the machine did not undergo any training but learned to use the machine through video tapes supplied by company which sold the machine to him. Three of the doctors who had undergone training organised by drug companies when they first bought the machine; two of them went for a two week course and the other one attended a two day course. None of them had any access to person trained in ultrasonography that they could consult for a second opinion.

In the public facilities X-ray services were only available in the district hospital. Three of the private clinics had X-ray machine. These clinics were among the five clinics which has ultrasound machines. The PPs had these machines from 5 to 10 years. None of the private doctors were trained in radiology, aside from their undergraduate training. They learned to take X-rays from sales representative who sold them the machine. All the machines were licensed by the licensing board of MOH who visited their clinics during the first year when they have been installed. Every two years they received renewal forms from licensing board. However none of them have been visited again by the inspectors. In all the private clinics the X-ray machines were located in special rooms with leaded walls and

air-conditioning.

While the private clinics provided only plain X-rays, contrast studies such as barium meal and intravenous pyelogram (IVP) were carried out in the district hospitals. The X-ray machines in the district hospital was run by a trained radiographer whereas in the private clinics, clinic assistants were trained by the PPs to do the shooting. In the district hospital, medical officers sent the X-ray for reading by the radiologist in the state general hospital. In the private clinics, only one of the private doctors had such an arrangement. This doctor (from PC8) had made an unofficial arrangement with his friend who worked as a radiologist in the state general hospital for second opinion.

Electrocardiograms were available in the district hospital and three of the five health centres. In the private sector, nine of the clinics provided this service.

5.1.4 Medical equipment and supplies

All the public facilities had all five basic forms of equipment (sphygmomanometer, microscope, infant weighing scale, sterilizer and disposable needles and syringes) in good working order whereas only four of the 15 private clinics met this criteria. Most of the 'long hours' private clinics had the items except for a microscope. Most of short operating hours private clinics were found to be very ill-equipped, (Table 5.6).

When items for treating emergencies were checked, in the public sector, only the district hospital had all the eight items whereas none of the private clinics were found to fulfil these criteria (Table 5.7).

Table 5.6: Availability of basic equipment and supplies in public and private facilities

Clinics	BP set	Microscope	Infant weighing scale	Sterilizer	Disposable needles & syringes
Long Hours PCs					
PC1	1	1	1	1	1
PC2	1	1	1	1	1
PC3	1	X	1	1	1
PC5	1	X	1	1	1
PC6	1	1	1	1	1
PC7	1	X	1	1	1
PC8	1	1	1	1	1
PC10	1	X	1	1	1
PC11	1	X	1	1	1
PC14	1	X	1	1	1
Short Hours PCs					
PC4	1	X	1	1	1
PC9	1	X	X	X	1
PC12	1	X	X	X	1
PC13	1	X	X	X	1
PC15	1	X	X	X	1
Public clinics					
DH	1	1	1	1	1
HC1	1	1	1	1	1
HC2	1	1	1	1	1
HC3	1	1	1	1	1
HC4	1	1	1	1	1
HCS	1	1	1	1	1

BP set: 1 = All BP sets in consultation rooms in good working order
(Cuffs not torn, control knob not faulty, tubes connected properly)
 Microscope: 1 = Microscope is available and in good working order
(Eye piece present and not faulty, bulb is working)
 Sterilizer: 1 = Available and in good working order
(Clean, not rusty, not leaking)
 Infant weighing scale: 1 = Available and in good working order
(Pan is present, no sharp edges, the meter marking and pointer clearly visible)
 Disposable needle/syringes: 1 = Available and have at least 20 in stock
 X = Not available

Table 5.7: Availability of emergency equipment and supplies in public and private facilities

Clinics	Drip set	Ambu Bag	Laryngoscope	Suction	IV solution	Hydrocortisone injection	Adrenaline injection	Oxygen
Long Hours PCs								
PC1	1	1	1	1	1	E	1	1
PC2	1	X	X	1	E	X	1	1
PC3	1	X	X	X	1	X	X	1
PC5	X	X	X	1	E	1	1	1
PC6	X	X	X	1	X	X	X	X
PC7	X	X	X	NW	X	X	X	X
PC8	X	X	X	1	X	1	X	1
PC10	X	X	X	X	1	E	E	1
PC11	X	X	1	X	X	1	X	1
PC14	X	X	X	1	X	X	X	X
Short Hours PCs								
PC4	X	X	X	X	X	X	1	X
PC9	X	X	X	X	X	X	X	X
PC12	X	X	X	X	X	E	E	X
PC13	X	X	X	X	X	X	1	X
PC15	X	X	X	X	X	X	X	X
Public clinics								
DH	1	1	1	1	1	1	1	1
HC1	E	X	X	1	X	X	X	X
HC2	1	1	X	1	1	1	1	1
HC3	1	NW	1	1	1	1	1	1
HC4	E	1	X	1	1	E	E	1
HCS	1	1	1	1	E	1	1	1

1 = Available in good condition X = Not available
 NW = Available but not working E = Expired

5.1.5 Medical records

All the public and private clinics used out-patient cards to record the consultation (Appendix 33). The public facilities used a standard form printed on yellow card which record patient's name, address, sex, age and identity card number.

For each consultation, the patient's complaint, diagnosis and prescription were recorded. In the private clinics the OPD record varies from clinic to clinic. Besides using cards of different colours and sizes, items recorded varied. In most the private clinics, only medicines prescribed were recorded in the cards but not the complaints and diagnosis.

Appointment cards were given to patients attending all public facilities. Hypertensives and diabetics patients had their appointment dates written in this card. Other patients were also given this card where it was used as a reference for the registration number for any future visit. In the private sector ten of the 15 clinics used the appointment card mainly to record the patients registration number rather than the date for follow-up visit.

Private clinics do not maintain a separate record for antenatal cases. The same OPD cards were used to record antenatal consultations. In public facilities where a separate recording form is used. Every antenatal mother in the public facilities has an antenatal card recording their progress through out the pregnancy. This card is kept in the clinics. The mothers were given a smaller card ('Red Card') which had the summary of the antenatal record. The mothers presented this card when going for delivery in the hospital.

Patients receiving immunisations in public facilities were given a small yellow book which recorded the date of immunisation given and the appointment date for subsequent immunisations. The child health record was also used to record the consultations for child health clinics for all children below 7 years of age. In the private facilities, all the recordings were done on the OPD card and only two of the private clinics provide their children with a card to record the immunisations given.

The public facilities used standard referral forms (Appendix 34) when referring patients to other centres. These forms have two parts with a detachable portion to be used by the

receiving doctor for replying to the referral. Except in three private clinics, most of the private practitioners do not have any referral form and they normally refer using the clinic letter heads for referral.

Only two health centres, the district hospital and only one private clinic had communicable diseases notification forms (Form Health I issued by MOH) used to notify notifiable diseases to the district health office (Appendix 35).

Medical certificates were found in all the public and private facilities although they were not standardized in the private sector.

Only four of the 15 private clinics kept a drug register as required under the Dangerous Drug (Amendment) Act (1984) and Poison (Amendment) Act (1987) but none of the registers were up to date. In the public facilities the register is kept by the hospital pharmacist and was the only up to date register in the district.

5.1.6 Charges

Most private doctors did not separate the consultation fees and drugs charges when charging their patient. PPs in seven private clinics did not charge for consultation at all. In eight private clinics the minimum consultation charges was RM 3.00 and the maximum was RM 7.00. The minimum total charges, ranges from RM 7.00 to 15.00 and the maximum ranges from RM 12.00 to RM 25.00.

The health centres provide services free of charge while the OPD clinic of the district hospital charges RM 1.00 for cases seen by medical officers and RM 5.00 if referred by the medical officers to the visiting specialists.

All private doctors indicated that they charged their patients by looking at their socio-economic status and the medicines they prescribed (Appendix 36). They charged a higher fees for

patients whom they judged to be of higher socio-economic status and discounts were given to poor patients. In the district hospital, charges for poor patients and the government servants were exempted. Poor patients were required to apply for exemptions by completing a form which needed to be endorsed by the village head or the sub-district head. The government servants had to show a letter of confirmation called the 'guarantee letter' from their departmental head to get the exemption.

Private doctors charged higher fees to patients prescribed with branded medicines than those given generics. Injections were also charged at higher rates than oral medications. Patients prescribed long courses of medications such as cases of chronic illness like hypertension and diabetes were charged higher than those given shorter course of medicine. Eleven of the 15 private clinics charged higher fees for patients paid by third a party. These are mainly factory workers and workers of parastatal bodies in the district. None of the private doctors followed the MMA schedule fees giving the reasons that it was too expensive. Six PPs charged higher fees for adults and lower fees for children.

Table 5.8: Charges in public and private facilities

Clinics	Individual fees RM	Total charges (RM)
Long Hours PCs		
PC1	NONE	10.00 - 15.00
PC2	3.00 - 5.00	15.00 - 25.00
PC3	NONE	8.00 - 14.00
PC5	NONE	12.00 - 15.00
PC6	3.00 - 4.00	10.00 - 15.00
PC7	5.00 - 7.00	8.00 - 12.00
PC8	3.00 - 5.00	10.00 - 18.00
PC10	3.00 - 5.00	10.00 - 20.00
PC11	3.00 - 5.00	7.00 - 14.00
PC14	4.00 - 5.00	8.00 - 16.00
Short Hours PCs		
PC4	NONE	10.00 - 18.00
PC9	5.00 - 7.00	8.00 - 12.00
PC12	NONE	10.00 - 15.00
PC13	NONE	12.00 - 15.00
PC15	NONE	12.00 - 15.00
Public Clinics		
District Hospital	NONE	1.00 - 5.00
Health Centres	NONE	NONE

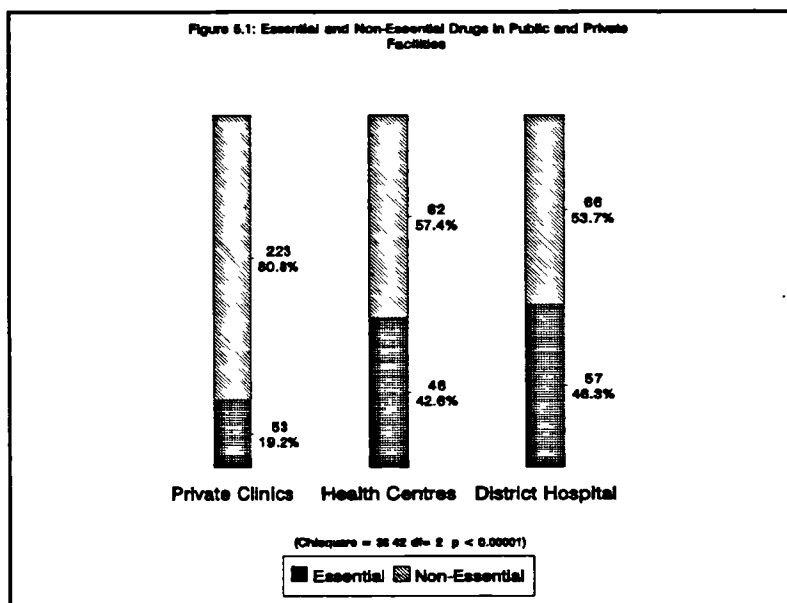
5.1.7 Clinic Drug Lists

The drugs listed in the clinic drug lists from each clinics were grouped according to their mode of action (MOH, 1992 c; MIMS Asia, 1992). Among the groups of drugs compared, except for dermatologicals and vaccines, the private clinics had a

greater range of different types of drugs than the health centres (Table 5.9). In eight of the 15 groups of drugs compared the private clinics had more than twice the number of drugs than the health centres. When compared to the district hospital which has in-patient service, the private clinics still had more types of drugs in seven of the 15 groups of drugs.

All drugs listed were compared against the WHO's Sixth Model

List of Essential Drugs (WHO, 1990 b). Drugs falls on the list are considered to be 'essential'. Out of 276 types of drugs available in private clinics, only 53 (19.2%) were essentials. In the health centres and the district hospitals which



both had less than half the number of drugs available in the private clinics, 42.6% of the drugs in health centres and 46.3% of those in district hospital were essential (Figure 5.1).

Table 5.9: Types of drugs available in public and private facilities

Drugs	Private Clinics		Health Centres		District Hospital Nos.
	Range*	Mean	Range	Mean	
Antibiotics	7 - 19	13.4	5 - 7	6.2	12
Analgesics/ Antipyretics	5 - 12	8.6	4 - 5	4.2	11
Cough and cold remedies	2 - 11	5.0	2 - 3	2.6	3
Vitamins Minerals/electrolytes	7 - 17	9.2	7 - 8	7.6	11
Dermatological	2 - 32	10.2	8 - 20	13.2	14
Asthmatic drugs	3 - 10	4.7	1 - 3	1.6	8
Anti-diabetics	2 - 5	3.4	2 - 3	2.5	4
Anti-hypertensives	4 - 12	7.5	4 - 7	5.4	10
Anti-spasmodics	4 - 8	5.3	1 - 2	1.5	5
Anti-diarrhoeals	2 - 5	3.2	1 - 2	1.3	2
Eye/ear/mouth preparations	8 - 12	11.2	3 - 6	4.6	6
Antacids and antilcerants	6 - 9	7.3	2 - 3	2.5	4
Antihistamines	6 - 12	10.5	3 - 4	3.6	4
Vaccines	4 - 6	5.3	5 - 6	5.8	6
Others	15 - 22	18.2	10 - 12	11.6	18

* : Number of different types of drugs)

5.1.8 Spot checks

Thirteen spot visits were made to the six public facilities and 31 visits to the 13 of the 15 private facilities. Two private clinics were unable to be visited during the spot checks because their opening hours were too short.

Nine of the 13 private clinics visited were operating on the operating hours and days as given in the semi-structured interviews. Two clinics opened for longer hours than reported (PC4 and PC12), one shorter (PC3) and another one opened on public holidays even though it was reported to be closed (PC6). All the 13 private clinics were run by doctors except two of them (PC4 and PC12). These clinics were owned by doctors with more than one clinic and remained open when the doctors were away at other clinics. In the doctors absence these clinics were manned by clinic assistants who sold medicines to patients.

In the public facilities, spot checks done on weekend revealed that only in two of the five health centres were staff on-call available to provide emergency services during the visits. However in term of the clinic sessions, their schedule and the operating hours, information collected in the spot visits were the same as given in the semi-structured interviews.

5.1.9 Prospective Recording

i) General

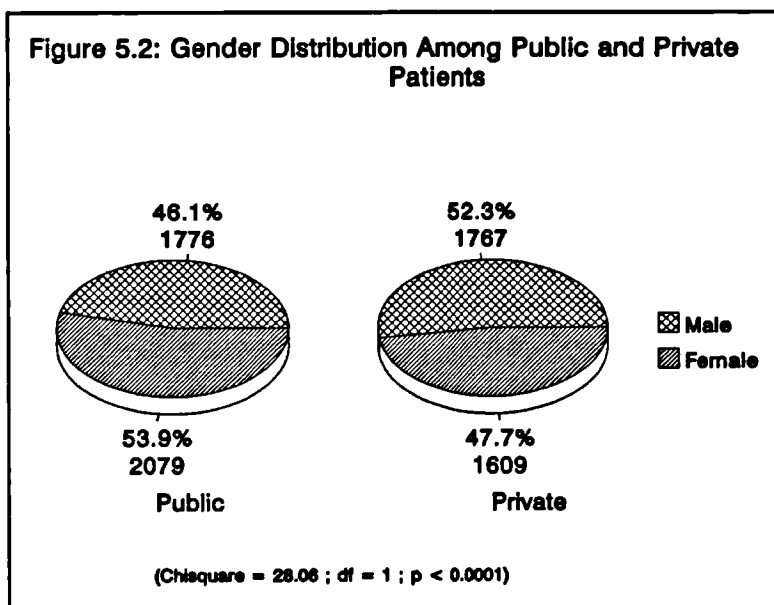
For the one week period of recording, a total of 7,231 cases were recorded, 3,855 in public and 3,376 in private clinics. In the public facilities, cases from 41 clinic-days were recorded and in the private clinics 94 clinic days. When average number of patients attending the clinics from prospective recording were compared with figures estimated by the doctors in semi-structured interviews, that the difference was below ten percent except for 'long hours' private clinics where the attendances has been over-estimated by 14.3%

(Appendix 36). It is also possible that some patients attending the facilities may not have been recorded.

ii) Patient's characteristics

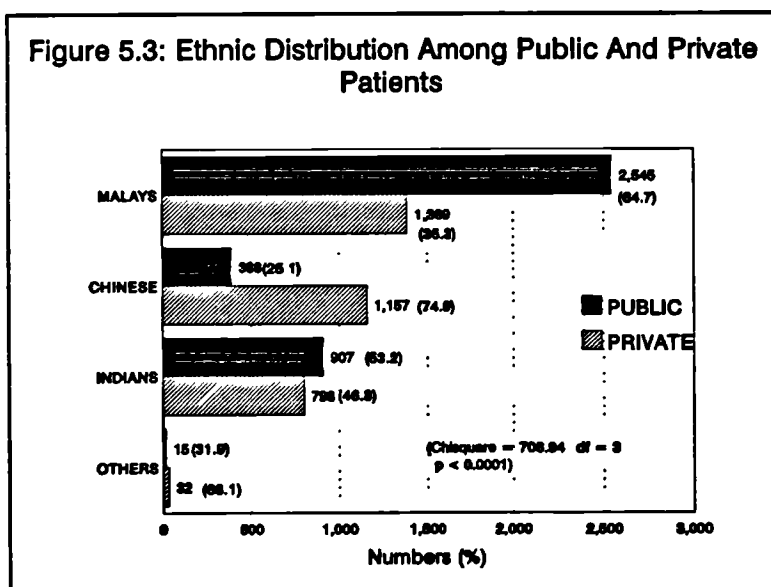
a) Gender

There were more males attending private facilities than females whereas more females than males attended public facilities (Figure 5.2). Females formed 53.9% of patients attending public facilities but this dropped to 47.7% in the private sector. Males comprised 46.1% of patients attending public facilities but 52.3% of those attending private clinics.



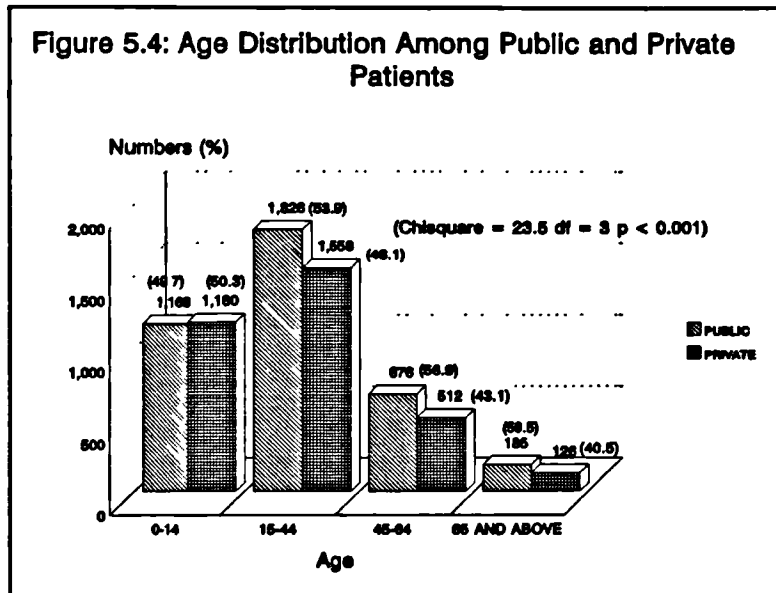
b) Ethnicity

Among the users of public and private facilities, most Malays (64.7%) and Indians (53.2%) used public facilities while most of the Chinese used private facilities (74.9%) (Figure 5.3).



c) Age

The proportion of patients seen in public rather than private facilities increased with age (Figure 5.4). Of those below 15 years, 49.7% of them used public facilities increasing to 59.5% for patients 65 years and above.

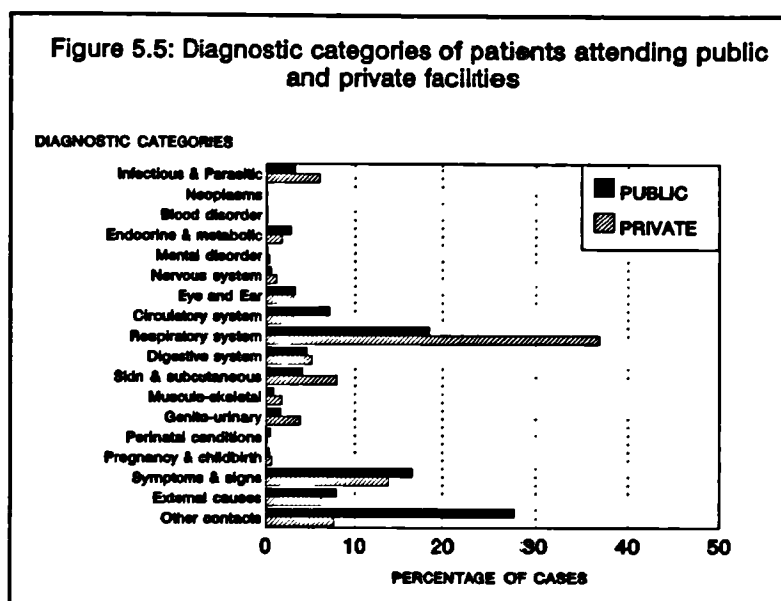


iii) Medical conditions

The diagnosis made by health workers on each patient was classified using ICD 10 Morbidity Classifications (Figure 5.5). The group 'Other contacts' corresponds to 'Factors influencing health status and contact with health services' in ICD-10. This group comprises mainly those who came for preventive care such as antenatal care, post natal care, child health screening and immunisations, contraceptive management and pre-employment medical examination. Most of the patients attending public facilities were in this group (27.7%).

Diseases of the respiratory system were the commonest illness both among the public (18.4%) and private patients (36.9%). Another group of health problems ranking third among public patients and second among private patients were non-specific illnesses as grouped under 'Symptoms, signs & Ill defined conditions'. The commonest conditions under this category were 'cough' for the public patients and 'fever' for the private patients.

Upper respiratory tract infections were the commonest illness suffered by patients from both types of services although the private clinics received about one and a half times more patients suffering from this condition than the public facilities



(Appendix 37). The predominance of patients seeking preventive care and treatment for chronic illnesses in public facilities is shown here. Patients attending for antenatal care and child health screening were the second and third most common reason for consultations in public facilities. Asthma, hypertensive disease and diabetes mellitus were three chronic illnesses which were common among the public patients. About 17% of those attending the public facilities suffered from one of these conditions. Only asthma and hypertension appeared in the top ten list for the private clinics which represent the chronic illnesses, both accounted for only 6.7% of all cases. Another obvious difference was the presence of transport accidents in those attending public facilities but this conditions did not make up the top 10 in the private clinics.

iv) Types of care

Table 5.10 shows the subsequent analysis where patients were grouped into those who sought preventive care and those seeking curative care. Since females were more likely to seek preventive care than males, the analysis was stratified according to gender. In both sexes, there were significantly more patients seeking preventive care in public than private private facilities.

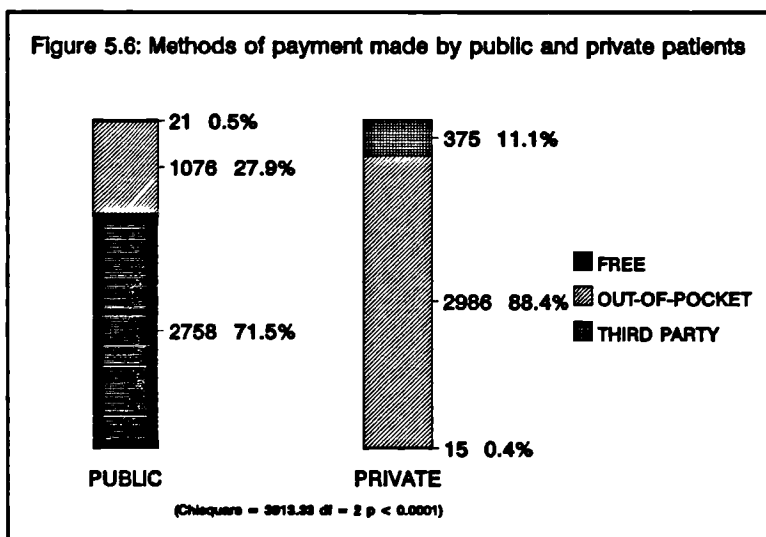
Table 5.10: Types of care sought by public and private patients by gender

Type of care	MALE		FEMALE	
	Public	Private	Public	Private
Curative	1486 (83.7)	1680 (95.1)	1302 (62.6)	1440 (89.5)
Preventive	290 (16.3)	87 (4.9)	777 (37.4)	169 (10.5)
Total	1776 (100.0)	1767 (100.0)	2079 (100.0)	1609 (100.0)
	$\chi^2 = 119.9$ d.f= 1 p < 0.0001		$\chi^2 = 341.9$ d.f= 1 p < 0.0001	

iv) Payment methods

Among those who attended public facilities, 71.5% of them obtained free treatment, in marked contrast with those attending private clinics where most of them (99.5%) paid for the services

(Figure 5.6). Out-of-pocket payments were the commonest form of payment both in public and private facilities. Third party payments were not common although they comprised slightly more than



11 % in private clinics (0.5% in the public facilities). Most who paid through third party were employees of private companies and parastatal bodies.

vi) Referral

The referral rate from public facilities and the private clinics were almost similar (Table 5.11). All patients attending public facilities and 17 of 25 patients (68.0%) from private clinics who need referral were referred to public facilities.

Table 5.11: Referral rates and places of referrals in public and private facilities

	PUBLIC		PRIVATE	
	Nos	%	Nos	%
Referred to public facilities	30	(0.8)	17	(0.5)
Referred to private facilities	0	(0.0)	8	(0.2)
Not referred	3825	(99.2)	3351	(99.3)
Total	3855	(100.0)	3376	(100.0)

$\chi^2 = 0.03$ d.f = 1 p = 0.854

vii) Investigations

The public patients underwent more investigations than those attending the private clinics (Appendix 37). Altogether a total of 631 tests were carried out among those attending public facilities giving the rate of 16.4 per 100 patients. Among those attending the private clinics, only 127 tests were carried out giving the rate of 3.8 per 100 patients. Although fewer investigations were done on those attending private clinics, nearly half were ultrasound scan.

viii) Multiple Logistic regressions

The bivariate analysis presented earlier has suggested a number of differences between public and private patients. However in order to control the confounding effect of many other variables, logistic regression was used. The dependent variable was the type of clinic visited and the independent variables were gender, ethnicity, age, type of care sought and presence of third party coverage (Table 5.12). All independent variables were entered into the model in a single step.

Results of the analysis shows that gender does not influence the type of facilities visited by patients when all the other factors are taken into account. Users of private clinics were more likely to be non-Malays, younger patients, those seeking curative care and having a third party coverage (Table 5.13).

Table 5.12: Description of variables used in multiple logistic regressions

Variables	Values
A. Dependent	
Types of facilities used	Dummy : Private = 1 Public = 0
B. Independent	
i) Personal	
Age	0-93 years
Gender	Dummy: Male = 1 Female = 0
Ethnicity	Dummy: Non-Malays = 1 Malays = 0
ii) Type of care sought	
	Dummy: Curative = 1 Preventive = 0
iii) Have third party cover	
	Dummy: Yes = 1 No = 0

Table 5.13: Results of the analysis using multiple logistic regression on factors influencing the use of private facilities

Variables	B	S.E.	p	R	Odds ratios	95% Confidence limit
Non-Malays	1.053	0.052	0.000	0.201	2.87	2.59 - 3.17
Seek curative care	1.572	0.797	0.000	0.197	4.81	1.01 - 22.97
Age	-0.009	0.001	0.000	-0.068	0.99	0.98 - 0.99
Have third party coverage	3.140	0.230	0.000	0.136	23.11	14.72 - 36.26
Male	0.077	0.528	0.144	0.004	1.08	0.38 - 3.04
constant	0.805	0.053	0.000			

(R = Partial correlation ; S.E. = Standard error of B)

5.2 SUMMARY

Box 5.1 : Summary of findings of health facilities survey

- * The private clinics and public facilities were located in major towns of the district.
- * Most of private clinics were run by single practitioners.
- * Except for 'short hours clinics', most private clinics had longer operating hours, open during weekends and had more hours being run by doctors than the health centres.
- * PPs had lesser workload than public sector doctors.
- * Private clinics provided greater range of curative services but their preventive services were less comprehensive and of lower quality.
- * Most of the public facilities were better equipped with basic equipment and supplies than private clinics but both were poorly equipped to handle medical emergencies.
- * 'Short hours' private clinics, mostly owned by PPs with multiple clinics, were poorly equipped with basic and emergency equipments, offered limited hours of service and were manned by untrained staff in the absence of doctors.
- * Medical records were better maintained in public than private facilities.
- * Most PPs consider patient's socio-economic status, type and amount of medicine prescribed and methods of payment when charging their patient.
- * Private clinics kept greater variety of drugs than public facilities but most of them were non-essential.
- * Expensive diagnostic equipment was more likely to be kept by PPs, mostly with limited training.
- * Public patients underwent more basic investigations while those visiting private facilities undergone more expensive investigations.

VI. SURVEY OF HEALTH WORKERS

6.1 RESULTS

6.1.1 Socio-demographic characteristics

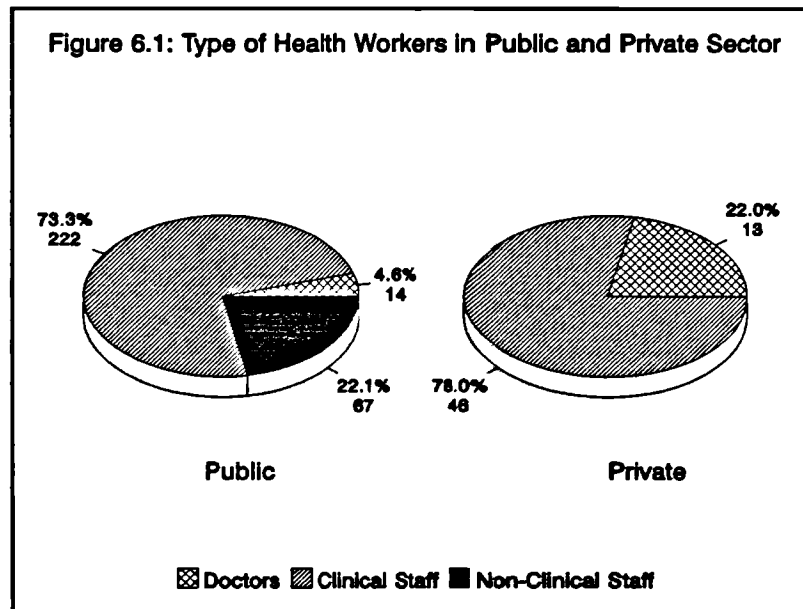
A total of 374 self-administered questionnaires were returned, 314 from the public and 59 from the private facilities. Eleven questionnaires from the public sector were excluded from the analysis because they were grossly incomplete. As the total number of public sector personnel was 415 and those in private was 62, the response rate is 73.0% in the public sector and 95.2% in the private sector.

i) Occupational categories

Based on their occupations, the respondents were divided into three categories: doctors, clinical staff and non-clinical staff (Figure 6.1). Clinical staff were those

directly involved in patient care in their daily work and included the nurses, medical assistants, midwives, health inspectors, dispensers, laboratory technicians, radiographers, pharmacists, attendances and

public health assistants in the public sector and all clinic assistants in the private sector. The non-clinical staff had no direct contact with patients or patient care, and included clerks, drivers, store-keepers, carpenters and labourers, all in the public sector.



ii) Gender and ethnicity

Eighteen of the 27 doctors in the district were male and 9 females. Most PPs were males (12 out of 13) while most public sector doctors were females (8 out of 14). Almost all (97.9%) of the clinical staff employed by the PPs were female but in the public facilities about one-third (32.0%) of the clinical staff were male. Most (74.6%) of the non-clinical staff in the public sector were males (Table 6.1).

Table 6.1 : Gender distribution of public and private sector personnel

	Public			Private	
	DR	CS (%)	NCS (%)	DR	CS (%)
Male	6 (42.9)	71 (32.0)	50 (74.6)	12 (92.3)	1 (2.1)
Female	8 (57.1)	151 (68.0)	17 (25.4)	1 (7.7)	45 (97.9)
Total	14 (100.0)	222 (100.0)	67 (100.0)	13 (100.0)	46 (100.0)

DR = Doctors; CS = Clinical staff; NCS= Non-clinical staff
 Fisher's Exact test (Public doctors vs PPs): $p = 0.009$
 χ^2 (Public vs private clinical staff) = 15.75 d.f = 1 $p < 0.0001$
 χ^2 (Public clinical vs non-clinical staff) = 36.72 d.f = 1 $p < 0.0001$

Most of the public sector doctors were Malays (10 out of 14) while those in private practice were mostly Indians (9 out of 13). The clinical staff public sector were mainly Malays (94.1%) while higher proportions of Chinese and Indian clinical staff were employed in the private than the public sector (Table 6.2).

Table 6.2: Ethnic distribution of public and private sector personnel

	Public			Private	
	DR	CS (%)	NCS (%)	DR	CS (%)
Malays	10 (71.4)	209 (94.1)	60 (89.6)	2 (15.4)	24 (52.2)
Chinese	1 (7.2)	3 (1.4)	0 (0.0)	2 (15.4)	15 (32.6)
Indians	3 (21.4)	10 (4.5)	7 (10.4)	9 (69.2)	7 (15.2)
Total	14 (100.0)	222 (100.0)	67 (100.0)	13 (100.0)	46 (100.0)

(DR = Doctors; CS = Clinical staff; NCS= Non-clinical staff
 χ^2 (Public doctor vs PPs) = 6.46 d.f = 1 $p = 0.011$
 χ^2 (Public vs private clinical staff) = 55.48 d.f = 1 $p < 0.00001$
 χ^2 (Public clinical vs non-clinical staff) = 1.05 d.f = 1 $p = 0.306$

iii) Age

The PPs were, on average about 10 years older than the public sector doctors. However, the clinical staff in the private sector were about 15 years younger than clinical staff in the public sector (Table 6.3). The non-clinical staff in the public facilities were about 2 years older than their clinical colleagues.

Table 6.3: Differences in age between public and private sector personnel

	N	Mean	SD	t-value	p value
Doctors					
Public	13	31.1	5.8	4.76	< 0.0001
Private	14	41.2	5.2		
Clinical staff					
Public	222	37.4	7.3	12.34	< 0.0001
Private	46	22.8	7.2		
Non-clinical staff					
Public	67	39.8	6.6	2.40	0.017*

* Unpaired t-test between clinical and non-clinical public sector staff

iv) Educational level

All the doctors were university graduates, 11 (78.6%) public sector doctors were trained locally and only 3 (21.4 %) were overseas trained. In contrast, only 2 (15.4%) of the private doctors were local graduates and 11 (84.6%) were overseas graduates (Table 6.4). Most of the public and private sector doctors did not have any post-graduate or specialist qualification; only two of them, one in each sector had Master degree in Public Health.

Most of the clinical staff in the public and private sector had completed their upper secondary school although 4.1% of those in the public sector were trained in colleges or university (Table 6.5). Most of the non-clinical staff (67.2%) in the public sector were educated at or below the lower secondary level.

Table 6.4: University background of public and private doctors.

	Public doctors		Private doctors	
	Nos	%	Nos	%
Local graduates	11	78.6	2	15.4
Overseas graduates	3	21.4	11	84.6
Total	14	100.0	13	100.0

$\chi^2 = 8.4$ d.f = 1 p = 0.004

Table 6.5: Educational level of public and private sector staff

Educational level	Public sector				Private sector	
	Non-clinical staff		Clinical staff		Clinical staff	
	Nos	%	Nos	%	Nos	%
Primary school	31	46.3	34	15.3	3	6.5
Lower Secondary	14	20.9	38	17.1	10	21.7
Upper Secondary	22	32.8	141	63.5	33	71.8
Universities	0	0.0	9	4.1	0	0.0
Total	67	100.0	222	100.0	46	100.0

χ^2 (Public vs private clinical staff) = 2.69 d.f = 2 p = 0.261
 χ^2 (Public clinical vs non-clinical staff) = 32.76 d f = 2 p < 0 0001

v) Income

Most of the private doctors had higher incomes than the public sector doctors (Table 6.6); 84.6% of them stated that their monthly income was RM4,000 and above while 92.9% of the public doctors earned below this amount.

Most of the clinical staff in the private sector had lower income than those in public sector where 84.8% of them earned less than RM 500.00 per month compared to only 13.5% in the public sector who earned less than this amount. The public sector clinical staff also earned higher income than their non-clinical colleagues where 27.0 % of them earned RM 1000 and more per month compared to only 4.4 % among the non-clinical staff.

Table 6.6: Income distribution among public and private sector doctors.

Income level (RM)	Public doctors		Private doctors	
	Nos	%	Nos	%
less than 2000	9	64.3	0	0.0
2000 to 3999	4	28.6	2	15.4
4000 and above	1	7.1	11	84.6
Total	14	100.0	13	100.0

$\chi^2 = 13.4$ d f = 1 p < 0 0001

Table 6.7: Income distribution among public and private sector staff

Income level (RM)	Public sector				Private sector	
	Non-clinical		Clinical		Clinical	
	Nos	%	Nos	%	Nos	%
less than 500	32	47.8	30	13.5	39	84.8
500 to 999	32	47.8	132	59.5	7	15.2
1000 and above	3	4.4	60	27.0	0	0.0
Total	67	100.0	222	100.0	46	100.0

χ^2 (Public vs private clinical staff) = 97.54 d f= 1 p < 0.00001
 χ^2 (Public clinical vs non-clinical staff) = 33.82 d f = 1 p < 0.0001

vi) Part-time occupation

Six of the 14 public sector doctors (42.9%) stated that they worked part-time in private clinics. Among the public sector clinical staff only three (1.4%) of them worked part-time in private clinics and hospitals. Three non-clinical staff (4.5%) in the public sector had part-time jobs, all working in fields not related to medicine. In the private sector, only one clinic assistant had a part-time job, working as a kindergarten teacher.

vii) Length of service

Most (76.9%) of the private doctors had been practising in the private sector for 5 years or more while most (71.4%) of the public doctors had served less than 5 years (Table 6.8). Among the clinical staff, the public sector had more experienced staff where most of them (83.3%) had served for 5 years or more, whereas most of those in the private sector (80.4%) had been working there for less than 5 years. Most of the non-clinical staff (89.5%) in the public sector worked for 10 years or more, more than the clinical staff (73.4%) in the same sector.

Table 6.8 : Length of service in each sector among public and private sector personnel

Length of service	Public sector			Private sector	
	DR (%)	CS (%)	NCS (%)	DR	CS (%)
< 5	10 (71.4)	37 (16.7)	5 (7.5)	3 (23.1)	37 (80.4)
5 - < 10	2 (14.3)	22 (9.9)	2 (3.0)	6 (46.2)	7 (15.2)
10 and above	2 (14.3)	163 (73.4)	60 (89.5)	4 (30.7)	2 (4.4)
Total	14 (100.0)	222 (100.0)	67 (100.0)	13 (100.0)	46 (100.0)

(DR = Doctors; CS = Clinical staff; NCS= Non-clinical staff
 χ^2 (Public doctor vs PPs) = 6.41 d.f = 2 p = 0.041
 χ^2 (Public vs private clinical staff) = 86.64 d.f = 2 p < 0.0001
 χ^2 (Public clinical vs non-clinical staff) = 7.71 d.f = 2 p = 0.021

6.1.2 Training

i) Pre-employment training

None of the clinical staff in the private facilities attended any training related to their job prior to their employment while 60.8% of those in the public sector had undergone training (Table 6.9). Most of the non-clinical staff in the public facilities were untrained and only 17.9% of them had attended some training before their current appointment.

Table 6.9 : Attendance of pre-employment training among public and private sector staff

	Public sector		Private sector
	NCS (%)	CS (%)	CS (%)
Attend	12 (17.9)	135 (60.8)	0 (0.0)
Do not attend	55 (82.1)	87 (39.2)	46 (100.0)
Total	67 (100.0)	222 (100.0)	46 (100.0)

(NCS = Non-clinical staff CS = Clinical staff)
 χ^2 (Public vs private clinical staff) = 53.96 d.f = 1 p < 0.0001
 χ^2 (Public clinical vs non-clinical staff) = 36.20 d.f = 1 p < 0.0001

ii) In-service training

In-service training undertaken by the health workers between 1988 and 1992 indicated that doctors spent less time in in-service training than non-doctors (Table 6.10) Public doctors spent about four times more time than PPs in training (1.73 days/year vs 0.42 days/year), although time spent was low in both sectors. None of the clinical staff in the private sector had undergone any formal training. Public sector clinical staff spent more time on in-service training than any other

staff (11.25 days per year).

Table 6.10 : In-service training attended by public and private sector personnel

	Number attended any training	Mean days /staff/year	SD	p value
Public doctors	7 (50.0%)	1.73	2.21	0.054*
Private doctors	4 (30.4%)	0.42	0.84	
Public clinical staff	77 (34.7%)	11.25	35.13	0.024**
Public non-clinical staff	25 (37.3%)	3.86	18.22	

* t-test (Public vs private doctor) t = 2.07
 ** t-test (Public clinical vs non clinical staff) t = 2.28

6.1.3 Job satisfaction

i) Job satisfaction score

In this analysis, non-clinical staff were not included because there were no such category of workers in the private sector. The Cronbach's Alpha coefficient of the 19 items on satisfaction was 0.842, indicating that the questionnaire had high reliability (Vaus, 1991 p.256).

In almost all aspect of their jobs, proportion of health workers satisfied (score of 4 and above) was higher in the private than the public sector (Table 6.11). This difference was statistically significant between public and private sector clinical staff in six of the eleven aspects (their relationships with their superiors, prospects of transfer, allowances, workload, availability of equipment and access to office vehicles). Among the doctors, significant differences between the public and private sector were only found in three aspects of their jobs (prospects of promotion, training and access to office vehicles).

Table 6.11: Proportions of public and private health workers who were satisfied with various aspects of their jobs

	CLINICAL STAFF			DOCTORS		
	Public (N=222)	Private (N=46)	p value**	Public (N=14)	Private (N=13)	p value***
Income	26.7	37.2	0.225	21.4	53.8	0.089
Prospect of promotion	19.6	18.6	0.876	14.3	66.7	0.023
Relation with "superiors"	9.3	37.5	0.000	7.1	66.7	0.063
Relation with "subordinates"	50.7	65.9	0.119	57.1	83.3	0.216
Relation with colleague	85.8	90.7	0.542	71.4	80.0	0.999
Prospect of transfer	30.1	63.4	0.000	53.8	100.0	0.109
Allowances	42.6	63.4	0.026	57.1	85.7	0.337
Workload	12.6	51.2	0.000	8.3	50.0	0.109
Training	2.4	9.3	0.075	7.1	60.0	0.037
Availability of equipment	51.4	69.8	0.040	35.7	69.2	0.175
Access to vehicle	25.9	66.7	0.000	50.0	100.0	0.047

* Score of four and above ** X² test *** Fisher Exact test

Multiple regression analysis was carried out whereby the dependent variables were the score for each aspect of job satisfaction. The independent variables used were satisfaction with different aspects of their work (Table 6.12). Individual characteristics shown to be different between the public and private sector were included as independent variables. For categorical variables, dummy variables were created. Table 6.13 summarised the result of the analysis.

Private sector personnel had higher scores than those in the public sector in all aspects of job satisfaction except for relationship with their subordinates and colleagues after controlling for other confounding influences. Space limitations prevent discussion of the influence of factors other than public-private sector on these findings.

Table 6.12: Description of variables used in multiple regression analysis for job satisfaction and attitude scores

Variables	Values
A. Dependent Variable	
Satisfaction score for :	
Income	
Prospect of promotion	
Relation with 'superiors'	
Relation with 'subordinates'	
Relation with colleague	Score 1 - 5
Prospect of transfer	
Allowances	
Workload	
Training	
Availability of equipment	
Office vehicle	
Total attitude score	Score 13 - 44
B. Independent variables	
Personal characteristics of health workers:	
Age	15 - 55 years (Continues variable)
Gender	Dummy: Male = 1 Female = 0
Income level	Dummy: less than RM 500 RM 500 - < 1000 RM 1000 and above
Ethnicity	Dummy: Malay Chinese Indian
Level of Education	Dummy: Primary School Secondary School University
Occupational group	Dummy: Doctor = 1 Clinical staff = 0
Length of service	0.8 - 36.08 years (Continues variable)
Types of Facilities	Dummy: Private = 1 Public = 0

Table 6.13: Results of the analysis using multiple regression on job satisfaction scores

Dependent variables	Independent variables	b	Beta	p	R2
Income score	Private/public	0.931	0.279	0.001	0.081
	Gender	-0.364	-0.129	0.048	
Promotions score	Private/public	1.187	0.406	0.000	0.138
	Age	0.037	0.290	0.039	
	Chinese	-0.898	-0.194	0.003	
	Gender	-0.317	-0.128	0.044	
Relation with superiors	Private/public	0.751	0.371	0.000	0.251
	Secondary school education	-0.712	-0.381	0.000	
	University education	-0.944	-0.377	0.003	
	Gender	0.288	0.173	0.007	
Relation with subordinates	Private/public	0.440	0.194	0.062	0.115
Relation with colleague	Private/public	0.295	0.134	0.126	0.059
Transfers	Private/public	1.100	0.378	0.000	0.199
	Income RM 1000 and above	0.834	0.339	0.000	
	Indians	0.772	0.194	0.004	
	Secondary school education	-0.548	-0.209	0.013	
Allowances	Private/public	1.238	0.449	0.000	0.164
	Income RM 500 to < 1000	0.501	0.225	0.033	
	Income RM 1000 and above	0.982	0.415	0.000	
Workload	Private/public	1.190	0.534	0.000	0.281
	Secondary school education	-0.695	-0.310	0.000	
	University education	-0.785	-0.274	0.039	
Training	Private/public	0.368	0.179	0.044	0.083
Equipments	Private public	0.875	0.302	0.000	0.107
	Age	-0.041	-0.319	0.026	
	Gender	0.334	0.134	0.038	
	Length of service	0.039	0.298	0.031	
Office vehicle	Private/public	1.419	0.451	0.000	0.266
	Chinese	0.725	0.137	0.031	
	Secondary school education	-0.557	-0.184	0.045	

(R2 = Coefficient of determination)

ii) Qualitative data

a) Income and allowances

In in-depth interviews most of the public health workers expressed their dissatisfactions with their pay (13 of the 15 clinical staff and 7 of the 10 doctors). They felt that their pay was too low compared with their workload and with the salary of health workers in the private sector.

PS24: The way the doctors are struggling ..going on call 24 hours...amount they are slogging...if you compare with the pay that we are getting here..that's not worth it. The same kind of job or sacrifices are not being done by any other profession and yet they are earning very much more than us. That's why, everyone is leaving the government service because the government doctor has to work so hard....[ID]

PS2: From the time the I started, the pay of staff nurse was RM 400, now the recent batches they are starting around RM 500 or 600...so what's the different ..how many years is that...not much [different]...this shows that people don't appreciate us. I think in other countries when you say a nurse means you do nursing procedure but here we do from A to Z . a lot of thing not within our scope also we are doing it and also the pay that we are receiving I think sometimes it is very frustrating so...if we look at the pay ... you will never be happy with your work. [ID]

The new remuneration scheme (NRS) introduced in 1991 was criticised by most of the public staff. Under the new scheme, '10 hours call allowances' for clinical staff in health centres had been abolished, 'critical allowances' for nurses and doctors had been introduced. Before the NRS, clinical staff on call in health centres after office hours were paid 10 hours of allowance per month irrespective of whether they attended any patients or not. Under the NRS, they were only paid if they attended any patient during their call hours. The staff felt this was unfair because even though they did not attend any cases they had to be available in the health centres during the call hours. The 'critical allowances' was a non-private practice allowance paid to staff nurses and doctors to compensate them for working in the public sector. Doctors received 5 percent and the nurses 10 percent of their salary. The doctors felt that the allowance was too low to compensate or to have any effect on reducing the efflux of doctors to the private sector. Clinical staff who were not eligible for this allowance (the assistant nurses, midwives and medical assistants) argued that if the payment was justified on the grounds of shortage of staff in the public sector, then it should be paid to other categories of staff which were also in short supply in the public sector. For example the medical assistants argued that they should be paid the allowance since there was also shortage of medical

assistants in the public services. They also argued that the community nurses who had almost the same qualifications, duties and responsibility as the staff nurses should be paid the allowance.

The public doctors especially those working in the district hospital voiced, their dissatisfaction with the failure of the government to pay call allowances to them. They felt that the amount of work they put up with during their call duties was not compensated by their salary. Although in some hospitals those on-call on weekends and public holidays were given a day off, this privilege was not standardised and left to the discretion of the head of the hospital.

The doctors in the health centres who have to travel from one health centre to another when carrying out their duties were eligible to claim a mileage allowance. However they rarely bothered to claim this allowance because it required a lot of paper-work for little benefit.

The six private doctors who discussed their incomes were all satisfied and cited poor salary as one of the reasons for leaving government service. Although they worked long hours in the private sector, they were satisfied as they felt their efforts were compensated by their income.

PP2: There is no point isn't it, stay in government service, you see, you work so hard, you get paid so little, how can you remain in government service its impossible... [ID]

PP3: Financially...you get the reward if you work hard in private practice. In the government you work only eight hours per day, you get your weekends off. Here if I want to close my clinic I have to think twice. My patient will run away. But if you work hard you get the benefit [ID] [Trans.]

Seven of the nine clinical staff in the private sector were satisfied with their salary. In addition, they were paid a bonus every year ranging from one third to one month's salary, transport allowance to come to work and were paid extra when they worked overtime or during public holidays. Two of them also said that their employers paid for their contribution to the Employers Provident Funds (EPF) and Social Security (SOCSO) subscriptions instead of deducting this from their salary. Clinical staff in two private clinics (PC2 and PC5) were also given paid holidays every year by their employers.

b) Promotions and transfer

Most of the public doctors (five out of eight doctors -ID) and the clinical staff (10 out of 12 - ID) in the public sector were not satisfied with their prospects for promotion. They were concerned about the need to be transferred to another site as a prerequisite for promotion. They complained of limited posts for promotion and that most of these posts were in hospitals not health centres. The increase in responsibility entailed by promotion was not compensated by the increase in salary. Promotions were more likely to be given to those doctors with specialist qualifications or for other health staff who had successfully attended professional training to upgrade their skills. Among the barriers to attending such courses were the age limit imposed by the administrations (eg: staff over the age of 35 were not eligible for upgrading courses) and family constraints. It was suggested that more consideration should be given based on their job performance rather than extra degrees or certificates. In FGD, among the public sector staff, the participants complained that the more senior vacancies were not widely announced to the workers in rural areas and that often their applications were not forwarded by their superiors to central headquarters.

PS12: As a doctor you see...if you don't specialise, you cannot go up. I find every where there is a gap for you...but for some of the people that is not a problem... they just do the basic BA (Bachelor of Arts) or whatever it is... they go into government service, and after that you keep going up....everything depend on 'laporan' [report] from the boss... [ID]

PS37: All the fellows I trained are 'kanan' [senior post]. I oriented and trained them in Klang Hospital in 1969, they are all now 'kanan'. I can't say anything, this thing is my 'nasib' [fate] maybe if I was in hospital I would have got promotion. Health people, number one they cannot release them. Suppose I go for an interview and say I get 'kanan' [senior post], surely I have to work in hospital. Once you get 'kanan' you cannot work in health centre. If they pull me out who is going to replace me. [ID]

There was no formal system of promotion among the clinical staff in the private sector. However differences in tasks were carried out by different members of staff, mostly based on their length of service in the clinics. While junior staff carried out clerical work such as searching for patient cards and registrations, the more senior staff assisted the doctor or dispensed drugs. In two of the private clinics the most experienced clinical staff were operating the X-ray machine. None of the private sector clinical staff complained about

their promotions.

c) Relation with superiors

Most of the public doctors (nine out of 10 - ID) were not satisfied with their superiors. They complained of poor supervision and guidance. Doctors working in health centres complained that the district health officer rarely visited the clinics to supervise them; they expected more guidance in the management of the health centres since they were not trained in administration. Doctors working in the hospital expressed their dissatisfaction on the insensitiveness of their superior to their problems. For example they felt the Medical Officer in-charge (MOIC) of the Hospital had not done much to get more doctors to run the hospital to reduce their workload. Worst still when the doctors were struggling to run the busy OPD clinic, the MOIC 'is reading the newspaper in the coffee room' (PS20 - ID). The hospital doctors also felt that the MOIC was not supportive of them whenever there were public complaints about them. Supervision by visiting specialists were also far from satisfactory because of workload and limited time.

PS23: Sometimes with the workload we always go back late. The management don't bother about us. The MOIC never sees how we work. He never does rounds at night. He always comes at the wrong time. He is not interested to solve our problems... [ID]

Most of the public clinical staff were not satisfied with the quality of supervision they received (12 out of 15 - ID). They complained that their seniors were more interested in finding faults rather than helping them improve their performance and were more interested in the job being done than in their welfare. Personal problems were rarely given any consideration. Supervisory visits were often carried out during clinic hours when they were busy; these created problems for patients and the staff. The staff in lower categories such as the community nurses and midwives complained about being supervised by too many people; the doctors, staff nurses and the sisters. Sometimes the instructions given were contradictory. They also felt that their seniors were not supportive when they faced problems such as public complaints. During meetings, opinions from the

staff were rarely considered by their superiors. Some respondents also complained of unprofessional attitudes by the supervisors, including scolding and shouting at them in front of patients and their colleagues. Their superiors were also said to be unsympathetic in terms of workload. A medical assistant working in a health centre said that some doctors in the health centre were not willing to share their workload and were unwilling to see patients unless referred by them.

All the private doctors had contracts with factories and parastatal bodies to provide services. Most of the private doctors (five out of seven) complained of the delay in receiving their reimbursement from the employers. Furthermore some employers limited the amount they could reimburse; some of which was considered so low that they had to ask patients top up the payment. The doctors also complained that often employers interfere in their patients' management. Some employers unofficially instructed the doctors not to give medical certificates to their employees even when they were sick and unfit to work. The private doctors were in a dilemma about serving their patients and at the same time wanted to preserve their good relationship with the employers so that their contracts would be renewed.

PP11: When you're sick, temperature is so high, definitely the next day cannot do it...they [employers] don't let us give [MCs] for two days. Unless, you fight for it...if you fight, you are going to loose the contract. [ID]

PP1: Some companies restricted [their amount of reimbursement]...some don't but even then they try to keep the doctors with the lowest charges in their panels and they will strike off those with the higher charges...I charge them the same as other cash [paying] patients.. for company which restrict the claims... I tell the patients this is what company pays ..so some of them if they want they put up the balance on their own... otherwise I refer them to [government] hospital [ID].

The supervision of private clinical staff was less complicated, as they were mostly directly supervised by the private doctors. Most of the respondents (7 out of 8 - ID) were satisfied with their superiors. In contrast to those in the public sector, they described their employers as friendly and willing to help them when they had personal problems such as financial difficulties. Their employers were also very supportive and if they made any mistakes they would not be scolded but given guidance.

CA2: I can discuss my problems with the doctor. He is very helpful. He is a good counsellor [ID].

CA15: First of all is my boss's attitude .. he does not control me. When I give advice to patients, he will not pass any adverse comments. I feel free to do my work. I did what he taught me. When I made mistake like giving wrong instruction to patients, when he hear it he will cover our mistake... patient will not realise. I feel happy [FGD] [Trans]

d) Relation with subordinates

All ten public doctors had difficulty supervising other personnel who were older and longer-serving. Even though on occasions the doctors were not happy with the quality of the services provided they were not confident to advise those staff. The doctors felt that because they were young and new in the service, their instructions were often ignored. When they exercised their power over these staff such as by transferring them, their actions were interfered with by political leaders in the community who had connections with the staff.

PS1: Some of them were in their places for the last twenty years or so they have been left on their own. I feel that's one area I feel dissatisfied in that respect you know and is not easy to move them you know. Even if you have to...they may be politically quite rooted in their places you know and again powers is not in our hand you know. We can make decision...finally it goes up and filter and then again many people don't like to do transfers....it involved funds ... and also you know everybody like the ship wanted it to be sailing smoothly you rock the boat a little bit then there is always reply...why is it you disturb them, they are in the lower categories... [ID]

The public sector doctors also complained of interference from the sisters who were supposed to supervise the nurses on matters related to nursing procedures. They found that the nurses were more likely to listen to the sisters than to the doctors. They also felt that sometimes the sisters encroached into their areas and even to the extent of instructing the doctors on matters related to patient care which they found unacceptable.

PS10: Now I am starting my hypertension and diabetes clinics...patients are supposed to come with appointments. I took one staff, an assistant nurse to help me to check the BP (blood pressure), but the sister interfered. She doesn't like me to use the staff. She [sister] is not stationed here whereas I am working here, I am in-charge of all the staff. I control all of them...but when I want to do anything she interfered...[ID] (Trans.)

The public sector clinical staff with junior staff to supervise were more innovative and more confident in dealing with their subordinates than the doctors. Most of them had served for longer in the service and were more experienced than the doctors. Like the doctors, they also found difficulties dealing with the longer-serving staff but they mentioned various approaches to dealing with them. They described treating them as friends, respecting them, identifying their weaknesses and helping them to improve through individual coaching and the need to establish a

balance between trust and supervision.

Most of the private doctors had worked in the public service before and said that they were able to use their experience in managing their clinics and subordinates. They did not have many problems with their subordinates except that they faced the problem of retaining staff for long periods since many of their staff left to obtain permanent jobs in public sector. They mentioned bonuses and higher pay as incentives to attract the workers to serve longer in their clinics.

e) Relations with colleague

In the public sector, the doctors and clinical staff were generally satisfied with working relationships with their colleague. They got the cooperation they needed in their work and problems they faced could be solved through negotiation. However the relationship with those working in the health centres and the hospital were not very good. Poor communications between staff in hospitals and the health centres resulted in non-reply of referral letters and poor cooperation between them. Doctors in the health centres were happy with the cooperation they had received from their colleagues and attributed this to being of the same sex, mostly of the same age and having graduated from the same university. In addition, many knew each other before they worked in the district. However doctors in the district hospital were not happy with their colleagues because of unequal distribution of workload.

In the private sector, the clinical staff described their colleagues in the clinics where they worked as 'family members'. Their problems were normally solved through negotiation mediated by the most senior staff. Most of the private doctors mentioned that they had few interactions with other private doctors inside or outside the district. They had little time for social activity and did not normally attend conferences or seminars.

f) Workload

All doctors and the clinical staff in the public sector complained about excessive workload. They felt that the increase in the population covered by their facilities was not matched by an increase in staff numbers. Furthermore some of the posts were not filled, thus burdening the existing workers with additional workload. Only one of the of medical assistant and community nurse posts in each health centre and community clinic had been filled up. The doctors in the public sector particularly those working in the district hospital felt that the shortage of doctors in the country was worst in rural areas where doctors used their "contacts" to avoid being posted there.

PS6: In health centre, there were not enough staff I mean one MA [medical assistant] and one attendant. The number of patients now has increased Attendant do the registration and MA treat the cases. It's too heavy ..when I lifted my head it is already 12 noon...[FGD] [Trans.]

PS39: From my experience, if some staff were promoted or attend courses, there will be a shortage. We have to relief here and there. The vacant posts were not filled immediately. We have to shoulder the burden...[FGD] [Trans.]

The private doctors complained about the long hours they have to worked in their clinics and often have little time for social and family life. However they felt that they had to fulfil their patients' demands in order to avoid losing them. The clinical staff in the private sector did not complain about excessive workload and most of them felt that they had enough staff working in the clinics to cover their workload. Incentives such as overtime pay and free meals were provided by their employers during busy clinic days.

PP9: When we open our own practice, you are tied to your clinic. You don't have time on your own. You have limited time for your family. As a GP most of the time you spend in the clinic because I am working alone without any partner in my practice. [ID] [Trans.]

PP7: The work load is heavy. Here we work from 8 in the morning till about 10 o'clock at night. Long working hours and we tend to missed out on many other things . to catch up on world news, to catch up in any form of news . our family life...and so many other things... we missed these out. [ID]

g) Drugs

Shortage of drugs and the drug list used by the MOH was the main issue discussed by doctors and clinical staff in the public sector in relation to drugs. Shortage of vaccines particularly polio vaccines and drugs for chronic illnesses such as anti-hypertensive, anti-diabetic and anti-asthmatic drugs were voiced by both the doctors and staff in the health centres. Drugs in the health centres were ordered from the

state store through the district hospital and distributed through the district store. Because of this complicated line of supply, often one level would blame another for shortages. The health centres usually did not get the amount of drugs they ordered for or there were long delays. The public health nurses mentioned that vaccines supplied often came near to their expiry date and many were spoiled before being used.

The drug list use by MOH (called the "Blue Book") was criticised by doctors and clinical staff in the public sector because it restricts their ability to treat a wider range of diseases and lead to unnecessary referrals.

On the other hand doctors and staff in the private clinics did not face any problems with drug supplies. They simply phoned the drug companies and ordered what they needed. Furthermore since they stored a wide range of drugs, if one type of drugs was in short supply they can change to another from the same group. In two private clinics (PC2 and PC5) computers were used to keep record on the amount of drugs they have in store. The private doctors also felt that in their practice they had access to more effective drugs than when they were in the government service before. Most of them believed that branded medicines were more effective than generics. Often patients who can afford branded drugs were prescribed these rather than the generics. Cost is the only restrictions in their choice of drugs. Normally patients suffering from chronic illness and need continues supply of medications were referred to the public facilities where they can get drugs for free.

h) Equipment, vehicles and supplies

The doctors and the clinical staff in the public sector were not satisfied with the equipment and supplies they were using in their practice. Among their complaints were shortages and poor quality supplies such as gauze, plasters and disposable syringes and poorly maintained basic equipments such as BP sets and otoscope, the absence of daptone and cardiocogram

in the hospital. They also complained about difficulties in referring emergency cases because of shortages of ambulances. They felt that these were due to an inadequate budget being allocated to the health centres and the district hospital coupled with the bureaucracy in the public service which delayed the process of acquiring new equipment and maintaining existing equipment.

In participant observations, in the district hospital and two of the health centres (HC1 and HC5), laboratory assistants complained about the shortage of strips for urine tests and have to use the boiling method to test for sugar and protein which take longer time. In HC5, it was also observed that one patient who came in for daily wound dressing brought with him gauze which he had taken from the district hospital because there was a shortage in the health centre.

The clinical staff in the private sector were satisfied with the equipment they had in their clinics although most of their employers felt that they wanted to acquire more equipment so that they would not need to refer their patients to other facilities. Ultrasound machines and X-rays were the main equipments wanted to be acquired by the private doctors who have not yet had these equipments.

i) Training

Most of the public doctors and clinical staff were satisfied with the amount of in-service training courses they had attended and felt that the courses were relevant to their work and necessary to keeping them updated with new developments in medicine. However most public sector workers preferred more courses to be conducted within the district and for them to be of shorter duration. This would enable them to attend the courses without leaving their families, and it would be easier to get other workers to relieve them while away. One category of health personnel, the medical assistants were all dissatisfied with their in-service training. Since most of the time they were alone in the health centres because only one of

the two posts was filled, they were rarely given any chance to attend courses. Most public doctors were not interested in post graduate training primarily because of family commitments.

The private doctors gave very little priority to training: few of them attend courses, seminars or conferences because of difficulty of finding locums and fear that they would lose patients and income. Most of them mentioned that their main source of information to update their knowledge was the information and articles provided to them by pharmaceutical company salesmen.

Most of the clinical staff in the private sector did not attend any formal in-service training: they were trained by their employers and their senior colleagues. They obtained on-the-job training in such fields as medicines dispensing.

6.1.4 Attitudes toward patients

i) Attitude score

The Cronbach's alpha for nine items assessing attitudes of health personnel towards their patients, was found to be 0.814, which shows that they were reliable (Vaus, 1991 p.256). The total score of the nine items were calculated. The mean attitude score of the private doctors were significantly higher than public sector doctors. For the clinical staff, the mean score between public and private sector were not significantly different (Table 6.14).

Table 6.14: Differences in attitude score between public and private sector personnel

	N	Mean	SD	t-value	p value*
Doctors					
Public	12	27.3	4.23	2.33	0.035
Private	11	33.6	8.03		
Clinical staff					
Public	168	27.6	5.73	0.49	0.625
Private	41	28.1	7.16		

* Unpaired t-test between public and private sector personnel

The total attitude score was then analysed using multiple regression analysis. The same independent variables as for satisfaction scores were used. Results in table 6.15 shows that after controlling for other variables, private sector personnel had higher attitudes score than those in the public sector. None of the other independent variables such as age, sex, ethnicity, income level and educational level account for this difference.

Table 6.15: Result of analysis using multiple regression on attitude score

Independent variables	b	Beta	p value
Private/Public facilities	3.415	0.232	0.019
Age	-0.061	-0.087	0.563
Gender	1.649	0.117	0.106
Income level (RM)			
< 500	0	0	
500 - < 1000	2.173	0.176	0.101
1000 and above	2.917	0.221	0.071
Level of education			
Primary School	0	0	
Secondary School	-0.695	-0.045	0.693
University	6.252	0.321	0.126
Occupational group	-6.431	-0.313	0.090
Length of service	0.109	0.149	0.315
Ethnicity			
Malays	0	0	
Chinese	-0.155	-0.006	0.913
Indians	0.949	0.043	0.584

In both sector, the attitude score correlates with job satisfaction score on four aspects (relationship with superiors, workload, allowances, prospect of transfer). The attitude score correlates with job satisfaction score on income and availability of equipments only among the public sector health personnel. The attitudes score correlates with job satisfaction score on relationship with subordinates and access to office vehicle only among private sector personnel (Table 6.16).

Table 6 16: Coefficient of correlation (r) between attitude score and satisfaction score among public and private sector personnel

	Public sector (N=121)	Private Sector (N=35)
Income	0.202*	-0.103
Prospect of promotion	0.089	-0.299
Relation with "superiors"	0.346**	0.403*
Relation with "subordinates"	0.149	0.465**
Relation with colleague	0.045	-0.286
Prospect of transfer	0.194*	0.489**
Allowances	0.409**	0.411*
Workload	0.398**	0.435**
Training	0.177	0.219
Availability of equipment	0.294**	0.108
Access to vehicle	0.132	0.518**

* p < 0.05 ; ** p < 0.01

ii) Qualitative data

Attempts to study the attitudes of the public and private health workers towards their patients by using a scenario in the in-depth interviews and focus group discussion did not yield convincing results. The health personnel were found to be responding to the scenario by giving an ideal response solving problems rather than what they actually do in practice. Participant observation was deemed by the researcher to be a more valid approach to determining attitudes to patients.

Behaviour reflecting poor attitudes toward patients was more commonly observed among public than private health sector workers. In public sector facilities, staff at the reception counters in three health centres were observed to behave rudely to patients; a patient was scolded for not bringing his son's birth certificate, an attendant shouted at a patient for not taking off her shoes when she entered the clinic and an attendant showed anger towards a patient for not putting his identity card in the correct place on the reception table. Patients with urgent medical needs in public facilities were not attended and were made to wait while the staff attended other non-urgent cases. One patient with a badly bleeding and painful foot laceration was asked to wait in the waiting room for about 30 minutes before being treated. During

consultations, medical assistants in health centres were not normally assisted by any other staff. The patient's name was called by the medical assistant from his desk behind a swing door and patients who had to be called more than once (because they could not hear their name being called) were scolded by the staff. Doctors and medical assistants in the public sector were seen to take a very brief history, rarely to examine their patients except for antenatal mothers where abdominal palpation was done. Public sector personnel generally had poor eye contact with patients, concentrated on writing and recording on the patient's card and prescription slip, rarely explained the illness to patients or reassured them. Patients privacy during the consultation was rarely observed. For example in the district hospital and one of the health centre it was observed that at least two patients were in the same consultation room at any one time. Staff were also observed to leave the facilities while there were still many patients waiting to see them and some were absent without leave. In two health centres, it was observed that both the pharmacist and the medical assistant left the facilities for a tea break and returned about 45 minutes later when there were still many patients in the waiting room. In the district hospital one of the medical assistants in the casualty and in one health centre the laboratory assistant did not turn up for work in the afternoon session without informing their head of the unit.

In the private facilities, the behaviour of the private doctors and their staff was in marked contrast with those in the public sector. Staff manning the reception areas were polite to patients, often greeted them when they came to the counter and offered them a seat while registration was done. Staff came out of the counter to call the patients, often addressed them as "Mr" or "Mrs" and accompanied them to the doctor's room. Emergency cases were immediately seen by the doctor. In two private clinics cases of motor vehicle accidents were immediately attended by the staff who brought the cases into the treatment room and the doctors informed about the cases came to see them immediately. During

consultations, the private doctors spent more time talking to patients rather than writing. They often explained their illness to the patients, reassured them and explained the types of medication they would prescribe. Patients attending private clinics were also seen to ask more questions to the doctors than those attending the public facilities. Often they asked about the seriousness of their illness. Some brought medicines they had taken from other clinics to show the doctor and often explained problems they faced taking the drugs. Doctors were normally assisted by a staff member who helped patients and parents with children during the physical examination. The registration counters in the private clinics were always manned by staff and they took their breaks in stages so that there were always staff there to attend to patients.

6.2 SUMMARY

Box 6.1: Summary of findings of health workers survey

- * The PPs were mostly older, males, Indians and trained overseas while most public sector doctors were younger, females, Malays and trained locally.
- * Most PPs had served longer in the sector while most public sector doctors had served less than five years.
- * Most PPs had higher income than public sector doctors.
- * Public sector doctors spent longer time on in-service training than PPs.
- * Most of the supporting staff in the public sector were Malays while more Chinese and Indian staff were employed in the private sector.
- * Most of the clinical staff in both sectors were females and had completed their upper secondary school education.
- * Private sector staff were mostly younger and had lower income than those in the public sector.
- * Most of the clinical staff in the public sector had served longer and were more likely to have attended pre-employment and in-service training than those in the private sector.
- * Private sector personnel were more satisfied with their jobs and had better attitudes toward their patients.
- * In both sectors, the attitude score correlate well with satisfaction scores on relationship with superiors, workload, allowances and prospect of transfer.

VII. STUDY OF INTERACTIONS BETWEEN PUBLIC AND PRIVATE SECTOR

7.1 OUTLINE

This chapter presents the findings on interaction between PPs and public sector personnel (PSP) in seven activities (immunisation returns from PPs, MOH/MMA hepatitis-B immunisation project, patient referrals, utilisation of public ambulance by PPs, medical examination of foreign workers, private practice by public doctors and disease notification) in Kuala Selangor district. A brief background on each activities is given in each section followed by the responses from PPs and PSP.

7.2 IMMUNISATION RETURNS FROM PPs

7.2.1 Background

The Health Information System (HIMS) in the MOH was started in 1976. Since then information from all public services were collected regularly by MOH. The aim of the HIMS was to collect all health information in the country and to use it for planning and monitoring of health services in the country (MOH, 1989). However the information collected through HIM only covered the public sector. With private sector growth, the MOH felt that information from the private sector should be collected in order that information to be available for planning the health services of the country. From 1986, the MOH had asked all the district health officers to collect information on the immunisations given by the PPs in their districts.

7.2.2 Findings from Kuala Selangor District

i) Response from public sector personnel

All the nine PSP interviewed were well informed about the

reasons for asking the returns from the PPs. The district health officer explained that the MOH was concerned about the lower coverage of immunisations than expected and attributed this gap to the under-reporting of those receiving immunisations from the PPs.

PS1: Quite a lot of immunisation are covered by the GPs, you know and therefore, if you look at our returns, in certain areas may be under-covered, you know, gross disparity which definitely doesn't reflect the coverage, you know. Therefore, we were directed few years ago to get the (data) from private sectors. [ID]

PS2: The aim is to see what is the overall coverage for the district and for the state and for the nation because you know the people do not just come to our clinic alone for immunisation, they do go to the private considering the time, the facility in the private side. So they did go, quite a big number go... I mean that count for our coverage and also is quite important that we take (note of) what they have been giving. [ID]

When this exercise was started, letters were sent to all PPs in the district explaining that every month PSP will visit the clinics to collect the returns. This activity was decentralised to the health centres. Forms were distributed to the PPs to provide the information. Most of the time, either the clerk or assistant nurses from the nearest health centres visited the clinics to collect the returns.

In the private clinics, the PPs normally assigned the completion of these forms to his/her clinic assistants. The public staff visiting the private clinics therefore usually dealt with these clinic assistants. The returns sent by the PPs contained the information on the numbers of different types of vaccines given for that particular month (Appendix 38). Patient particulars such as names and address were not collected.

The district health officer and another doctor were satisfied with the data they received so far. Both of them had not faced any problem with this activity since nothing has been brought to their attention by their subordinates; another was unable to comment since she had left the task entirely to her nurses.

A number public sector staff were doubtful about the accuracy of the data provided by the PPs: first they observed that the PPs did not keep proper records of their immunisation activities and secondly people outside the district who came to the private clinics to get vaccination were included. These were mainly family members of people in the district who came

back to visit their relatives in the district during weekends and holidays and brought their children for vaccination. This would be recorded by the PPs and the public staff were not be able to distinguish them since their addresses will not be stated in the returns. This would overestimate local coverage figures. Generally they felt that the PPs were not doing it seriously.

P58: Usually we just ask the PPs how many people take the immunisations and the types of immunisation given.. only the numbers, that's all we ask from them. Sometimes some PPs do not have any record, that is a bit difficult. I think that will be difficult. May be the data they give is not accurate. [ID]

Another problem was the delay of submitting the returns. The PPs has to be reminded monthly to send the returns; they were especially late during public holidays when the clinics were run by locum doctors.

P55: Currently there is no problem for me...I do get data from them except during public holidays like Chinese New Year when other doctors are running the clinics. During holidays it is a bit slow. Sometime it's too late to wait for them so we just submit our data and we carry forward their data next month..... but we still get their data... [ID] [Trans.]

One of the sisters, said that only two of seven PPs inside her operational area were providing the returns and both of them were involved in the MOH/MMA hepatitis-B immunisation project and therefore required to submit these. She had been informed that five other clinics did not provide immunisation services; this contradicted our study on health facilities which showed that these five clinics were actually providing immunisation services.

Another problem faced by the public staff was the problem of getting returns from private clinics which opened after office hours. Since the public sector staff did not normally work during these hours except for those on-call, immunisation returns had never been collected from these clinics.

ii) Response from PPs

Among the ten PPs, nine of them said they were providing returns to the PSP; one who had just started his practice six months before said that he had not been asked to submit the returns.

Although the public staff maintained that the private clinics were visited monthly to get the returns, some of the PPs contradicted this: visits were irregular or that the PSP telephoned for results.

None of the PPs were sure about the purpose of submitting returns. None of the PPs admitted that they were not cooperating with the public sector staff in providing the data. They denied that it was a burden to provide such information data but at the same time felt that they were not getting any benefit from the exercise. The PPs felt that they were just helping the public staff with their work.

PP11: For me, I don't think so there is any benefit in that. There is no benefit for me because I don't get any supply from them either but we give only and they just come and take the data. Only, we are aiding the government that's all. Nothing else. It is only they benefit. We got no benefit. [ID]

Most of the PPs complained that they were not informed of what was being done with the data they were submitting. However only two of the six FGD participants wanted feedback on the data: most showed very little interest.

The PSP admitted that since the programme started no feedback had been given to the PPs.

7.3 MOH/MMA HEPATITIS-B Immunisation PROJECT (MOH/MMA-HB)

7.3.1 Background

Hepatitis B immunisation was introduced into the Expanded Programme on Immunisation (EPI) in Malaysia in 1989. Under the MOH programme, the vaccines are given to three high risk groups: newborn infants, health personnel exposed to the risk of infection and drug addicts (MOH, 1990b). Those not in these three groups have to get their vaccine from private clinics and hospitals at a cost of RM 40.00 - 45.00 per adult dose, expensive compared to the other vaccines in the EPI programme. The vaccine needs to be given in three doses: in infants it is given at birth, at one month and at six months.

The National Morbidity Survey in 1986/87 showed that only 67% of children in the country had completed their immunisations under EPI as scheduled by their first birthdays (MOH, 1988 b). The coverage was much lower in urban areas where more PPs were found than in the rural areas. The MOH believed that there were two reasons for this: first the PPs may not be involved in EPI; or second, they may be giving immunisations but data on their activities were not captured by the MOH statistics. The MOH/MMA-HB project launched in September 1990 was aimed to encourage the PPs to be actively involved in EPI and to supply complete data to MOH on the EPI coverage. In this project, the MOH provides the vaccines to the private practitioners at a subsidised price: the PPs were, however, prevented from charging anything above the price fixed by the MOH.

Although the MMA was chosen by the MOH to represent the PPs in this project, three other private organisations, the Federation of Private Medical Practitioners Associations (FPMPA), the Malaysian Doctors' Cooperative (KDM) and Apex Pharmacy were involved in this project. At the national level a coordinating committee was formed comprising of representative from these organisations chaired by MOH.

The MOH role is "to ensure that the project is implemented within the overall context of EPI" (MOH, 1990 b). The MOH provides technical and administrative support to the project including provision and stocking of vaccine and monitoring support. The MOH is also supposed to provide educational material support for the project and appoints the chairman of the coordinating committee at the national level. At the district level, health personnel in the district health office are supposed to carry out spot checks on cold chain in the participating clinics and also in the Apex branches. Besides this, the district health office is supposed to collect immunisation returns from the participating private clinics.

The Malaysian Medical Association (MMA) is the professional organisation for doctors in Malaysia. In 1993, 75.2% of doctors in the country were members of this organisation. Most

of the members (58.4%) of the MMA were from the private sector (MMA, 1993 d). When the MMA was appointed by the MOH to run the MOH/MMA-HB project, it gave the actual task of running the project to KDM because the MMA constitution forbade its involvement with business transactions. Although it was stipulated that the role of the MMA in this project was to coordinate and monitor the PPs' involvement in this project, the main activities which involved the MMA were the use of its newsletter to spread information about the project. Everything else was done by KDM. The July 1990 issue of Berita MMA (MMA, 1990) contained a special four-page supplement explaining the project and enclosing application forms.

The Federation of Private Medical Practitioners Association (FPMPA) is a Federation of eight state Private Medical Practitioners Associations (PMPA). In contrast to the MMA, FPMPA membership is only open to private practitioners. Before the project began, both the MMA and FPMPA submitted proposals to run this project; the MMA was appointed. Nevertheless the FPMPA was co-opted by the MOH to be a member of the national coordinating committee for the project. Its main role was to spread information on this project to its members.

The Malaysia Doctors' Cooperative (KDM) runs the project on behalf of the MMA. This organisation is registered as a cooperative movement and was formed in 1988 with "the primary objective to improve the socio-economic status of its members" (KDM, 1990). Membership is open to all registered medical practitioners in Malaysia irrespective of whether they are members of the MMA or not. Although on paper KDM is a separate organisation and run as a cooperative movement its relationship with the MMA is clear. All members of the board of directors are members of the MMA council and it operates from the MMA headquarters. Basically it functions as the business wing of MMA. KDM members are required to buy a minimum amount of the cooperative's shares and to pay monthly subscription fees. Apart from running the MOH/MMA-HB project, KDM provides various types of loan to its members to buy clinic facilities and equipment. In the MOH/MMA-HB project,

KDM processes the applications from PPs to join the project, processes the orders of vaccines from the PPs and sends the vaccines through Apex pharmacy to PPs' clinics. The KDM claimed that PPs who wanted to take part in the project need not be members of KDM or MMA.

Apex Pharmacy is a drug company appointed by the MMA and KDM to distribute the vaccines to the PPs. Sixteen Apex branches covering all the 13 states in the country were approved by the MOH to have suitable facilities for cold chain. Vaccine from the government integrated stores in each state are collected by Apex Pharmacy to be distributed to the PPs. Besides this, Apex Pharmacy act as agent for the MMA and KDM in order "to monitor the cold chain and facilitate prompt returns of immunisation data" (MOH, 1990 b).

In this scheme, vaccines were sold at RM 5.00 per dose by MOH to MMA and KDM. MMA and KDM charged a commission of RM 1.35 per dose and Apex Pharmacy charged another RM 0.65. Finally the vaccines is sold to the PPs at the price of RM 7.00. The PPs were allowed to charge a maximum of RM 15.00 per dose, thus assuring a profit of RM 8.00.

The MOH has agreed with the MMA on four conditions: only PPs who showed evidence that they are providing all the EPI vaccines are allowed to participate; the vaccines supplied under this project are only given to infants for the second and third doses and only those below one year old were eligible; the MMA is responsible for monitoring the PPs involved in the scheme so that the cold chain is maintained and immunisation returns are submitted; and the PPs should charge no more than RM 15 per dose.

To ensure that the vaccines are only used for the particular age group the amount of vaccines allocated under this project are calculated using a formula derived by the Health Division of the MOH. For each state and district the maximum number of vaccine allowed to be sold to PPs is calculated based on this formula. For example when the project was launched in 1990,

the formula used was the number of live births in 1988 minus the number of DPT3 given by government agencies in 1989. The vaccines were supplied quarterly by MOH.

7.3.2 Findings from Kuala Selangor District

i) Awareness about the project.

Most PPs (11 of 12) were aware of the project but only two of them took part in it. Only one of them had not heard anything about the project: he had started his private practice in the district only six months prior to the interview.

Among the eight PSP interviewed only two of them knew about the project: one sister and the district health officer. The lack of awareness about this project among the PSP was also apparent in the FGD: it was not raised at all.

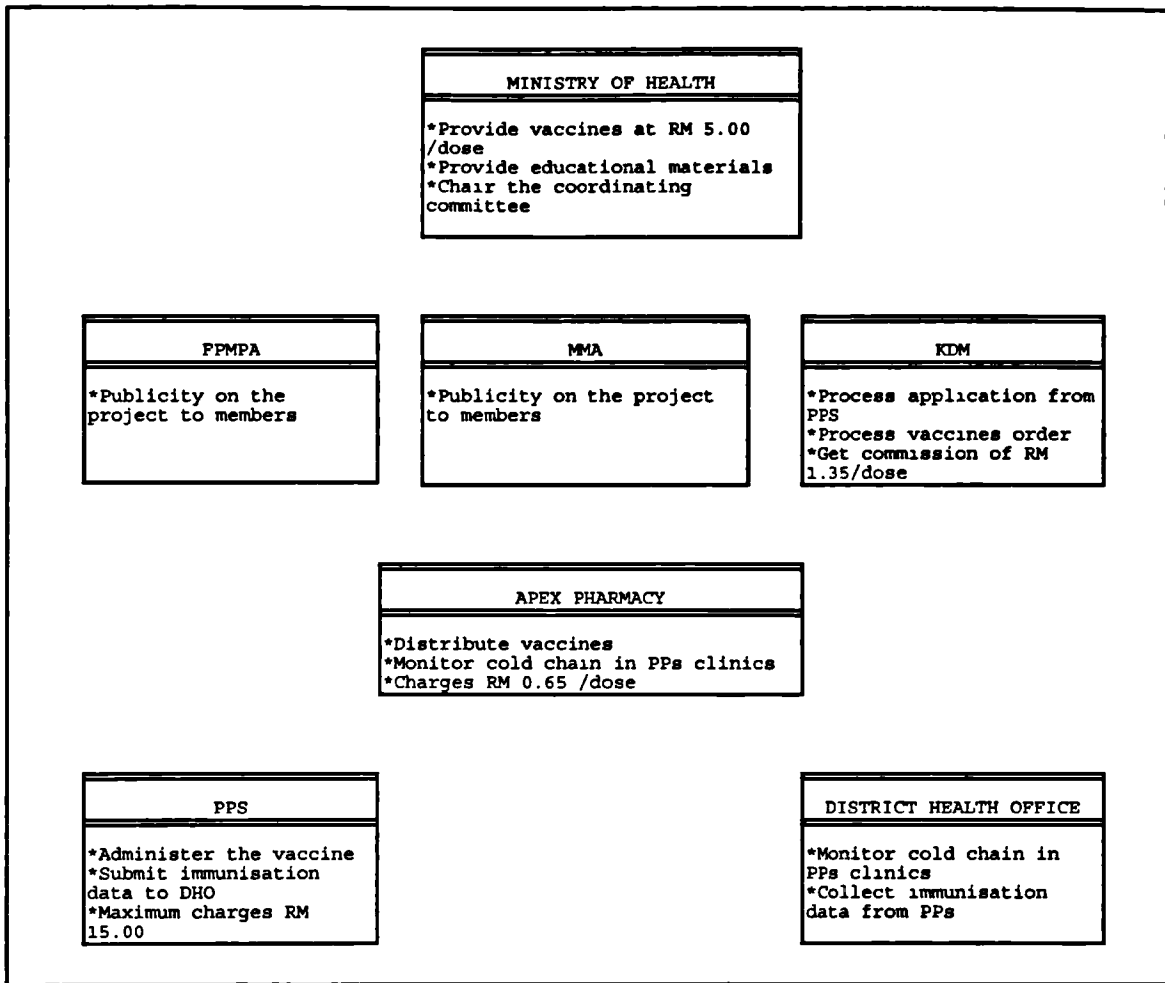
ii) Role of the District Health Office

Neither the district health officer nor the district health sisters carried out any spot checks on cold chain in the private clinics involved in this project. In fact neither of them had ever visited any of the private clinics in the district. The district health officer himself was not very sure how many PPs or which private clinics in the district were involved in the project. He indicated that he was very new in the district and had delegated the task of looking into this project to the sister. He was transferred to the district about two years before this research was done.

PS1: ... as far as I'm concern my district, even in Kuala Selangor I have not actually participated with the GP's on this issue.... [ID]

One of the district health sisters knew most about the project. She said that the district health office involvement in the project was limited only to collecting immunisation returns from the GP's. She named the two PPs involved in the project and every months she made sure that the returns from these two PPs were submitted to the state office.

Box 7.1: Main agencies involved in MOH/MMA-HB project



iii) PPs' participation in the project

Both of the PPs who participated in the project said that they joined the project because vaccine bought through the project was cheaper and hence they could charge their patients less.

Nine of the 10 PPs who knew about the project were asked their reasons for not participating. Most of the PPs who did not join the project were worried about the vaccine supply (Table 7.1). Five of them mentioned that they had good, regular and reliable supply of vaccine from their own supplier. They were not confident that they would get the same service from the project.

PPS: Yes, .. this one whenever I want I just call direct. Even at night I can call him and say I need 20 vaccines tomorrow. He gives it to me It's not much of a problem (ID)

Table 7.1: Reasons for PPs not joining the MOH/MMA-EB project

Reasons	Private practitioners								
	PP3	PP4	PP5	PP6	PP7	PP8	PP9	PP10	PP11
Vaccine supply	X	X		X	X	X			
Cost of vaccine		X		X		X			
Received wrong information			X				X	X	X
Poor demand		X	X					X	
Paper work	X					X			
Vaccine storage		X							

The concern voiced by those who did not join the project is not without justification. In fact the two PPs in the project are facing the same problem, having difficulty in getting the vaccine through the project. They have to pay in advance and send their request form to the KDM office in Kuala Lumpur. The KDM manager explained that the delay in sending the vaccine is due to several reasons. Firstly KDM has to check that the number of vaccine ordered do not exceed the limit in the 'ceiling' agreed by committee. According to him this is to monitor that the vaccine will not be given by the PPs to other age groups not covered in this project. Since the 'ceiling' is divided quarterly, if the limit is reached for that quarter than KDM cannot supply the vaccine for that quarter but has to wait for the next quarter which means delays can be up to three of four months. KDM also has to check that the PPs were sending their immunisation returns to the district health office before allowing the Apex Pharmacy to supply them with the vaccines.

Three of the nine PPs said that the price of vaccines purchased through the project did not differ very much from those bought outside the project. Furthermore the private suppliers give credit and discounts when the PPs make bulk purchases or combine the purchase of the vaccines with other supplies needed for their clinics.

PP8: For a long time from the same company. That's one. The other one is price-wise, they are almost the same price. Makes no difference to me [ID]

PP6 No The price from the salesman is a bit higher, but not very much, few dollars more. [ID]

Table 7.2 shows that the cost of the vaccine through the project is still the cheapest. However, most PPs used Angerix-B vaccine bought outside the project which cost RM 4.50 to RM 7.00 more but they could get almost the same amount of profit as in the project by charging higher prices. Only two PPs

admitted using two other types of vaccines in the market; Hepavac and KGCC which were cheaper than the Angerix B outside the project. PPs using these vaccines will have bigger profit even by charging the patients the same charge when they used the Angerix-B outside the project.

Table 7.2: Costs and charges for different types of Hepatitis B vaccines used by PPs

Types of vaccine	Costs per dose*	Charges per dose	'Profit' per dose	Nos. of PPs
Angerix-B (Outside the project)	11.50 - 14.00	15 00 - 20 00	1.00 - 8.50	11
Angerix-B (Inside the project)	7.00	15.00	8.00	2
Hepavac	8.00 - 9.00	18.00 - 20.00	9 00 - 12.00	1
KGCC	9 00 - 10 00	20.00 - 22.00	10.00 - 13.00	1

Dose = Children dose (0.5 ml)

Four of the PPs were interested to join the project but failed to do so because they were misinformed about the requirements for participation. One of the PPs, was incorrectly told about the project by one of his colleague that the vaccination covers only the first dose for the newborn and that only the Specialist Centres were eligible to join the project. Two other PPs, indicated that they were told by one of the sisters in the district health office that they need to apply to MMA but were also told that it was too late for them to join the programme after it had started. In fact no dateline was set by MMA and PPs could join the project even after it had been launched. Another PP was informed by drug salesmen that the project was only for MMA and KDM members.

Only one PP who did not participate in the project were worried about his vaccine storage. Since he felt that he needed to order in bulk to cover for the delay in supply of vaccine ordered through the project, he needed to have a good storage system. On the other hand he could order the vaccine from other companies in small quantities and need not worry so much about the cold chain. His view was supported by one PP who participated in the project and had to order the vaccines in bulk because the supply was so slow under the project.

Three PPs who did not join the project also said that they did not have many patients who wanted to take the vaccines from them. The health centres were giving the vaccines free of

charge for children under one year.

PP10: We rarely get this below 1 year cases. Even though when they come, I will always tell them that it is free in the hospital. You want to go you go, here you have to pay \$20/. So quite a number of them, they don't mind. I tell all my patient's, it's free there you can go to even the health centres. but they don't mind..[ID]

PP4: Most of my regulars have taken the immunisation. Now children are getting from government centre. So, in fact I encourage them all to go. For Hepatitis B immunisation I tell them to go to hospital. It's free of charge there...[ID]

Another reason put forward by the PPs for not joining the project was the need to apply to join the project and to order the vaccine. The need to do the paper-work added to many other factors which discouraged them to join the project. None of the PPs mentioned sending the immunisation returns as a factor which discouraged them from joining the project.

In the FGD, the PPs' main reason for their reluctance to participate in this project was the age restriction. The PPs collectively suggested that the project should not be restricted to the children below one year of age. The PPs would not get many patients in this age group since they were getting it free from the health centres. They suggested that the PPs involvement would be more significant if the projects were open to other age group as well.

The PPs who participated in the project suggested that the distribution of vaccine should be decentralised to the local health centre. This would avoid delay in the supply.

7.4 PATIENT REFERRALS

7.4.1 Referral centres

Most PPs referred their patients to private hospitals and the State General Hospital; both of these were outside the district (Table 7.3). Generally the PPs tend to bypass the district hospital for other hospitals outside the district. Within the district, the PPs were more likely to refer cases to the district hospital than the health centres especially for emergency cases which needed ambulance services. The PPs rarely refer patients to their colleagues in other private clinics in the district.

In the public sector, the doctors and supporting staff running the health centres normally refer their patients to the district hospital. They do not bypass this hospital unless their patients need facilities or modes of treatment not available there. They also refer cases to the local private clinics. These latter referrals were limited to antenatal mothers needing ultrasound scanning which was not available in the district hospital. The public sector personnel running the district hospital refer their cases to the State General Hospital and the Kuala Lumpur General Hospital. All the PSP in the district rarely refer their cases to private hospitals unless requested by their patients. These were normally patients covered by private insurance.

Table 7.3: Referral centres used by PPs and public sector personnel

Referral Centres	Number of respondents		
	PPs (N=12)	HC personnel (N=11)	DH personnel (N=6)
Private clinics	1	10	1
Private Hospitals	11	0	3
Health Centres	4	NR	0
District Hospital	8	11	NR
State General Hospital	11	8	6
Kuala Lumpur General Hospital	6	3	5
University Hospital	4	1	1

N = number of respondents NR = Not relevant
 HC = Health centres DH = District hospital

Seven of the 12 PPs interviewed said that they bypass the local district hospital because of their patients' request to go to private or public hospitals outside the district. Three PPs explained that their patients believed that doctors in bigger cities were more competent than the local ones and hence preferred to be referred outside the district. Furthermore, some patients who had been to the district hospital before refused to be referred back to same hospital which failed to cure their illness in the first place.

PP2: . . . the problem here even if the patient want to be admitted, they did not request T Karang. He will request Klang I'm sure if you ask all the GPs in T.Karang they will tell you They don't trust the district hospital They trust the General Hospital in Klang They don't want to be admitted here. They ask me to send them to Klang. [ID]

PP10 It depends on the patient because sometimes you ask them to go there they are not happy. First public . . . maybe it's psychology, they feel the hospital in their area is always not good As I experienced in my 6 years as a GP, they feel that always the bigger place is better. The public attitude is like that. Even they feel that the GP here is not as smart as the GP in KL. [ID]

PP3: Those who came here have been to the hospital many times...when we want to refer there they do not want because they have to see the same doctor again. So they request to be send outside Tg Karang. [ID]

Absence of surgical facilities and specialists in the district hospital is another reason for the PPs to bypass it. The PPs (5 out of 12) felt that the facilities in the district hospital were almost the same as theirs and preferred to send patients straight to the facilities outside the district to avoid any delay.

PP5: This hospital in T.K.... because what they have we also got .. what do you call... same facility. So any case I can't manage say surgical....it must be send to big hospital you know like Klang GH, eye cases to Tun Hussin Onn [eye hospital]. [ID]

Two PPs preferred to send their patients to other hospitals outside the district because their patients were poorly managed in the district hospital: emergency cases were not given immediate attention and often PPs' opinions were ignored by the attending doctor.

PP4: From my past experience in the last 20 years, I always found that unless you know the doctor personally, then your patient might have some chance. Otherwise they couldn't be bothered. In fact personally I have taken one or two times patients there, and the doctors there I mean he does not know you but then when he's been told that a doctor brought in he hardly bother sometimes. That's what this Tg. Karang hospital is about. [ID]

PP9: May be they feel we are interfering with their work there. May be they are new, or are afraid or shy. Sometimes we want to discuss honestly, but from their response, it's as if they don't care about us. So it is limited to discuss with them. Sometimes they are 4 or 5 years your junior. Sometimes you know them as your juniors. May be they are shy so we discuss but not in detail. Sometimes we want to tell them but they may feel we are trying to be smart. [ID]

7.4.2 Types of cases referred

Most PPs indicated that acute abdomen and injuries were the two conditions they most commonly referred (Table 7.4). These two types of cases were also commonly referred by public sector personnel but antenatal cases were the commonest condition mentioned by them. The PPs also referred out cases of communicable disease which they did not manage in their clinics but this group of conditions did not appear to be commonly referred by the public sector personnel.

Six of the 12 PPs received cases from public doctors of antenatal mothers requesting them to do ultrasound scans either to ascertain the gestational stage or to locate the placenta. Two PPs received referral cases of tuberculosis for daily injections of anti-tuberculous drugs. Another PP received referral cases of haemophilia for daily administration of desferoxamine.

Table 7.4: Types of cases referred by PPs and public sector personnel

PUBLIC (N = 17)		PRIVATE (N = 12)	
Conditions	Nos	Conditions	Nos
Antenatal mothers	9	Acute Abdomen	7
Acute Abdomen	8	Injuries	6
Injuries	8	Communicable diseases	5
HT* with complications	3	Antenatal mothers	3
DM** with complications	3	Prolonged fever	2
Abortions	2	Ischemic Heart Disease	2
Prolonged fever	1	HT* with complications	2
Congenital heart diseases	1	Abortions	2
Poisoning	1	Cancers	1
Complicated labour	1	Convulsions	1

N = number of respondents * HT = Hypertension ** DM = Diabetes mellitus

7.4.3 Private to public sector referrals

i) Problems faced by PPs

In both the in-depth interviews and FGD done among the PPs, the issue of lack of feedback and the loss of their patients to public facilities dominated the discussions.

The PPs complained that although they sent referral letters with their cases, the letters were rarely replied to by the public sector doctors (Table 7.5).

PP8: Most of them they see the patients. The only problem is they don't write back to us. That's the problem. Very rarely I get letters back. Sometimes I get probably the surgical side once a while I get back letters from them. University Hospital usually they write back ... [ID]

PP2: Now there's one very good reason and one very frank thing I want to tell you when we refer a patient to the hospital, the hospital never write back. That's really irritates me [ID]

PP1: When we refer cases, when you refer to private specialist, you get reply. But with government, we don't know what happened to the patient. What ever feedback we get is from the patient himself. [ID]

Table 7.5: Problems faced by PPs when they refer patients to public facilities [ID]

Problems	Private practitioners											
	PP1	PP2	PP3	PP4	PP5	PP6	PP7	PP8	PP9	PP10	PP11	PP12
Lack of feedback	X	X	X	X	X	X	X	X	X	X	X	X
'Loss of patients'	X	X						X			X	
Limited access to specialist											X	
Different opinions		X							X			
Poor patient management		X		X							X	

When nine of PPs were asked in the in-depth interviews why they thought the public sector doctors did not reply to their referral letters, five of them suggested that excessive workload on the public doctors was the main reason. Another

four of them suggested that lack of supervision by their heads was the main reason for non-reply.

Seven of the PSP who usually deal with the referrals cases were asked to comment on complaints of non-reply made by the PPs. Even though all of them admitted that they do not reply to the referral letters sent by the PPs, they felt that the PPs were not interested in knowing about the cases they had referred (Table 7.6). In the FGD, all the public doctors gave this as the only reason for their non-reply. They make this assumption because the PPs never indicate in their letter that they wanted the feedback or phoned them to ask about the patients they had referred.

PS10: Normally they [PPs] never ask for it. They never ask for a reply, normally they ask us to continue treatment... [ID]

PS9: They are not interested, they never follow up their patient...he just refer for further management only... that's all... they don't want to follow-up because they sent for us to manage... [FGD]

Table 7.6. Reasons for the public sector personnel not to reply to referral letters sent by PPs [ID]

Responses	Public Sector Personnel						
	PS7	PS10	PS12	PS14	PS15	PS16	PS17
PPs not interested in the case	X	X		X	X		X
Excessive workload	X	X				X	X
No reply format				X	X		X
Cases referred to other place			X				
No directive to reply	X						

Although the PPs thought that workload was the main factor which led to non-reply of their referral letters only four of the seven public sector personnel mentioned this in their interviews.

PS7: Actually, by right we should reply because that is their cases. But because we have too much workload, I don't have time to give him the reply. And he never ask me after that even though they can contact us by phone. He never ask about the case he referred to us. [ID] [Trans.]

The absence of a specific format in the PPs letter is another reason cited by the PSP in the in-depth interviews. Within public facilities a formalised common referral form was used. The form has two parts, one filled out by the referring doctor and another filled in by the receiving doctor for the reply. The PSP do not reply to the referral letters from the PPs since they do not use a similar format when referring their patients. Most PPs use their letter-heads to write the

referral letter.

PS17: Actually in the government when a doctor refer to us, at the back there is a reply sheet. They (PPs) don't have that in their referral. They don't have the reply sheet. So, since they don't have that sometimes we just forget....we never reply. They never say they want a reply. Never phone us asking for reply. If they insist, we will reply. [ID]

The MOIC of the district hospital (PS12), gave a totally different explanation for the non-reply. He said that most of the cases referred to his hospital were further referred to the state general hospital. Once the patient returned to be followed up in the district hospital, he/she might be seeing a different doctor from the one who referred him/her to the State General Hospital. This 'new' doctor may not know that the patient has been referred by the PPs before or even if the patient saw the same doctor he might have forgotten that the patient was referred to him earlier by PPs. Nevertheless he agreed that the responsibility to reply to the referral letters lies with the doctor who first received the case from the PPs. He did not have any plan to record all cases referred to the district hospital for the purpose of replying to the referring doctor because there are 'very few cases' being referred from the PPs. Instead he suggested that if the PPs want to know about their referrals they should contact him through the phone giving details of the patients they have referred.

The assumption by the PSP that the PPs were not interested in the cases they referred was rejected by all the PPs asked to comment on this issue. They argued that they have built long-term relationship with their patients and often patients they refer come back to them. Furthermore their workloads and those of public doctor may not permit them to contact the public doctor every time they refer a case.

PP8: This is the wrong impression from the government doctors ..because I was in the government service for so many years so I know how it is . I don't think all GP's are like that. we are interested in our patient....because I have been here long time. Sometime patient come back and ask me and I will tell them...[ID]

PP10: Of course, we like to know about the case. We are sending the case, the patient comes here. They are our patient, we definitely want to know what happens to him. It's common sense, any doctor or GP, he would want to know about the patient's welfare. The only thing is we don't get the feedback and then we have to call them and trace them. We can't be doing it. Must know who are the doctors and all that. Sometimes we are busy also. [ID]

In the in-depth interviews and the FGD, the PPs complained that whenever they refer patients to public facilities, the

patients were never returned back to them and instead they were continued to be followed up in the public facilities. In this way the PPs 'lost' their patients to the public facilities. Furthermore PPs also said that their patients had been discouraged by the public staff from attending their clinics once referred to the public facilities. The highly subsidised services in the public facilities were the main point used to discourage patients from seeking private care. According to the PPs this is unprofessional and should not be happening. They argued that the public doctors should realise that the PPs were helping to reduce their burden.

PP2: To be frank with you, after all we are GPs, we also got a rice bowl. When I refer a patient to you, when you finish managing him pass back to us. [They] never pass it back to you. You'll be dreaming if you think they're passing back to you [ID]

PP8: I know of government doctors who criticized their patients for going to the GP's. The patient come and complained to me. "Do you have a lot of money...want to go there...can't you come straight here!" Their attitude is that... especially nowadays is bad. [ID]

PP7: Basically the interrelation between doctors...we have to stop. I mean we have to get along more better among ourselves. This back stabbing...I don't think also it happens in other professions, like this, to that extent where when going to the hospitals, the [government] doctors say "Why you want to pay so much there? Come this side!" We also make our living here. So basically there should be a close interactions between us doctors. [FGD]

Eight PSP were asked whether they discouraged patients from attending private clinics and all of them denied this. Those PSP running the out-patient clinics denied the allegations but explained that the patients themselves cross over from the private clinics to the public facilities especially among those with chronic illnesses like diabetes mellitus and hypertension. These patients cannot afford to pay for their long term treatment in private clinics. The public facilities which have an open-door policy will accept anyone whether or not they are referred by their previous doctors.

PS6: One example, a diabetic case ..sometimes these villagers have diabetes or hypertension case, he went to GP. But as you know it is all the question of financial. When come to certain extend, at some stage he cannot afford any more. Then he will come to me. [ID] [Trans.]

PSP running antenatal clinics denied allegations by one of the PPs that they discouraged pregnant mothers from attending her clinic. They argued that maternal and child health was given high priority by MOH. The public services provide comprehensive care for maternal and child health which included antenatal care, home and hospital delivery, postnatal care and child health care. On the other hand the services by the private clinics were very limited. The PP in question, for example, provided only antenatal care whereas the delivery and

postnatal care are carried out by the PSP. PPs who run antenatal service normally referred their patients to the health centres or hospital to be 'booked' in for delivery. Once the patient goes to the public facilities, they were asked to attend the antenatal follow-up in the public facilities regularly even though they may be under the follow-up of the private doctor. The PSP did this to ensure that patients were closely monitored until delivery. The PSP were not confident to allow these patients to be followed up by the PPs for fear that they would not have access to the follow-up data kept by PPs when the patient came for delivery. At the same time, once the patient was registered with them the responsibility lay with the PSP should anything goes wrong with the patient in the future. The PSP admitted that it was inconvenient for patients to visit two clinics for the follow-up and most of the time patients would drop off from the PPs clinics.

PS5: So at least we can do close monitoring ... thorough examination .. even though she has the same one [in PPs clinic]. Furthermore data from private [clinic] are not entered in the "small appointment card" ...so we do not know...if anything happen next time there is no proof. [ID]

PS2: I know GPs send to us just to get the red card and then they also must understand that they are not losing the patient. I feel that they are being selfish, in term of income they are losing the patient but they don t understand, if they are following up and then subsequently when mother has the maternal death and infant death... we are doing the dirty work, you know... [ID]

In both the in-depth interviews and the FGDs, the PPs also discussed problems they faced when their opinions on cases they refer differed from those of the public doctors who received them. Patients who received contradictory advice sometimes returned and complain to them. The PPs felt that the reasons for this were because the public doctors were inexperienced and sometimes failed to take into consideration all the relevant information in making their decisions.

PP9: Query Appendicitis..... Sometimes we refer cases to [public] hospital, because we are worried about the patient anything could happen. Usually we send them to Klang Hospital. There are patients who complain not the doctors but the patients.. that they have been asked to go back by the hospital doctor. So the patient are not happy why the doctor from here refer to hospital, and the doctor from the hospital ask them to go back. Sometimes this kind of problem arises. [ID]

PP2: Sometimes when we send them in, is meant for observation May be one day observation They think is not necessary. If you do that, is unfair for the patient. When we sent there must be reasons. May be to be warded for observations. One day then next day discharge [ID]

The PSP admitted that this situation does occur. The cases referred to the public facilities such as the hospital will further be assessed by the PSP at the facilities and the subsequent management is based on the judgement of the receiving doctor. Investigations were often carried out before

taking further action. Hence they may or may not follow the recommendations made by the PPs. Furthermore it is stipulated in the MOH guidelines that the PP cannot admit any patients directly and all cases must be assessed by PSP before admission.

PS17 We look at the cases. Sometimes they don't need admissions. For example case of chest pain....we feel that it is gastritis, we just give some medicine. Sometimes patients came with abdominal pain and ask for admissions . referred for admission but when we gave Gelusil he is okay, we send the patient back... but he [PPs] wrote there "Kindly take over for admission".... sometimes we admit... [ID]

PS14. He saw a GP .. have fever.. high fever .. may be at that time. When he reached hospital our doctors feel that it is not serious ..so we have to investigate first. We ask him to go home and come back for further examination. Then only doctor will decide for admission or not. So it happens when the patient said private doctors told me I have to get admitted... so there is some contradictions between our MOs and the PPs ... but this is not always the case. [ID] [Trans]

The PPs also complained that the public hospitals give poor service to their patients when they refer. Their patients had to wait for a long time or were mismanaged by the public doctors. They felt that the private hospitals gave better service to their patients.

PP2: If I refer a patient to a private hospital things are done pretty fast. It's very fast. They will investigate very fast, come to a diagnosis very fast and decide what to do with the patient very fast. In the government hospital its slow. I have referred haematuria case, you know. Four five times he went to the hospital (but it's) still not investigated. [ID]

PP4. Let s say a patient comes with abdominal pain. I may be making provisional diagnosis of appendicitis. Previously we will send patient here and with the hope they'll put up a drip or something and send up with ambulance to government hospital [in Klang]. What was happening in Tg. Karang hospital, they will sit on the patient for 2 or 3 days. Probably they're not too sure of the diagnosis. Having given on black and white its appendix case, yes. Otherwise they ll sit on the case until the patients were quite late, you know. Then they'll send to Klang with perforated appendix. [ID]

PP13. Recently we have this ureteric colic I think very common among people here. Patient having pain and he had all the injections and we send to hospital that fellers gave a few tablets of baralgin and send back. No admission. [FGD]

The PPs complained about their referrals for specialist care in public facilities. They were not satisfied because when they referred their patients to specialists in the public hospital, specifically the state general hospital, their patients were asked to go to the general OPD clinic of the hospital and only be referred to the specialist clinic after being assessed by the medical officers (MO) in the OPD. They felt that this would only delay the patients from getting the attention of the specialist and reassessment by the hospital MOs is unjustified since both of MOs and PPs have the same qualifications.

PP11. When we refer and to the hospital ..the government hospital, they should not be having the barrier like that. Private practitioners should only refer to the out-patient. Because it is actually from one MO to the other MO. It's of no use. This only prolonging the period for the patient to suffer more. There should be a direct communication between the GP and the specialist. [ID]

PP13 : In the sense that he is not being seen by the specialist. He is seen by ordinary doctors and he paid RM 30 and he is given appointment two week later. He is referred acutely. So he is being treated like a normal patient. [FGD]

When this issue was presented to the Medical Superintendent of the State General Hospital during the Ministry of Health Annual Conference (14th July, 1993), he explained that the PPs had the right to refer the patients to the Specialist Clinics but the clinics only operated on certain days of the week. Cases referred to specialist Clinics during the day when the Specialist Clinics were closed were automatically channelled to the OPD clinic. The MOs in the OPD clinic examined the patients and if necessary admit urgent cases to be seen by the specialist in the ward. Non-urgent cases were told to come back to the Specialist Clinic on a specific day. He suggested that the PPs referring cases might not know the days on which Specialist Clinics operated. This could be overcome if the public hospital informed the PPs of their specialist clinics time-tables as suggested by one of the PPs.

ii) Problems faced by public sector personnel

The public sector doctors complained about the inadequate information given by the PPs in their referral letters. Other health staff (the non-doctors) in the public sector felt that the information provided by PPs was adequate (PS2, PS6, PS7 and PS13); their reluctance to criticise might be due to the higher status of the doctors. Another reason is that the non-doctors do not normally use the information in the referral letter since they can further refer problem cases to the public sector doctors.

Table 7.7: Problems faced by public sector personnel on PPs' referrals (ID)

Responses	Public sector personnel									
	PS2	PS6	PS7	PS8	PS9	PS10	PS12	PS13	PS15	PS17
Inadequate information				X	X	X	X			X
'Abuse' of public facilities			X			X				X
No referral letters				X						
Illegible hand writing						X				
Late referrals									X	

The public sector doctors complained that vital information such as drugs prescribed and investigations conducted were often not described. PPs had occasionally not even identified themselves when referring the cases; this made it difficult to

contact them to obtain more information when necessary. They also felt that some PPs purposely hid information in the presence of unethical practice; for example, patients referred for vaginal bleeding from uterine perforation following a D&C performed by the PP was not disclosed. D&C for termination of pregnancy is illegal in the country. The referral letters of the PPs were sometimes illegible and some PPs had sent patients to the public facilities without any letter at all.

PS9: Most of them, usually they write very brief, they just say this case... Gravida 3 or Gravida 2 and then POA and so on, the Hb level and kindly take over for management. That's all very brief that they give... [ID]

PS18: GP did the D+C.....incomplete....but then when they refer, they refer as PV bleeding, no D+C done.... [FGD]

PS19: I had an experience like that... she came in with perforated uterus. She denied any D+C done. Patient referred as PV bleeding...when we detected then only she did (confess). [FGD]

The PSP also complained that the PPs were abusing the referral system to avoid higher charges rather than for them to manage the case. For example cases that the PPs want to send to the specialist at state general hospital were first referred to the health centres or the district hospital just to get the referral letters from public staff. This is because cases referred straight by the PPs to the State General Hospital will be charged Rm 50.00 instead of the usual RM 5. The public sector staff felt that they were being used by the PPs to abuse the system.

PS17: If he goes straight to the specialist he has to pay RM 50. Some of them [PPs] used the OPD like an economic plan. If we refer to the specialist the charges is RM 5... from the government doctor. If GP refer, the charge is RM 50. If they want to see the eye specialist, they come to us first....because if they [PPs] refer straight, they will be charged RM 50... [ID]

The PSP also complained that some PPs refer cases to their clinic at a very late stage. The PPs were said to refer cases who had died or suffered complications in their clinics to avoid being blamed for the death and also to protect the credibility of their clinics.

PS19: There is a child 11 months old history of ADD [Acute diarrhoeal disease] for three days or so. He has gone to GP before that... the doctor said okay go back ...he went back. After two days he went again to the GP.. at that time it is already serious. GP refer to us....the patient came in stiff, blue already ...she [mother] said just now the doctor said my child is alright. The patient has died for how many hours already. . But at time he do not give referral letter... she [mother] said I went there [the private clinic] the doctor ask me to come here straight away... [FGD]

PS20: May be they do not want any cases died in their clinics....they want to take care of the clinic [name]. [FGD]

In the FGD, when they were told about the public doctors complaint, the PPs disagreed that their referral letters were

incomplete. Although they admitted that their referral letters were short and brief they felt that they had provided all the relevant information on the case.

PP7 We are making clinical diagnosis What are we supposed to write? Patient come for stomachache. We know it is appendix. He's got all the sign and symptoms of appendicitis. What are we going to write? You write the vital sign. Patient come with stomach ache... pain in RIF, his BP, his cardiovascular system, his respiratory system are normal. What's there to write .. Tenderness in right iliac fossa, rebound tenderness presence. He has got all the sign and symptoms of appendicitis. I would like you to examine this case, I suspect he is having appendicitis. I make a clinical diagnosis. [FGD]

7.4.4 Public to private sector referrals

i) Problems faced by the public sector personnel

The Guidelines on Referral System of MOH circulated to health centres and public hospitals (MOH, 1992 d) did not mention anything about referrals from public facilities to the private facilities at the district level. Most of the contents of the guideline concerned the referral from the private to public facilities. In fact it assumed that the public facilities would always be the recipient of referred cases from the private facilities. Hence some PSP felt that referral to the private facilities were generally not allowed under the present system.

Some public sector doctors believed that only specialist were allowed to refer cases officially to private sector doctors with contractual agreement with MOH. Others were confused and hoped to have proper guidelines on this kind of referral.

PS1: No, we as government doctors, we are not supposed to refer them to private practitioners anyway, you see. GP's can refer to us you know But not the other way round. Officially it's not allowed. But as it stands we cannot refer a patient for a CAT scan outside you know. We are supposed to refer them to GHKL. [ID]

PS8 I am not so sure whether its right or not to refer to the GP. So I am quite reluctant. I don't know whether what I have done is allowed or not. [ID] [Trans]

In the district there was no ultrasound facilities in the public sector and specialist was not posted permanently to the district public facilities. While the nearest public hospital with ultrasound scan was 80 km away, five of the private clinics in the district had this facility. Although there was no contractual agreement with these private clinics, the public sector doctors unofficially refer patients to these private clinics. To avoid any administrative problems, they referred cases to the PPs without writing an official referral letter. Instead a short note is written to the PPs and given

to the patient to be handed to the PPs. Sometimes patients were sent to the private clinics without any referral letter at all.

PS4: Dr A [PP1] will send back the findings. We don't refer to him our doctor will say to the patient verbally to go to the private clinic. [ID]

PS8: I send a letter I just write on a small piece of paper like this ... 'Dear Dr., please do scan for this mother for this uterus larger than date. Then I clipped it on her card.. [ID]

The need to use the ultrasound scan facilities in the private clinics were echoed by all the public doctors who were asked on this issue. The cost and time needed to travel to the state general hospital discouraged patients from going there. The cost of a scan in the private clinics is between RM 15-20 which is almost the same as the travelling expenses to the state general hospital before taking into account the whole day waiting to get the ultrasound done in the hospital. Furthermore the attenders were often given two weeks to one month appointments. In the private clinics the scan can be done on the same day whenever the patient was referred.

PS8: I feel that scan from PPs is also necessary. If patient want to go to Klang you have to make appointment, have to queue That's why I refer to Ty Karang. She go there for booking in hospital and do the scanning [in private clinic] at the same time. If you refer for scan in Klang, you have to make appointment. It takes a long time. Patient has to go two or three times there whereas they are not going to deliver there. It is also difficult to ask the patient to go to Klang, its far. [ID]

In the FGD, the public doctors stated that the state obstetrician and gynaecologist had asked them to stop their referral to PPs since she was not confident with the scan results from the PPs who were mostly not trained. However the public sector doctors felt that the reason to discourage such referrals was that the management was worried about the public complaints of the charges they had to pay and the lack of facilities in the district hospital. All the public doctors felt that the regulation to disallow their referral to private clinics was not practical and most of them continued to refer their patients to the PPs.

The public doctors realised that some of the PPs were not trained to do the ultrasound scan since some of them failed to provide vital information in the scan report. Some PPs did not even give the scan result when they were not sure of the findings while others were found to repeat their scan unnecessarily.

PS19: I think with regard to the ultrasound, they all not very sure, because not everybody can do scan, but by right if the clinic, the staff cannot do it accurately, it's better if they do not have the ultrasound. Many clinics are like that, if they are not sure of the findings, they will not give the scan results. [FGD]

PS11: Sometimes when we asked for the [previous] scan results, they do not give us, what they do is they do it again on the patient and give the result for that day. In fact it is more useful, if we have the earlier results. But they do not give the earlier ultrasound results. [ID]

The public doctors currently send only non-urgent cases for scanning in the private clinics and they also choose the PPs whom they thought were able to give most accurate findings.

ii) Problems faced by PPs

Unofficial referral to PPs exposed the public sector doctors to criticism especially from PPs who did not receive regular referrals. Although five clinics had the facilities, only one was getting most of the referrals. The PPs felt that some public doctors were being lobbied to send cases for scans to certain PPs only. They felt that it was unfair and suggested that the public doctors should leave it the patients to make their choices.

PP5: You see, this hospital here they don't have scanning. So, I don't know what is the connection between this hospital and one private clinic on the other side. It seems to me that hospital is referring cases for scanning to that particular clinic. [ID]

7.5 UTILISATION OF PUBLIC AMBULANCES BY PPs

7.5.1 Background

In Malaysia, ambulance services are provided by the MOH and voluntary organisations such as the Red Cross and St. John's Ambulance. Voluntary organisations provide their services in the urban areas leaving the rural areas to depend on the government services. Ambulances are stationed in the district hospitals and health centres to transport emergency cases as well patients referred from these public facilities.

Most PPs do not have their own ambulance, and therefore occasionally use public ambulances to transport cases referred to the public facilities. At present, the MOH does not allow this practice. This is stipulated in Guidelines on the Referral System of MOH. Under item 4.2.5 of the document it stated that:

" The private practitioner shall make the necessary travel

arrangements for the patient. If there is a need for the patient to be accompanied, the PP shall make all the necessary arrangements" (MOH, 1992 d).

Interviews with senior officers of the MOH indicated that the reasons for this were the shortage of ambulances in the government services and fear that PPs would misuse the ambulance to transport non-emergency cases. In addition there was concern at the medico-legal implications whereby the MOH did not want to be blamed for cases which were mismanaged by the PPs.

7.5.2 Findings from Kuala Selangor District

i) Practice in the district

There were altogether five ambulances available in the district. Two of them were in the district hospital and another three in the health centres. Most of the PSP in the district knew that they were not allowed to provide the ambulance when requested by the PPs. Nevertheless they still provided the ambulance when requested to by the PPs on humanitarian grounds. They also felt that MOH policy is difficult to follow especially when dealing with emergency and life-threatening conditions. Box 7.2 outlines the tedious steps required to be taken by PPs when requesting an ambulance from the public facilities.

ii) Problems faced by public sector personnel

The most common problem faced by PSP when requested by PPs for ambulance services was that the patients were not resuscitated by the PPs; intravenous drips for example had not been set up for cases of haemorrhage. In some clinics, the PPs had not even helped the ambulance staff (mainly paramedics) to resuscitate and stabilise the patient before putting them into the ambulance. The PSP felt that there was little emergency equipment available in the private clinics to enable the PPs to resuscitate patients. Furthermore when patients died, the

Box 7.2: Steps involved when PPs utilised
public ambulance service for emergency cases

1. Emergency case at private clinic
2. PP resuscitates and stabilises the patient
3. PP call A & E doctor or MA
4. PP give information on the patient
5. PP writes referral letter
6. MA/Doctor ask MOIC for permission
7. MOIC checks with the supervisor whether the ambulance is available
8. MOIC allows ambulance to go
9. MA accompanies ambulance
10. Ambulance arrived at the clinic
11. Patient prepared for transfer
12. PP accompanies cases to hospital when necessary
13. Case arrives at hospital
14. PP briefs public doctor about the case
15. Public doctor takes over the case
16. PP contacted for further information
17. Patient admitted to ward

PPs refused to take any responsibility and put the blame on the public staff. Even the task of explaining to the relatives about the death when it occurred in the private clinics had been left to the ambulance crew.

In the FGD, the PPs were told about the complaints that they had not resuscitated and stabilised their patients when calling for ambulances. The PPs admitted that they did not resuscitate the patients because most of their clinics did not have emergency equipment such as drips. They said they were not required under the regulation to keep such equipment, only private hospital were required to do so. Furthermore they felt it was wasteful to keep the equipment such as drips which were likely to expire before use.

Another problem was the use of ambulances by PPs for non-urgent cases. All the requests from the PPs had to be screened before allowing the ambulance to be used.

PS19. Usually I talk to the doctor with the PP. I ask him what is the problem...at least we know...and if we feel that it is necessary we send I think if our relationship with them is good, if they want our help we can help, provided that we are not busy. [FGD]

The PSP argued that the PPs did not follow proper procedures when calling for the ambulance. Most of the time the PPs contacted the police who then conveyed the message to the PSP.

The PSP were not happy with this kind of communication since there was a delay in contacting the hospital and most of the time the third party was not able to provide the information required.

PS12: Police Station is ringing us up, telling us there is a critically ill patient in Clinic M (private clinic), please send an ambulance immediately. So my MA here on duty received the call ... but he was confused because before we send an ambulance... we want to get more details. Because he is a policeman we cannot get any details. [ID]

The PSP also felt that they did not have enough ambulances at their disposal to cater for the needs of the PPs. The hospital had two ambulances; these were not adequate to meet the needs of the hospital itself. The district hospital had five ambulances in 1985, but by 1992, three had been condemned without replacement, leaving only two in service. The PSP felt that the hospital needed at least five ambulances to operate optimally because ambulances were also being used to send specimens and also documents to place outside the district.

In addition, there were not enough paramedics and drivers to run the ambulance service. No paramedics had been specifically employed to run the ambulance service but instead they were taken from those who ran the service within the hospital.

Most PSP expected the PPs to accompany emergency cases to hospital especially when there were not enough paramedics to run the ambulance service. Most PPs, on the other hand, were not willing to leave their clinics because there would be no one to replace them in their absence.

iii) Problems faced by the PPs

The PPs complained that their requests for ambulances were often turned down by the PSP. In such cases the PPs either used their own transport or sent patients in public transport or taxis to the hospital. Furthermore the PPs complained that the ambulances often arrived late and were not properly staffed and equipped. They also complained that the staff were reluctant to take the cases.

The MOIC of the district hospital denied these allegations and maintained that the ambulances were well equipped. However, he

admitted that he was sometimes unable to send medical assistants to accompany the ambulance because of a shortage of medical assistants in the hospital especially during weekends and when staffing levels were low. If the medical assistants were not available he would send an untrained attendant. He expected the private doctors to accompany the case to the hospital.

7.6 MEDICAL EXAMINATION OF FOREIGN WORKERS

7.6.1 Background

Due to the rapid economic growth in Malaysia after 1985, the country faced a shortage of workers. Since 1986, the government has recruited foreign workers for the oil palm and rubber estates in the rural areas, and for construction and domestic work in urban areas. Most of these workers came from Indonesia, Bangladesh and Philippines. It was estimated that in 1994 there were one million immigrants in the country, only 40% were legal (MMA, 1994 b). The rest were illegal immigrants, especially from Indonesia, had been coming to the country long before the government had decided to allow them.

The health implications of immigration concerned the importation of communicable disease through these workers. To control this, foreign workers were required to undergo medical examinations to screen for these diseases; the screening is done by PPs with the cost borne by the employers. This avoids overloading the public health services and freed the government from shouldering the costs. Three organisations were directly involved in this activity: the Ministry of Health, the Immigration Department and the Malaysian Medical Association representing the PPs.

The MOH monitors the activity and is responsible for controlling communicable diseases while the Immigration Department issues the work permit. The PPs were responsible for doing full physical examinations, which included chest X-rays, blood test for hepatitis B, HIV screening, blood film

for malaria parasites, urine for morphine and cannabis and urine pregnancy test for female patients. The PPs were required to certify the fitness of these workers, notify the district health office if they detected any communicable diseases and to refer the workers with such diseases to government hospitals for treatment.

Foreign workers who decided to come and work in Malaysia were requested to undergo medical examination in their country of origin. The workers were then brought into Malaysia by their employment agencies and on entering the country were given a one year temporary work permit. They are required to undergo another medical check-up in this country within three months of arrival. Annually they have to undergo medical examinations to renew their work permit. Those who failed the medical examination are admitted to the government hospital for treatment and a decision would then be made by the Immigration Department whether to deport them or to allow them to work in the country after their treatment.

At the end of 1992, the Ministry of Health reported that over 137,000 foreign workers working in the country suffered from various forms of communicable disease (The Star, 1992 c). The MOH felt that the PPs were not doing the screening properly. Furthermore there were reports of the involvement of PPs in unethical practices such as signing the medical reports without doing the required physical examinations and investigations (The Star, 1992 d). Some PPs were reported to return the medical report to the workers or the employer to be sent to the Immigration Office. A worker who was certified as unfit to work could then shop around for other PPs who were willing to provide them with a favourable report.

In view of this, from 1st January 1993, the MOH, MMA and the Immigration Department had decided to improve the process. The issue of medical examination forms were controlled by the Immigration Department. Each form had a reference number. This would prevent the workers from getting new forms for a re-examination. Secondly PPs were instructed to make the result

of the medical examination confidential and to return the result to the workers or agents in a sealed envelope. Thirdly the PPs were requested to report to the Immigration Department directly any foreign workers who failed the medical examination. Fourthly, the MOH agreed to undertake random checks on the PPs to ensure that proper procedures were being carried out (MMA, 1992 b; The Star, 1992 d)

Box 7.3: Role of PPs in foreign workers medical examination

1. Conduct full physical examination
2. Conduct or arrange for investigations
3. Certify whether the worker is fit to work
4. Return medical report to Immigration Dept. through employer or workers in sealed envelope
5. Inform Immigration Dept. directly if worker fails medical examination
6. Notify communicable diseases to district health office
7. Refer worker who fails medical examination to government hospital

7.6.2 Findings from Kuala Selangor District

i) Response from PPs

Eight PPs indicated they were actively involved in carrying out this activity. All of them used the services of private laboratories in the capital to carry out investigations. Blood samples were submitted to private laboratories; X-rays were taken in private radiology clinics in the city.

One PP who was not involved in this activity felt that the government should not have privatised this activity because he believed that the PPs would be tempted by financial gain to carry out improper examinations.

The most common issue discussed in the FGD and the in-depth interviews was charges. The MMA recommended that the PPs should charge RM 180.00 for the service; a number of the PPs believed that some of their colleagues were charging much lower than the recommended charges. By 'undercutting' sometimes as much as 50% of the recommended charges they would attract more clients but at the same time they would not be able to conduct all the required investigations. The PPs

suggested that the charges should be standardized by the government. Most of the PPs did not believe that the private doctors provided false medical reports to foreign workers but blamed on organised syndicate.

PP1: We do a lot of foreign workers medical examinations and we send out all the blood specimen to the lab. Even what we can do, we normally send it out to the lab. Like this, they have the third party certificate showing that it has been done. We make our charges standard, RM 140-150. I mean a lot of people ask me for discount. They said its available for RM 80-100 ...where its doubtful they do any test, you see. So we tell them please go ahead and do it there. [ID]

PP7: I think rubber stamps are being made and forged signature of the doctor. I don't think so. I personally feel....I mean I know I studied, met a lot of the doctors, I know the calibers of the doctor...I don't think so, the doctor would do that. Maybe you can get black sheep in the profession. But I personally don't think the doctor will do that. [ID]

Some of them questioned the value of some of the investigations required. For example they felt that blood films to detect malaria parasites was useless since the clients did not have fever and it was very unlikely that the test would detect anything. One PP was unsure whether patients diagnosed as having certain communicable diseases should be certified unfit for work: he suggested that patients with infectious disease such as hepatitis B were fit to work although they needed to be given health education.

In the FGD and the in-depth interviews the PPs were asked their opinions on suggestions that MOH carry out spot checks on them. Although the PPs did not object to monitoring by the government to ensure that the PPs carried out this activity appropriately, they doubted whether the spot checks would uncover any malpractice.

Three of the six PPs in the FGD admitted that they were unaware of the recent changes from January 1993, two months before the FGD: they still informed the workers directly of their results.

ii) Response from the public sector personnel

Although the district health office was supposed to receive the notifications from PPs of communicable diseases among the foreign workers, this was not happening. The district health officer was aware of the activity going on but was not aware of his role. Most PSP felt that it was appropriate to privatise this activity because it would reduce workload in

the public sector. However most expressed doubts on the quality of the job done by PPs and stressed the need for close monitoring. They felt that the PPs were more inclined to do improper and incomplete examinations for the sake of financial gain. Most of them expressed doubts whether MOH will be able to carry spot checks to detect malpractice by PPs since it would increase their workload substantially.

PS8: It is a good move since it will reduce our workload. After all we have our own patients. If many of them come here, we do not have enough equipment and staff so it will reduce our burden. But there is a problem...I think they (PPs) are not sincere ... [ID] [Trans.]

PS11: I come to know that some of the food handlers.. they never had injection [Typhoid immunisation]. They just pay and the doctor sign it...that's all...as if they were given.... [ID]

7.7 PRIVATE PRACTICE BY PUBLIC DOCTORS

7.7.1 Background

Currently public sector doctors in Malaysia are not allowed to work in private practice or to open their own private clinics. However, many public sector doctors do locums in the private sector. The MMA has urged the government to allow this locum as an incentive to keep the doctors in the public sector. On the other hand the MOH feels that legalising locums will adversely affect the public service: not only was there a fear that those doing locums would neglect their public sector work, but there was also fear that the public doctors would misuse the public facilities to boost private clinics that they might open.

In 1991, when the new remuneration scheme was introduced in the public service, the issue of locums surfaced again. Under the new salary scheme, senior doctors and specialists would benefit. This resulted in a sudden increase in the number of doctors especially the juniors resigning from the public service to enter private practice (The Star, 1992 b). The government was again urged by the MMA to reconsider locum practice as an option to boost the morale of the public sector doctors; it suggested that locums should be allowed for those who had completed their compulsory service and should be monitored by the MOH. Those who abused this privilege should be banned from doing locums in future. This recommendation was

turned down by the MOH and instead the government lengthened the compulsory service from a three year period to a five year period (MMA, 1993 c).

7.7.2 Findings from Kuala Selangor District

i) Response from public sector doctors

The public sector doctors admitted that they often engaged in private sector locums. Due to its illegal status this could not be done openly: they tended to practice in private clinics further away from their district to avoid being caught by their superiors. They also tried not to take unnecessary risks during their locum hours. They would refer cases at the slightest indication to avoid any complications such as deaths and would not identify themselves when they referred cases to public facilities.

PS17: Now we are doing it in fear..fear if the officer comes and check on us. [ID]

PS8: So we the government doctors can work without any fear. Now we are doing it quietly and our bosses also do not know. If it is allowed we can do it with a peace of mind...[ID]

PS11: We are scared of our rice bowl....scared that our superiors might know because one, we are not doing the right thing and locum is not really legalised yet. [FGD]

All the public sector doctors wanted locums to be legalised; citing the main advantage as their ability to supplement their salaries. They felt that the only alternative to doing locums was for the government to increase their salaries. However only two of the public sector doctors were convinced that legalising locums would keep the public doctors in the government service for longer (Table 7.8); the others felt that it would not have any impact and that public doctors would still leave because of poor service conditions such as excessive workloads. One of them felt that the public sector doctors would be influenced by the PPs and would leave the government service earlier.

Table 7.8: Opinions of public sector doctors on advantages of legalisation of locum [ID]

Responses	Public sector doctors					
	PS1	PS8	PS9	PS10	PS11	PS17
Increase income of public doctors	X	X	X	X	X	X
Feel secure when doing locum		X			X	X
Improve services in private clinics		X		X	X	
Keep doctors in public service	X	X				
Influence on PPs practice			X		X	
Learn new things from PPs		X				

Other reasons given by the public sector doctors for legalizing private sector locum work included that they would feel more secure working in the private sector; that the public would benefit from their practice as they would be able to improve the quality of medical practice in private sector; that they would educate the PPs which they observed to have unacceptable practice such as the over-prescribing antibiotics, poor maintenance of the cold chain and use of anti-motility drugs to treat diarrhoea. Two of the public sector doctors in the FGD suggested that this was unlikely, and that public sector doctors would simply follow the PPs practice to avoid creating problems in the private clinics.

PS9: Those GPs who have practised for years, they just think of money. He doesn't care about patient's welfare. The government doctors have different attitude from the GPs. If they practice in hospital they can bring to the GPs our management, the proper management, so we don't treat patient just for money.... [ID]

PS10: We are trained in Control of Diarrhoeal Disease [CDD] and ARI [Acute Respiratory Infection] how to manage them. In the CDD we are not allowed to use anti-diarrhoeal drug to stop the diarrhoea and we are asked to use ORS only and to educate the mother to treat at home. ... for the ARI we are not encouraged to use cough mixtures, anti-vomiting drugs, Benadryl and Phenergan which will make it worse. So I think when we work in GP [clinic] we can use the knowledge and then we can interact with the GP and educate them. [FGD]

Three of the public sector doctors also argued that the private clinics would be able to provide better services to the community through their locums. The PPs could extend their operating hours and offer a greater variety of services: one example cited was the opportunity to employ part-time women doctors to run services for women such as antenatal clinics.

One public sector doctor reflecting her own experience in doing locums felt that the public doctors would have the opportunity to learn about the different types of new drugs which were not available in the health centres. She felt that the drugs in her health centres were limited and not effective. She had also learned about the cost of the drugs that she prescribed while working in the private clinics

because patients had to pay for the drugs.

All the six public sector doctors in the in-depth interviews agreed that the main disadvantage of legalising locum practice was that the doctors would neglect their public service. The PPs sought locums during odd hours such as at night or during weekends when the public sector doctors were supposed to be off-duty; the long hours in locum private clinics could, however, deplete their energy. Lured by the good income in the private clinics, some public doctors may take leave or even use false medical certificates to do locums. They suggested that if it was legalised this activity should be properly monitored although they recognised this would be difficult.

PS1: It [locums] will avoid people from running away from service, you know and it will keep them working in the government service. I think that way you'll have more stable doctor's population. The only thing is that, the fear is that they may be spending too much time in their private clinics, even neglecting the official work in this one, you know. Even now you have problem with people taking emergency leave and you know very well they are going for locums, you know....the work of taking MC's [medical certificate] and emergency leave to do locums. [ID]

ii) Response from the PPs

Seven out of eight PPs interviewed agreed that locums should be legalised because of poor salary received in public sector (Table 7.9). Only one PP suggested that government should rather increase the salaries in the public sector as he feared that the government doctors would neglect the public service. In the FGD all the participants wanted locum to be legalised.

Table 7.9: Opinions of PPs on advantages of legalisation of locums [ID]

	Private Doctors							
	PP1	PP3	PP4	PP6	PP7	PP8	PP10	PP11
Increase income of Public doctors	X	X	X	X	X	X	X	X
PPs can have more rest					X	X	X	X
Public doctors stay longer in government service		X					X	X
Easier for PPs to find locum	X			X				
Government gets extra tax	X							
Exposure to private practice								X

Only three of the PPs felt that legalising locums would keep the doctors in the government service. The PPs benefitted through having a ready supply of locum doctors, could have more time for themselves, and could expose public sector doctors to private practice which would be beneficial to them

if they wanted to join the private sector later.

PP1. You see, for one thing at least the doctors are legally allowed to earn extra income. It serves both parties. The GPs are able to get locum more freely, and the doctors are legally able to earn You see for ages . . . it has been going on. I mean government doctors. Most of the locum are from government doctors, you know. Ever since I was a kid, as far as I can remember even before going to the medical school. So, all this while its been going on quiet basis. If legalized, at least the IRD [Inland Revenue Department] can get some money from you. And there need to be some control. [ID]

PP11: Of course it helps the government doctors himself. You see . . . because somehow they think one day they also want to be a private practitioner. One thing, it helps them to know what private practice is all about. Secondly, I think economically also they ll be much happier. Thirdly, they will stay longer with the government because both side they get income. And it is more educational and economical [ID]

However most PPs felt that the public service would suffer if the locums were legalised without controlling the amount of time spent on this activity. One disadvantage could arise if locum doctors unofficially referred patients seen during their locum hours to themselves while working in the public facilities to undergo the investigations not available in the private clinics. In this way private patients would be given priority over other patients in the public facilities.

7.8 DISEASE NOTIFICATIONS

7.8.1 Background

Control of communicable diseases is a responsibility of the MOH. This includes active and passive case detections, contact tracing, source reduction and treatment. Under the regulation covered by Communicable Disease Control Act (1988), all doctors in the public and private sector are required to notify to the district health office any communicable diseases they come across (WHO, 1990 a). Currently there are 24 types of diseases covered by this regulation (Appendix 39). Notifications were done using a form called 'Health 1' (Appendix 35). Eight of the 24 diseases need to be immediately notified by telephone.

7.8.2 Findings from Kuala Selangor district

i) Responses from the PPs

Eight of the 12 PPs interviewed, had not made any previous notifications. However the PSP said that they never received any notifications from the PPs in the district. The only

notifications they ever received were from one PP in another district.

Breaching their patients' confidentiality was the main concern among the PPs leading to their refusal to notify (Table 7.10). They were worried that their patients would be socially stigmatised, especially when dealing with sexually transmitted diseases. They were worried that they would lose their patients and face repercussions as a result. They also criticised the unprofessional attitude of the PSP when they handled the investigations of notifiable diseases.

PP5: I got a gonorrhoea. He comes here. You see you must stop it at that treatment level itself. You don't tell that fellow that I got to notify it you see. Other wise the whole people in the house will know you see, creates social problem. That's the main problem. [ID]

PP2: That's the main problem [in notifications] they come and scold you . retaliation can be bad, you know you know what type of retaliation, you know. They come bang and bash your car. Many people will come to my house.... I am not going to do this [notify]. [ID]

PP10: The health people go to the family and they go and said such person has TB [tuberculosis]. Maybe for these people the health [staff] go to the house, the neighbour might be wondering, our society is like that. They won't let their children to go next door. The society can be like that. That can be the reason [for not notifying]. [PGD]

Table 7.10: Reasons for PPs not notifying notifiable diseases [ID]

	Private Doctors											
	PP1	PP2	PP3	PP4	PP5	PP6	PP7	PP8	PP9	PP10	PP11	PP12
Breach of patient confidentiality	X	X		X	X			X	X			
Cases referred to hospital	X					X	X			X		X
Unsure of diagnosis			X			X				X		X
No notification forms						X					X	X
No cases to notify					X							X
No time to notify			X						X			
No lists of notifiable diseases												X

Another common reason for the failure to notify is that the PPs referred these cases to hospital and hoped that the district hospital would notify the cases. They felt that once the cases were referred, it was not their responsibility to notify the cases; the responsibility was with the hospital doctor.

PP6: Well, you see, when I have this sort of notifiable disease, we normally refer them to the hospital. And I suppose they [hospital doctors] have to notify. I leave it to them. [ID]

PP7: ... actually that is a form of notification too I write a [referral] letter and they go to the hospital and the hospital take the cases and they will notify. [ID]

The PPs were sometimes unsure of the diagnosis, as the private clinics were not fully equipped with laboratory facilities to confirm the diagnosis. They would often refer these cases and hope that the hospital staff would run a full investigation to

confirm the diagnosis. The PPs were not sure whether they should notify the case they suspected and the diagnosis was not confirmed. The PPs felt that notifications of cases without confirmation would create false alarms and would increase the number of notifications unnecessarily. The senior health inspector and the health inspector in-charge of control of communicable diseases wanted notifications for confirmed cases rather than suspected ones. Notifications of suspected cases would increase their workload but they were also aware that it may be too late if they have to wait for confirmation of diagnosis before taking preventive measures.

PS21. No, since hospital also giving the suspect and cases, it will be good if the GPs give us the suspected cases so that, at least they give us the early warning. So that we can take actions before anything move further that. But the other aspect it will give us the overload. We may be given a lot of false reporting, we will be getting suspected cases but in the end it did not turn out to be cases. So that will overload our work. [ID]

Three of the PPs did not notify because they did not have the notification forms. Among the 12 PPs, only two of them had received notification forms distributed by the District Office a 'few years ago'. There were some contradictions in the explanations by the district health officer and the senior health inspector on the distributions of the Health 1 form to the PPs. The district health officer felt that his office was not responsible for distributing the forms and maintained that the PPs themselves must take responsibility to ask for them. The senior health inspector however explained that the district health office used to, but no longer, distributed these forms, as he was waiting for a new forms which was redesigned following the amendments of the Communicable Diseases Control Act four years ago.

Two of the PPs said that they had not notified because they never had any notifiable cases in their practice; one of them had been in private practice in the district for over 15 years. The other one had recently opened his private clinic; he also said that he did not have the list of notifiable diseases. Two PPs said that they did not have time to do the notifications.

ii) Responses from the public sector personnel

Among the five public sector doctors in the in-depth interviews, only one of them had previously notified any disease. In the FGD only two of the six doctors had done notifications before. Both of them worked in the hospital.

In the in-depth interviews, three public sector doctors admitted that they did not know the procedure for notifications; neither what forms to use nor to whom they should be sent. Their ignorance was because in the health centres and the hospitals the work is assigned to nurses or medical assistants who fill up all the forms only to be signed by the doctors.

PS17: Actually this one on notifying the disease, the nurses and the paramedic... they already used to it. They always insist us to notify the cases. If there is any cases they will say "Boss this case have to be notified." So we notified.....through phone or what. They know... [ID]

PS11: First, I do not know the procedure. What form should be filled...I don't know. I do not know to whom I should notify even though I work in the district office.... [ID]

A number of public sector doctors working in the health centres said that they do not notify cases of notifiable disease because they referred them to hospital hoping that the hospital staff will do the notifications.

PS8: Because if we have a case say I suspect a case of dengue fever, I will refer to hospital and be admitted there. They will inform the IK [Health inspector], they will notify district health officer. I never fill up the notification form before. [ID]

Table 7.11: Reasons for public sector doctors not notifying notifiable diseases [ID]

	Private Doctors				
	PS8	PS9	PS10	PS11	PS17
Do not know the procedure			X	X	X
Notifications done by other staff				X	X
Cases referred to hospital	X		X		
No notification forms	X		X		
No cases to notify		X			
No directive to notify	X				
Breach of patient confidentiality					X

Public sector doctors also attributed their failure to notify to the absence of notification forms in their clinics or said that there was no directive from the seniors to do the notifications.

Only one public doctor was worried about the breach of patient confidentiality: he was reluctant to notify cases of STD especially among respected people in the community.

iii) Ways to improve notifications

The district health officer was not satisfied with the enforcement of regulations concerning notifications in the country. He attributed the failure of the PPs to notify partly due to the non-enforcement of the regulation.

The senior health inspector was worried about the delay in the production of the new notification form. He was still using the old forms although these were not legally acceptable under the new regulation. He hoped that the MOH would expedite this process. Under the new regulations, the lists of notifiable diseases had been amended and the person responsible for notifications had also been modified.

Most PSP dismissed the suggestions for monetary incentive to PPs to encourage notifications. They felt that the PPs were already earning a lot of money from their practice and would not respond to such incentive.

In order to improve the current notifications, the PPs suggested that the district health officer should send their personnel regularly to collect the notification forms. They felt that this would ensure that the PPs would always be reminded of their duty to notify. In the FGD, it was also suggested that the PSP provide feedback to the PPs regarding the presence of epidemics in the district. They felt that in this way they could be more helpful in controlling communicable diseases. The PPs otherwise depended on the media for such information and this was sometimes not accurate. They also wanted the district health office to send the notification forms to them.

7.9 Summary

We have examined seven different types of public-private interactions. These reveal a number of interesting findings.

In sending the immunisation returns most PPs were poorly informed on the purpose of the exercise even though it was well understood by the PSP. The PSP were doubtful on the quality of information given, faced poor response from the PPs who delayed in sending the returns. The PPs complained of irregular visits by PSP to collect the returns and felt that they were not benefitting from the exercise.

The MMA/MOH-HB project was aimed to increase participation of PPs in EPI and to provide incentives to PPs to provide data on immunisation. The project was planned centrally and the local district health office was poorly informed on their roles. Most PPs in the district were reluctant to participate because of the poor supply of vaccine and poor demand for the service due to age restrictions and having to compete with the health centres. Furthermore vaccine supplied through the programme had to compete with other brand of vaccines in the market which would give similar or even higher profit to the PPs.

PPs were more inclined to refer their patients to private hospitals or government hospitals outside the district than to the district hospital. They bypassed the district hospital because of patient requests, lack of surgical and specialist facilities and poor management on their referrals. The PPs also complained of lack of feed-back on their referrals, losing their patients to public facilities and limited access to specialist in the public sector. Even though the PPs thought the main reason the public sector doctors failed to reply to their referral letters was because of excessive workload, most PSP felt that the PPs were not interested to know about their patients once referred to the public sector. The PSP complained of inadequate information from referrals from PPs and suggested that they abused of the referral system to avoid charges on their patients and refer cases at a late

stage. Public to private sector referral were complicated by lack of guidelines to be followed by PSP, untrained PPs providing poor quality of ultrasound service while the PPs were unhappy with unfair distribution of cases sent.

There was clear indication that policy made at the central level on utilisation of ambulance service by PPs were unacceptable to public sector personnel at the ground level. They extended the ambulance service to PPs but in doing so they faced a range of problems: shortage of ambulance and staff to run the service, refusal of PPs to resuscitate emergency cases and accompany cases to hospital, use of ambulance for non-emergency cases and failure of the PPs to follow proper procedure when requesting for ambulance. The PPs on the other hand had to undergo long and tedious process to get the service which often arrived too late or the ambulance is poorly equipped and staffed.

Medical examination of foreign workers was privatised to reduce the burden on public sector. However the programme were poorly monitored and information was not systematically disseminated to those involved in the public and private sector. Competition among the PPs to reduce charges in order to attract clients had resulted in practices not adhering to the requirements of the programme. The poor dissemination of information led to the lack of awareness on the role of district health office and failure of the PPs to follow the instructions regarding notifications of communicable disease. PPs and PSP felt that spot checks to uncover malpractice among PPs were not feasible to be done by MOH.

Locum in private sector by PSP is widely practice despite of it is being illegal. Both the public and private sector doctors wanted this practice to be legalised. The main advantages of legalising locums in private sector include the ability of public sector doctors to supplement their income, improve quality of care in private sector by influencing the PPs on good practice of medicine and increase the range of services, as an opportunity for public sector doctors widen

their knowledge and experience and easier for private doctors to get locums when they need. However few were convinced that such move will make the public sector doctors stayed longer in government service but most agreed that it might lead to the neglect and abuse of public services.

Most of the PPs did not notify notifiable diseases because they were worried about breaching their patient's confidentiality. They did not notify when they refer the cases to hospital, when they were unsure of diagnosis and some of them indicated that they did not have the notification forms. Most public sector doctors did not notify because it was done by other staff and they were not aware of the proper procedure for notifications. The laws related to disease were not enforced and new notification forms were yet to be produced by MOH in line with the amendments made in the law.

VIII. USER INTERVIEWS

8.1 RESULTS

8.1.1 Respondents

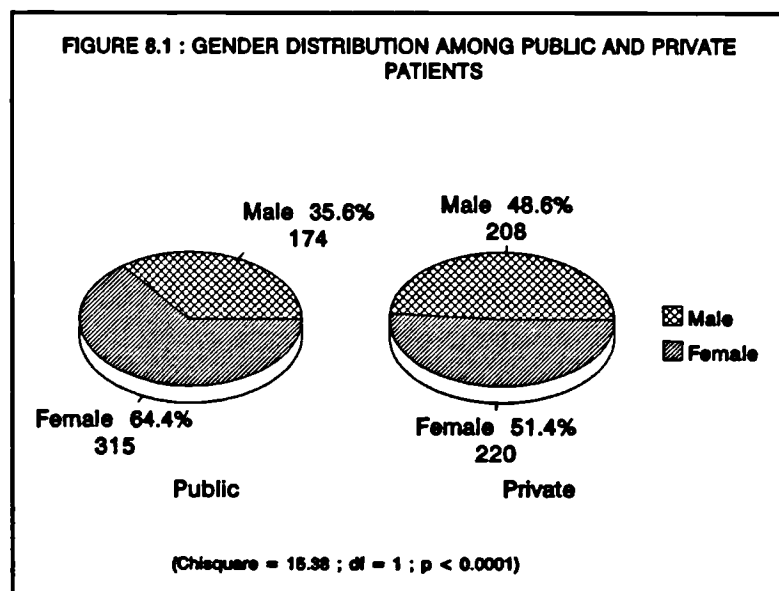
Four hundred and forty respondents were interviewed in private clinics and 504 from the public sector. Incomplete questionnaires (12 private; 15 public) were excluded from the analysis, leaving a total of 428 users of private clinics and 489 of public facilities. This represented 12.5% of the total number of patients per week seen in public and 10.9% of private patients (Appendix 40)

Ninety-five patients were re-interviewed at home: 58 from public and 37 from private facilities. Twelve items were cross-checked. Ten of the items were highly correlated with a correlation coefficient of more than 0.80 but two items (land ownership and using a regular health care provider) had a correlation coefficient of 0.60.

8.1.2 Socio-demographic characteristics

i) Gender and ethnicity

There were significantly more male patients in private than in public facilities (48.6% vs 35.6%; Figure 8.1). Most of the Malay patients used public facilities (64.0%) while 76.7% of the Chinese and 52.9% of the

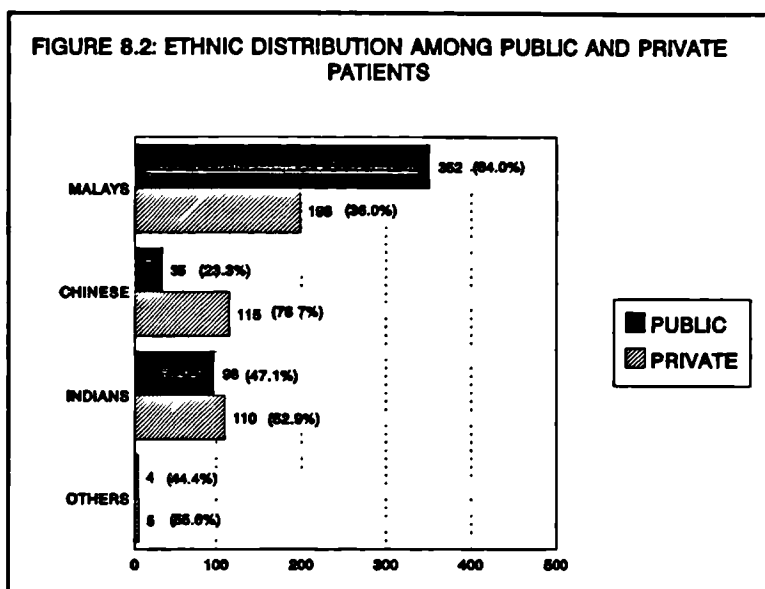


Indians used private facilities ($X^2 = 82.99$ df = 2 p < 0.0001; Figure 8.2). After stratifying by gender, the relationship

between ethnicity and type of facility was still statistically significant (Appendix 40).

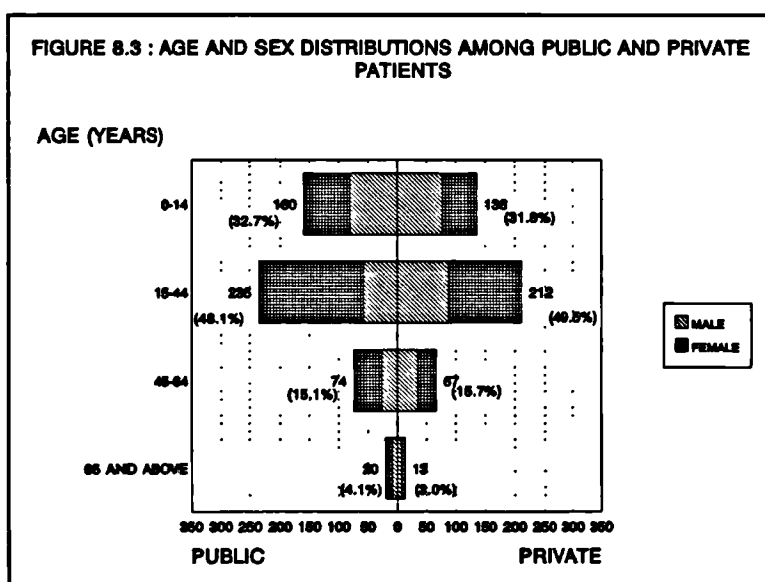
ii) Age

In both sectors, most patients were below the age of 45 years (Figure 8.3). The age distribution was not significantly different between patients in the two sectors ($X^2 = 0.91$ df = 3 p = 0.824).



iii) Level of education

Children below the age of 15 years were excluded from the analysis on the relationship between level of education and type of facility visited. Although there were slightly



more patients without formal education or those with upper secondary school education in the public than private facilities these differences were not significant ($X^2 = 4.34$ df = 4 p = 0.361; Figure 8.4)

iv) Socio-economic status

The socio-economic status of patients was classified according to the occupation of the head of the household and ownership of land and fishing boat

for farmers and fishermen respectively. Based on discussions with agricultural officers in the district, the patients were divided into three socio-economic groups: the upper, middle and lower socio-economic group (Table 8.1). Income data was not collected since most of the respondents were working in the informal sector and would not give accurate income data. It was estimated that the upper, middle and lower socio-economic groups corresponded to an income of RM 1000 or more per month, RM 500 - RM 999 and is less than RM 500 per month respectively.

There were significant relationship between socio-economic status of patients and the types of facilities they visited (Table 8.2). Most of the patients in public facilities were from the lower income group (60.1%) and 51% of patients attending private clinics were from middle and upper income groups.

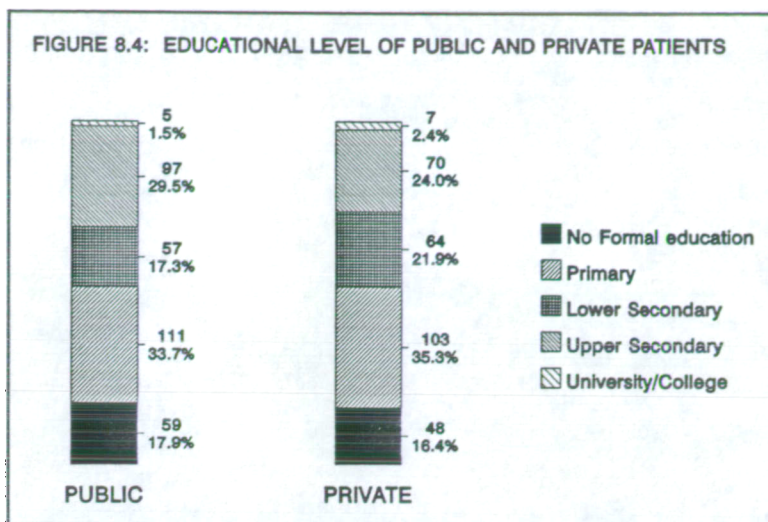


Table 8.1: Socio-economic status based on occupations and ownership used in the study

Socio-economic groups	Occupational groups
Upper	Government servants, workers of parastatal bodies, professionals, technical and related workers
Middle	Traders and shopkeepers Farmers with 3 acres or more of land Fishermen with fishing boat
Lower	Farmers with less than 3 acres of land Landless farmers Fishermen without fishing boat Labourers Rubber tappers Factory workers

Table 8.2: Socio-economic status of patients in public and private facilities

Socio economic group	PUBLIC		PRIVATE		BOTH	
	Nos	%	Nos	%	Nos	%
Upper	94	(19.2)	88	(20.6)	182	(19.8)
Middle	101	(20.7)	130	(30.4)	231	(25.2)
Lower	294	(60.1)	210	(49.0)	504	(55.0)
Total	489	(100)	428	(100)	917	(100)

$\chi^2 = 13.84$ d.f = 2 p < 0.001

v) Household characteristics

The households of the private clinic users had more working individuals compared to those using the public sector facilities (2.2 vs 1.9 people). The number of children and total number of individuals in the households were not significantly different (Table 8.3)

Table 8.3: Different in household characteristics of patients attending public and private facilities

	Mean	SD	SE	t	p
No. of children					
Public	2.9	2.19	0.99	0.82	0.414
Private	2.8	2.23	0.11		
No. working individuals					
Public	1.9	1.33	0.06	2.57	0.010
Private	2.2	1.53	0.07		
Total No. of Individuals in households					
Public	6.0	2.71	0.12	1.66	0.096
Private	6.3	3.20	0.16		

vi) Distance travelled

On average private patients travelled 2.5 km further than public patients to seek care in their preferred facilities (Table 8.4).

Table 8.4: Distance travelled by patients attending public and private facilities

	Distance travelled (Km)	
	Public	Private
N	488	424
Mean	6.3	8.8
SD	7.85	9.09
t value		4.51
p value		< 0.001

(* One patient in public sector and 4 in private sector were excluded because they were visiting the district)

vii) Bypassing of nearest health facility

To assess the extent of bypassing of the nearest health facilities, patients were asked whether there were any health facilities near their homes apart from the one they visited. Among public patients 38.2% admitted that there were other health facilities nearer to their homes; for the private patients the figure was 48.1% (Table 8.5).

Table 8.5: Percentage of public and private patients who bypassed the nearest health facility

	PUBLIC		PRIVATE	
	Nos	%	Nos	%
Bypass	187	(38.2)	206	(48.1)
Do not bypass	302	(61.8)	222	(51.9)
Total	489	(100.0)	428	(100)

$\chi^2 = 8.72$ d.f= 1 p = 0.003

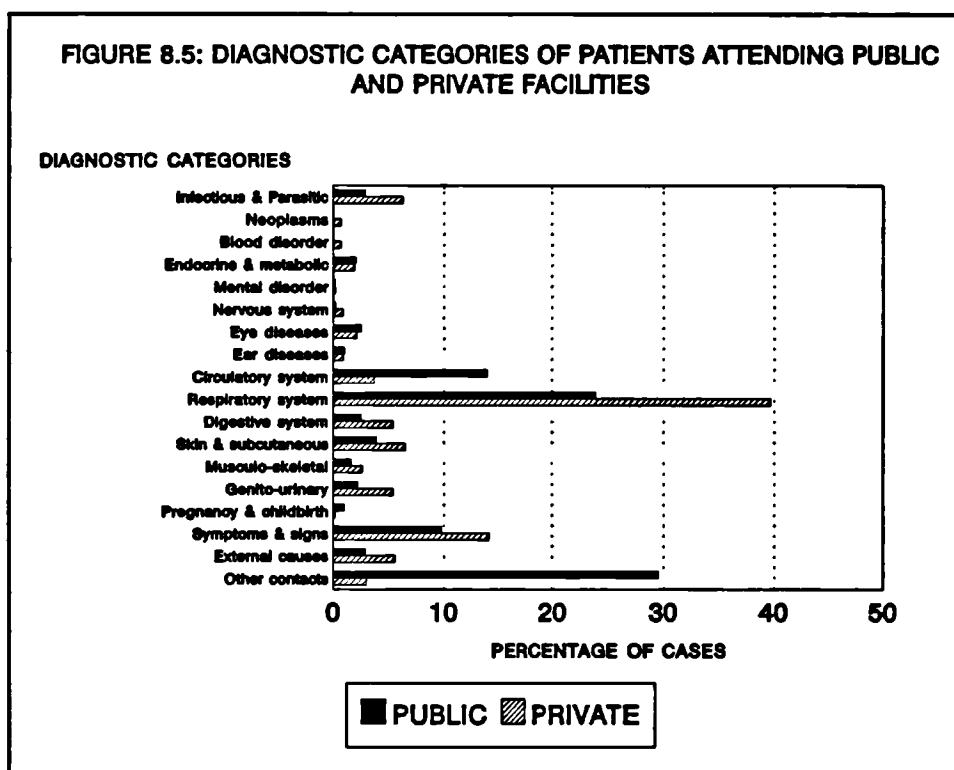
8.1.3 Medical conditions

i) Current medical condition

Diagnoses made by the health workers were classified using ICD-10 classifications. Among public sector users, the largest reason for attendance (29.5%) was for preventive care classified within 'Other contacts' in 'Factors influencing health status and contact with health services' of ICD-10 (Figure 8.5). In contrast, the largest group of patients (39.7%) in the private sector suffered from diseases of the respiratory system.

Upper respiratory tract infections were the commonest illnesses among patients in both sectors (Table 8.6). Unlike

in the private sector, patients seeking preventive care (antenatal check-ups for women and child health screening) were among the top ten reasons for consultations in the public sector. Three important chronic illnesses (hypertension, bronchial asthma and diabetes mellitus) were among the top ten conditions in public sector patients, and together comprised of 17.9% of public patients. Only two of these conditions (hypertension and asthma) were among the top ten reasons for seeking private care and comprised 5.6% of patients.



ii) Curative and preventive care

Reasons for patient consultations were divided into two: curative care and preventive care. Included under "preventive" care were antenatal and post-natal care, contraception, childhood immunisations and pre-employment medical examinations. All others were considered to be seeking curative care. Patients seeking curative care were further divided into those suffering from acute or chronic conditions. In this study those diagnosed as having hypertension,

diabetes, bronchial asthma and ischaemic heart diseases were classified into chronic conditions and the others were considered acute.

There were significantly more patients seeking curative care for acute illnesses in private than public facilities (59.8% vs 40.2%). However there were more patients seeking preventive care and curative care for chronic illnesses in public than private facilities. The differences were still significant after stratification by gender (Table 8.7).

Table 8.6: Top ten reasons for consultations among patients attending public and private facilities

PUBLIC		PRIVATE	
Conditions	%	Conditions	%
URTI*	20.2	URTI*	26.6
Antenatal check-up	19.2	Bronchitis	5.6
Hypertension	13.5	'Fever'	4.7
Child health screening	9.6	Gastritis	4.7
'Headache'	2.5	Gastroenteritis	4.0
Bronchial asthma	2.2	Hypertension	2.8
Diabetes mellitus	2.2	Asthma	2.8
Conjunctivitis	2.2	Eczema	2.6
Gastritis	2.2	'Myalgia'	2.6
Bronchitis	1.8	'Backache'	1.9
Others	24.4	Others	41.7

* URTI = Upper respiratory tract infection

Table 8.7: Types of care sought by patients attending public and private facilities

Type of care	MALE		FEMALE		TOTAL	
	Public	Private	Public	Private	Public	Private
Acute curative	132 (41.3)	188 (58.7)	126 (39.3)	195 (60.7)	258 (40.2)	383 (59.8)
Chronic curative	23 (57.5)	17 (42.5)	65 (80.2)	16 (19.8)	88 (72.7)	33 (27.3)
Preventive	19 (86.4)	3 (13.6)	124 (93.2)	9 (6.8)	143 (92.3)	12 (7.7)
Total	174 (45.5)	208 (54.5)	315 (58.9)	220 (41.1)	489 (53.3)	428 (46.7)
	X ² = 19.46 d.f = 2 p < 0.0001		X ² = 131.18 d.f = 2 p < 0.0001		X ² = 156.73 d.f = 2 p < 0.0001	

iii) Chronic illnesses

The presence of four chronic illnesses (hypertension, diabetes mellitus, asthma and ischaemic heart disease) among the patients were assessed by asking them directly if they suffered from these illnesses. The prevalence of any of the four diseases among adult (age 15 years and above) was found to be significantly higher among public than private patients (33.4% vs 23.3%) (Table 8.8)

Table 8.8: Presence of chronic illnesses among adults using public and private facilities

Types of illnesses	Public (N = 329)*		Private (N=292)*		X ² Value	p value
	Nos	%	Nos	%		
Hypertension	83	(25.2)	39	(13.4)	13.07	< 0.001
Diabetes mellitus	12	(3.6)	17	(5.8)	1.19	n.s
Asthma	23	(7.0)	18	(6.2)	0.06	n.s
Ischaemic heart disease	5	(1.5)	11	(3.8)	2.28	n.s
Any of the four chronic illnesses	110	(33.4)	68	(23.3)	7.30	0.007

* Children were excluded from the analysis

8.1.4 Choice of providers

i) Regular providers

When patients were asked whether the clinic that they visited in the study was their regular one, 87.5% of public patients and 79.0% of private patients said "Yes" (Table 8.9).

Table 8.9: Presence of regular provider among public and private patients

	PUBLIC		PRIVATE	
	Nos	%	Nos	%
Have regular provider	428	(87.5)	338	(79.0)
No regular provider	61	(12.5)	90	(21.0)
Total	489	(100)	428	(100)

X² = 11.53 d.f = 1 p < 0.001

For the current episode of illness, patients were asked whether they visited any other facilities before the present one. Those who visited other facilities before but were not referred to the current one were defined as 'healer shoppers'. When referred patients were excluded (47 public and 8 private

patients) the proportions of healer shoppers among public and private patients were not significantly different (17.6% vs 21.2%) (Table 8.10).

Table 8.10: Healer shopping among patients attending public and private facilities

	Public	Private
Healer shoppers	78 (17.6)	89 (21.2)
Non-healer shopper	364 (82.4)	331 (78.8)
Total	442 (100.0)	420 (100.0)

$\chi^2 = 1.51$ d.f= 1 p = 0.219

ii) Reasons for choosing the provider

Patients were asked the reasons for choosing the facilities: proximity of the clinic to their homes was the most common reason (49.2%) for their choice among patients attending public facilities. Patients in the private sector were more concerned about choosing the provider who was perceived to be providing the most effective treatment (45.1%). Effectiveness of treatment was the reason given by 19.8% of public patients; 14.4% of them chose the facility because of low or free charges. Shorter waiting times and good relations with health workers were mentioned by private patients but not by those using the public sector (Table 8.11).

Table 8.11: Reasons for choosing the facilities among public and private patients

Reasons	Public		Private	
	Nos	%	Nos	%
Near to house	253	49.2	103	24.0
Treatment is effective	102	19.8	194	45.1
Service is cheap free	74	14.4	0	0.0
Referred to the facilities	27	5.3	0	0.0
Regular clinic	15	2.9	15	3.5
Arranged by employers	0	0.0	32	7.4
Short waiting time	0	0.0	23	5.3
Good relations with health workers	0	0.0	12	2.8
Doctor speaks his her language	0	0.0	12	2.8
Other reasons	43	8.4	39	9.1
Total	514*	100.0	430*	100.0

(* Patients may give more than one reason)

8.1.5 Patient management

i) Time spent

Waiting time was defined as the time from arrival at the clinic until s/he was called in for consultation; consultation time is the time spent on consultation and total time spent as time from patient arrival until ready to go home.

The mean waiting time and the total time spent in the clinics was about twice as long for those attending public facilities compared to private patients (Table 8.12). Patients in public facilities had shorter consultations with the health workers than those in private facilities (5.6 vs 6.8 minutes).

Table 8.12: Time spent by patients in public and private facilities

	Waiting Time		Consultation time		Total time	
	Public	Private	Public	Private	Public	Private
Mean	52.1	21.1	5.6	6.8	67.4	35.4
SD	53.29	22.43	4.09	5.36	58.53	24.24
N	489	428	489	428	489	428
t value	11.74		3.70		11.07	
p value	< 0.0001		< 0.0001		< 0.0001	

ii) Health workers

While almost all those attending private clinics were seen by doctors (99.3%), only 49.9% of public patients were managed by doctors, the rest were treated by other support staff such as medical assistants, nurses and midwives.

Table 8.13. Types of health personnel seen by patients in public and private facilities

	PUBLIC		PRIVATE	
	Nos	%	Nos	%
Doctors only	183	(37.4)	425	(99.3)
Doctors and other staff	61	(12.5)	0	(0.0)
Other staff	245	(50.1)	3	(0.7)
Total	489	(100)	428	(100)

$\chi^2 = 279.81$ d.f. = 1 p < 0.00001

iii) Referral

The referral rate among the patients attending public facilities was twice as high as in those attending private facilities (6.3% vs 3.0%). Those attending public facilities were more likely to be referred to other public facilities whereas those in the private sector were likely to be referred to other private providers. Among the 31 public sector patients who were referred, only 9 of them (29.0%) were given referral letters whereas among the private patients, 8 out of 13 referred patients (61.5%) were given referral letters.

Table 8.14: Referral rates and place of referral in public and private facilities

	PUBLIC		PRIVATE	
	Nos	%	Nos	%
Referred to public facilities	27	(5.5)	5	(1.1)
Referred to private facilities	4	(0.8)	8	(1.9)
Not referred	458	(93.7)	415	(97.0)
Total	489	(100)	428	(100)

$\chi^2 = 4.75$ d.f. = 1 p = 0.029

iv) Drug prescriptions

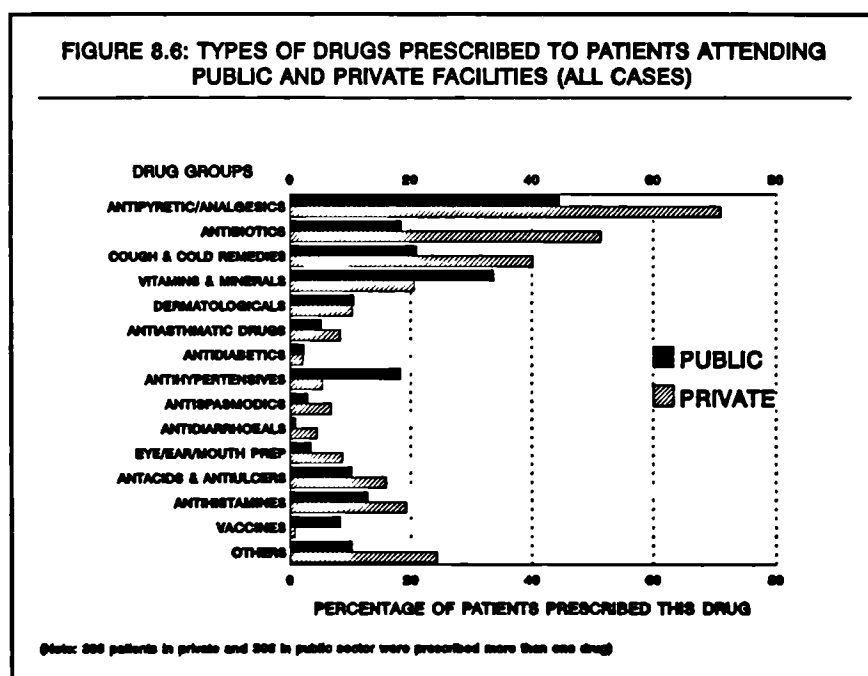
a) Types of drugs prescribed

Drugs prescribed were classified according to their mode of action (MOH, 1992 c; MIMS Asia, 1992) (Figure 8.6). Analgesics and antipyretics were the most common groups of drugs prescribed in both sectors; 44.6% of public and 71.0% of private patients were prescribed drugs in this group. The second commonest drug prescribed were antibiotics in the private sector and vitamins/minerals in the public sector. Prescriptions for analgesics/antipyretics and antibiotics varied widely between the public and private sectors. The differences in the proportions of patients prescribed drugs were significant ($p < 0.05$) except for dermatological, antidiabetics and asthmatic drugs. More public patients were given vitamins & minerals, antihypertensives and vaccines than private patients: this was probably because more antenatal mothers (who were prescribed vitamins and minerals routinely),

children attending child health clinic (they were immunised at the same time) and hypertension cases attended public than private facilities. In all the other groups of drugs, more private than public patients were prescribed drugs.

When the types of drugs prescribed were compared for patients seeking curative care for acute illness only (258 in public and 383 in private sector), private doctors prescribed significantly more antibiotics, antiasthmatics and antidiarrhoeals than public sector doctors ($p < 0.05$). However public sector doctors prescribed more dermatologicals than private sector doctors (Figure 8.7).

The different types of drugs which were prescribed to public and private patients were classified into essential and non-essential drugs using the WHO 6th Essential drug lists. There were more than twice the number of different types of drugs prescribed in the private than the public sector (213 vs 94). The proportion of these drugs that was essential was higher in the public than private sector (42.6% vs 23.0%) (Table 8.15).



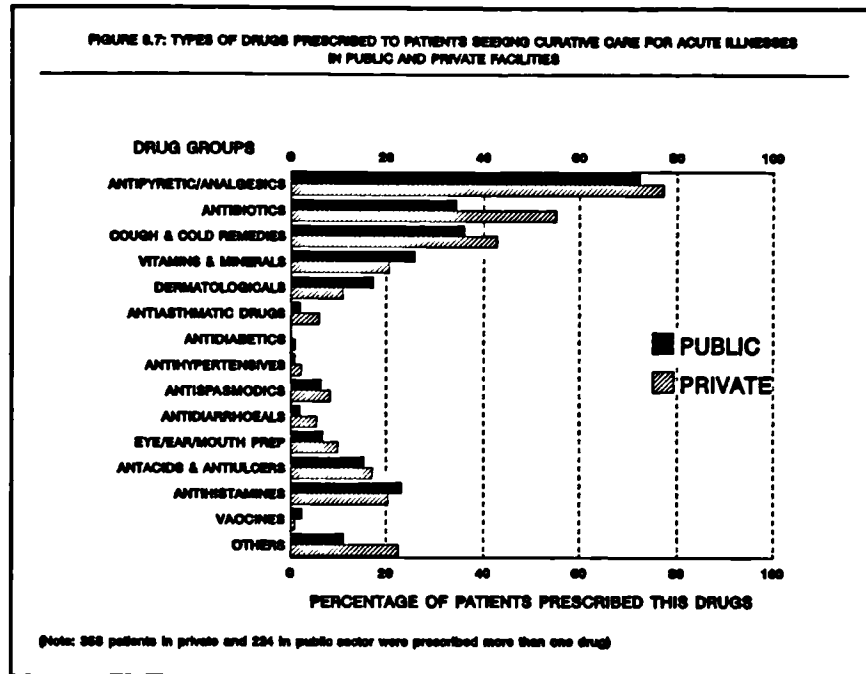


Table 8.15: Essential and non-essential drugs prescribed to patients in public and private facilities

	Public Sector		Private sector	
	Nos	%	Nos	%
Essential drugs	40	(42.6)	49	(23.0)
Non-essential drugs	54	(57.4)	164	(77.0)
Total	94	(100)	213	(100)

$\chi^2 = 11.18$ d.f =1 p < 0.001

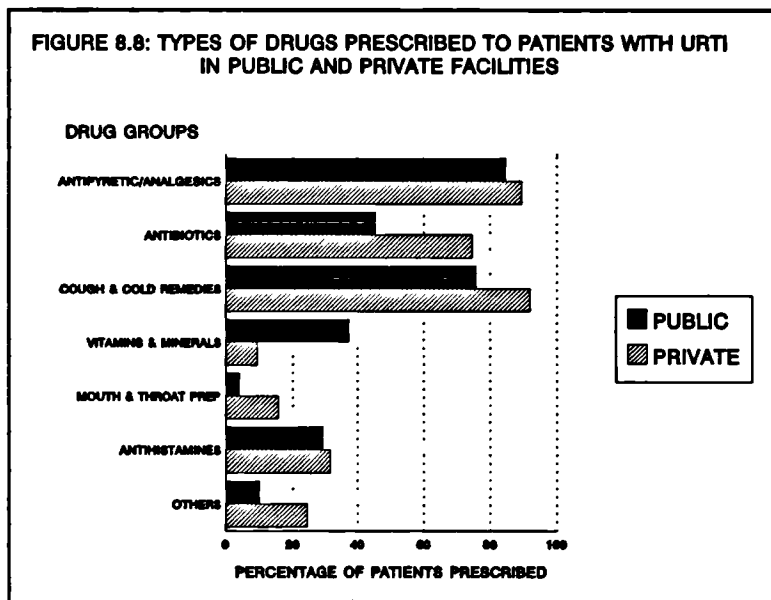
Table 8.16 shows the top five drugs prescribed to patients. Paracetamol is the commonest drug prescribed among patients in both sectors. Prescriptions of two antibiotic (amoxycillin and ampicillin) and two analgesics/antipyretics (paracetamol and mefenamic acid) were among the top five common drugs prescribed in the private sector. Only one of these, paracetamol was found among the top five in the public sector. The presence of benadryl expectorant as one of the top five drugs in both groups can be explained by the presence of upper respiratory tract infections as the commonest illness in both sector.

Table 8.16: Top five drugs prescribed to patients in public and private facilities

Public sector		Private sector	
Drugs	%	Drugs	%
Paracetamol	(33.7)	Paracetamol	(44.9)
Benadryl Expectorant	(20.0)	Ampicillin	(15.4)
Haematinics	(13.1)	Benadryl Expectorant	(12.6)
Metoprolol	(7.7)	Amoxicillin	(11.2)
Magnesium Trisilicate	(6.7)	Mefenamic Acid	(10.7)

Since upper respiratory tract infections (URTI) were the commonest illness among private and public patients and two types of antibiotics were among the commonest drugs prescribed by private doctors, there is a possibility that private

doctors were prescribing more antibiotics to patients with this condition than in the public sector. To examine this, the drugs received by 99 patients in the public facilities and 114 patients in private clinics suffering from URTI in both



facilities were compared. Nearly three quarters (74.6%) of private sector patients were prescribed with antibiotics while in the public sector less than half (45.5%) received this group of drugs ($p < 0.001$) (Figure 8.8). Prescriptions of analgesics/antipyretics and antihistamines were almost the same between the two groups of patients. Private patients were also more likely to be prescribed with cough mixtures and throat preparations such as lozenges than public patients ($p < 0.05$). However public sector personnel were more likely to prescribe vitamins and minerals to their patient with URTI than the private doctors ($p < 0.0001$).

b) Prescriptions of injections

The prescription rate of injections was about fifteen times higher among private than public patients (0.8% vs 12.4%) (Table 8.17). Most of these injections were for antibiotics particularly lincomycin and ampicillin and analgesics especially diclofenac ("Voltaren").

Table 8.17: Injections as part of treatment of public and private patients

	Public		Private	
	Nos	%	Nos	%
Antibiotics	1	(0.2)	24	(5.6)
Analgesics	1	(0.2)	15	(3.5)
Others	2	(0.4)	14	(3.3)
No injections	485	(99.2)	375	(87.6)
Total	489	(100.0)	428	(100.0)

$\chi^2 = 50.40$ d.f = 1 p < 0.0001

c) Number of drugs prescribed

Patients attending private clinics were prescribed more items of drugs than public patients. While 59.3% of patients attending public facilities received 2 or less items of drugs, 72.6% of private patients were prescribed 3 or more items. Among patients with acute illness, 58.9% of patients in public facilities were prescribed three or more drugs compared to 77.6% in the private sector (Table 8.18).

Table 8.18: Number of items of drugs prescribed to patients attending public and private facilities

No. of drugs	Patients seeking acute curative care				All patients			
	Public		Private		Public		Private	
	Nos	%	Nos	%	Nos	%	Nos	%
0	9	3.5)	12	(3.1)	48	(9.8)	20	(4.7)
1	25	(9.7)	13	(3.4)	135	(27.6)	22	(5.2)
2	72	(27.9)	61	(15.9)	107	(21.9)	75	(17.5)
3	119	(46.1)	191	(49.9)	150	(30.7)	196	45.8
4	30	(11.6)	84	(21.9)	40	(8.2)	90	(21.0)
5	3	1.2)	22	(5.8)	9	(1.8)	25	5.8)
Total	258	100	383	100	489	(100)	428	(100)

$\chi^2 = 38.98$ d.f = 5 p < 0.0001

$\chi^2 = 127.87$ d.f = 5 p < 0.0001

v) Diagnostic investigations

The rate of any investigations among patients attending public facilities was three times higher than among private patients (42.5 vs 13.3/100 patients). Simple tests such as blood (mostly haemoglobin test) and urine analysis (mostly urine sugar and protein) were more likely to be carried out among public patients whereas private patients were more likely to undergo X-rays or ultrasound scan.

Table 8.19: Types of tests undergone by public and private patients

Types of test	Public (489)		Private (428)	
	Nos	%	Nos	%
<u>Basic tests</u>				
Blood tests	108	51.4)	9	(14.8)
Urine analysis	86	(40.9)	26	(42.6)
Stool exam.	2	(1.0)	0	(0.0)
<u>Expensive tests</u>				
ECG	3	(1.4)	2	(3.3)
X-rays	4	(1.9)	7	(11.5)
Ultrasound	5	(2.4)	13	(21.3)
Total	208	(100.0)	57	(100.0)
Rate/100 patients (Basic test)	40.1		8.2	p < 0.0001*
Rate/100 patients (Expensive test)	2.4		5.1	p < 0.05**
Rate/100 patients (All test)	42.5		13.3	p < 0.0001***

* t-test : Mean (Public) = 0.401 SD = 0.947
Mean (Private) = 0.082 SD = 0.343 ; t = 6.60

** t-test : Mean (Public) = 0.024 SD = 0.190
Mean (Private) = 0.051 SD = 0.221; t = 1.98

*** t-test : Mean (Public) = 0.425 SD = 0.995
Mean (Private) = 0.133 SD = 0.409 ; t = 5.67

vi) Payment

Most patients attending public facilities received free services while most private patients paid out of pocket. The percentage of patients with third party coverage was significantly higher in the private than public sector (14.0% vs 0.2%) (Table 8.20).

Those charged for public services paid RM 1.00 for out-patient services in the district hospital; services in health centres

were free of charge. Most private patients paid between RM 10.00 to RM 20.00. The mean was RM 17.54 which is equivalent to one day's salary of a labourer in the district (Table 8.21 and 8.22). The difference in charges for patients with acute and chronic illnesses was not statistically significant (Table 8.22). Although the charges for preventive care were about twice higher than charges for acute illnesses, the difference was not statistically significant. This is probably due to the small number of cases for preventive care in the private sector.

Table 8.20: Methods of payment among patients attending public and private facilities

Payment method	Public		Private	
	Nos	₹	Nos	₹
Free	418	(85.5)	6	(1.4)
Out-Of-Pocket	70	(14.3)	362	(84.6)
Third-party	1	(0.2)	60	(14.0)
Total	489	(100)	428	(100)

$\chi^2 = 653.61$ d.f = 2 p < 0.00001

Table 8.21 : Charges in private facilities

Amount (RM)	Nos	₹
0 to < 5	9	2.1
5 to < 10	25	5.8
10 - < 15	168	39.3
15 - < 20	116	27.1
20 - < 25	56	13.1
25 - Above	54	12.6
Total	428	100.0

Table 8.22: Mean charges in private facilities for different types of care

	N	Mean	SD	p value
CURATIVE CARE				
Acute illnesses	383	16.96	9.18	p = 0.670*
Chronic illnesses	33	17.71	11.56	
PREVENTIVE CARE				
TOTAL	428	17.54	11.88	p = 0.137**

* t-test between acute and chronic illness t = 0.43

** t-test between acute illnesses and preventive care. t = 1.61

8.1.6 Multiple logistic regressions

The bivariate analysis suggested differences between those seeking care in public and private sector. However in order to control for the confounding effect of many other variables, logistic regression was applied. The dependent variable was the type of clinic visited and table 8.23 indicated the independent variables used in the model.

Results of the analysis is shown in table 8.24. Age, gender number of household members and number of working households did not influence the choice of facilities made by patients.

Type of care sought by patients was the most important factor which influence the type of facilities visited by patients. Those using private services were 19 times more likely to be seeking seeking curative than preventive care (Odds ratio = 19.18; 95% confidence limits = 9.72 - 37.87). Users of private care were three times more likely to be non-Malays than Malays (Odds ratio = 3.35 95% confidence limits= 2.40 - 4.68). Users of the private facilities were more likely to be those in the middle and upper socio-economic group, travelled a longer distance and were more likely to have third party coverage than those using public facilities.

Users of public sector facilities were more likely to have chronic illnesses, had regular provider and had more children in their households than those using private facilities.

Table 8.23: Description of variables used in multiple logistic regression in user interviews

Variables	Values
A. Dependent	
Types of facilities used	Dummy : Private = 1 Public = 0
B. Independent	
i) Personal	
Age	0-93 years
Gender	Dummy: Male = 1 Female = 0
Ethnicity	Dummy: Non-Malays = 1 Malays = 0
Socio-economic status	Dummy : Low Middle Upper
Distance travelled	0 - 64.3 km
Type of care sought	Dummy: Curative = 1 Preventive = 0
Having a regular provider	Dummy: No = 1 Yes = 0
Presence of chronic diseases	Dummy: No = 1 Yes = 0
Have third party coverage	Dummy No = 1 Yes = 0
ii) Household	
Household size	1 - 30
Number of children in household	0 - 20
Number of adults working	0 - 13

Table 8.24: Results of the analysis using multiple logistic regression on factors influencing the use of private facilities

Variables	B	S.E.	p	R* Odds** ratio	95% Confidence limits	
Non-Malays	1.210	0.170	0.000	0.195	3.35	2.40 - 4.68
Socio-economic status						
Low	0					
Middle	0.814	0.191	0.000	0.113	2.26	1.55 - 3.28
Upper	0.498	0.228	0.029	0.047	1.65	1.05 - 2.57
Distance travelled	0.039	0.010	0.000	0.103	1.04	1.02 - 1.06
Seek curative care	2.954	0.347	0.000	0.236	19.18	9.72 - 37.87
Have regular provider	-0.771	0.225	0.000	-0.087	0.46	0.29 - 0.72
With chronic illness	-0.803	0.234	0.000	0.088	0.45	0.28 - 0.71
Have third party coverage	4.636	1.029	0.000	0.120	103.09	13.72 - 774.98
Number of children	-0.201	0.087	0.021	-0.051	0.82	0.69 - 0.97
Age	0.002	0.005	0.642	0.000	1.00	0.99 - 1.01
Male	-0.075	0.167	0.654	0.000	0.93	0.67 - 1.29
Number of households members	0.135	0.077	0.081	0.029	1.15	0.98 - 1.33
Number of working individuals	-0.055	0.089	0.535	0.000	0.95	0.80 - 1.13

(* R = Partial correlations

(** Odds ratio of having sought private rather than public sector care)

8.2 SUMMARY

Box: 8.1 Summary of findings from user interviews

- * Use of private services were strongly associated with non-Malays, those in the upper and middle income socio-economic status and those with third party coverage.
- * Users of private facilities were more likely to be those seeking curative care for acute illness while users of public facilities were more likely to be those with chronic illnesses or needed preventive care.
- * Patients using private facilities were more likely to travel a longer distance to the facilities of their choice and more often bypassed the nearest health facilities.
- * Patients using public facilities were more likely to have regular provider than users of private facilities.
- * Users of public facilities were significantly related to those having more children in their households.
- * Age, gender, educational status, number of working individuals in the households and size of the households did not influence the type of facilities used.
- * Patients using private facilities had shorter waiting time, longer consultation time and were more likely to be treated by doctors than those using public facilities.
- * PPs prescribed more items and a greater variety of drugs, most of which were non-essential.
- * Even though patients attending private facilities undergone fewer diagnostic tests than those attending public facilities, they were more likely to undergo more expensive ones such as X-rays and ultrasound scan.
- * Patients attending private facilities were less likely to be referred but if they were to be referred they were more likely to be given referral letters and to be referred to private rather than public facilities.
- * In both facilities, the commonest method of payment in both sector is out-of-pocket but most patients attending public facilities received free care.

IX. STUDY OF COMMUNITY SATISFACTION

9.1 RESULTS

9.1.1 Respondents

In each of three villages, four FGDs was carried out (two males and two female groups) in each. Two FGDs were carried out among government workers; altogether 14 FGDs were carried out involving 131 participants. Twelve community leaders were interviewed, four in each community (two males and two females).

9.1.2 Choice of health facilities

The participants used full range of services provided by both the public and the private sector: district hospital, state general hospital, health centres, community clinics, the midwifery clinics, the private clinics, estate hospital, specialised private clinics and private hospitals located in the capital.

In all cases, the private clinics were preferred by the participants followed by the district hospital, state general hospital and the health centres were given least preference. Most participants were using multiple providers. They often first visited the private doctors and hopped from one private doctor to another for the same episode of illness until it was cured. If not cured and if they felt that the disease was serious, they would then go to the public facilities.

The type of illness influenced the choice of providers. Across all the FGDs, the participants used private facilities for simple illnesses such as cough and colds. The public facilities, especially the state general and district hospital were used for serious illness especially those requiring hospitalisation such as severe injuries due to motor vehicle accidents or occupational injuries and deliveries. The most common reason for choosing private providers for simple

illnesses was in order to avoid long waiting times. They chose public facilities for serious illnesses because of the high costs which would otherwise be incurred in private facilities.

Women more than men preferred the health centres, community and midwifery clinics. Women used these facilities for maternal and child health services which were not widely available in private clinics in the district (antenatal care) and were provided good quality free of charge in the public facilities (immunisations). They preferred to go to the district hospital and state general hospital for deliveries because it was too costly in specialised private clinics and hospitals.

9.1.3 Satisfaction with public and private facilities

i) General

Table 9.1 shows the various issues discussed in the FGDs. Most women discussed their satisfaction and dissatisfaction based on their experience with deliveries and child care. Their comments were mostly on the services in the labour rooms and maternity ward as well as the antenatal care and child health services in both types of facilities. The discussions among the men were mostly drawn from their experience in obtaining out-patient services.

All the leaders raised issues related to staff attitude, waiting time, drugs, charges and equipment (Table 9.2). Communication problems were only discussed by the Chinese and the Indian leaders, not the Malays. The leaders rarely raised concern with the technicals skill of health personnel.

Table 9.1: Issues discussed in FGD in study of community satisfaction

Issue discussed	Malays				Chinese				Indians				Government workers		Total no. of FGDs
	M1	M2	W1	W2	M1	M2	W1	W2	M1	M2	W1	W2	M1	W1	
Staff attitudes	X	X	X	X	X	X	X	X	X	X	X	X	X	X	14
Doctors' attitudes	X	X	X	X	X	X	X	X	X	X	X	X	X	X	14
Charges	X	X	X	X	X	X	X	X	X	X	X	X	X	X	14
Waiting time	X	X	X	X	X	X	X	X	X	X	X	X	X	X	14
Drugs	X	X	X	X	X	X	X	X	X	X	X	X	X	X	14
Services available	X	X	X	X	0	X	X	X	X	X	X	X	X	X	13
Equipments	X	0	X	X	X	X	X	X	X	X	X	X	X	X	13
Operating hours	X	X	X	X	X	X	0	X	X	X	0	0	X	X	10
Communications	0	0	0	0	X	X	X	X	X	X	0	0	0	0	6
Clinic environment	0	X	X	0	X	0	0	0	X	0	0	0	X	X	6
Technical skills	0	0	0	X	X	0	X	0	0	0	X	0	X	0	5
Others	0	X	0	0	0	X	0	0	0	0	0	0	X	X	4

M1 = Men group 1 W1 = Women group 1 X = issue discussed
M2 = Men group 2 W2 = Women group 2 0 = issue not discussed

Table 9.2: Issues discussed in In-depth interviews of community leaders

Issue discussed	Malays				Chinese				Indians				Total
	M1	M2	W1	W2	M1	M2	W1	W2	M1	M2	W1	W2	
Staff attitudes	X	X	X	X	X	X	X	X	X	X	X	X	12
Doctors attitudes	X	X	X	X	0	0	X	X	X	X	0	X	9
Charges	X	X	X	X	X	X	X	X	X	X	X	X	12
Waiting time	X	X	X	X	X	X	X	X	X	X	X	X	12
Drugs	X	X	X	X	X	X	X	X	X	X	X	X	12
Services available	X	X	X	X	X	X	X	X	0	X	X	X	11
Equipments	X	X	X	X	X	X	X	X	X	X	X	X	12
Operating hours	0	X	X	0	0	0	X	X	X	X	0	0	6
Communications	0	0	0	0	X	X	X	X	X	X	0	0	6
Clinic environment	X	X	0	0	X	X	X	0	X	0	0	X	7
Technical skills	X	0	X	0	0	X	0	0	0	0	0	0	3
Others	0	0	X	0	X	X	X	X	X	0	0	X	7

M1 = Men leader 1 W1 = Women leader 1 X = issue discussed
M2 = Men leader 2 W2 = Women leader 2 0 = issue not discussed

ii) Attitudes of the health staff

The most important factor appearing to influence community satisfaction was the attitude of staff toward their patients. In most FGDs and in-depth interviews this issue was raised by the respondents without prompting. Most of them were not satisfied with the attitudes of the public sector staff compared with the private staff.

The public health staff were severely criticised for being rude and unhelpful to the patients. The participants complained that the public staff were easily angered, showed no respect for them and scolded them with abusive language over small matters. They refused to help patients. On the other hand staff working in the private clinics were considered polite and helpful.

I have children... three times my wife delivered in [public] hospital and she was scolded by the nurse ..I am not satisfied. They scolded her, shouted at her and abused her. I feel this is not good because my wife is a government servant and the nurses are government servants too. We are not satisfied... [Malay man; FGD: MVMI]

When I delivered last time, I was given enema and was asked to go to the toilet. The toilet is far and she ask us to go quickly. While walking I stop because of pain. She scolded me " Quick! Quick! Otherwise it will come out here, don't be slow, go faster! " When the contraction goes off I can walk. But she shouted to me like that. [Malay woman; FGD: MVW2]

I myself have never been to the government hospital, my friend has been there. The nurses are very bad. If there is any emergency and you need them they will not come. The patient cannot get up from the bed, but when we call them they scolded us and ask us to go to private hospital.....[Chinese woman; FGD: CVM2]

It is better to go the clinic [private]. If you feel like vomiting, they will help you. In the hospital [government] there is no such thing. They will scold you if you do like that in the government hospital. I am always in favour of [private] clinics. [Indian woman; FGD: IVW1]

In term of 'layan' (attitudes), if we go to the private clinics, if an old patient cannot walk, quickly they will send a wheel chair. We don't have to go and search. They will send it to you immediately. [Malay women; FGD: GWW1]

Private clinic is easier, for example if we want treatment for serious illness, if we have to wait it won't be long and in emergency it is faster to get the treatment. The government staff are very rude, they shout at you but the staff in private clinics talk to you nicely. [Chinese man; FGD: CVM2]

The Indian and Chinese respondents complained that they were being discriminated against by mainly Malay health staff in the public facilities; they felt that the Malays were given priority and better treatment.

If you had an accident at 1 or 2 am if you go to the government hospital..if you call them, they will not come quickly with the trolley. We have to take the trolley ourselves. The Malays [staff]... they will not carry the patient. We have to wait for registration, then only they will call you. If the same thing happens to the Malays [patient], they will take the trolley and carry them inside quickly ..[Indian man; FGD: IVW1]

If we take our children there, she won't bother. She will just talk to the Malays. She won't bother our children, the Chinese people. Our children are hungry but there is no milk. The children cry if we have to wait long. There is no phone there to phone family members to send milk She just talk to the Malays. She don't bother the Chinese She also work slowly....[Chinese woman; FGD: CVW1]

The public staff were also said to be lazy, not conscientious, wasting time by doing things not related to their jobs and being absent from their posts during working hours. The staff were claimed to do their work properly in the presence of the doctors. On the other hand the private staff were seen as hard working, serious about their jobs and to work faster than the public staff.

In terms of 'layan' (attitude from my experience in KS clinic [Health Centre]. I came at 9.00 in the morning at that time the attendant in front is not around ...he went out for a drink so I waited. At 9.30 he is still not around He came back at 10.00 then I get my card and when I wanted to go in... the MA [Medical Assistant] went out for drink. That is why I am not satisfied It's already 10.00 o'clock. I went out for a drink and at 10.15 I came back .. he MA] is still not around. At 11.00 I have yet to see him. After I have seen him get his report and all that I went out .. the dispenser was not around... I am frustrated ..I just left the place..... [Malay man FGD: GWW1]

I am not satisfied with the staff in TK Hospital [district hospital]. When I send my friend there, I took his identity card and go to register him. They work very slow, they don't do it quickly, they wasted time and they are not responsible. [Chinese man; FGD: CVM1]

Sometimes the staff were busy knitting .. making flowers They don't bother to look at patients who just came in She just continues with her 'work' I have seen this happen many times at night when I stay there to look after my sick child... [Malay woman, FGD: MVW1]

The thing that I am satisfied [in the private clinics] is they [staff] work very fast and they cooperate and work very hard. Everyone is hardworking. Furthermore they work together to complete their job. For example when they push the trolley...they send the patients to the place for treatment .. they do it faster.... [Chinese woman, FGD: CVM1]

The public sector staff were criticised for giving priority to their relatives and friends rather than those who really needed urgent attention. Participants who knew the health workers personally admitted that they were given preferential treatment; for example they were called in faster than others. The participants said that in the private clinics the staff follow the queue properly and call in patients according to their turn.

One more thing, for my previous delivery I went to government hospital. Because I knew a staff nurse, all the nurses there treat me nicely, they don't shout at me. During labour my placenta was stuck. I have already booked but I delivered at home. When I reached hospital, I was not scolded.. they attended me straight away because I know her. But I saw someone beside me, she is a government servant. Because she doesn't bring anything and she did not know anyone, she was scolded. I don't like that... when you know someone they treat you nicely. [Malay woman; FGD: MVM1]

When I went for treatment, sometimes even if we come early someone else that knows them will go in first. They get treated earlier..... [Malay woman; FGD: GWM1].

The public staff were said to be 'rough' and inconsiderate. They carried out medical procedures such as episiotomy and wound suturing without proper anaesthesia. They refused to allow patients in pain to be treated early. In private clinics those in pain were given immediate attention and they did not have to wait.

I am not satisfied with the staff attitude. For example I had a cut on my leg...the skin was broken, so I put some medicine and bandaged it. The next day, it had to be cleaned and the plaster need to be removed. The nurse knew that it would hurt, she just pull it.. very hard...it bleeds. I want to tell her ... I can't tell her....she should be more gentle, should be more careful and do it slowly... she is just too rough. [Chinese man; FGD: CVM2]

It's about deliveries. I heard that many people are not satisfied with this. For example when women delivered they have to wait. Sometimes in the [government] hospital they want to be fast. In the village we normally wait for the right time. In the hospital they don't want to wait so they cut [episiotomy]. When they cut they don't give any anaesthesia. So the pain is double. Pain because of the cut and also because of the labour.... [Malay man; FGD: MVM2]

A few participants satisfied with the treatment they received, from the public staff praised those providing the maternal and child health services at the health centres, community clinics and midwifery clinics. They also felt that staff running the bigger public hospitals such as the state general hospital and the Kuala Lumpur General Hospital had better attitudes than those in the district hospital.

Eleven of 12 leaders were not satisfied with the attitudes of the public staff. Although they admitted to receiving given better service because of their status in the community, sometimes they received complaints from villagers regarding

the staff. They felt that the main reason for poor attitudes was over-work; there were too many patients attending these facilities. They felt that the public facilities were understaffed and suggested that more staff should be sent by the government. The leaders also suggested that the staff should not be totally blamed for their behaviour. This was because some patients did not follow their instructions or the regulations of the hospitals and clinics. The positive attitudes of the private staff were attributed to the fact that they are running a business and needed to attract customers.

For example, sometime I came to know I heard stories... among the many staff sometimes there are good ones and there are not so good ones and the patients also are the same. Some of them [staff] are hot-tempered..... It never happens to me. Sometime when they work, the government workers when they overworked, work continuously ..I have seen it my self....they work continuously for 8 hours they were negligent....that's the problems... [ID: Malay man]

The 'layan' (attitude) in private clinics is good because we pay them. They are private....like companies. They want to preserve their good name.... [ID: Chinese man]

iii) Attitude of doctors

The public sector doctors were criticised for not examining their patients during consultations. Consultations with the public doctors were brief: they were asked about their illness and then prescribed the medicine. The public doctors often did not provide any information about their illnesses. Some FGD participants and three of their leaders indicated that the public sector doctors were rude and scolded them when they asked about their illnesses. The public doctors showed no interest in their patients and were eager to end the brief consultations in order to see the next patient.

If you go to government hospital and complain that you have some growth or cancer, the doctor just presses with his hand and says "Oh, it's nothing". If I go to the private clinics, they will examine properly and if they find your illness and they will give a referral letter and send you to Klang. If you go to government hospital they just give medicine and will not examine you. You won't know what you are suffering from... [Indian man; FGD.IVMI]

When we go in he just ask you. In private clinics he will ask what is the illness, how long you have been having it and so on till he is finished with you But not here [public facilities]. Stomach ache .. he just write the medicine and that's all. If we are admitted to the ward if the doctor comes and we tell him our problems "What! you are sick!" He shouted like that. Why can't he just say it nicely. " Mister, you are sick, please do not talk so much" That's better. I am not satisfied at all... [Malay man; FGD: GWM1]

The participants were more satisfied with the private doctors who examined them thoroughly, explained their illness to them and reassured them. The private doctors were felt to be polite and friendly.

If we go to the private clinics, first of all the receptionist will see us and take down our particulars and ask us to sit down to wait. When our turn comes the nurse will call us, she opens the door and asks us to sit. The doctor will take good care about you. He examines thoroughly and gives advice to you. He then writes the medicine. The medicine is the exact one for your illness. If in the [government hospital], he will say "what is your illness? Go out and take your medicine". In the private clinic it is not like that. (Malay woman, FGD-MV2W1)

Another thing the doctor (private) will be very patient and they take time to ask about their sicknessso what is happening, what is the actual problem....they talk on all the things, they take time, sometimes they spend twenty minutes or so with the patient, they will see, then they will ask...sometimes they ask about the family and everything, so they record everything...so then after that only they say you go back and rest and the only thing that you have is this and so we can cure this one, so you take the medicine for first time and we see later.... something like that...so we are very pleased with the doctor.... (ID: Indian man)

Most of the community leaders thought that the poor attitudes of the public doctors resulted from overwork.

iv) Waiting time

Another cause for community dissatisfaction with the public health services were the long waiting times. People usually had to wait 'a few minutes' in the private clinics as compared to 'a few hours' or the 'whole day' in public facilities. Among the women, most of them complained about having to wait very long with their sick children.

The thing which I am not satisfied with is when I take my children, I have to wait very long. I understand that there are many people there but if it is too long it's not easy for me. Furthermore the children are sick.... (Malay woman; FGD: MV2W2)

If we went at two pm...we came back around 4 to 5.... if we go to private (clinic) it will only take twenty minutes or half an hour only....and some more we can go at night...we can go after work... but not the government hospital. (ID: Chinese women)

Many of the Indians and the Chinese observed that they had to wait longer than the Malays because of the discriminatory attitude of the staff. In the Malay FGDs the public staff were criticised for allowing their relatives and friends to get earlier consultations leaving others who came earlier to wait longer. The participants also complained about registration, staff working slowly and wasting time by talking or doing other thing. Besides their official lunch breaks the public staff also took frequent breaks for drinks. In contrast, staff in private clinics worked during lunch hours and would not take their breaks if they had patients to serve.

Sometimes the clerks work very slow. He will eat first. He should register the old man first, he want to go faster, but he eat first. He eat in front of us and talk with his son. He bring his son to work. After he has finished eating, then he will call us... I don't like to go to counters like that, not only in hospital but everywhere they should serve better. If they serve well when we go there we feel happy. But here the service is poor, it is slow. After that we still have to wait and it's going to be late. He can eat first, talk...sometime it is so long to wait for the registration just like waiting to see the doctor. I have seen it before, an old man who want to go in faster, he was scolded because he wanted to be registered when the staff were eating. .. I am sure in the hospital they can eat some other time (Malay woman; FGD MVW1)

Private clinics is much easier, it is not the same as government clinic. The government clinic you have to wait and wait. For example at 12.00 the government staff want to rest for one or two hours, so we have to wait. In private clinics, if they want to rest they will try to finish their patients first. (Chinese man, FGD CVW2)

In general, I have seen once in government hospital in Ty Karang... Someone come in with oil palm torn injury on his back. The wound is still there, he can't stand the pain. So I ask him to go and ask... he is given the last number, number 111. He went and asked to get treated earlier, but he was asked to sit and wait. But there is one Malay man, he came and whispered to the registration clerk and he was allowed to go in, get his medicine and went back early. He can't stand [the pain] so he told me he want to go to the private clinic and he went out. There is racial problem in Ty Karang Hospital. The Indians were not well treated.....[Indian man, FGD: IVM1]

In the district hospital the doctors who run the OPD have to take care of in-patient services. So these doctors only come to the OPD two or three hours after the OPD clinic have opened. Sometimes the doctors running the OPD clinic have to leave the clinic to attend the urgent cases in the ward. In contrast to the private facilities the participants stated that these facilities were visited by fewer patients and there were many such facilities available for patients to go resulting in shorter waiting time than in the public facilities.

Six community leaders suggested that the long waiting time was due to overcrowding and five attributed this to the inadequate number of doctors running the public service. The leaders also suggested that the short waiting times in the private clinics resulted from their business nature. One of the Chinese leaders observed that his villagers who wanted to get faster attention at the public hospital would first go to the private clinic and ask the private doctor to refer them to the hospital. With the letter from the private doctors, the patient would be given priority in the public hospital and do not have to wait long. He was not happy with this situation as the patients were 'forced' to go to the private clinics in order to get faster attention in public facilities.

Normally I will go to the private clinics because I am busy. I have been to [public] hospital. I arrived at 8 when the hospital just opened. By 12:30 I had not got treatment yet. There are too many people but there are not enough doctors. There is only one doctor. The rooms are there but there is only one doctor. Only at 11 o'clock three doctors come in..... [Malay lady, FGD.GW1]

I don't have to wait very long. There are one or two people only in the private clinic, usually not many people when we go. The most is 2 or 3 people. So when we go we can just go in and get examined straight away. (ID: Indian man)

We have to wait very long. We know that sometime the doctor is busy with more sick patients but sometimes I think there are not enough doctors and it's worst when there are many patients usually after public holidays such as after festive season such as 'Hari Raya'. During these times the waiting time is worse, everyone is impatient. That's why those who can afford said that going to [government] hospital is a waste of time. It's better to go to private clinics. (ID: Malay man)

v) Charges

Charges were one aspect of the public sector services that the participants were generally satisfied with. The charges in

private facilities were considered to be very high. They were very much higher for severe illnesses, deliveries, in-patient care and surgical procedures.

A number of FGD participants and community leaders complained about the unstandardized charges in private clinics. They observed that for the same illness there were huge differences in the charges between the private clinics. Some participants complained that even the same clinic charged them differently for the same illness on different visits. The private clinics were observed to charge lower fees on the first visit and then to increase the charges subsequently. Charges were also much higher in specialist clinics compared to non-specialists. The private doctors were also said to have charged more for those in the higher socio-economic classes but they rarely gave discounts to the poor. The leaders suggested that the government should control the charges in the private clinics and private doctors should be made to display their charges in their clinics. At present patients only know how much they have to pay after seeking treatment. Those who used private hospitals were also not satisfied since most of the time they had to pay much more than had earlier been estimated.

I am not satisfied because in some clinics their medicine is the same, the treatment is the same but the charges are not. I do not know maybe the costs is higher or may be the doctor is better trained. That I do not know. May be the higher the costs and the more knowledge the doctor has then the charges will be higher. May be that's the reason. Some clinics are cheap and some are expensive. (Malay woman; FGD: GWW1)

The problem is.... first of all is the charges. I never see them display their charges list, how much for the medicine, how much for injections and all that. Sometimes we are worried because after we have received treatment how much the doctor charges we have to pay. You can't bargain. The private clinic should have the list, for example how much is the charges for X-ray.... (ID. Malay man).

The private doctors also refused to treat patients who could not afford to pay. One Chinese man reported that the private doctors refused to give medicines that had been prescribed when he did not have enough money to pay for the charges. One Chinese woman mentioned a relative who was admitted to a private hospital for surgery but the doctor refused to carry on with the surgery and discharged the patient from the hospital when the family could not raise the money for the operation.

A number of FGD participants and community leaders felt that the private clinics tended to overtreat their patients to increase the charges. They complained that the private doctors asked the patients to return for unnecessary follow-ups and prescribed more medicines than they should. The private doctors in private hospitals were said to persuade patients to undergo surgical procedures even though other modes of treatment had yet to be tried. A Chinese lady complained that she was asked to be admitted in a private specialist clinic for induction of labour even though her pregnancy had not gone post-term and ended up in having a Caesarean section when the induction failed.

There is one more thing about private clinics. They give treatment and we go back but after we have taken the medicine and cured he ask us to come back for the second time. The second time they treat us, they take our money but do not give any injections. Then they ask us to come back for the third time. I don't know whether this is right or not. My financial source is limited. I am already cured, why should I be treated some more. Are they going to make so much profit? I can't stand this. I am not satisfied. May be the follow-up visits is good for me but I feel that I am already cured. Everything is fine and I feel that I do not need to go any more but he kept asking me to go. So I don't go.....
(Chinese man; FGD: CVM2)

The private doctors .. they want money only .they only want money...if they say this one ...let say like my tonsil...my tonsil is not healthy, got to remove it....first time or second time they will ask you to remove it ...may be if you go to government hospital they will try the medicine first....try to cure...then only if cannot..cannot cure already...then only they will remove it, is it...so in the government hospital they take long time, is it...I realised all the private doctor they want money only...I think every time you go there....cut, cut, cut....one or two time cut...I don't know whether they examine this properly or not. They ask you to cut....(ID: Chinese women)

On the other hand, the public services were praised for giving subsidised care. Apart from that the poor are exempted from paying the charges or are given discounts. Patients were also allowed to pay in instalments. Preventive care such as the antenatal care and immunisation services which were given free of charge by the public facilities to the community were praised by the participants.

The government clinic is good in term of it's charges because not everyone is rich and has got the money The poor can go to the government clinic for treatment. Not only the rich can get treatment. I am happy with the charges in the government clinic, it is much easier (to pay). If we don't have money now we can pay later. If we cannot afford we ask for a discount..... [Malay woman; FGD: MVW1]

Despite high charges in the private clinics, the Chinese and the Indians were more willing to pay for these services than the Malays and the government workers. The Chinese and Indians interviewees mentioned that they would borrow money to seek care in private clinics. Besides not liking to wait in the public facilities they also believed that treatment given by private clinics was more effective and cured their illnesses rapidly. Among the Chinese community (two out of four FGDs) they believed that the more expensive clinics gave better quality care than the cheaper ones. They believed that those

who charged higher fees gave them better medicine which cured their illnesses more quickly.

Most of the time I go to private [clinic] Once a while is alright. My child health is more important. How much he asked we just give. The medicine cured the illness fast. He gives injections. The government [clinic] rarely give injections, the disease take a long time to recover. The charges is high..... [Chinese woman; FGD: CVW2]

In the government hospital we have to spend time. We have to leave our work and wait in the hospital. The good thing about private clinic is the long opening hours. Even if it's expensive it's all right. If only one person is sick you can go to the government hospital. In private clinics they use scanner [ultrasound scan]. They tell us about our illness but in the government hospital sometimes they ask us to come again many times. Sometimes they refer us to General Hospital in Kelang or Kuala Lumpur [Indian man; FGD: IVM2]

vi) Drugs

Most of the FGDs participants and six out of 12 of their leaders were more satisfied with the drugs in the private than the public facilities. They preferred drugs from private clinics because they believed them to be more effective. The drugs from the public facilities were said to be 'less strong' and a took longer time to cure an illness without recurrences.

If the medicine is from the private clinics, normally two or three days, the disease is cured. If it's from the government hospital, it will take one week....private only two or three days only and it's cured.... [Malay man; FGD: MVM1]

It's much cheaper here [government hospital], you pay only one dollar and you get the medicine but the medicine is slow to cure. If I go there when my child had fever...it take a long time to be cured. If my child has fever, cough and ordinary fever, up to three days it will not be cured yet but if I go to private clinic, after taking the medicine for one day, he is cured.... no more coughing.... [Malay woman; FGD: MVW1]

The medicine is not strong enough. After you have finished taken the medicine, the disease is not cured. The medicine is not strong enough. So if I am sick I go to private. For deliveries I go to government [facilities]. [Chinese woman; FGD: CVW1]

Mostly among the Chinese, the preference for privately provided drugs over those from the public sector is also largely due to the availability of injections in private facilities. They believed that drugs were more effective and cured the disease faster if injected. They criticised the public doctors for refusing to give injections but praised the private doctors who were willing to fulfil their request. The Chinese leaders generally preferred the drugs obtained through the public rather than the private sector. They felt that the private doctors were prescribing unnecessary drugs like vitamins and 'too much antibiotics' and trusted the public facilities more than the private ones.

It's easier to get injections. The government [doctor] rarely gives injections. Sick children will be cured faster if given injections. The government [clinic] refused to give injections and the medicine is not very effective. The medicine from private [facilities] is more effective. For example if you have fever, private [doctor] give injections and it is cured faster. Government [doctor] do not give injections. They just examine only. [Chinese woman; FGD: CVW1]

Another reason for their preference for private facilities was the variety of drugs available. The private doctors could therefore change from one medicine to another if the first one did not work. On the other hand the public doctors were prescribing the 'same medicine over and over again' making them less effective.

In terms of the medicine, if I come twice, he [PPs] give different medicine. He check his medicine. He give some other medicine. He change the medicine. [Malay woman; FGD: GWW1]

One thing that I am not satisfied is when we ask for medicine he keep giving the 'green' one. Last time when I had cough, I think it's quite a bad one, I went and asked for medicine and he give me the green one until I told him "Don't you have other medicine, doctor? You keep giving me the green one. It's not good." I said that. That is why I am not satisfied. [Malay woman; FGD: MVW1]

A few informants were more satisfied with the drugs received from the public facilities than private ones because in public facilities drugs were given in stages starting from the weakest to the strongest. They believed that this 'step by step' treatment was longer lasting although it would take a longer time to cure an illness. It would also prevent the disease from recurring. In contrast they believed that the private clinics gave drugs which cured the disease faster but had little long-term effect. They also felt that drugs from private clinics facilities were 'too strong' and has side effects even though they may cure the disease faster than the one from public facilities.

In private [clinics] because they want to take care of their customers, they must give good service so that they will be trusted by the customers. Sometime the customers do not know that the medicine has caused a shock when it reacts with the body. So if that medicine is not effective, there is no other medicine to give....[Malay man; FGD: MVW1]

In terms of medicine, what I heard from many of my friends, they said that the medicine in private clinics is good. But we have to consider that in government hospitals they give the medicine at the lowest dose because they want our own antibody to work. If we give the high dose medicine, our antibody becomes lazy. If there is any disease in future, it will not be able to fight. This is because we always go to the private clinics and the doctor gives high dose medicine.....[Malay man; FGD: GWM2]

I think the private clinic in TK, the medicine cures very fast but sometimes when he cannot managed he has to push to hospital. Last time there was a case, a kidney case. He [private doctor] give the medicine but when he cannot manage he send to hospital. When we reach hospital the government doctor scolded us...Why did you go to private clinic?. We were told that he was given too much medicine than it should be.... [Malay man; FGD: MV2M2]

vii) Communication

Language barriers were an important issue raised by the Chinese and Indian FGD participants and community leaders.

Chinese women identified this as a problem when they sought care in public facilities. They reported being scolded by the staff in the public facilities when they could not communicate

with them in Malay language. Those Chinese and Indians who could speak Malay said that they received better treatment.

I rarely go to the government hospital. It's difficult for me to wait. Furthermore I don't understand Malay. Sometimes they don't bother about you. When asked, I don't know how to answer. They scolded me. I am scared... [Chinese woman; FGD: CVW1]

Once I went there [government clinic] and I am really scared. I don't understand Malay. They asked me and I don't know how to answer. If my child is sick, I can't tell about his illness so he will not be well treated. If I go to private [clinic] I can communicate well and it's faster. Sometimes the government [staff] ask us a lot of questions. If we can't communicate how to answer them. There are no Chinese workers there. If there is any it'll be easier for us. Most of us do not speak Malay.... [Chinese woman, FGD: CVW2]

In the private clinics, some of the private doctors spoke more than one language. An Indian doctor who spoke Chinese was popular among the Chinese community. The private practitioners also employed staff from the three major ethnic groups in the district who act as interpreters to the doctor when necessary.

The Chinese and the Indian leaders confirmed that this problem existed in their community. They suggested that the government should employ staff from other ethnic groups to work in the public facilities.

viii) Range of services available

The private doctors, particularly those operating in the district were criticised for refusing to treat 'complicated' or 'serious' cases. These cases are normally referred to public facilities. They suggested that the private doctors were irresponsible for refusing to treat such cases especially where the cases had been followed up earlier in their clinics.

The bad thing about private clinics in this district that I observed, many of them are not responsible. If the disease is simple, not serious one they will treat. If it is serious, they will say "Go to hospital". I am not happy about that. Say if someone got hypertension and has been going to the private clinic to buy medicine, it happened to someone in this village. For years he has been going to Clinic A, every month he spend 20 to 30 dollars but when his blood pressure get worse he was sent to hospital [public]. Private [doctor] are not responsible. He is his regular customer but when it is serious he has to be sent to hospital. So whatever his condition the [public] hospital has to accept him..... [Malay man; FGD: MVM2]

Serious illness you have to go to [public] hospital. If you go to [private] clinic he will send you to hospital. He cannot do anything. If you need an operation you have to go to hospital. If you have fever or mild illness you can go to private clinics. If you have serious illness and you go to private clinic they will surely send you to [public] hospital. I think the people here knew about that..... (ID: Chinese leader)

The emergency services provided by the public facilities, especially the district hospital (24 hours), were very much appreciated. The Indian community used this service for occupational injuries in the oil palm plantations. Private clinics usually refused to accept these cases and asked the patient to go the district hospital. The participants were

satisfied with the presence of the ambulance services in public facilities to be used during emergencies; these were not available in the private clinics.

The preventive care provided by the public services were positively regarded especially by the women: antenatal care, home delivery, post-natal care and child immunisation services were all appreciated.

Mentioning about the good thing about the government services.... When you deliver a child, injection for immunisation is given. If you forget, they will come to your house and tell you that the injection is due. I think they are responsible. When you are pregnant if you don't go for examination they come to your house to see if you had already delivered. You can ask them to bathe your newborn at home. They will come and do it. That is the good things... [Chinese woman FGD-CVM2]

Participants preferred not to travel to the state capital for specialist care: most of the surgical cases had to be sent to the state capital because of the absence of a specialist in the local district hospital. The leaders suggested that specialist should be sent to the district hospital.

ix) Equipment

The public facilities, especially the state general hospital was considered to be better equipped than the district hospital and the private clinics. The private doctors often had to refer 'serious' cases to the public hospital because of a the lack of equipment. The private clinics were noted to not have emergency equipment and the equipment in the private clinic was considered to be poorly maintained.

Another thing is if it is a serious illness, the private doctor will send you to the government hospital. The government hospital has better equipment. For example the General Hospital has equipment to treat all types of diseases..... [Chinese man FGD. CVM2]

There is a private clinic near GW supermarket in Klang. You must not go there for deliveries. The government hospital has all the equipment. If anything happens they can handle it. If you go to private clinic they cannot do anything. They just examine only. I have faced this situation before..... [Chinese man, FGD: CVM1]

Most FGD participants and also seven of their leaders were impressed with the ultrasound machines in private clinics and their only worries were with the charges. They felt that the government should provide this equipment in the district hospital to avoid paying for this service in private clinics or having to travel to the state capital.

I think there are a lot of deficiencies in TK district hospital. For example equipment like ultrasound scan is not available. If you want to check you have to go to Klang. It doesn't matter if you are rich because you have a car. For the poor they need to spend some money. It's difficult for those who work in the village. I think we should have it here [district hospital]. [Malay woman, FGD. MVM1]

There was a lack of surgical facilities in the local district hospital, again leading to referrals. Participants believed that these referrals, including women in labour, could be avoided if the district hospital was better equipped.

x) Operating hours

The presence of 24-hour services in the district hospital for emergency was appreciated. Most of the private clinics extended their service after the government office hours usually until 9 pm. Those who work in the estates and the government workers were therefore be able to attend the clinic after finishing their work. However, most participants expected the private clinics to accept emergency urgent cases even after their usual hours.

If you are sick at two or three am, the private clinics close at 10 or 9 pm. The government hospital opens 24 hours. (Indian man; FGD: IVMI)

Private doctors who owned more than one clinic were criticised for having a very restricted clinic hours.

Because they want so much profit, one doctor may open up to 3 clinics sometimes... So they limit their hours. For example from 9.00 am to 4.00 pm in TK, 4.00 pm till 8.00 pm in SB. So if there is any urgent case who has been going to that clinic for so long and he gets admitted in the [government hospital] nobody knows what treatment he is on... Only the [private] doctor will know about his problem. So if the patient was admitted to the hospital, they [government doctor] want to know about his disease and treatment but the records in the private clinic is not available. The previous record is not there. So he [public doctor] has to start the treatment from the beginning. So the patient is not well. I think the problem is they want to get more profit.....(Malay man; FGD: MVMI)

xi) Technical skills

Negligence by the public doctors was raised by FGD participants and leaders interviewed. They mentioned a number of cases: the failure of the public doctors to detect acute appendicitis leading to perforated appendix, diagnosing acute appendicitis instead of liver abscess and the failure to give proper surgical treatment to a case of hand injury resulting in complications and amputation. Two cases of negligence by staff in the labour room of a public hospital were considered to have led to injuries to newborn babies. One of the Chinese women (leader) described how her mother was wrongly diagnosed and treated as a case of gastric ulcer for 10 years by public doctors and was found to have gall stones by a private doctor. She was cured when the gall stones were removed.

My stomach is very painful. Water is coming out. He [public doctor] used scissors to cut the placenta. Maybe he has cut my baby or my blood vessels. Blood was pouring out. After that I was sent to Klang. But my baby is dead. I am not satisfied. I am really angry. My child should not have died. The doctor was not good. (Chinese woman; FGD: CV2W1)

When I saw him [public doctor] for stomach ache, he said "It's okay" and he gave injection and ask me to go back. After the injection and when the medicine finished the pain comes back and so I see him again. I was not given injection but was given some water. For three days and three nights I was left like that, without any treatment. They only checked my blood pressure, gave me some water but no medicine. Until that thing [appendix] ruptured then only they rush me to Klang hospital..... [Malay man, FGD: GWM1]

The public doctors, particularly those in the district hospital, were said to be less experienced than the private doctors and were 'still in training'; most of the public doctors were considered to be still under the three year compulsory service before they could establish a private practice. Few FGD participants observed that the staff working in the private clinics were not trained: they were worried that these assistants might make mistakes in dispensing medicines.

The weakness of the private clinics is during dispensing of medicine. They just employ the girls from the villages. They were not good. Normally they have to go in two or three times to ask the doctor. Sometimes they can't even read the doctor's handwriting. In that way I not satisfied... [Malay man; FGD: GWM1]

xii) Clinic environment

Some FGD participants stated that the public facilities, especially the out-patient clinics, were over-crowded, noisy and dirty. There were often not enough chairs for them to sit while waiting. Most of the private clinics were clean, not overcrowded and had fans or air-conditioning to add to the comfort. Even the examination couch in the private facilities were said to be more comfortable.

The chairs, the bed and the place for examination in the private clinics is better. Just look at the chairs in the waiting room, they are so much different from the government hospital (Malay man; FGD: MV2)

It is more comfortable to wait in the private clinics. In government clinic there are too many people. In private clinics there are not many people waiting so it is not too noisy. You feel more sick waiting in the government clinic (Malay man; FGD: MVM2).

xii) Other issues

The government workers complained about the difficulties of getting medical certificates (MCs) from the public doctors. The public doctors were said to refuse issuing MCs to working mothers accompanying their sick children to treatment but were giving it to their friends who were not sick. These were

sometimes sold by private clinics.

The regulations in the public facilities were also criticised. During consultations in the public facilities only the sick were allowed to go in whereas close relatives or spouses were allowed to be present during the consultations in private clinic. They suggested that this practice should be permitted in the public facilities because the close relatives or the spouses would be able to help the doctor and the patients especially for elderly or uneducated patients.

9.2 SUMMARY

The community focus groups and interviews with leaders indicated frequent use of multiple providers and bypassing of the nearest public health facilities to visit private facilities or higher public sector facilities. Private facilities were preferred by the respondents except for emergency cases, serious illness and maternal and child health services.

Generally, respondents were more satisfied with private than public facilities. They praised the attitudes of the staff and doctors, shorter waiting times, better communication with providers, greater effectiveness and availability of drugs, better technical skill of doctors and staff and more pleasant clinic environments. Positive features of the public services were the lower charges, 24-hours emergency services and good quality of maternal and child health services. The private clinics were criticised for their high and unstandardized charges and the absence of emergency services and equipment.

X. DISCUSSION OF THE RESULTS

This chapter is presented in three sections. The first discusses the limitations of the study, the second the approach to triangulating the results and the third interpretations and explanations of the findings. A summary is provided to conclude this chapter.

10.1 LIMITATIONS OF THE STUDY

In this research issues arising in earlier phases of the study guided its subsequent stages. This study was limited by various factors:

10.1.1 External factors

The district selected (see Chapter III) was typical of most rural districts on the west coast of Peninsular Malaysia in terms of population size, ethnic composition and household income. However the study district is located in Selangor state, one of the most developed states in the country. The presence of many private practitioners (11 per 100,000 population) in this district may have been related to the wealth of the state, as well as to the proximity of the district to the capital.

The district is used as a training area for community surveys by the Department of Community Health, National University of Malaysia. Respondents may have had experience of previously being interviewed and this might have affected their answers. However this bias is likely to be minimal, and multiple methods were used in this study to assess validity. Furthermore qualitative methods had rarely been used previously in the district. Generalisations from this study to others should nevertheless be made with caution.

During the study period, a proposal by the Malaysian Medical Association to increase the charges by private practitioners was met with resistance from the general public. Extensive

newspaper coverage highlighting this issue (March to May, 1993) might have affected this study and respondent opinions. Private practitioners may also have been cautious in providing information on charges or may have charged less in order to avoid negative media coverage.

Finally, the study was carried out during the first year of the implementation of the New Remuneration Scheme among civil servants which includes public health workers. Weaknesses and strengths of the Scheme were publicised by the media and might have influenced the job satisfaction of health workers.

10.1.2 Internal factors

A range of qualitative and quantitative methods were employed in this research. Through triangulation, validity and credibility of the findings were enhanced (Patton, 1992 p. 61). However this was time-consuming and costly and sometimes had to be done surreptitiously (e.g. the spot-checks) in order to avoid upsetting or embarrassing the respondents.

Whenever structured observations in health facilities and participant observations of health workers are undertaken, there is always a possibility that this will stimulate change in the behaviour of the respondents (Henerson et al, 1987 p. 33). This bias was minimised by not informing the health workers explicitly of what was being sought in the observations.

In some parts of the study (prospective recording of cases, recording of diagnosis and drug prescriptions in user interviews) data were recorded by doctors and their assistants. Bias may occur due to selective incompleteness, systematic errors in recording or deliberate attempts to hide information which might reveal unacceptable or unethical practice. This was addressed, in part, by building good rapport with respondents, assuring them of anonymity, training and close monitoring by the researcher.

Most elements of the research were personally conducted by the researcher, a public health physician. This ensured his acceptance by the private practitioners who were willing to trust and cooperate with him. However, as a medical doctor, his observations may be biased by his own professional views and value judgements. Study subjects may also have responded differently, knowing his background.

Private practitioners have been reported by others as being cautious of providing information that would expose their income (Ngalande-Banda and Walt, 1995; Bennett et al, 1994; Tsui and Donaldson, 1987). Respondents may not disclose sensitive and confidential information in the FGDs and in-depth interviews which were tape recorded (Booth and Booth, 1994). Information related to their income such as workload and charges might therefore be affected. To improve the quality of this information the private practitioners were reassured of the purpose of the research, including the anonymity of individual respondents. In the FGDs and in-depth interviews, respondents were allowed to stop the recording whenever they wanted.

This study was also limited by the time participants were able to contribute to the research. The private practitioners, although enthusiastic and interested, were busy with their clinics and some interviews had to be conducted during lunch times or after clinic hours. This might affect the quality of the information collected. Incentives were paid to the respondents to encourage their participation and to improve the quality of data collected.

Due to the limited funds available, user interviews rather than a community-based study was carried out to examine the clientele of public and private sector providers. This provides information only on the users of public and private facilities while those using other services, such as those of traditional practitioners and the non-users, were missed. Population-based data would be able to cover both users and non-users and also provide a denominator necessary for

estimating service usage and types of health facilities used. Nevertheless, in this study all the private clinics and major public facilities in the district were covered. Furthermore community studies conducted earlier in the country (MOH, 1988 b; Aljunid 1992) showed that only about 10% of the population used other forms of services such as traditional healers and other non-allopathic providers. This suggested that findings from user interviews in this study are unlikely to differ very much from the views of users of services based on a community survey.

In user interviews, systematic sampling was carried out to select the respondents. This may have led to over-sampling of patients attending public facilities for specific clinics (antenatal, child health, family planning and diabetics/hypertensive clinics). However this effect was reduced by selecting respondents on the days with and without specific clinics.

Table 10.1: Key limitations in each sub-study

Study components	Key limitations	Attempt to address
Interview of policy makers	Selected key informants might offer biased information	Recognition of potential bias and care in interpretation of results
Health facilities survey	PPs might give biased information related to income	Reassurance and anonymity of respondents
	Prospective recording may be incomplete	Financial incentive for recorders Training and monitoring by researcher
Health workers survey	Change in behaviour of health personnel when observed	Health personnel not informed on the actual purpose of the observation
Public-private interaction study	Lack of time to participate in FGD among PPs	Payment to PPs to cover transport and loss of income
User interviews	Over-sampling of cases from special clinics	Selection of cases spread over days with and without special clinics
Community satisfaction study	Sensitive issues may not be discussed when tape-recorded	Reassurance and anonymity of respondents
		Respondents allowed to stop the tape recorder whenever they wanted

10.2 TRIANGULATION OF FINDINGS

In this study, findings from a variety of study methods were triangulated within and across the sub-studies. Most of these findings supported each other confirming their validity (Table

10.2). For example, the semi-structured interviews with doctors in health facilities showed that the private clinics provide mainly curative services and their role in preventive care was limited. This finding was supported by prospective recording of cases and user interviews: both showed that most patients attended private facilities for curative services and public facilities for preventive care.

Table 10.2: Triangulation of findings from different methods in the study

Sub-study	Main findings	Main method	Other methods supporting the findings	Methods with contradictory findings
Survey of health facilities	Private clinics provide greater range of curative services but limited preventive services	Semi-structured interviews with doctors	User interviews Prospective recording	
	Private clinics have longer operating hours and open during holidays and weekends	Semi-structured interviews with doctors	Spot-checks	
Survey of health workers	Private sector personnel were more satisfied with their jobs and had better attitudes to patients than public sector personnel	Self-administered questionnaires by health workers	In-depth interviews and FGD of health workers	
			In-depth interviews and FGD in community satisfaction study	
			Participant observations	
User interviews	Users of private facilities were more likely to be non-Malays, those seeking curative care and those with third party coverage.	User interviews	Prospective recording of cases	
	Age did not influence the type of facilities used by patients.	User interviews		Prospective recording of cases
	Shorter waiting times and longer consultation times in private sector.	User interviews	In-depth interviews and FGD in community satisfaction study	
	Rate of referral is significantly higher in public than private sector PPs prescribed more items of drugs and more non-essential drugs than public sector personnel.	User interviews User interviews	Clinic drug list	Prospective recording

One area in which different methods contradicted one another related to user interviews and the prospective recording of cases. In the prospective recording of cases, use of private clinics was related to younger ages but no significant relationship between age and type of facility used was found in user interviews. Poor age recording is one possible explanation: prospective recording used age data from the OPD card which was infrequently updated. The age on the OPD card was the age when patient first visited the clinic. Age of patients in the prospective recording could be more accurately calculated and recorded if date of birth was used. Different

referral and investigation rates among patients in both sectors were found from prospective recording and user interviews. The lower rates recorded in prospective recording most probably due to under-reporting.

10.3 EXPLANATIONS AND INTERPRETATIONS OF FINDINGS

This research was designed to explore the general areas of public-private interactions in health care. The four main hypotheses underlying this study were:

1. There is no difference in the nature of services offered by public and private providers in a rural district in Malaysia.
2. There is no difference in the socio-demographic characteristics, level of training, job satisfaction and attitudes towards patients between public and private sector personnel in a rural district in Malaysia.
3. There is no difference in the clientele of public and private facilities in a rural district in Malaysia.
4. Interactions between private practitioners and public health facilities in a rural district in Malaysia are mutually beneficial to both providers and users of their services.

These broad hypotheses can be subdivided further and are discussed below.

The concern of the study was not to address directly issues of equity, efficiency, and effectiveness of health services provided by both providers. However this research does have implications for these health policy goals. A specific study of equity, efficiency or effectiveness would have necessitated a different study design: the research reported here may nevertheless provide a starting point for such future

analyses.

10.3.1 Nature of the service

Findings from this study do not support the null hypothesis that there is no difference in the nature of the services between the two sectors. Curative (pp. 82 - 83), preventive (pp. 84 - 87) and diagnostic services (pp. 88 - 90) differed between the two sectors. There were also significant differences in the hours these services were open and in charges levied for services.

This difference could be explained by the existence of competition not only among the private clinics themselves but also between public and private facilities. Competition between the public and private sectors implies that the services offered by public facilities could influence the provision of services in the private sector. Other factors such as the demand for a particular service and the opportunity to make a profit could also explain why private providers do or do not offer a particular service.

The following discussion will illustrate how interactions of these factors could influence the provision of services in the private sector.

i) Clinic operation

One way in which private clinics compete with public facilities is to improve accessibility of their services. Private practitioners operate for many more hours (62.8 vs 38.5 hours) and make their services available during weekends. Demand for private services during holidays, weekends and after office hours is likely to be high because most public facilities were closed during these times. Sarder and Chen (1981) reported from Bangladesh that almost all private practitioners in their study were available at any time at the request of clients while Griffin and Paqueo (1993) reported longer operating hours in private clinics and their

availability during holidays in the Philippines.

Willingness to do housecalls is another example of private clinics providing different services in order to compete with the public facilities. This service is further motivated by high profits available to the private practitioners to provide this service. It was estimated that for each housecall between RM 100 to 120 was charged; this service was normally used by those in the upper socio-economic group who could afford to pay. This service could be used by private doctors as one way of satisfying and keeping their regular patients. The good road system throughout the villages in the district further encouraged private doctors to provide this service. Public facilities could not afford to undertake housecalls because of lack of resources particularly manpower and transport. Furthermore housecalls are not a good way of using resources; time used for travelling could be used by the public provider to provide services to clients, but in the private sector these costs were shifted to the users.

Opportunities to increase their profit and the absence of any regulations to limit the number of clinics owned, have encouraged the establishment of 'short hours' clinics (pp 80 - 82). The location of these 'short hours' clinics in smaller towns of the district improves the access of patients to services. Private practitioners also attempted to use their time more efficiently by operating these 'short hours' clinics during times when their main clinics have few patients. However, priority was given to their main clinics in bigger towns leaving most of these 'short hours' clinics to be run by untrained staff. These clinics were also poorly equipped with basic and emergency equipment and supplies (pp. 90 - 91).

ii) Curative services

This study has shown that private clinics play a major role in providing curative services especially for the treatment of acute illness. Competition with other facilities in both the public and private sector, as well as the demand for curative services has a major influence on their availability in the private sector.

High demand for curative care in private clinics was reflected by the user interviews which showed that patients seeking care during the study period were about twenty times more likely to seek curative care in private than public facilities (odds ratio 19.2; 95% confidence limits 9.7 - 37.9). Despite the high charges for acute illness care in private facilities (RM 16.96 per visit), demand for private services remained high. This may have been because of the greater accessibility of private clinics, more flexible operating hours and days, shorter waiting times and better doctor/staff-patient relationships. The focus group discussions also revealed that community members perceived the private practitioners to be offering better quality of care. It is also possible that patients prefer the private facilities for curative services because they were more likely to see a doctor than other personnel. Their impression is supported by the fact that 99.3% of patients attending private facilities in this study were seen by doctors compared to only 49.4% in the public facilities.

Private providers also sought to provide some services not available in most public facilities in order to attract patients: sexually transmitted disease care is an example. High demand for this service was not only because it was not provided by health centres but also because some patients prefer not to go to the district hospital for fear of being notified and possibly stigmatised by the condition. The lack of provision by local public services and the high demand from patients allows private providers to charge high fees for this service (around RM 25.00 to RM 30.00 for gonorrhoea treated

with kanamycin injection).

The failure of the health centres to provide treatment for sexually transmitted diseases results in part from the absence of a doctor during much of their operating hours and the lack of available drugs. Medical assistants were not allowed to treat cases of STDs; the 'Blue Book' guidelines restricted their use of antibiotics. Most of the health centre doctors indicated that penicillin and other health centre available antibiotics were not effective in the treatment of STDs, particularly gonorrhoea, due to the presence of resistant strains. Drugs recommended for treatment of resistant strains of gonorrhoea such as ceftriaxone and kanamycin (WHO, 1991) were not available in the health centres. This suggests that public sector services were somewhat inflexible and slow to respond to new demands. Failure to treat STDs in the health centres may lead to patients who cannot afford private services or those staying far from the district hospital, remaining untreated for longer, and possibly leading to further disease transmission and the risk of related diseases such as infections of the newborns and HIV.

In the absence of any standard protocol for the management of STDs in the country, and with most private practitioners not attending continuing medical education, the effectiveness of care by private practitioners needs to be examined further.

Lack of demand from patients for private services and lack of skills of the providers are the two most probable reasons for private clinics not providing services for the treatment of tuberculosis. Tuberculosis is a chronic illness which needs long-term treatment and follow-up; high costs might force patients to shift to the public sector. All public facilities were required to provide this service for free under the national tuberculosis control programme. Doctors treating tuberculosis need to follow specific management regime. Lack of awareness of the management regime is likely to be a factor causing private practitioners to refer suspected cases of tuberculosis to public facilities and to rarely commence

treatment in their own clinics. This was also suggested by Hooi (1994) in his earlier studies of management of tuberculosis involving private practitioners in another state in Malaysia. Uplekar and Shepard (1991) identified the lack of awareness and skills in managing tuberculosis among private practitioners in India. As in the case of STDs, the availability of treatment for tuberculosis through private clinics should be carefully examined: while it can be effectively treated and may avoid delays, the quality of such care would need to be carefully monitored.

Lack of demand was the main reason for neither public nor private provider to offer treatment for malaria. Malaria is relatively rare in the district and none of the facilities maintained stocks of the required drugs. From 1987 to 1992, between three and six cases were reported every year in the district, most of which were among foreign workers (MOH, 1992 a). The prevalence is likely to increase in the future because of imported cases through foreign workers. It was surprising, however, that private clinics screening foreign workers were not in a position to treat malaria given the possibility that this disease is more common among foreign workers coming from Indonesia and Bangladesh. Alternatively, disease notification and referral from private practitioners to public facilities needs to be improved to avoid any further delay and potential spread of this disease.

Even though there might be demand for out-of-hours emergency services in the private sector due to high incidence of motor-vehicle accidents in the district, the low profits available from providing this service goes some way towards explaining why private doctors tend not to provide it. Private doctors would have to maintain stocks of emergency drugs and equipment. During emergencies, it would be difficult for private practitioners to charge patients since they are often not in a position to pay, both because of their condition and the unavailability of cash at the time. Furthermore, private practitioners usually have to refer these cases to hospital after early resuscitation and community members generally do

not approve of doctors charging for cases (even if non-urgent) which are subsequently referred.

Another reason why the private practitioners do not do emergency work is because many of them (seven of 13) in this study do not reside in the district and most were solo-practitioners. Poor compensation and excessive workload due to long working hours were also among the reasons for general practitioners in the UK being reluctant to provide out-of-hours emergency services even though required to under the NHS (Anonymous [Lancet], 1994; Livingstone et al, 1989). Many GPs in the UK have resorted to using deputising services to cover their night calls but this has proved to be difficult outside urban areas where commercial deputising services were difficult to obtain (Iliffe and Haug, 1991).

Twenty four hours emergency services were not available in the health centres because of the reluctance of health personnel to provide out-of-hours services because their call-allowance was abolished under the New Remuneration Scheme. Patients needing out-of-hours emergency services have no choice but to attend the Accident and Emergency Unit of the district hospital.

The provision of emergency services by private practitioners could help to reduce the workload in the district hospital as seen in studies done in UK. Myers (1982) found that 54% of patients attending a district hospital could have been treated by general practitioners. Reilly (1981) reported that 55% of patients who referred themselves to accident and emergency departments could have been managed by their general practitioners. Private practitioners in Malaysia could be influenced to provide emergency services through incentives or regulation but further studies would need to be carried out to explore their capability and the feasibility of providing this service in the private sector.

The lower prevalence of chronic illness among users of private than public facilities (23.2% vs 33.4%) suggested that the

demand for treatment of chronic illnesses in private facilities is low. Even though access to public services was restricted by the allocation of only one day per week for treatment of chronic illnesses, most patients still sought care in these facilities, presumably because of the high cost associated with private sector treatment of chronic illnesses. However these services are increasingly important because of the rising prevalence of chronic diseases resulting in part from the epidemiological transition (Omran, 1971; Phillips, 1991). Use of private providers could reduce the workload on public facilities; those using private clinics also have the advantage of seeing the same doctor on follow-up, getting adequate drugs and having services available anytime during the week as well as for much of the weekend. However, the quality and cost-effectiveness of services for treatment of chronic illnesses by private practitioners needs to be studied. Systems of influencing practitioners to use cost-effective treatments through training, providing clear clinical guidelines and monitoring prescribing habits could also be explored.

This study demonstrated that inadequacies existed in both public and private sectors in the provision of curative services. This is clearly seen in relation to drug supplies and prescribing patterns. On the one hand, private providers tended to over-prescribe and use non-essential drugs (see pp 184 - 188) and on the other, curative services in public facilities were affected by a shortage of drugs and supplies.

Over-prescribing of drugs by private practitioners has also been shown in studies from other countries (Greenhalgh, 1987; Ahmad and Bhutta, 1990; Gilson et al, 1993). Gilson et al (1993) in Tanzania found that 15.4% of patients attending private church dispensaries were prescribed three or more drugs compared to only 4.7% among patients in government dispensaries. Among those who received chloroquine, 52.8% of patients attending private church dispensaries received the drugs by injection compared to only 5.2% of patients in government health centres.

There are many explanations for over-prescribing and over-use of non-essential drugs in the private sector. First, the private practitioners had access to a wide variety of drugs (any on the market) as they were not covered by the MOH drug list. The Drug Control Authority licenses all drugs in the country; drugs were licensed based on their safety rather than costs. A second possible reason for poor prescribing habits was that most private practitioners were rarely involved in continuing medical education (Shahabudin and Edariah, 1991). Their main source of information was from drug salesmen who promoted particular drugs. Thirdly, selling drugs is one of the main sources of income for the private practitioners and they therefore may seek to use those drugs on which their profit is greatest. In addition, patients consulting private doctors who paid out-of-pocket for the services often demanded drugs. This is reflected by the absence of consultation fees in many private clinics: their charges are almost always related to the drugs prescribed. Private practitioners who had to compete with other private and public facilities were likely to follow the demand for drugs by patients for fear of losing them to other providers.

Many studies in developing countries have reported a shortage of drugs in public facilities (Guyon et al, 1994; Gilson et al, 1994; Garner et al, 1990; Lasker 1981); this may be related to lack of funds, poor planning and inefficient systems of distribution. In the district only 22.9% of the operating budget was allocated for drugs and equipment while most of the operating allocation was absorbed by staff salaries. With most chronically ill patients using public facilities, it is unlikely that this allocation is adequate. Drug distribution was poor due to the limited coordination between the many levels of management in public facilities. For example in this study, vaccine supply to the health centres was affected by poor communication and cooperation between the district hospital and health centres. Planning for the adequate supply of drugs is complicated by the movement of patients between one level and another in the public sector and between the public and private sector. Often patients who

bypassed the health centres or district hospital for the state general hospital came back to get drugs in the district facilities. Patients who were being treated by private practitioners for chronic illnesses obtained drugs from public facilities and often demanded the same drugs they had received from private practitioners. A shortage of drugs is likely to occur when neither of these groups of patients is taken into account in planning services.

iii) Preventive services

Lack of demand for private provision of preventive services and the relatively high quality of such services at low cost in public facilities explained the limited private role in offering preventive care.

Low demand for preventive services in private facilities is reflected from findings in user interviews; most (92.3%) patients needing preventive care used public facilities. Antenatal, immunisation and contraceptive services provided for free in public facilities, were generally perceived of high quality and explained the low demand for these services from private clinics. A community-based survey, asking where people would turn for particular services would have been more informative, but relevant insights are still possible from this study.

The quality of antenatal care in public facilities is perceived to be high, as was specifically pointed out in the community satisfaction study. Furthermore antenatal services in the public sector are comprehensive, covering antenatal care, home visits, delivery services and postnatal care. Patients might also prefer to attend MCH services in health centres run by mostly female doctors and staff. Private providers were mostly men.

The poor quality of preventive services in the private sector as a factor shifting demand to public facilities can be seen in the provision of contraceptive and immunisation services.

Patients were exposed to dangerous practices such as the sale of oral contraceptives despite health-related contraindications and the absence of proper screening before prescribing any contraceptive method. Some private clinics compete with public facilities by offering intrauterine devices which are not offered in public facilities. This could help to attract patients to their clinics through the availability of wider choice of contraceptive methods. However, lack of skills, the absence of clinical guidelines and the profit motive of the private practitioners may also contributed to poor quality of contraceptive services .

The poor quality of immunisation services by private clinics was seen in the poor maintenance of the cold chain (pp. 86 - 87), a factor which could potentially undermine the effectiveness of their participation in immunisation programmes.

Even though public facilities played a significant role in preventive care, there were signs of inefficiencies. For example in antenatal care, the MOH required all mothers to have a minimum of six visits to health centres for every pregnancy. High risk mothers were required to attend more frequently. Antenatal mothers would have at least 12 visits if their first visit was in the 16th week of pregnancy and delivery in the 40th. The efficiency and effectiveness of these frequent antenatal visits has been raised by a number of researchers (Tucker et al, 1994, Hall et al 1980). This may be an area where the public sector could substantially cut costs without losing effectiveness.

An imbalance in staff allocation in health centres also suggest inefficiency in public facilities in providing preventive services. In health centres, most (18 to 20) workers were providing preventive services (mainly MCH services), while only three staff (one medical assistant and two attendants) provided curative services. The doctors spent most of their time on MCH services and allocated only one day per week in each health centre to treatment of chronic

illnesses. Historically, MCH services in health centres were given high priority by the government because of the high maternal and infant mortality in the 'sixties' and 'seventies'. It is unlikely that the current allocation of staff is optimal given the decreasing maternal and infant mortality rate and increasing prevalence of chronic illness requiring curative care.

The limited role played by private practitioners in preventive care implies that the population served by them may miss the opportunity of accessing appropriate preventive services. Policy makers need to find ways to encourage private practitioners to provide and to improve the effectiveness of preventive services they already provide.

iv) Diagnostic services and medical equipments

Potential for high profit and high demand from patients explained why private clinics were more likely to offer expensive diagnostic services (X-rays, ultrasound scan and ECG) while not providing the basic diagnostic services (such as urine analysis, blood haemoglobin, sputum and stool examination). Lack of funds and trained personnel explained the public sector concentration on basic and cheaper diagnostic services.

However, findings from this study suggest that diagnostic services provided by private practitioners were unlikely to be appropriate by looking at the higher rates for expensive diagnostic services among private than public sector users (5.1 vs 2.4 per 100 patients). The higher rates could be due to the absence of these services in public services but one could not rule out demand induced by the private practitioners themselves; this has been reported in relation to diagnostic investigations by Abe (1985) in Japan and Hillman et al (1990) in the USA.

The effectiveness of diagnostic services provided by private clinics is a concern given the lack of training in using these

investigations among most of the private doctors and their staff. Quality of assessment with X-rays and ultrasound is likely to be low. Private practitioners often depend on sales personnel for advice and did not refer their patients for second opinions even when in doubt about their findings. It is possible that such diagnostic equipment is used to generate profit without much benefit to patients. In the absence of strong regulations, private providers were found to respond to financial incentives and to provide services beyond their capability.

The lack of any regulation on minimum standards for private clinics coupled with the motive of the owner to cut costs in order to maximise profit explained the lack of basic and emergency equipment and supplies in private clinics.

In the public facilities, the shortage of basic and emergency equipment might be due to lack of funding, bureaucracy which complicated the process of maintaining the equipment and poor managerial skill of health workers in allocating scarce resources.

10.3.2 Human resources

The hypothesis that there was no difference between public and private providers in terms of their socio-demographic characteristics, level of training, job satisfaction and attitudes towards patients between public and private sector personnel was not supported as differences were found in all these aspects.

i) Socio-demographic characteristics

The compulsory service in the public services explained the presence of more younger doctors in the public than the private sector (mean age: 31.1 vs 41.2 years). Only those who have completed this five year mandatory service can resign to start their private practice or commence further training and specialisation. However some young doctors continue to work in

the public sector to gain experience or save enough capital to start their own practices. Poor salary and service conditions in the public sector failed to retain the older and potentially more experienced doctors. Thus, this group of doctors was likely to be found in the private sector. In the community satisfaction study, the older private practitioners were viewed as having more experience and providing better quality care than the young public sector doctors. Older doctors in private practice were also reported by Ngalande-Banda and Walt (1995) in Malawi and Pineault et al (1991) in Canada.

The predominance of female doctors in public facilities especially in the health centres resulted from the state policy of allocating more female doctors to run the MCH services which was the main priority in the health centres (Deputy Director of Selangor State Health Services). Since MCH services provide services for mothers and children, female doctors were thought to be more acceptable, particularly in rural communities. It is also possible that female doctors themselves prefer to work in health centres which have fixed working hours and no on-call duties due to family commitment. In Canada, the tendency for women doctors to work in public rather than private facilities was explained by the financial security through fixed salary, fixed working hours and the presence of fringe benefits such as maternity leave (Pineault et al, 1991).

Rapid turnover of private sector staff who leave if they get permanent jobs in the public sector explained why non-medical staff in private facilities were younger than those in public facilities (mean age: 22.8 vs 37.4 years). This suggests that even though private practice was attractive to doctors, public sector services were more attractive for non-medical staff. This is probably because of better training opportunities and pay offered. Trained nurses who left the public services were likely to prefer to work in private hospitals, where salaries were higher.

Ethnic policies in Malaysia may explain the differences in the ethnic distribution between public and private sector personnel. The ethnic composition of health workers in the public sector was determined by the quota system applied by the government. More Malays than other ethnic groups were recruited into public services and sponsored by the government in the universities. Those sponsored were bonded to serve in the public sector after their compulsory years. Most of the private doctors were private students and were therefore not required to serve in the public services beyond their compulsory service. The private practitioners were inclined to employ more Chinese and Indian clinical staff as a business strategy to solve the problem of language barriers in order to attract patients from all three major ethnic groups in the district.

Lack of resources in the public sector is one reason for the low income of public sector doctors. Private doctors have significantly higher income levels than their public sector counterparts. Similar findings were reported from India (Kansal, 1992) and Malawi (Ngalande-Banda and Walt, 1995). Currently the doctors follow the same salary structures as other civil servants which favoured seniors in administrative positions. Apart from the lack of resources, the government refused to increase the salary of the health workers to avoid demands from other civil servants for salary increases. There were suggestions that doctors should be placed under a different salary commission (MMA, 1991 a).

Although among the doctors, income in the private sector was higher, the reverse was observed among the non-medical staff. Public sector clinical staff (nurses and medical assistants) had significantly higher incomes than those in the private sector. The lower salary of non-medical staff working in private clinics compared to those in the government sector was also reported by Kansal (1992) in his survey in India. He found that a private sector nurse earned between Rs 400-1250 a month while her public sector counterpart earned between Rs 1730 - 4100 a month. While differences in age, level of

training and duration of service could explain the differences in the income level of non-medical staff in both sectors, Kansal (1992) suggested a possible factor was exploitation of workers by private doctors to reduce operating costs of their clinics.

ii) Training

The absence of any regulations controlling the employment of non-medical personnel and their lower salary costs led to greater employment of untrained staff in the private clinics. While most (60.8%) of the clinical staff in the public service were trained, the private clinics tended to employ untrained staff as was also observed by Ngalande-Banda and Walt (1995) in Malawi. These workers tend to be school leavers who are 'trained' on-the-job. Apart from being cheaper these school leavers are easier to find in rural areas than trained staff who were more inclined to work in public facilities or private hospitals located in urban areas.

These untrained workers were observed to perform various skilled tasks including dispensing drugs and taking X-rays: this raises questions about the quality and effectiveness of these activities. The training such workers received from their employers was unstandardised and supervision was either poor or absent. The community was not very concerned about this aspect either because of their ignorance or because they preferred their interpersonal skills. This contrasts to the study by Gilson et al (1994) in Tanzania which showed that the community were not satisfied with the private (church) dispensaries because they were staffed by untrained workers.

Lack of participation of private practitioners in continuing medical education activities might also affect the effectiveness of their care. The low priority given by private doctors to CME confirms an earlier study by Shahabudin and Edariah (1991). They found that all 22% of 364 doctors in their survey who did not participate in CME were private practitioners.

Loss of income, difficulty getting locums, being a solo practitioner and working far from the urban areas where most of the CME activities took place were the main reasons for their lack of participation in CME. On the other hand the presence of an organised in-service training programme in the Ministry of Health and incentives for promotion were among the reasons for participation of public sector personnel in CME activities.

iv) **Job satisfaction**

Doctors and staff in the private sector were more satisfied with most aspects of their jobs than those working in the public sector. Effectiveness of public sector services could be affected by lower levels of job satisfaction among the personnel. There are many interacting factors which lead to the low morale of the public sector workers: lack of resources in the public sector, low salaries, inadequate drugs, equipment and supplies and unfilled posts leading to increased workload are all relevant. Public sector doctors had lower incomes but a higher workload than private doctors. The public doctors saw more patients per hour than private doctors. Those in the district hospital were responsible for in-patient care and on-call duties while those in health centres also had administrative duties involving supervision of staff. A survey conducted by the MMA among 205 public sector doctors showed that 84% of them were not satisfied with their salaries (MMA, 1993 b).

The non-doctors in the private sector were more satisfied than public sector staff even though most of them were paid less. They received other incentives such as bonuses, overtime payment, free meals and paid holidays. It is also likely that the staff in the private sector did not demand high salaries since they were mostly untrained. In contrast, public sector staff were more demanding knowing they could receive much higher pay if they worked in private hospitals.

Poor managerial skills among health managers was a further reason for poor job satisfaction among public sector workers. Undergraduate training and internship prepare the doctors with clinical skills, but young doctors received little input on management despite the fact that they were often placed in-charge of health centres (Green, 1994). They faced difficulties running the health centres which were staffed by more experienced subordinates. The supervisors (such as district health officers, MOIC of district hospital and sisters) were criticised for providing poor quality supervision to their junior colleagues. On the other hand the private practitioners had little difficulty managing their clinics: they had fewer staff to take care of, a less complicated management structure and more experience.

Inflexible bureaucratic requirements in the public services also led to poor job satisfaction. The drug supply system and maintenance of equipment and vehicles was complicated by the inefficient involvement of various levels of management, most of which were poorly coordinated. Prospects for promotion were affected by the need to transfer to another place because promotional posts were not created at their current workplace.

v) Attitudes towards patients

This study showed that the private sector health workers exhibited more positive attitudes towards patients than those in the public sector. The mean attitude score for private practitioners was higher than public sector doctors (33.6 vs. 27.3). This is supported by findings from participant observation which generally showed that doctor/staff-patient relationships were better in the private than public sector: staff in private clinics showed greater respect and were more friendly and helpful to patients while the private practitioners built better rapport with their patients during consultations. In the community satisfaction study poor attitudes of public sector health workers towards their patients was raised as an important factor affecting their satisfaction (Chapter IX). The negative attitude of public

sector personnel towards their patients is likely to impede effectiveness of their care.

Studies conducted in other countries support the findings of this study. Gilson et al (1994) in a qualitative study in Tanzania reported that in government facilities staff showed little kindness to patients and were generally unsympathetic. She also observed that informal charging and discrimination in service provision were commonly practised. Kapil (1988) in India reported that respondents, particularly among the poor, complained about the arrogant and insensitive behaviour of government doctors and other health personnel. DiMatteo et al (1979) showed in a study in USA that physicians' caring attitudes and openness to communication influenced patients' decisions to continue the physician-patient relationship.

The poor attitudes of public sector workers can partly be explained by their poor job satisfaction. Most aspects of job satisfaction (income, allowances, workload, relation with superiors, equipment and prospect of transfer) were shown to be correlated with the attitude score in this study. Calnan (1988) showed that general practitioners in the UK with better attitudes towards their patients (measured by the degree of social orientation) also were more satisfied with their jobs. However, further studies need to be undertaken to determine whether the relationship between job satisfaction and attitudes towards patients is causal and what other factors influence attitudes.

In the private sector, apart from good job satisfaction, the attitudes of the health workers could also be due to the need for them to compete with other clinics and with public facilities to attract patients. They have to behave in a manner desired by patients, otherwise they will lose their business. Abel-Smith (1976 p. 71) has observed that generally doctors paid under salaried systems which remove financial competition were less concerned with pleasing their patients.

10.3.3 Clientele of public and private facilities

The hypothesis that there is no difference in the clientele of public and private facilities was tested when comparisons were made on socio-demographic characteristics, time spent in clinic, rate of referral and methods of reimbursement among the users. This hypothesis was not supported because differences were found in all aspects compared. All the comparisons were made on a section of the population that used the service during the study period; comparison of utilisation rates of different types of facilities could, however, only be made if a population-based study had been undertaken.

i) Socio-demographic characteristics

The ethnic distribution of patients shows that, after controlling for other confounding factors including socio-economic status, the use of private facilities was strongly associated with the non-Malays (odds ratio = 3.4, confidence limit = 2.4 - 4.7). This is consistent with an earlier household study (MOH, 1988 b). The ethnicity of the providers is the most likely explanation for this observation. The predominance of Malay health workers in the public facilities and the language barrier faced by the non-Malay patients has led them to seek care in private facilities. The presence of multi-ethnic health personnel in the private facilities encouraged non-Malays to seek care in these facilities. This raises an issue of inequity as the non-Malays were not able to use the subsidised care in public facilities. The non-Malays, even those who are poor, may either feel that they have to use private facilities (even if they cannot afford them) or may not use any services at all. The likelihood of the non-Malay population in the district seeking care in the private facilities could be better demonstrated if a community survey was undertaken.

The socio-economic status of patients was found to be significantly associated with type of facility used. Most patients from lower socio-economic status used public

facilities while those of the higher socio-economic groups were more likely to use private facilities. This finding echoes those of earlier studies by Heller (1982), MOH (1988 b) and Aljunid (1992) using household surveys; all showed utilisation of private health facilities increased with income. The average charges in private clinics were RM 17.54, equivalent to one day's salary for a labourer.

Provision of free services in public facilities does not solve the issue of inequity. Despite their ability to pay, 39.9% of the users of public facilities in this study were from middle and upper socio-economic groups. On the other hand 49% of users of private facilities were from lower socio-economic group. In an earlier study (MOH, 1988 b), 31% of patients earning RM 1,000 and more used public facilities. The use of the highly subsidised public facilities by the non-poor partly results from these patients being granted special privileges. Firstly, it is government policy to give priority to government servants seeking care in public facilities. They are also exempted from any fees for out-patient care and a separate counter to serve government servants has been set up in most hospitals to avoid waiting. They also have highly subsidised fees for in-patient care. In addition, users in the upper socio-economic group may receive better quality care from health workers in the public sector: they use their social position in the community and their personal connections with the health staff to ensure more prompt and better quality attention.

The presence of more women in public rather than private facilities reflects their seeking preventive services, especially maternal and child health services. After controlling for the type of services sought, differences in the gender distribution of users in both sectors disappeared. The lack of a significant relationship between gender and type of facility used has also been reported from an earlier household study in the same district (Aljunid, 1992). However, household studies in other developing countries have shown that men are likely to use private health care while women

tend to use public facilities (Akin et al 1986; Feldmen 1983; Ganatra and Hirve, 1994). In these studies the higher status of males relative to females and their control of financial resources was offered as the likely explanation.

In this study, the lack of a significant relationship between gender and type of facilities used could be due to the increasingly equal status of women as they participate in the labour market. In 1990, 46.8% of women were in full employment in Malaysia (Department of Statistics, 1990 b); through employment they could be using their own resources to seek care in private or public facilities.

The lack of a relationship between age and type of facilities used in this study was supported by an earlier household study from the same district (Aljunid, 1992). This could be explained by the financial support which the elderly obtain from family members. Without such support it might be anticipated that the elderly would seek care in the subsidised public facilities. Traditional Asian values of respecting and supporting the elderly could still be well observed among people in the country particularly in the rural areas. Furthermore the government policy of allowing tax relief for money spent on health care of elderly family members introduced in 1990 could increase the financial support for the poor (MOF, 1992).

Comparison of the household characteristics of the users made in this study revealed that users of public facilities were more likely to have more children in their households. However the number of working individuals and total number of individuals in the households did not appear to influence the types of clinics used.

The likelihood of those with more children using public facilities rather than private providers could be explained by the financial burden faced by families with many children. However the lack of a significant relationship between the number of working individuals and the total number of

individuals in the household with the type of facility used is difficult to explain. It might be anticipated that those households with more working individuals would seek care in private facilities as they are likely to be more financially secure. Those with many individuals in the household might be expected to seek care in public rather than private facilities. Ways in which individuals in households distribute their resources to spend on health care is clearly complex and needs further research to provide clearer explanations.

Private patients travel a longer distance than public patients to obtain care (8.8 vs 6.3 km). This is quite surprising because all the health centres and private clinics were located near to each other in each town. This difference persisted after controlling for socio-economic status, implying that users of private facilities were willing to travel a greater distance. There could be three reasons for this: absence of a regular provider, likelihood of bypassing the nearest facility and reasons for choosing a particular provider. Private sector patients were more likely than public sector patients not to have a regular provider (21% vs 12.5%) and to bypass the nearest health facility (48.1% vs 38.2%). In searching for effective treatment, they might move from one doctor to another and were willing to travel longer distances to obtain this (Ming, 1988). This is facilitated by the good road system in the district.

ii) Time spent in the clinic

On average patients attending private facilities had a shorter waiting time (21.1 vs 52.1 minutes) but longer consultations than in the public sector (6.8 vs 5.6 minutes). The total time spent by patients in the private clinics was shorter than in the public facilities (35.4 vs 67.4 minutes).

This is consistent with earlier studies (Heller, 1982; MOH, 1988 b) although in both studies the time spent was reported by patients and not measured objectively. The mean consultation time in private clinics was about 20% longer than

in the public sector. However in both types of facilities the mean consultation time was shorter than reported in many developed countries: 8.25 minutes in the UK (Department of Health and Social Security, 1987), 12 minutes in New Zealand (Baker, 1976), 15 minutes in Canada (Collyer, 1969) and 21 minutes in Sweden (Andersson and Mattson, 1989). These international comparisons need to be interpreted with caution because of the differences in the case-mix, the role of primary care providers (Wilson, 1991) and system of reimbursement in different countries.

The difference in time spent by patients could be explained by the reimbursement mechanisms and the workload in the two sectors. Private practitioners were paid on a fee-for-service basis; there is always an incentive for them to see a maximum number of patients and to be efficient with their time. A shorter waiting time also attracts patients. Private practitioners used their time effectively during the consultation, being friendly, courteous and willing to provide information to patients. This influenced patient satisfaction. However, public doctors and staff paid a fixed salary had little incentive to do so. Since output of their work was not linked to their income there was a tendency for time wastage (e.g taking long and frequent tea breaks) as suggested by the respondents in the community satisfaction study and confirmed by participant observations.

Differences in workload in public and private facilities could also help explain the difference in the time patients spend in the facilities. Private doctors saw fewer patients per hour than their colleagues in the public sector (5.3 vs 8.0 patients per hour). The higher workload in the public sector could lead to longer waiting times and health workers would shorten the consultation time as they rush through cases to finish their workload.

iii) Referral rates

Referral rates were twice as high in the public than the private sector. However in both sectors, the rates between 3% to 6% were probably lower compared to developed countries such as in the USA (7.9%) (Salem-Schatz et al, 1994) and in the UK (10%) (Webb and Lloyd, 1994). Caution must be taken in these comparisons given different methods in calculating this rate.

The absence of gate-keeping and a weak referral system, allowing patients to bypass the primary level of care, are among the reasons for low referral rates. It also reflects differences in the case-mix; more patients seeking antenatal care and care for chronic illnesses used the public rather than private facilities.

The lower referral rate in private than public facilities is also due to the reluctance on the part of the private practitioners to refer their patients for fear of losing them to the public sector which would affect their income (Chapter VII). In this respect private doctors may continue to manage their patients beyond their capability and may only refer at a later stage when patients had suffered serious complications.

The tendency of private practitioners to refer to private rather than public facilities is due to their satisfaction with replies to their referral letters. However in India, general practitioners were induced to refer patients to private consultants and investigation centres. Through 'cut practice' these general practitioners received up to 40% of the fees charged by the consultants (Yesudian, 1994). In Malaysia, this is called 'fee-splitting' which was banned by the Malaysian Medical Council in 1990. Rodwin (1992) reported that 'fee-splitting' had existed in the American health system but was banned by government in 1992 even though this was opposed by the American Medical Association. To what extent this is practised generally in developing countries has not been reported and warrants investigation.

iv) **Methods of reimbursement**

Out-of-pocket fee-for-service payment was the most common method of payment for private practitioners in this study. This was also reported in other developing countries such as Malawi (Ngalande-Banda and Walt, 1995), Papua New Guinea (Thomason, 1994), Thailand (Bennett and Tangcharoensathien, 1994), Bangladesh (Sarder and Chen, 1981), India (Bhat, 1993) and South Africa (Naylor, 1988). In most developing countries, the absence of a third party funding mechanism such as national health insurance or social security to cover everyone in the country and to pay for services provided by private practitioners is one reason for this. However, in more developed countries such as Canada, Australia, New Zealand, France, Germany and Japan, where national health insurance is well established, doctors were also reimbursed on a fee-for-service basis (Ron et al, 1991 p.58; Barnum et al, 1995). It was also found in an earlier study in Malaysia that fee-for-service methods of reimbursement were preferred by private practitioners (EPU, 1989) if national health insurance were to be introduced in the country. Their preference is most probably because they can generate more income through this method of payment, rather than, for example, capitation.

The advantage of a fee-for-service method of reimbursement is that it provides incentives for private practitioners to operate longer and more flexible clinic hours and to provide good quality care in order to attract patients. However this method of reimbursement is likely to be inefficient as there are also incentives to over-prescribe drugs, over-use expensive diagnostic investigations and open multiple, poorly managed clinics as shown in this study. Another disadvantage is the loss of tax revenue by the government because the income of private practitioners paid through fee-for-service is difficult to monitor.

The use of private practitioners by employees of private companies and parastatal bodies covered by health insurance explained why those with third party coverage were more likely

to use private facilities. These private companies and parastatal bodies used private practitioners because their workers would get quicker and potentially more efficient service from these facilities, reducing productivity losses. Private companies also exerted some control over the private doctors: some private doctors complained that were not allowed to issue medical certificates to sick workers as the employers had to pay full salaries during medical leave. Thus the workers were forced to take annual leave when they were sick. As the private practitioners had to bid for contracts every year from these companies, it is likely that they would be more obliged to work in favour of the employers than the employees.

10.3.4 Interactions between the public and private sectors

The final hypothesis that interactions between private practitioners and public health services are beneficial to both providers and consumers was tested. Seven forms of interaction were studied: immunisation returns from private practitioners, the MOH/MMA hepatitis B immunisation project, patient referrals, utilisation of public ambulances by private practitioners, medical examination of foreign workers, private practice by public sector doctors and disease notifications.

Interactions between public and private providers could potentially be beneficial by helping to reduce the burden on the providers, improving the quality of services and increasing consumer choice. However, the hypothesis was not supported because these benefits were unlikely to be gained given the poor interactions between these providers. These theoretical benefits are discussed in turn:

i) Reducing the burden of providers

The workload in the public sector could be reduced through interactions with private practitioners. Referral of patients from the public to the private sector for ultrasound scanning, for example, would reduce the workload of the state general

hospital. It is potentially more efficient at the district level as otherwise patients have to pay transport costs and spend time travelling to the state capital for such services. It could also be more efficient for public facilities as this avoids the cost of buying and maintaining such equipment. Although this was potentially advantageous, this study revealed questionable effectiveness of services provided by private practitioners who were mostly untrained in ultrasound scanning.

Allowing private practitioners to screen foreign workers also shifted the workload away from public facilities. However, services by private practitioners were unlikely to be effective in controlling the importation and spread of communicable diseases as most private doctors do not notify or appropriately treat communicable diseases they detect. There was also evidence to suggest that private doctors skipped some of the screening tests required to maximise their profits.

In the MOH/MMA hepatitis B immunisation project, some of the workload in providing immunisation services from public facilities could potentially be shifted to the private sector. However, inefficiency in vaccine supply and poor demand from patients were among the important reasons for poor participation of private practitioners in this project.

The need to increase salaries of government doctors could be reduced by allowing them to work as locums in the private sector. This saves government funds to a certain extent but if not properly monitored could lead to doctors neglecting their public sector duties.

Extension of public ambulances to be used by the private practitioners could reduce the financial burden on the private practitioners who otherwise have to provide this service themselves. Given the fact that most private practitioners were solo practitioners and they were unorganised, it would not be efficient for the private doctors to provide this service themselves. However, there was evidence to suggest

that the existing ambulance service was inefficiently used; use of ambulances to transport non-emergency cases by private practitioners and as couriers to transport samples and letters in the public sector are two examples of inefficient use of this scarce resources.

ii) Improving the quality of services

Public and private sector interactions were beneficial in potentially improving effectiveness of care given by both providers through improvement in quality of services. For example as a condition for participation in the MOH/MMA hepatitis B immunisation project, private practitioners were required to allow their vaccine storage to be assessed and monitored by public sector staff. The public sector staff were trained in proper maintenance of the cold chain and hence could help to improve the quality of vaccines kept and used by private practitioners. This would help to improve the effectiveness of immunisation services given by private providers.

Two-way referrals between the public and private sectors, including providing appropriate information and replies to referral letters, would increase the quality of services as this would enable both providers to manage their patients properly and improve their skills. However this study revealed poor functioning of this system. Public sector doctors did not reply to referral letters sent by private practitioners. Some private practitioners referred their patients without referral letters or provided inadequate information. The current referral system does not operate efficiently as some patients bypass lower level services through self-referral. Private practitioners also bypassed the district hospital to refer to either private or public hospital outside the district. The current referral system was also ineffective since private practitioners often referred cases at a late stage.

There was some evidence suggesting that, with proper monitoring, locum practice by public sector doctors could

increase the quality of care in three ways. First through increasing the income of public doctors, thus increasing their job satisfaction and improving their attitudes towards their patients. Second, private practitioners would be able to provide a greater variety of services and longer hours of service by employing locums. Third, private practitioners who were mostly solo-practitioners would be able to employ locums to work in their clinics enabling them to attend CME activities.

Proper notification of notifiable diseases could enable the district health workers to better control communicable diseases. However, the current system of disease notification was not effective partly because of non-enforcement of the related regulations and lack of awareness of the providers. Feedback from public health workers which would keep the providers informed and encourage their participation in surveillance of communicable disease in the district (Kirsch and Harvey, 1994) was not given to the private practitioners.

Data from immunisation returns could assist district health officers to better assess the coverage of immunisation services. It is probably more efficient than community survey which are difficult to conduct by the district health team given their inadequate resources.

iii) Increasing consumer choice

Interactions between public and private sector allows greater choice for patients to satisfy their needs. For example in MOH/MMA hepatitis B immunisation, patients may choose to have the services in public or private facilities. If referral from the public to the private sector were allowed and formalised, patients would not be restricted in being referred to public hospitals after seeing doctors in the health centres. Foreign workers and their agents currently have more choice for medical examinations given that there are many private clinics in the country. However, since most patient have to pay out-of-pocket for services in private clinics, their accessibility

might be limited.

It was shown in Chapter VII that both providers faced many problems in their interactions due to the following factors:

a) Weak and inappropriate policies

There is often a gap between policy formulation and its implementation. For policies to be implemented, policy makers should take into account the financial, managerial and technical aspects of the policy and the effect of the policies on the implementors themselves (Walt, 1994 p. 177). In this study some of the policies formulated at the central level on public and private sector interactions were found to be weak, unacceptable to the health workers and failed to take into consideration existing problems faced by the implementors at the ground level.

Weakness in policies which guide the implementation of the MOH/MMA hepatitis B immunisation project, was one factor impeding the participation of private practitioners in the project. The policy allowing vaccine distribution to be monopolised by Apex Pharmacy was weak leading to long delays in vaccine supply and turning away private practitioners from this project. Distribution of vaccines should be contracted through a competitive process and be subjected to independent monitoring. The policy to restrict the ages of those for whom this service was made available reduced demand for such services in the private clinics. This was one of the reasons' for poor private sector involvement in the project. If the age group were extended to cover adults, the private practitioners would have had more demand for this service at least temporarily and would not have to compete with the health centres if this age group of takers were not covered by the health centres. However, it may not be cost-effective to immunise the population against hepatitis B at a later age as many might already have been exposed to the disease. Alternatively, allowing increase in the profit margin of the private practitioners by increasing the maximum charges

allowed or lowering the price of vaccines sold could attract the private practitioners. But further analysis is needed as the increased charges in private clinics might reduce patients' accessibility; lowering the vaccine price means increasing the subsidy which would have to be shouldered by the government.

The policy to disallow public to private referral at the district level was also weak. Public doctors continue to refer patients to the private sector doctors because of the absence of an ultrasound scan machine in public facilities in the district and patients' refusal to travel to the state general hospital because of travel and time costs.

The policy disallowing public sector ambulances to be used by the private sector was also inappropriate. It was not followed by public sector personnel at the ground level on humanitarian grounds and in order to preserve good relationships with the community.

Policies to allow screening of foreign workers by private practitioners were weak because most private practitioners did not notify diseases such as malaria and STDs, despite being required by law. Furthermore most private clinics were not equipped to carry out required investigations and had to depend on private laboratories which were not available in the district. These undermined the whole exercise which aimed to prevent the importation of communicable diseases through foreign workers.

Disallowing locums by public sector doctors in the private sector was not acceptable to public sector doctors because of their poor salaries. Furthermore private practitioners need locums to cover their services given the fact that most of them were solo-practitioners. Public doctors continued to do locums illegally but this led to poor management of patients such as inappropriate referrals.

Reasons for poor policy formulation may include central planning of activities without the involvement of local level workers. The involvement of different actors, including those at the local level could result in better processes of formulating and implementing policy (Walt and Gilson, 1994; Reich, 1993). Impediments to proposed policies could be identified, potential opposition recognised and innovative solutions, found.

b) Incentives and disincentives

Lack of incentives and the presence of disincentives were another reason for problems faced by both providers in their interactions. For example, in the MOH/MMA hepatitis B immunisation project, the RM 8.00 profit as an incentive for the private practitioners was not adequate because they had to also suffer a variety of disincentives. The disincentives included the need for paper work to apply to join the scheme from MMA, provide monthly returns, poor supply of vaccines and absence of other incentives such as discounts that they could obtain if they ordered from their own suppliers. The presence of other brands of vaccines provided them with almost the same if not more profit, further discouraging private practitioners from joining the scheme.

In disease notifications, there are hardly any incentives for private practitioners to cooperate with the public sector. They were likely to lose their patients when they notified them due to poor handling of investigations by public sector workers. There was no way of compensating them for their time and costs associated with notifications such as phone calls and stamps.

There were no incentives for the private practitioners to provide their monthly immunisation returns. Maintaining immunisation records and completing return forms took time. Due to this most private practitioners were not submitting them regularly and the quality of information sent by those who participated was doubtful.

Ability to learn from the referral and satisfaction gained from proper management of the patient is an incentive for private practitioners in patients referral. However, the failure to obtain satisfactory replies is a major disincentive, as is the potential 'loss' of their patient to the public sector.

Utilisation of public ambulances was advantageous to the private practitioners where they would not have to provide their own ambulance service to patients. However they faced bureaucratic difficulties leading to delays in obtaining the service.

High profit (about RM 60 to 70 per patient) is probably the main incentive for most private practitioners to undertake medical examinations of foreign workers. Furthermore they would not have to compete with public facilities for patients and the charges were not controlled by MOH. However competition among the private practitioners undermined this exercise as some private practitioners skipped investigations to increase their profit. Mechanisms to assure the quality of services provided are required.

c) Poor inter and intra-agency collaboration and coordination

Collaboration between different agencies at different levels from planning through the implementation stage is vital to ensure success in health programmes (Sahan, 1988). However this was found to be lacking especially at the district level' and could possibly explain the problems faced by both providers in their interactions. For example, the MOH works with other agencies in the public and private sector at the national level in the MOH/MMA hepatitis B immunisation project and foreign workers medical examination. In these two activities committees were formed at central level between these agencies to coordinate their activities. However no similar committees were formed at the district level to promote collaboration. This has led to extreme lack of communication between public and private providers at the

district level.

Lack of coordination and collaboration within the same agency between central and district level is also an important factor affecting public and private interaction. For example in the Ministry of Health, the central level failed to inform the district health team of their precise role in the MOH/MMA hepatitis B immunisation project and in foreign workers medical examinations. As a result, both activities were not monitored by the district health workers. The reason is poor communication: in the MOH information, usually in the form of circulars from the central level, are sent to the districts through state health offices passing through various directors, deputy directors and heads of units. The information might be given different interpretation and priority at various stages or may not even reach the districts at all.

In the private sector, the MMA played only a limited role in organising the private practitioners. MMA had very little influence on their activities and most private practitioners in the district were either not members or non-active members of the organisation. Due to this whatever was being decided at the national level was poorly communicated to the private practitioners in the district. For example some private practitioners were not aware of the MOH/MMA hepatitis B project and changes made in the running of the foreign workers medical examination were not known to most of them.

d) Lack of resources in public sector

Lack of resources in the public sector is probably one of the reasons for problems in public-private interactions. The obvious one is the unavailability of public ambulance use by private practitioners.

Even if inter and intra-agency coordination were to be improved, lack of resources, particularly human resources would still be an important obstacle for public-private

interaction. Given the current workload, the district health team could not afford to monitor vaccine storage in every private clinic as required in MMA/MOH hepatitis B immunisation project. This was shown in the collection of immunisation returns which was affected by lack of personnel to visit every private clinic every month.

e) Attitudes of public sector personnel and private practitioners

The poor interaction between private practitioners and public sector personnel could also be due to their poor attitudes. There were elements of distrust and jealousy between public sector personnel and private practitioners. The difference in their age, experience, training background and income contribute to their hostile relationship. Private practitioners felt that the public sector personnel were young and inexperienced and hence would not be able to provide proper care for their patients. On the other hand, public sector doctors often considered the private practitioners to be less competent; many doctors who failed to become specialists left government service to become private practitioners (Ming, 1982 a; Ming, 1982 b). The public sector personnel assumed that the primary objective of the private practitioners was to make profits leaving ethical issues aside. The study has shown that there were very few initiatives among both providers to work together. For example, notification forms were not distributed to the private practitioners, referral letters from private practitioners were not replied to while the private practitioners gave poor responses in submitting immunisation returns or assisting public sector personnel to resuscitate patients when requesting ambulance service.

10.4 SUMMARY

Comparisons made in this study and explanations given for the differences between public and private health services have highlighted several policy issues that need to be addressed. Competition with public facilities and other private clinics, patient demand, lack of regulations and incentives and priority to maximise profit influenced the activities of the private practitioners. Lack of resources and lack of management capacity of the district health team are among the key weaknesses in the public sector. Signs of inefficiency, ineffectiveness of care and inequity were apparent in both public and private sector services.

The interactions between public and private sector providers were affected by the presence of weak and inappropriate policies, lack of incentives and the presence of disincentives for the private providers, lack of resources in the public sector and poor inter and intra-agency coordination and collaboration plus negative attitudes of personnel in both sectors.

Options to address most of these issues will be discussed in the next chapter.

XI. POLICY IMPLICATIONS

This chapter discusses the policy issues arising from this study. It is presented in five sections: the regulation of private practitioners, options to improve resources in the health sector, ways of improving delivery of health services in the public and private sector, options to coordinate public and private sector providers and finally a summary.

Health policy can be defined as courses of action that affect the set of institutions, organisations, services and funding arrangements of the health care system (Walt, 1994 p. 41). The ultimate objective of health policy can be considered to be to improve health status through the most efficient, effective and equitable use of health resources, including health services. These considerations underlie the policy proposals presented here. It should be acknowledged however that this study did not specifically set out to test the effectiveness, efficiency or equity implications of services provided by public and private providers. Nevertheless, this study has shed light on each of these characteristics and these are taken into account in the following discussion. It is also necessary to state clearly that the policy process, both in Malaysia and elsewhere, does not follow a simple linear and rational course. Rather, it is influenced by a range of actors and stakeholders, who interact through a variety of processes, all of which are in turn influenced by the broader macro-economic and macro-political context within which health care is addressed. As such, these recommendations may serve as an entry point for further debate and discussion and should not be seen as an end-point in themselves.

11.1 REGULATION OF PRIVATE PRACTITIONERS

It has been argued that health care needs to be regulated because of the failure of the competitive health care market due to uncertainty of demand, existence of monopolies, imperfect information and externalities (Robinson, 1994). Regulation entails passing legislation or using existing

government powers to influence the prices, quantities and quality of health care delivered (Bennett, 1991). It is an intervention to control against inefficiency, inequity and poor quality of care resulting from market failure in health care. An alternative way of influencing the behaviour of private providers is through the provision of incentives (Bennett et al, 1994). An obstacle to giving incentives to private sector providers is resentment from public sector doctors and personnel because in most developing countries private practitioners already enjoyed higher income. Lack of resources in the public sector might also make it difficult for government to provide incentives or even to regulate private practitioners.

i) Prerequisite for effective regulation

Before imposing any form of regulation, there is a need to maintain a register of all private clinics in the country. This would assist the government in maintaining a record of all clinics in the country, along with basic information regarding their locations and personnel employed. This database would be of use in planning health services in the country and in enforcing regulatory requirements.

Besides having regulations, the question of who to enforce them needs to be considered. Currently the role of regulating private providers is shouldered by both the government through the MOH and the professional body which is the Malaysian Medical Council (MMC).

The MOH needs to strengthen its function as a regulator: it needs to have the resources, the skills and the capacity to manage this function. Adequate resources need to be allocated to ensure that enforcement activities can be conducted out smoothly. This study has shown that most private clinics were not visited regularly by MOH officers to enforce the Dangerous Drug (Amendment) Act (1984) and the Poison (Amendment) Act (1987) due to a lack of manpower. Most of the enforcement activities were carried out by officers from MOH headquarters

and the state level. Furthermore officers from different units visited private clinics to enforce different regulations. For example officers from the Engineering Unit in the MOH visited private clinics to inspect X-ray machines while the Pharmacy Unit enforced regulations regarding drugs. This is unlikely to be efficient and effective as emerged from this study. One way to improve this is to decentralise some of the regulatory functions to the district health team. Ways of combining enforcement activities so that the number of visits and personnel involved could be reduced without decreasing effectiveness of the exercise should be explored. The feasibility of district health teams to carry out some of these functions should be studied. Currently, health inspectors in the district health office were inspecting sanitation aspect of private hospitals to enforce the Private Hospital Act (1971). These officers could also be used to inspect private clinics. With training, their role could be extended to include not only sanitation aspect but also inspection of drugs and medical equipment. Continuous in-service training is also necessary to update skills and knowledge in line with new developments to ensure effectiveness of their enforcement activities.

The professional conduct of doctors is currently regulated by the MMC. The role of a professional body may be limited either because of conflict of interest or its highly centralised function (Yesudian, 1994). The function of MMC should be decentralised at least to the state level and the appointments of representative from the consumers to the Council should be considered to increase participation of lay members. This could help the MMC to be more efficient and effective in its function and to protect the public. Possibilities of expanding the regulatory role of the MMC to cover other areas of enforcement such as accrediting training programmes under continuing medical education schemes and training private practitioners to operate expensive diagnostic equipment (see below) should also be explored.

Many of the existing rules and regulations covered in this study such as the Dangerous Drug (Amendment) Act (1984), the Poison (Amendment) Act (1987), Communicable Disease Control Act (1988) and Radiation Act (1988) pertaining to the private health sector are poorly enforced. This was evident in the present study. One reason is that the regulations are weakened by the presence of numerous loopholes. For example it is difficult to prosecute private practitioners for not notifying notifiable diseases under the Communicable Disease Control Act (1988) as it would need to be proven that diagnosis of a notifiable disease was made by the private doctor at the time of the patient visit. Doctors could therefore simply avoid making or documenting such diagnoses if they wished to avoid the work associated with notifying the conditions to the health authorities. These regulations need to be studied and if necessary modified to remove loopholes so that they can be enforced. There is also a need for more widespread consultation with the private sector in order to develop mechanisms which facilitate their participation.

ii) Minimum standards for private clinics

This study has shown that minimum requirements for private clinics to operate are often not met. The options to improve this include providing incentives to ensure that these standards are met or simply regulating them and ensuring by legislation and enforcement activity, that these standards are met if practices wish to continue to operate.

A minimum standard should include building requirements which satisfy sanitation and safety standards and availability of basic and emergency equipments and supplies. Existing regulations which apply only to private hospitals should be extended to cover private clinics. Private clinics should be regularly inspected to ensure that they maintain standards.

There is also a need for a regulation to limit the number of clinics a solo-practitioner can operate as this study has shown 'short hours' clinics owned by those doctors with

multiple clinics, were often poorly equipped and tended to be run by untrained staff. It is not clear, however, what the impact of such a regulation would be on accessibility of services as it would reduce the number of services available to patients. An alternative mechanism might be to always ensure that the doctor himself or any other trained staff member is present during clinic operating hours. The impact on the providers such as reduction in their income due to this regulation which could lead to withdrawal of private practitioners from rural areas needs to be further studied.

iii) **Employment of trained workers**

Ensuring that the private doctors employ a minimum number of trained workers needs to be carefully considered. Currently there are no training programmes available in the public or private sector to train the sort of multi-skilled staff required for private clinic work. Available nurse training programmes may not be suitable for workers in private clinics: dispensing of medicine, for example, is commonly done by the staff in private clinics but not by trained nurses. If trained nurses were required to be employed by the private doctors, the costs would be high and would have a negative impact on the consumers if the extra costs were passed on to them, as would be likely. In the presence of a national health insurance scheme, the extra cost would need to be borne by the state and those providing it with revenue, again raising the cost for consumers. A more focused option would be to stop some risky procedures from being practised in the private clinics such as the dispensing of medicine by untrained staff. Such a policy proposal is likely to be resisted by private practitioners, and given the shortage of pharmacists in the country, public acceptability of such proposal may be limited. This highlights the need for considerable policy debate before such proposals are finalised.

iv) Use of expensive diagnostic equipment

There is a need for licensing expensive and more sophisticated diagnostic equipment such as X-rays, ultrasound scans, MRI and CT Scan machines to ensure that they are operated only by those with appropriate training. Such a measure would help to ensure the safety of patients, the quality of care provided and could possibly assist in reducing supplier-induced demand for services. Those operating such services should be required to participate in accredited training programmes on a regular basis. Providers should be required to display a certificate showing that they are allowed to operate the services. Existing training programmes which are mostly run by private companies selling the machines would similarly need to be standardised and accredited.

v) Display of charges in private clinics

Unstandardised and high charges for services in the private clinics has led to a degree of community dissatisfaction. Private practitioners, despite competing among themselves and the public facilities justified their high charges through over-prescribing and the use of expensive diagnostic investigations. Suggestions by a number of the community leaders that the government regulate and control the charges for privately provided health care services might be difficult to implement. However a suggestion for private practitioners to display their fee schedules publicly should be considered by the government. This could help patients to choose their clinics and to a certain extent might discourage private practitioners from over-charging their patients. However, the impact of such proposals needs to be studied as it might reduce the flexibility of private doctors to charge less to poorer patients.

vi) Continuing medical education

It would be beneficial if means could be found to promote the continuing medical education of both public and private

practitioners. Recently suggestions by consumer associations to make it compulsory and to relate attendance of CME of private practitioners to the renewal of their annual practice permit was rejected by the MMA and MCGP in favour of incentives such as tax exemption to cover travelling expenses and employment of locums (MMA, 1994 a). Incentives for private practitioners to attend CME were found in other developed countries. For example in the UK, payment of the Postgraduate Education Allowance (PGEA) was started by the Department of Health in 1990 and has been shown to increase participation of general practitioners in CME (Al-Shehri, 1992). However, Al-Shehri (1992) argued that some of the educational activities qualified for PGEA in the UK were of low educational value and suggested assessment on the effectiveness of CME activities stimulated by the PGEA. In Australia, through the rural register scheme, free locums were provided to general practitioners practising in rural areas to enable them to attend CME (Davies and Davies, 1991).

Through CME activities private practitioners could improve their skills in management of chronic illnesses and provision of preventive care particularly antenatal care, contraceptive and immunisation services. In this study it was shown that private practitioners play a limited role in providing these services either because of poor quality of their services or because of the limited demand from the users, often preferring to use public rather than private facilities for these services.

Ways to influence the private practitioners to attend CME either through regulation or incentives should be given high priority by policy makers. However CME activities are expensive and should be instituted when adequate standards can be guaranteed. A mechanism for auditing CME programmes to ensure that they are of an appropriate quality and provided through registered institution and teachers should be considered.

Clinical guidelines could be introduced through CME activities and it could help to improve efficiency and effectiveness of services given by private practitioners. Even though there is evidence to show that clinical guidelines could help primary care doctors to improve their prescribing of drugs (Russel et al, 1992) and diagnostic tests (Schectman et al, 1991), Farmer (1993) suggested that guidelines were only likely to be adopted if they are realistic and reflect the routine working practice of the doctors. The development of guidelines might be time consuming and expensive and a central agency is needed to coordinate the activities to avoid duplications, to disseminate them to the providers for implementation and to continually update them to take account of changes in medical knowledge (Haines and Feder, 1992)

11.2 MOBILISING OF RESOURCES FOR THE HEALTH SECTOR

Resource inadequacies contributed to many of the problems related to the provision of services in the public sector. The use of private providers were also shown to be affected by the lack of resources on the part of the users. Two ways to solve this problem would be to use the currently available resources efficiently and to find new resources for the health sector

11.2.1 Improvement in efficiency

i) Improving services in the public sector

The public sector could provide more efficient service through strengthening the management capacity of district managers, improving the role of medical assistants and improving the services of public sector personnel. These will be discussed in turn:

a) Strengthening management capacity of district managers

This study has shown significant weaknesses in management capacity at the district level which were likely to be responsible for inefficiencies in public sector services. For

example poor supervision of subordinates, poor management of resources leading to shortages of drugs, vaccines and equipments were reflections of their limited management skill. It is also clear that doctors, especially the junior ones, were not necessarily be the most appropriate managers of the health centres or the district health team. Cassels (1995) suggested the need for training a cadre of health managers to undertake management responsibilities of health facilities in developing countries. This should be considered by policy makers in Malaysia. Existing in-service training programmes should include training to develop management skills of these workers.

District level managers should be given the opportunity to re-allocate resources at their level to improve efficiency and productivity. For example health centre managers should be allowed to re-allocate appropriately trained nurses from preventive programmes to assist the medical assistants running the curative services which currently have acute shortages of manpower. Shortages in drugs and equipment in health centres could be reduced if more power were given to district level managers to manage their own resources to purchase drugs and to buy and maintain equipment locally rather than going through various levels of management in the Ministry of Health.

b) Improving role of medical assistants

The shortage of doctors to run curative services in health centres and district hospital especially at the district level could be improved by employing more trained non-medical staff particularly medical assistants. The current guidelines followed by the Ministry of Health which restricts the role of medical assistant who were trained needs to be modified. Guidelines in the 'Blue book' (MOH 1992 c), which control the use of drugs by medical assistants need to be modified so that they can treat patients with chronic illnesses and sexually transmitted diseases. If medical assistants were allowed to manage chronic illnesses, then the chronic illness clinic

could be extended from the present one day a week in the health centres. More opportunities for training and promotions should be available to the medical assistants. The current intake of 160 trainees of medical assistants per year (MOH, 1991 b) is inadequate and should be increased so that all existing posts in the health centres can be filled. All these could boost their morale and quality of care given by medical assistants. Currently efforts to increase the role of medical assistants were opposed by the medical profession most probably because they fear that their position and income might be threatened.

c) Improving service by public sector personnel

Poor job satisfaction of public sector personnel which were related to poor service conditions could result in lower productivity and poor quality of services. Improvement in service conditions of public sector personnel needs to be given high priority by policy makers. The New Remuneration Scheme introduced in 1991 which aimed at rewarding the health workers according to their productivity needs to be reviewed. Better ways to assess productivity of workers need to be established as the current system was said to lead to favouritism. The 'on-call allowance' abolished under the New Remuneration Scheme should be reinstated as it has led to the refusal by public sector personnel to provide out-of-hours emergency services in health centres. The impact of introducing a 'critical allowance' as a form of 'non-private practice' allowance under the scheme needs to be studied. As the quantum was too small to compensate the doctors, it has created resentment among workers who were not paid the allowance. Other improvements such as promotions without the need to be transferred, improved supervision and non-monetary incentives such as better training opportunities should be considered.

Government should also consider better ways to compensate the public sector doctors. If increases in salary are not possible other ways such as better training opportunities and promotional prospects should be considered. The public sector

doctors should be allowed to operate as locums in private practice but under controlled conditions with proper monitoring by MOH. The MMA proposed that public sector doctors be allowed to work a maximum of eight hours per week in private clinics and that their immediate superiors be responsible for ensuring that doctors do not abuse the privilege (MMA, 1993 c). Ways to implement this suggestion need to be carefully studied.

Populations served by public and private facilities to a certain extent are influenced by the ethnic group of health providers. The delivery of health services in the public sector is staffed predominantly by Malay health workers. This raises serious issues of equity as the non-Malays, including the poor, may feel forced to use services in the private sector because of language barriers. The private sector is staffed by multi-ethnic health workers and are therefore more acceptable. The government policy of employing more Malays than other ethnic groups needs to be reconsidered. Even though it is a part of the New Economic Policy (Prime Minister Department, 1991 b) to assist the disadvantaged Malays, it has led to serious problems in the health sector. Allowing health facilities to employ more non-Malay staff could be one way of addressing this issue. Alternatively, incentives for the existing staff to learn languages spoken by other ethnic minority could be considered, although this is less likely to be effective.

ii) Strengthening the referral system

The referral system was shown in this study to operate inefficiently as the private practitioners bypass the district hospital to refer to either private hospitals or to higher level public hospitals outside the district even for cases which could be managed in district hospitals. Poor reply to referral letters and fear of losing patients to public sector facilities were among the reasons for such action. Patients themselves could bypass the lower level services to seek care in public hospitals as self-referral is allowed under the

current system.

One way to improve the current referral system is to introduce a gate-keeping function in the country by penalising use of higher level services without an appropriate referral. Patients should be allocated to a particular provider and access to upper levels of care be made possible only through referrals. This would be a major change from the current health system in the country. Apart from improving the referral system it would also help to reduce 'healer shopping' among the patients which is not only inefficient but might also be harmful. The advantage of the current system is that it allows freedom of choice for consumers which may play a role in patient satisfaction. Private practitioners were also providing good interpersonal quality of care to attract patients to them. However, the disadvantages of the present system includes the possibility of mismanagement of cases, unnecessary repeat investigations or even treatment due to poor communication among the providers especially between doctors in the public and private sector. Another disadvantage of the present system is that it may be too consumer driven which could be a reason for over-treatment and over-prescribing as the private practitioners follow patient demand to please them. Allocation of patients to a particular provider with some degree of patient choice such as permission to change their provider after a minimum specified period could be one way to preserve consumer freedom while introducing gate-keeping.

Other ways to strengthen the referral system include regular auditing of replies to referral letters. The hospital administrators should also ensure that patients be initially returned back to the private practitioners before deciding on further long-term care options or when they have completed their management in the hospitals.

iii) Improving prescribing habits

Over-prescribing of drugs and over-use of expensive diagnostic services are a source of inefficiency in the private sector. Participation of private practitioners in continuing medical education and regulating the use of expensive diagnostic equipment could help to solve this problem. Introducing and promoting medical audit in the country might assist in influencing some of the less efficient practices. However, audit is difficult to introduce even more so in the private sector.

In developed countries such as in the UK, Netherlands and Canada activities of general practitioners including their prescribing were monitored through medical audit (Webb et al, 1991; Metsemakers et al, 1992 and McAuley, et al 1990). In the UK, under the PACT (Prescribing Analysis and Cost) system, general practitioners were regularly given feedback on amounts and costs, comparing individual prescribing habits with those in the same practice, same area and nationally (Reilly, 1993). Russel et al (1992) showed that medical audit, by setting and disseminating clinical standards, improved prescribing of general practitioners in the UK. However, Schofield (1993) in his review, argued that conducting medical audit may not automatically lead to improvements in quality of care: it is most likely to influence clinical practice if it is done voluntarily by those who were actively involved in setting standards and discussing their performance. Introducing medical audit in Malaysia could be beneficial through improving prescribing of the private practitioners but further studies are needed to find the best ways of implementing and encouraging participation of private practitioners.

Public education is a long-term measure to help improve prescribing habits of doctors. The public should be educated on the dangers and side effects of taking drugs unnecessarily. For example the misconception that injections are better than oral medications, particularly among the Chinese community need to be corrected. This would help reduce demand for

unnecessary drugs.

11.2.2 New resources for health care

Improving efficiency alone would probably not be adequate to overcome the resource constraints in the health sector. Additional means of accessing new resources for health care should be explored: through the introduction of national health insurance and user fees.

i) National health insurance

Plans to introduce national health insurance in Malaysia were considered in the early 1980's partly due to calls for the government to develop ways of utilising the services of private sector doctors to serve the public in a more equitable manner (Ming, 1983; Rajakumar, 1984; Tan, 1985). The government subsequently commissioned two studies, in 1983 (EPU, 1985) and 1988 (EPU, 1989) funded by the Asian Development Bank: these aimed at finding options for financing health services and utilising services in the private sector. The main recommendation of the first study was to establish a National Health Security Fund (EPU, 1985). The second study proposed a National Health Insurance system developed through the Fund and proposed ways to fund services provided by public and private sector providers (EPU, 1989). The government has not yet made any decision on these recommendations and is currently focusing its efforts on training of personnel required to run the National Health Insurance.

The introduction of a national health insurance might be one way of improving equity. Funding of services given by private providers through national health insurance would reduce the income barrier for the poor to use their services. However, Gilson and Mills (1995) have suggested that implementing national health insurance itself would create problems in equity as it is usually targeted at small and economically advantaged formally-employed populations and that the financing strategies would involve excessive government

subsidisation as the majority of those benefitting are likely to be civil servants (Gilson and Mills, 1995). In the proposal for national health insurance in Malaysia the use of the existing Employees Provident Fund and Social Security Organisation fund to form the National Health Security Fund would only provide coverage for approximately 20% of the population who are currently contributing to these two funds. Ways to extend the coverage of national health insurance to every individual in the country is a major task for the policy makers. It entails developing ways of collecting premiums from those working in the informal sector and formulating appropriate exemption mechanisms for the poor.

Even though national health insurance could possibly generate extra funds for the health sector, inefficiency in running the funds could lead to high administrative costs. Experience from other countries has shown that 50% of insurance funds in Mali and 14% of income from insurance funds in Kenya were absorbed in administration (Gilson and Mills, 1995) while Yang (1991) reported that administration costs ranged between 10% and 22% of total revenue of insurance schemes in different regions of Korea.

Proper ways of reimbursing providers is a key issue to be tackled in order to ensure efficiency of such financing system. For example in Korea, increases in the cost of health care after the introduction of national health insurance was partly due to fee-for-service reimbursement of doctors which led to physician-induced visits (Yang, 1991). Higher utilisation of health services due to supplier-induced demand were shown to be related to fee-for-service payment for providers under insurance schemes in South Africa (Broomberg and Price, 1990). A capitation method of payment could be applied to control supplier-induced demand. However, in developed countries where this method of payment for providers has been used, there is a tendency for doctors to develop lists that are too large, provide poor inter-personal quality of care and more frequent referral of patients to specialists (Ron et al, 1991). Whatever methods of reimbursement are used,

ways to ensure cost-containment and good quality of care need to be built in.

One advantage of national health insurance is that it could bring greater integration of private practitioners with the national health system. It may be easier to influence activities of the private practitioners and to regulate them when their services are funded through a national health insurance scheme. For example, in South Africa it has been proposed that accredited private providers under the national health insurance system should be required to fulfil minimum standards covering staff employment, equipment and also quality and package of services provided (Broomberg and Shisana, 1995). This could be considered in the implementation of national health insurance in Malaysia.

ii) User fees

The introduction of user fees at the health centres and/or increasing the RM 1.00 charges in out-patient unit of district hospital would be one way of generating new resources in health sector. However this may have serious equity consequences. The poor who use the public facilities would be badly affected unless effective exemption mechanism were applied. In order to introduce user fees, the current system would have to be changed in favour of one allowing fees to be held locally. The present system of management which requires all monies collected to be returned to the Ministry of Finance would not guarantee that resources raised could be retained in the health sector. Furthermore it could not be used to improve the quality of services given at local health facilities. Even the current fees from in-patient hospital charges are difficult to collect when people simply refuse to pay. It is also possible that charges in private clinics will also be raised once user fees are introduced or raised in the public facilities. Introducing user fees at the health centres will probably not be supported by politicians who have been using issues of free health care to get grassroots support from people in the rural areas. Considering all these factors it is

unlikely that the introduction or increase in user fees should be given high priority by policy makers in Malaysia at this moment.

11.3 DELIVERY OF HEALTH SERVICES

Currently the provision of services by private practitioners has been determined mainly by market forces. As a result services with poor demand such as antenatal care or care for chronic illness, have not been commonly provided by the private sector. Services which do not generate profit such as emergency services have not been provided at all by the private sector. Some of these services such as antenatal care and emergency services are essential and populations served by private practitioners such as the non-Malays would be deprived of these services. This is more so if these sectors of the community perceive that the public health services do not operate in their favour.

One way to encourage private practitioners to provide these services would be for the government to fund a package of basic essential services and to encourage private practitioners to provide it. This could be done most conveniently through the proposed national health insurance. However decisions must be made on which services to fund. Recently the World Bank (1993) suggested that developing countries should consider a minimum package of essential health services (public health and clinical interventions) to be publicly funded and delivered by either or both the public and private providers. The World Bank (1993) suggested six groups of clinical interventions in the essential clinical package : antenatal care and delivery services, family planning services, management of sick children (treatment of diarrhoeal diseases, acute respiratory infections, measles and malaria), treatment of tuberculosis, case management of STD's and limited care (alleviation of pain, treatment of infection and minor trauma).

It was argued that production of a package of services would improve cost-effectiveness through synergism between treatment or preventive activity in the package, joint production costs and efficient use of specialised resources (Bobadilla et al, 1994). Through the package, government would be able to pool its resources to provide priority services. It was estimated that in middle income countries the minimum package of public health and clinical interventions could be provided for about US \$ 22.00 per person per year. This is likely to be affordable in Malaysia where the government spent about US 46.00 per person per year in 1991 (MOH, 1991 b). This essential package of health services should be considered by the Malaysian government as a guide to an efficient means of spending the resources available from the National Health Security Fund when it is launched. However, the impact of such packages of care on health outcome remain to be assessed.

Based on the findings from this study it is suggested that the minimum essential packages to be delivered by private clinics and health centres in Malaysia should include all the services suggested in the package excluding delivery services. Most private clinics and health centres do not have labour room facilities and staff were not trained to provide delivery services. Due to the good national road system and the preference by the community, this service is better left to the district hospital. The curative services in the private clinics should be extended to include treatment of chronic illnesses specifically hypertension, diabetes and ischaemic heart disease. These three diseases are interrelated and on the rise as a result of the demographic and epidemiological transitions as the country becomes more affluent.

11.4 COORDINATION BETWEEN PUBLIC AND PRIVATE SECTOR

This study has shown that there is a need for coordination between the public and private sectors and to improve communication and facilitate discussion between key players. At the national level, the Public-Private Consultative Council performed this function; it provide a forum for discussion

between two sectors. Currently the Council is chaired by the Director General of Health and members consists of MOH senior officers and representatives of MMA, MCGP and FPMPA. Through this Council, the MMA/MOH Hepatitis B programme and foreign workers medical examination were planned and coordinated.

However, there is a need for a similar body to function at district level. Some form of district level consultative committee to coordinate all activities involving the public and private sector should be formed. The committee could be chaired by the district health officer and the members should include all the managers of the health centres and various programmes in the district, officers from other government agencies involved with specific health activity and the private practitioners.

Apart from discussing specific projects involving the public and private sector, these committees could be use to plan CME activities or develop clinical guidelines to standardise and improve the quality of care in both sectors.

11.5 SUMMARY

This chapter identified the policy issues arising from this study which need to be considered by policy makers in Malaysia in order to improve efficiency, effectiveness and accessibility of health services provided by both public and private providers. These issues include regulation and incentives to influence behaviour of the private practitioners, strengthening of the referral system, introduction of national health insurance to fund health services delivered by public and private sector and decisions on an essential health packages to be delivered. Services in the public sector could be improved through strengthening the management capacity of district managers, improving in-service conditions of public sector personnel and increasing the role of medical assistants. For these to be taken forward, an

extensive degree of policy dialogue involving all stakeholders, cautious introduction of reforms and careful evaluation is needed.

XII. CONCLUSION AND FURTHER RESEARCH

This chapter reiterates the main findings and reflects on the results. Future research priorities are also identified. The study tested the implicit hypotheses that there is no difference in the nature of the services, the characteristics of the health workers and the clientele of public and private sector facilities and that the interactions between both type of providers are mutually beneficial.

12.1 METHODS

Multiple methods were employed in this study: most of them were able to validate and explain information collected by alternative methods and to help identify weaknesses of some of the study tools.

12.2 ROLE OF PRIVATE PRACTITIONERS

a) Private practitioners alongside the public providers play a vital role in the provision of health services in rural areas of Malaysia. The nature of services in private clinics is influenced by competition with public facilities and other private clinics, demand for the services from the population and the profit motive by the providers. Private practitioners were more likely to provide those services not available in public facilities, demanded by the population and on which profits could be maximised.

b) Private practitioners play a significant role in curative care for acute illnesses but the efficiency of these services was limited by over-prescribing of drugs and expensive diagnostic tests. The role of private practitioners in preventive care is limited by the high demand for quality preventive services provided at low cost through public facilities.

c) Private practitioners were mostly Indians, male and received their training abroad while public sector doctors

were mostly Malays, females and were trained locally. Private clinics were run by older doctors but were supported by younger and mostly untrained staff while public facilities were run by younger doctors who were well supported by trained staff. Ethnic policies in employment of public sector personnel, requirement for a period of compulsory service and the absence of regulation to control the employment of untrained staff, help explained the differences in socio-demographic characteristics and the level of training of health workers in both sectors.

d) The effectiveness of services in private clinics is reduced by their lack of participation in continuing medical education and their employment of untrained staff. In the public sector, effectiveness of care is likely to be affected by poor job satisfaction and the negative attitudes of personnel towards their patients, lack of resources and consumer dissatisfaction.

e) Private health services are more accessible to those in the upper and middle income groups while the presence of mostly Malay health personnel in public facilities reduced the access which the non-Malays have to public sector facilities due to language barriers.

12.3 INTERACTIONS BETWEEN PRIVATE PRACTITIONERS AND PUBLIC HEALTH SERVICES

Based on the findings of the seven activities in this research, the following conclusions emerge:

a) Interactions between the public and private sector are potentially beneficial in reducing the workload of the public services, improving the quality of care in both sectors and increasing consumer choices. Various deficiencies in their interactions limit achievement of this potential, however.

b) Policies on public and private interactions formulated at the central level were weak, often lacked input from lower

levels and often disregarded problems faced by those at the lower levels.

c) The participation of private practitioners in many of the activities identified were limited by the lack of incentives or the presence of specific disincentives.

d) Lack of resources in the public sector, negative attitudes of health personnel in both sectors and poor inter and intra-agency coordination and collaboration are important reasons for most of the problems in public and private sector interactions.

12.4 FURTHER RESEARCH

It should be emphasised that more research on the private health sector in developing countries is urgently needed to assist policy makers to make appropriate decisions in respect of health sector reform. Further research in the following areas is hereby suggested:

a) Population-based studies to assess the effectiveness and efficiency of curative and preventive care by public and private sector providers are indicated.

b) Interventions aimed at improving services in the private sector, such as incentives to encourage participation in continuing medical education, to follow clinical guidelines in case management and to introduce medical audit should be subjected to randomised control trials. In this way, effectiveness, efficiency and acceptability of the interventions could be assessed and appropriate policies to influence provider behaviour adopted.

c) Research on the content and implementation of existing regulations governing services provided by private medical practitioners should be conducted in order to identify mechanisms to improve their efficiency and effectiveness.

d) Operational research on the quality of care provided by both public and private providers should be encouraged in order to improve services in both sectors.

e) Research on the role of private practitioners in providing promotive and preventive health care would help to assess the merits and de-merits of promoting their involvement in such activities in the future.

f) Policy analysis on policies related to private health care would shed light on the factors leading to a formulation of policies, the important actors behind such policies and their interests, implementation of these policies and their impact on the health care system of the country. Such study may help identify potential improvements in the processes of policy formulation and their content which will enhance the likelihood of such policies being implemented.

g) Many countries in the Asian region have a similar health system. Comparative studies between these countries should be carried out so that experience in regulating the private providers, providing incentives to influence their behaviours and improving their interactions with public sector providers, could be learned.

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Appendix 1

Table 1: Distribution of health resources among the states of Malaysia in 1991

States	Household income [*]	Population/doctor ^{**}	Population/ health centre	Population per hospital bed ^{***}
Terengganu	905	4,508	13,434	663
Kelantan	726	4,019	16,055	957
Kedah	860	3,782	20,003	744
Pahang	1,067	3,399	13,614	675
Perlis	852	3,229	19,303	464
Johor	1,220	2,968	15,461	667
N. Sembilan	1,162	2,513	13,352	405
Selangor	1,790	2,478	13,475	846
Perak	1,067	2,344	14,796	520
Melaka	1,162	2,051	15,469	586
Penang	1,375	1,656	16,659	366
Fed. Territory	2,102	642	n.r	328
Sabah	1,358	6,011	17,123	490
Sarawak	1,199	4,630	17,583	628
Malaysia	1,254	2,441	15,287	520

* Mean household income in 1990

** Public and Private doctors

*** Excluding beds from Special Institutions of MOH

(Source: MOH, 1991 b; Department of Statistics, 1990 a)

Table 2: Medically certified deaths by specific cause in Malaysia, 1986 and 1991

	1986		1991	
	Nos	%	Nos	%
Cardiovascular diseases	8,209	26.3	10,058	28.8
Malignant neoplasm	3,278	10.5	3,898	11.2
Birth injuries and perinatal mortality	3,172	10.2	2,666	7.6
Septicaemia	1,247	4.0	1,421	4.1
Nephritis and nephrosis	1,028	3.3	1,076	3.1
Congenital anomalies	964	3.1	1,081	3.1
Pneumonia	951	3.0	924	2.6
Motor vehicle accidents	857	2.7	1,646	4.7
Tuberculosis	634	2.0	451	1.3
Diabetes mellitus	555	1.8	752	2.1
Others	10,388	33.1	10,965	31.4
All causes	31,233	100.0	34,938	100.0

(Source: MOH, 1990 a; MOH, 1991 b)

Appendix 2

Table 1: Ten principal causes of hospitalisation in government hospitals in Malaysia, 1991

	Nos	%
Normal delivery	261,675	19.9
Complications of pregnancy	151,966	11.6
Accidents	134,755	10.2
Diseases of Respiratory System	82,311	6.3
Disease of Circulatory System	80,277	6.1
Perinatal conditions	71,628	5.4
Diseases of Digestive system	69,269	5.3
Symptoms and Signs and ill-defined conditions	65,239	5.0
Intestinal Infectious diseases	43,772	3.3
Diseases of Urinary System	30,529	2.3
Others	324,167	24.6
All Causes	1,315,588	100.0

(Source: MOH, 1991 b)

Table 2: Notifiable diseases in Malaysia, 1986 and 1991

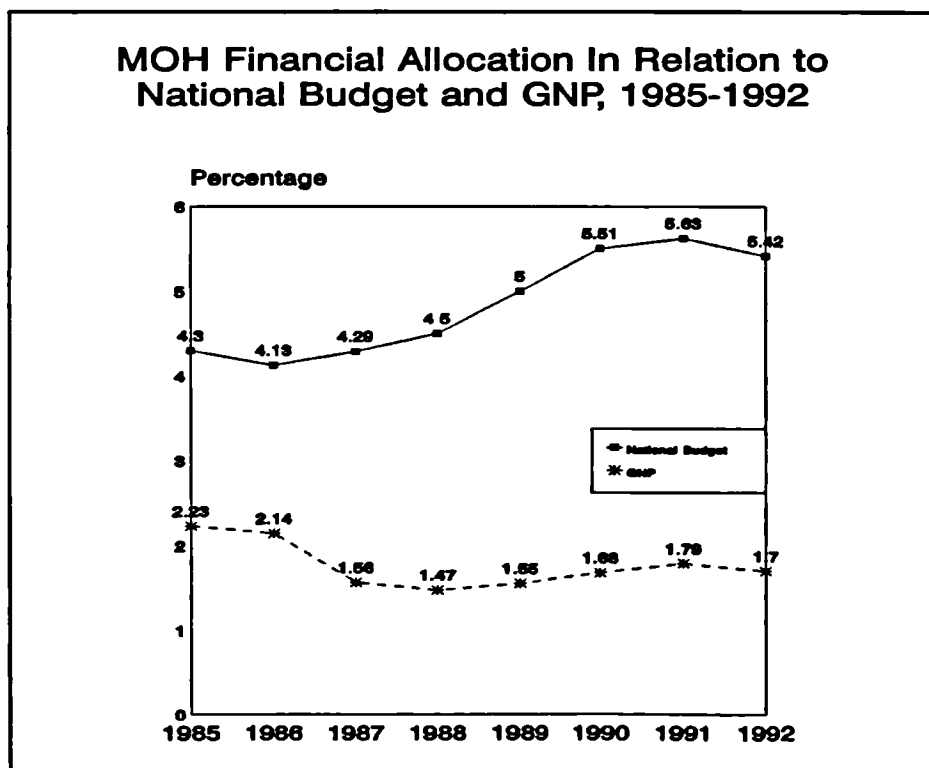
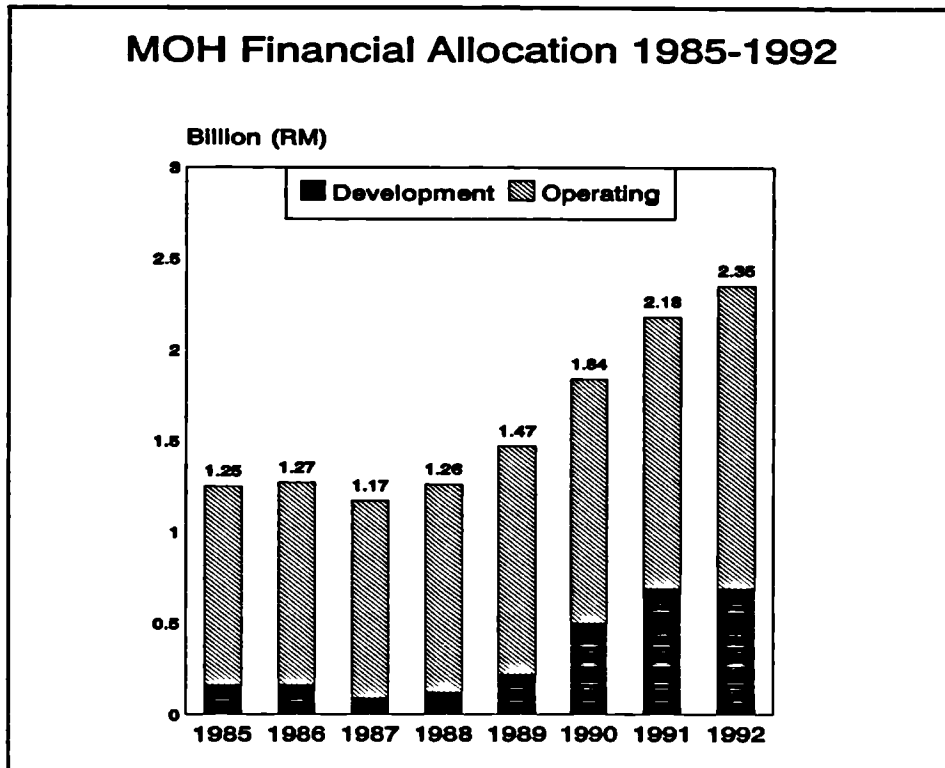
	1986		1991	
	Nos	%	Nos	%
Malaria	42,710	54.0	39,189	59.3
Tuberculosis	9,421	11.9	11,059	16.7
Gonococcal infections	5,685	7.2	2,697	4.1
Syphilis	1,440	1.8	1,889	2.9
Dengue Haemorrhagic fever	1,408	1.8	1,924	2.9
Viral hepatitis	7,261	9.2	2,590	3.9
Typhoid	2,845	3.6	1,999	3.0
HIV	4	0.0	1,706	2.6
Others	8,255	10.5	3,052	4.6
ALL CASES	79,029	100.0	66,105	100.0

(Source: MOH, 1991 b)

Appendix 3

Table 1: Government agencies involved in health functions other than MOH in Malaysia

Ministries	Functions
Ministry of Education	Two University Hospitals Three Medical schools
Ministry of Labour	Enforcement of health and safety regulations for industrial workers
Ministry of Internal Affairs	Hospital for Aborigines
Ministry of Home Affairs	Rehabilitation programmes for drug addicts
Ministry of Science, Technology and Environment	Enforce regulation regarding air and water pollution
Ministry of Welfare	Institutions for mentally retarded Nursing homes for the aged
Ministry of Defence	Three Army Hospitals and Clinics for army personnel and families



Appendix 5

Table 1: Causes of deaths in Tanjung Karang District Hospital in 1992

	Nos	%
Heart diseases	25	35.2
Poisoning and toxic effects	12	16.9
Cerebral vascular diseases	10	14.1
Motor vehicle accidents	7	9.9
Birth asphyxia	7	9.9
Hypertension	3	4.2
Diabetes Mellitus	2	2.8
Cancers	2	2.8
COAD*	1	1.4
Others	2	2.8
All Causes	71	100.0

* = Chronic Obstructive Airway diseases

(Source: MOH, 1992 b)

Table 2: Ten principal causes of admission to Tanjung Karang District Hospital in 1992

	Nos	%
Normal delivery	2,378	27.3
Complications of pregnancy	1,351	15.5
Motor Vehicle Accidents	396	4.6
Hypertensive Diseases	394	4.5
Acute gastroenteritis	362	4.2
Bronchial Asthma	333	3.8
Poisoning and toxic effects	277	3.2
Abortions	261	3.0
Neonatal jaundice	188	2.2
Diabetes Mellitus	166	1.9
Others	2,590	29.8
All Causes	8,696	100.0

(Source: MOH, 1992 b)

Appendix 6

INTERVIEW GUIDE FOR INFORMAL INTERVIEWS OF POLICY MAKERS

Preparation

- * Confirm the date and time of interview
- * Check the recorder, batteries and cassettes
- * Note personal particulars of respondents
 - Name
 - Organisation
 - Position
- * Label the cassette and the notes

Topics to be covered:

1. What is the view of Ministry of Health on the role of private practitioners ? What role should they play ?
2. What about their role in rural areas of Malaysia ?
3. What kind of activities Ministry of Health is working with the private practitioners ?
4. What are the problems faced by MOH in such activities ?
5. What other activities involving private practitioners being planned for the future ?
6. What is your opinion on the role of MOH in regulating the private practitioners?

Appendix 7

Table 1: Respondents interviewed in the first stage of the study

Public sector	Private sector
Director General Of Health, MOH	President of Malaysian Medical Association
Director of Planning and Development Division, MOH	President of Federation of Private Medical Practitioners Association
Director of Medical Services, MOH	Chairman of Malaysian College of General Practitioners
Deputy Director of Selangor Health Services, MOH	Secretary General of Malaysian College of General Practitioners
Senior Medical Officer of Health in-charge of MOH/MMA Hepatitis-B immunisation project, MOH	Chairman of Koperasi Doktor-Doktor Malaysia
Senior Medical Officer of Health in-charge of Control of Communicable Diseases, MOH	General Manager of Koperasi Doktor-Doktor Malaysia
Deputy Director, Pharmaceutical Services, MOH	President, Federation of Malaysian Consumers Association
Deputy Director of Social Services, Economic Planning Unit, Prime Ministers Department	
Senior Administrative Officer, Economic Planning Unit, Prime Ministers Department	
Head, Department of Community Health, National University of Malaysia (Former Deputy Director General of Health)	

QUESTIONNAIRE FOR HEALTH FACILITIES SURVEY

FORM Q1

1. CLINIC CODE : _____
2. Address of the clinic : _____
3. Ownership of the clinic:
- Public clinic
 - Owned by the doctor in-charged
 - Owned by a group of doctors
 - Others: _____
4. When was the clinic established ? _____

STAFF

5. How many doctors worked in this clinic ? _____ Doctors

Doctors	Temporary/Permanent	Hours/week
1 (OWNER)	PERMANENT	
2		
3		
4		
5		
TOTAL DOCTOR HOURS		

6. Do you employ temporary doctors ?
- Yes
 - No (If No, go to Q.8)
7. Where do you get your temporary doctors ?
- Public Clinics
 - Private Clinics
 - Others (Specify : _____)

8. What are the other categories of staff who run this clinic?

Category of Staff	Numbers trained	Numbers untrained	Total
Medical Assistants			
Staff Nurse			
Assistant Nurses			
Midwives			
Nursing aids			
Lab. Technician			
Others: (Specify)			

SERVICES

9. What are the clinic operating hours ?

Days	Opening Hours	Total clinic hours	Number of patients
Mondays			
Tuesdays			
Wednesdays			
Thursdays			
Fridays			
Saturdays			
Sundays			
Public Holidays			

10. Does the clinic provide the following services ?

Yes = 1 No = 2

24 hour services

General OPD services

Emergency services

House calls

Antenatal services

Family Planning services

Immunisation:

BCG

DPT (Triple Antigen)

DT (Double Antigen)

Tetanus Toxoid

Oral Polio

Hepatitis B

Rubella

Measles

MMR

Others: (Specify)

Treatment of Malaria

Treatment of STD

Treatment of Tuberculosis

Treatment of Hypertension

Treatment of Diabetes Mellitus

11. What type of surgical procedures are provided by this clinic ?

Yes = 1 , No = 2

Wound dressing

Toilet and suturing

Incision and drainage of abscess

Circumcision

Fracture setting

Others :

12. What are the diagnostic tests are done in this clinic ?

Yes = 1 No = 2

Urine tests for sugar/protein

Urine microscopic examination

Urine pregnancy test

Blood Haemoglobin level

Blood glucose level

Blood cell count

Blood for Malaria parasite

VDRL test

Blood Cholesterol

Blood for G6PD deficiency

Sputum microscopic examination

Stool for Ova and cysts

ECG

X-rays

Ultrasound scan

PAP smear

Others:

13. Do you use private lab services ?

Yes

No (Go to Q. 15)

14. What are the tests that you sent to private lab ?

1. _____

2. _____

3. _____

4. _____

5. _____

15. What are other services provided by this clinic ?

1. _____

2. _____

3. _____

4. _____

5. _____

CHARGES

16. How do you determine the fee a patient is charged ? What factors do you take into account ?

(Probe for the following after the spontaneous response :)

a) Patient's income Yes No
(If Yes, How ? _____

_____)

b) Methods of payment Yes No
(If Yes, How ? _____

_____)

c) Patient's occupation Yes No
(If Yes, How ? _____

_____)

d) Types of drugs prescribed Yes No
(If Yes, How ? _____

_____)

e) MMA FEE SCHEDULE : Yes No

f) Others : Specify)

17. What proportion of your patients paid by the following methods ?

Out of their own pocket _____ %
Paid by their employers _____ %
Paid by their insurance _____ %
Others Specify _____ %
_____ %

18. Do any factories/companies/local authorities registered this clinic as their panel ?

Yes
 No

If Yes, which ones ?

_____	_____
_____	_____
_____	_____
_____	_____
_____	_____

19. Is there a standard fee for consultations, investigations surgical procedures and services in your clinic ?

Yes = 1, No = 2

consultations
Investigations
Surgical procedures
Immunisation
House calls
Antenatal services
Family Planning services

20. (If yes in Q.19) How much do you charge for the following?

a) Consultation fees _____
b) Investigations : _____
Urine tests for sugar/protein _____
Urine microscopic examination _____
Urine pregnancy test _____
Blood Haemoglobin level _____
Blood glucose level _____
Blood cell count _____
Blood for Malaria parasite _____
VDRL test _____
Blood Cholesterol _____
Blood for G6PD deficiency _____
Sputum microscopic examination _____
Stool for Ova and cysts _____
ECG _____
X-rays _____
Ultrasound scan _____
PAP smear _____
Others: _____

c) Surgical procedures : _____
Wound dressing _____
Toilet and suturing _____
Incision and drainage _____
Circumcision _____
Others : _____

d) Immunisation _____
BCG _____
DPT (Triple Antigen) _____
DT (Double Antigen) _____
Tetanus Toxoid _____
Oral Polio _____
Hepatitis B _____
Rubella _____
Measles _____
Others: Specify) _____

e) Housecalls _____
f) Antenatal services _____
g) Family planning services _____
h) General medical examination _____
i) for Insurance _____
ii) for employment _____
iii) for foreign workers _____

CHECKLIST FOR OBSERVATIONS AFTER INTERVIEWS

A). STRUCTURE

21. Type of building:

- Wood
- Brick
- Wood and brick
- Government clinic
- Others : (Specify)

22. How many rooms does the clinic has : _____

- Number of rooms
- Reception _____
 - Consultation room _____
 - Treatment room _____
 - X-ray room _____
 - Store room _____
 - Others: _____
- _____

23. Waiting room

23A. Is the floor clean ?

- Yes
- No

(Clean : No rubbish, papers, dust or cigarette buds on the floor)

23B. Are there adequate chairs for patients to sit ?

- Yes
- No

(Adequate : There is enough chairs for patients to sit and none of them has to stand)

23C. Is there reading materials for patient to read ?

- Yes
- No

23D. Is the room air conditioned ?

- Yes
- No

24. Consultation room

24A. Is the floor clean ?

- Yes
- No

24B. Is the room air-conditioned?

- Yes
- No

24C. Is there privacy ?

- Yes
- No

24D. Does the room have :

Yes = 1, No = 2

- chair for patients
- examination couch
- desk for doctor
- Sink for washing hand

25. Treatment/dressing room

25A. Is the floor clean ?

- Yes
- No

25B. Is the room air-conditioned ?

- Yes
- No

25C. Does the room has:

Yes = 1, No = 2

- examination couch
- Sink for washing hand
- examination lamp
- dressing trolley
- covered rubbish bin

26. Toilets

26A. How many toilets does the clinic have ?

26B. What type of toilet does the clinic have :

- Pour flush latrine

- Flush latrine
- Others : (Specify) _____

26C. Does the toilet have water supply?
 Yes
 No

26D. Is the toilet clean ?
 Nos. Clean _____
 Nos. Dirty _____

26E. Does the toilet have facilities for washing hands?
 Yes
 No

B) EQUIPMENTS

BASIC EQUIPMENT

27. SPHYGMOMANOMETER

27A. Is there a BP set in every consultation room ?
 Yes
 No

27B. Are all of them in good condition ?
 Yes
 No
 Nos. not working _____

(Check whether the cuffs, tubing and the control knob are in good condition)

28. INFANT WEIGHING SCALE

28A. Is there an infant weighing scale in the clinic ?
 Yes
 No

28B. Is it in good working order ?
 Yes
 No

29. REFRIGERATOR

29A. Does the clinic have a refrigerator ?
 Yes
 No

29B. Is there a Mini-Max thermometer in the fridge:
 Yes
 No

29C. Is there a Temperature monitoring Chart :
 Yes
 No

29D. Is there any ice packs in the freezer :
 Yes
 No

29E. Where are these vaccine stored:

	Freezer	General compartment	N/A
BCG	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
DPT (Triple Antigen)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
DT (Double Antigen)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Tetanus Toxoid	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Oral Polio	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Hepatitis B	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Rubella	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Measles	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Diluents	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

30. DISPOSABLE NEEDLES AND SYRINGES

30A. Does the clinic has disposable needles and syringes
 Yes
 No

30B. Does the clinic has at least 20 in stock?
 Yes
 No

31. STERILIZER

31A. Does the clinic has sterilizer?
 Yes
 No

31B. Is the sterilizer is in good working condition?

- Yes
 No

EMERGENCY EQUIPMENT

32. LARYNGOSCOPE

32A. Does the clinic has any laryngoscope ?
 Yes
 No (If No, go to 31)

32B. Does the clinic have :
Yes = 1, No = 2

Children set

Adult set

32C. Are all the sets in good working order ?
 Yes
 No

33. AMBU BAG SET

33A. Does the clinic have ambu bag set ?
 Yes
 No (If NO, go to 32)

33B. Is the set in good working order ?
 Yes
 No

(Check whether the bag is punctured or the tube is broken)

34. SUCTION

34A. Does the clinic have suction ?
 Yes
 No (If NO, go to 33)

34B. Is the machine in good working order ?
 Yes
 No

(Check whether the motor is functioning and tubes are not broken)

35. INTRAVENOUS CANNULA

35A. Does the clinic have intravenous cannula ?
 Yes
 No (If NO, go to 34)

35B. Does the clinic has
Yes = 1, No = 2

Adult cannula
Children cannula
Scalp cannula

DIAGNOSTIC EQUIPMENTS

36. URINE TESTING STICKS

36A. Does the clinic have these sticks ?
 Yes
 No (If No, go to 35)

36B. Are all the sticks still within their expiry date ?
 Yes
 No

37. SAHLI KITS

37A. Does the clinic have this kit ?
 Yes
 No (If NO, go to 36)

37B. Is the set working ?
 Yes
 No

(Check if there is any more reagent and the tubes are not broken)

38. CALORIMETER

38A. Does the clinic have this machine ?
 Yes
 No (If NO, go to 37)

38B. Is the set working ?
 Yes
 No

(Ask whether the set is working or not)

39. **MICROSCOPE**

39A. Does the clinic have microscope ?
 Yes
 No If NO, go to 38)

39B. Is the set working ?
 Yes
 No
(Check the eye piece and the light source)

40. **GLUCOMETER**

40A. Does the clinic have this machine ?
 Yes
 No (If NO, go to 39)

40B. Is the set working ?
 Yes
 No
(Ask whether the machine is working or not)

41. **ECG MACHINE**

41A. Does the clinic have this machine ?
 Yes
 No (If NO, go to 40)

41B. Is the set working ?
 Yes
 No
(Ask to see ECG recording done on that day)

42. **X-RAY MACHINE**

42A. Does the clinic has this machine ?
 Yes
 No (If NO, go to 41)

42B. Is the machine working?
 Yes
 No
(Ask to see X-ray film done that day)

42C. Does the doctor receive any training in radiology before ?
 Yes
 No (If No: Go to Q. 40E)

42D. When was did the doctor attended the training, where was it held and who conducted the training ?

_____ (Date)
_____ (Place)
_____ (Organisers)

42E. Does he has anybody trained in radiology to consult for second opinion ?
 Yes
 No

43. **ULTRASOUND SCAN MACHINE**

43A. Does the clinic have this machine ?
 Yes
 No (If NO, go to 42)

43B. Is the machine working?
 Yes
 No
(Ask to see Ultrasound report done that day)

43C. Does the doctor receive any training to use ultrasound machine before ?
 Yes
 No (If No, go to Q.41E)

43D. When was did the doctor attended the training, where was it held and who conducted the training ?

_____ (Date)
_____ (Place)
_____ (Organisers)

43E. Does he has anybody trained in ultrasonography to consult for second opinion ?
 Yes
 No

44. **BLOOD CHEMISTRY MACHINE**

44A. Does the clinic have this machine ?
 Yes
 No If NO, go to 43)

44B. Is the machine working?

- Yes
 No

(Ask to see test results done on that day)

44C. Does he have anybody trained in pathology to consult for second opinion ?

- Yes
 No

45. Other equipments available :

STATIONERY

Yes = 1 No = 2

TYPES	Available	In-stock (20 or more)
46. Out-Patient cards	<input type="checkbox"/>	<input type="checkbox"/>
47. Appointment cards	<input type="checkbox"/>	<input type="checkbox"/>
48. Antenatal cards	<input type="checkbox"/>	<input type="checkbox"/>
49. Immunisation book (Buku Panduan Immunisasi)	<input type="checkbox"/>	<input type="checkbox"/>
50. Immunisation Card	<input type="checkbox"/>	<input type="checkbox"/>
51. Referral forms	<input type="checkbox"/>	<input type="checkbox"/>
52. Notifications form (HEALTH 1)	<input type="checkbox"/>	<input type="checkbox"/>
53. Immunisation return form (FORM EPID 24)	<input type="checkbox"/>	<input type="checkbox"/>
54. Medical certificate	<input type="checkbox"/>	<input type="checkbox"/>
55. DDA REGISTER	<input type="checkbox"/>	
56. POISON REGISTER	<input type="checkbox"/>	

DRUGS and SUPPLIES

Check whether the following drugs are available in the clinics and whether they are within the expiry date:

	Available	Within Expiry date
	Yes = 1 No = 2	Yes = 1 No = 2 No exp. date = 3
57. Ampicillin capsule	<input type="checkbox"/>	<input type="checkbox"/>
58. Mefenamic Acid	<input type="checkbox"/>	<input type="checkbox"/>
59. Streptomycin injection	<input type="checkbox"/>	<input type="checkbox"/>
60. Hydrocortisone injection	<input type="checkbox"/>	<input type="checkbox"/>
61. Adrenaline injections	<input type="checkbox"/>	<input type="checkbox"/>
62. Intravenous saline	<input type="checkbox"/>	<input type="checkbox"/>
63. Oxygen supply	<input type="checkbox"/>	

CLINIC DRUG LIST
(FORM 11)

CLINIC CODE : _____

DATE GIVEN : _____

DATE COLLECTED : _____

PLEASE LIST DOWN ALL THE DRUGS AVAILABLE IN YOUR CLINIC.

YOU MAY USE ADDITIONAL PAPERS IF NECESSARY

THANK YOU

A) ANTIBIOTICS

B) ANALGESICS

C) ANTIPYRETICS

D) ANTI DIABETICS

E) ANTIHYPERTENSIVES

F) DRUGS FOR TREATING SEXUALLY TRANSMITTED DISEASES

G) DRUGS AND SUPPLIES FOR FAMILY PLANNING

H) ANTI-TUBERCULOSIS DRUGS

J) EMERGENCY DRUGS AND SUPPLIES

K) DRUGS FOR ASTHMA

L) COUGH MIXTURES

M) VITAMINS AND MINERALS

N) INJECTIONS

O) CREAMS AND LOTIONS

Appendix 10

ONE WEEK PROSPECTIVE RECORDING

(FORM Q3)

CLINIC CODE: _____

DATE START : _____

DATE END : _____

Please record the following characteristics of ALL of your patients seen for ONE WEEK in this BOOK.
Please write clearly the diagnosis of the patients.

Please use the CODE listed below.
Please write down code for the referral centre for cases that you referred.

The book will be collected at the end of the completed week.

CODE

Sex : Male = M Ethnicity : Malay = M
 Female = F Chinese = C
 Indian = I
 Others = O

Referral Centre : Payment :
 Cash = 1
 Panel = 2
 Insurance = 3
 Others = 4 (Specify)

1 = District Hospital Tg. Karang
2 = Other government Hospitals
3 = Private Hospitals
4 = Private Clinics
5 = Government Health Centres
6 = Others (Specify)

Date	Sex	Ethnicity	Age	Diagnosis	Referral centre	Payment method

SPOT CHECK FORM

(FORM 12)

- 1. Clinic code: _____
- 2. Date of Visit: _____
- 3. Time Arrived at clinic: _____
- 4. Who is seeing the patients?

Public Facilities:

- Doctor
 - Medical Assistant
 - Staff Nurses
 - Assistant Nurses
 - Others: (Specify)
- _____
- _____

Private Clinics:

- Doctor who owns the clinic
 - Partner
 - Locum doctor
 - Clinic assistant
 - Others: (Specify)
- _____

- 5. What type of services is schedule for that day:
 - General OPD
 - Antenatal
 - Child Health Session
 - Family Planning
 - Hypertension & DM clinic
 - Others: (Specify)

6. Time left the clinic: _____

7. Notes:

Appendix 12

QUESTIONNAIRE FOR SURVEY OF HEALTH WORKERS

PLEASE NOTE THAT:

1. THIS QUESTIONNAIRE IS A PART OF A RESEARCH PROJECT BY THE FACULTY OF MEDICINE, UNIVERSITI KEBANGSAAN MALAYSIA AND LONDON SCHOOL OF HYGIENE & TROPICAL MEDICINE, UNIVERSITY OF LONDON.
2. THE MAIN AIM OF THIS RESEARCH IS TO UNDERSTAND THE FUNCTION AND DUTIES OF HEALTH WORKERS BOTH IN PUBLIC AND PRIVATE SECTORS IN RURAL AREAS OF MALAYSIA.
3. PLEASE FILL UP THIS QUESTIONNAIRE AND IT WILL BE RE-COLLECTED AFTER ONE WEEK.
4. ALL INFORMATION GIVEN IN THIS FORM WILL BE TREATED AS STRICTLY CONFIDENTIAL. NO INDIVIDUAL WILL BE IDENTIFIED AND THE INFORMATION GIVEN IN THIS FORM WILL ONLY BE USED FOR RESEARCH PURPOSES ONLY.
5. IF THERE ARE ANY QUERIES REGARDING THIS QUESTIONNAIRE, PLEASE DO NOT HESITATE TO CONTACT THE HEAD OF THE PROJECT:

DR SYED MOHAMED ALJUNID
JABATAN KESIHATAN MASYARAKAT
FAKULTI PERUBATAN
UNIVERSITI KEBANGSAAN MALAYSIA
JALAN BOMBA
45500 TANJUNG KARANG
SELANGOR DE
(TEL. NO: 8798599)

(INSTRUCTIONS : WHERE INDICATED, PUT A TICK (/) IN THE APPROPRIATE BOX.)

1. What is your date of birth ? _____
 (day) (month) (year)

2. Sex:
 male
 female

3. What is your highest educational level ?
 No formal education
 Primary school
 Secondary school form 3
 Secondary school form 5
 Secondary school form 6
 College/institute
 University
 Others (Specify) _____

4. Ethnic group:
 Malay
 Chinese
 Indian
 Others _____
 (Specify)

5. What is your current occupation?

6. In which of the following categories does your monthly income fall:

- less than \$500 per month
- \$500 to \$999
- \$1,000 to \$1,499
- \$1,500 to \$1,999
- \$2,000 to \$2,499
- \$2,500 to \$2,999
- \$3,000 to \$3,499
- \$3,500 to \$3,999
- \$4,000 to \$4,999
- \$5,000 and above

7. Where do you work now?
 Government clinic
 Government hospital
 Private clinic
 District Health Office
 Others _____
 (Specify)

8. Please list down your duties under your current occupation.

1. _____
2. _____
3. _____
4. _____
5. _____

9. Please state how much time do you spent on each of these activities.

INSTRUCTIONS

A). If the activity being asked is done daily, fill up in the column 'Hours/day' the amount of time you spent on that particular activity.

B). If the activity is carried out weekly, fill up the column 'Days/week' the number of days per week you spent on that activity.

C). If the activity is carried out monthly, please fill up the column 'Days/month' the number of days you spent on that activity in one month.

- a) Seeing patients and /or conducting clinic sessions
 _____ Hours/day _____ Days/week _____ Days/month
- b) Giving health education :
 _____ Hours/day _____ Days/week _____ Days/month
- c) Preparing, packaging and/or dispense medicine:
 _____ Hours/day _____ Days/week _____ Days/month
- d) Cleaning and domestic job:
 _____ Hours/day _____ Days/week _____ Days/month
- e) Recording and/or filling forms or returns:
 _____ Hours/day _____ Days/week _____ Days/month

f) Home visiting :

_____ Hours/day ___ Days/week _____ Days/month

g) Attending meetings :

_____ Hours/day ___ Days/week _____ Days/month

h) Teaching and giving lectures to staffs :

_____ Hours/day ___ Days/week _____ Days/month

i) Attending courses or training :

_____ Hours/day ___ Days/week _____ Days/month

10. Do you have any job before your current occupation ?

- Yes
- No (If NO, go to Question 12)

11. Please write down all your PREVIOUS occupations, how long were you on each of them and whether you were working in public or private clinic/hospital?

Occupations	Duration	PLACE OF WORK		
		Public clinic	Private clinic	Others (Specify)
_____	_____	<input type="checkbox"/>	<input type="checkbox"/>	_____
_____	_____	<input type="checkbox"/>	<input type="checkbox"/>	_____
_____	_____	<input type="checkbox"/>	<input type="checkbox"/>	_____

12.

12A. (FOR THOSE WORKING IN GOVERNMENT SECTOR)

How long have you been working with Ministry of Health?
_____ years _____ months

12B. (FOR THOSE WORKING IN PRIVATE SECTOR)

How long have you been working in private clinic?
_____ years _____ months

13. How long have you been working in THIS clinic?

_____ years _____ months

14. Do you have any part-time work ?

- Yes
- No (If No, go to Question 18)

15. Do you do part-time work in other clinics or hospitals?

- Yes
- No (If No, go to Question 17)

16. What type of clinic or hospital do you work for part-time?

- Government Clinic
- Private Clinic
- Government Hospital
- Private Hospital
- Others (Specify) _____

17. What is your part-time occupation?

18. Did you ever undergo any BASIC training or courses BEFORE you work in your current occupation ?

- Yes
- No (if No, go to Q. 20)

19. Please list down all BASIC courses or training you have undergone BEFORE , which year the course or training started, duration, organisation which conducted the course and please state in your opinion whether the course or training you had undergone is relevant to you duties now?

Name of the course	Year	Duration of the course	Organised by:	1.Relevant to current job 2. relevant
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____

20. Did you ever go for any training/courses (including POST- BASIC training) AFTER you work in your current occupation?

- Yes
- No (If No, go to Question 22)

21. Please list down all courses or training (including POST-BASIC training/courses) that you have undergone AFTER working in your current occupation, which year the course or training started, duration, organisation which conducted the course and please state in your opinion whether the course or training you had undergone is relevant to you duties now?

Name of the course	Year	Duration of the course	Organised by:	1.Relevant 2.Not relevant

22. Do you have any intention to go for further training/courses in future?

Yes Why ? -----

(if Yes, go to Q. 23)

No Why ? -----

23. Please indicate the training/courses that you would like to go in future.

1. _____
2. _____
3. _____
4. _____
5. _____

24. Please read the following statements regarding your CURRENT OCCUPATION. At the end of each statement, there is a score which ranges from 1 to 5. Score of 1 means you strongly disagree with the statement and score of 5 means you strongly agree with the statement.

- 1 = Strongly disagree with the statement
- 2 = Disagree with the statement
- 3 = You are undecided
- 4 = You agree with the statement
- 5 = Strongly agree with the statement

Circle your response at the end of each statement.

- | | | |
|-----|---|-----------|
| 1. | The pay that I receive now is not adequate compare to my workload. | 1 2 3 4 5 |
| 2. | The prospect for promotions in my present job is very limited. | 1 2 3 4 5 |
| 3. | I receive adequate supervision from my supervisor. | 1 2 3 4 5 |
| 4. | I am not satisfied with the way my superior/
employer treated me when I made mistakes. | 1 2 3 4 5 |
| 5. | I was not given enough chances to attend courses or training. | 1 2 3 4 5 |
| 6. | I do not have any problem in getting cooperation
from my colleague in my daily work. | 1 2 3 4 5 |
| 7. | I am overworked most of the times. | 1 2 3 4 5 |
| 8. | I am satisfied with the equipments in my clinic/office. | 1 2 3 4 5 |
| 9. | My superiors support me in my work. | 1 2 3 4 5 |
| 10. | Frequently I have to do works which are not
my duties. | 1 2 3 4 5 |
| 11. | I am worried that I might be transferred to another place. | 1 2 3 4 5 |
| 12. | My supervisor does not understand the work I am doing. | 1 2 3 4 5 |
| 13. | I think my superior/employer are not able to give a fair
assessment on my work. | 1 2 3 4 5 |
| 14. | More chances to attend courses/training should be given to workers
here. | 1 2 3 4 5 |
| 15. | I find it difficult to control my subordinates. | 1 2 3 4 5 |
| 16. | My claims are often deducted due to inadequate funds. | 1 2 3 4 5 |
| 17. | Vehicles in my clinic/office often break down. | 1 2 3 4 5 |
| 18. | Clinic/office which I work often has shortage of staff. | 1 2 3 4 5 |
| 19. | My superior/employer often takes care of the staffs' welfare. | 1 2 3 4 5 |
| 20. | I find it difficult to meet my patients' demand. | 1 2 3 4 5 |
| 21. | My patients do not understand my needs. | 1 2 3 4 5 |
| 22. | My patients' behaviours sometimes make me angry. | 1 2 3 4 5 |
| 23. | My patients often challenge my authority. | 1 2 3 4 5 |
| 24. | I will be treat my patient nicely if they are also nice to me. | 1 2 3 4 5 |
| 25. | Patients often creates problems for me in my daily works. | 1 2 3 4 5 |
| 26. | I feel that my patients do not follow my advice given to them. | 1 2 3 4 5 |
| 27. | If I treat my patients nicely, it will only brings more trouble
for me. | 1 2 3 4 5 |
| 28. | My patients often do not appreciate my service to them. | 1 2 3 4 5 |

Box 1: Statements for satisfaction scores in survey of health workers

SATISFACTION SCORE	
	INCOME
1.	The pay that I receive now is not adequate compared to my work load
	PROMOTIONS
1.	The prospect for promotions in my present job is very limited
	RELATION WITH SUBORDINATES
1.	I find it difficult to control my subordinates
	RELATION WITH COLLEAGUE
1.	I do not have any problem in getting cooperation from my colleague in my daily work
	EQUIPMENTS
1.	I am satisfied with equipment in my clinic/office.
	TRANSFER
1.	I am worried that I might be transferred to another place
	ALLOWANCES
1.	My claims were often deducted due to inadequate funds
	OFFICE VEHICLE
1.	Vehicle in my clinic often break down
	RELATION WITH SUPERIORS
1.	I receive adequate supervision from my supervisor
2.	I am not satisfied with the way my superior/employer treated me when I made mistake
3.	My superiors support me in my work
4.	My supervisor does not understand the work I am doing
5.	I think my superior/employer are not able to give fair assessment on my work
6.	My superior/employer often takes care of the staff's welfare
	TRAINING
1.	I was not given enough chances to attend courses or training
2.	More chances to attend courses/training should be given to workers here
	WORKLOAD
1.	I am overworked most of the time
2.	Often I have to do works beyond my duties
3.	Clinic/office which I work often has shortage of staff.

Appendix 14

Box 1: Statements for attitude score in survey of health workers

ATTITUDE SCORE	
1.	I find it difficult to meet my patients demand
2.	My patients do not understand my needs
3.	My patient's behaviour sometimes make me angry
4.	My patients often challenge my authority
5.	I will treat my patient nicely if they are also nice to me
6.	Patients often creates problems for me in my daily work
7.	I feel that my patients do not follow my advice given to them
8.	If I treat my patients nicely, it will only brings more trouble for me
9.	My patients often do not appreciate my service to them

Appendix 15

Table 1: Public and private sector doctors interviewed in health workers survey

Participant code	Clinic code	Sex	Age	Length of Service (Years)
PUBLIC SECTOR DOCTORS				
PS23	DH	F	27	3
PS9	HC1	F	32	6
PS11	HC3	F	27	3
PS10	HC5	F	28	3
PS8	HC4	F	28	2
PS19	HC2	F	28	4
PS20	DH	F	29	5
PS24	DH	M	30	4
PS1	DHO	M	42	17
PS12	DH	M	46	13
PRIVATE SECTOR DOCTORS				
PP1	PC2	M	43	12
PP2	PC5	M	39	7
PP3	PC6	M	44	9
PP6	PC14	M	37	2
PP7	PC8	M	42	7
PP9	PC11	M	38	5
PP11	PC10	F	45	12

DHO : District Health Office
Sex: F= Female M = Male

Table 2: Public sector staff interviewed in health workers survey

Participant code	Posts	Clinic code	Sex	Age	Length of Service (Years)
PS2	Sister	DHO	F	45	26
PS3	Sister	HC1	F	36	17
PS25	SN	DH	F	39	16
PS26	SN	HC3	F	40	19
PS27	SN	HC5	F	36	13
PS28	MA	HC2	M	39	16
PS29	MA	DH	M	37	14
PS30	AN	DH	F	47	27
PS31	AN	HC1	F	40	18
PS32	MW	HC2	F	40	16
PS33	MW	DH	F	47	25
PS34	CN	HC1	F	39	16
PS35	CN	HC2	F	42	24
PS36	ATT	DH	F	48	26
PS37	MA	HC4	M	48	27

SN = Staff nurse; AN = Assistant nurse CN = Community Nurse
MW = Midwife; ATT = Attendant MA = Medical Assistant
Sex: F = Female M = Male

Table 3: Private sector staff interviewed in health workers survey

Participant code	Posts	Clinic code	Sex	Age	Length of Service
CA1	CA	PC14	F	24	4 months
CA2	CA	PC1	F	34	3 years
CA3	CA	PC6	F	19	6 months
CA4	CA	PC11	F	21	3 years
CA5	CA	PC5	F	20	1 year
CA6	CA	PC8	F	18	2 years
CA7	CA	PC2	F	38	10 years
CA8	CA	PC4	F	42	20 years
CA9	CA	PC7	F	33	13 years

CA = Clinic Assistant
Sex : F = Female

Appendix 16

IN-DEPTH INTERVIEW GUIDE FOR SURVEY OF HEALTH WORKERS

PREPARATION:

- * Confirm the date and time of interview
- * Check the recorder, batteries and cassettes
- * Note personal particulars of respondents
 - Name
 - Organisation
 - Position
- * Label the cassette and the notes

TOPICS TO BE COVERED:

A) JOB SATISFACTION

1. What aspects of the job that give you most satisfaction ?
2. What are his/her dissatisfaction with the job ?

To get his/her opinions on :

- Pay
- Allowances (milage, overtime, on-call etc)
- Promotions
- In-service Training
- Relationship with supervisors
- Relationship with other colleagues
- Relationship with subordinates
- Workload (including shifts, on-calls etc)
- Equipments
- Drugs
- Supplies (eg stationeries, plasters etc)
- Transfers

B) ATTITUDE TOWARDS THEIR PATIENTS

1. In your daily activities, what kind of difficulties that you face when dealing with your patients ?

Look for:

- Feels that patients do not appreciate their job
- Feels that patients is too demanding
- Patients do not comply to advice/treatment
- Difficulties in developing rapport with their patients

2. Scenario :

"A mother with 2 year old child is referred to you for refusal to allow her child to be immunised against measles. The child has history of fever with rashes at the age of five months. The child has six siblings age between 3 to 12 years old. The father is a farmer and the mother is a housewife".

How will you deal with this patient ?

(Look for : How much emphasis the staff give to:

- a) develop rapport and thrust with the patient ?
- b) considers social and cultural background in managing this patient including beliefs ?
- c) to get her family/husband involved in health education and how flexible and innovative in trying to solve the patient's problem.

Appendix 17

Table 1: Participants of FGD among public sector staff in health workers survey

Participant code	Posts	Clinic code	Sex	Age	Length of Service (Years)
PS6	MA	HC3	M	43	21
PS15	MA	DH	M	38	15
PS42	ATT	DH	M	47	26
PS44	ATT	HC2	M	48	26
PS43	SN	DH	F	38	14
PS38	SN	HC1	F	34	11
PS40	MW	DH	F	40	13
PS41	MW	HC1	F	29	8
PS39	CN	HCS	F	40	18

SN = Staff nurse; AN = Assistant nurse CN = Community Nurse
 MW = Midwife; ATT = Attendant MA = Medical Assistant
 Sex: F = Female M = Male

Table 2: Participants of FGD among private sector staff in health workers survey

Participant code	Posts	Clinic code	Sex	Age	Length of Service (Years)
CA10	CA	PC5	F	26	8
CA11	CA	PC14	F	19	1
CA12	CA	PC1	F	19	1
CA13	CA	PC11	F	23	4
CA14	CA	PC6	F	25	5
CA15	CA	PC2	F	28	10

CA = Clinic Assistant Sex : F = Female

Appendix 18

GUIDE FOR FOCUS GROUPS DISCUSSION IN HEALTH WORKERS SURVEY

A) JOB SATISFACTION

1. From your experience working in the clinics, what aspect of your job that give you most satisfaction?
2. What are the things about your work that you are not satisfied with ?

(For Q. 1 and 2 : Get opinions on:

- Pay
- Allowances (milage, overtime, on-call etc)
- Promotions
- In-service Training
- Relationship with supervisors
- Relationship with other colleagues
- Relationship with subordinate
- Workload (including shifts, on-calls etc)
- Equipment
- Drugs
- Supplies (eg stationeries, plasters etc)
- Transfers

B) ATTITUDE TOWARDS PATIENTS

1. In your daily activities, what kind of difficulties that you face when dealing with your patients ?
Look for :
 - Feels that patients do not appreciate their job
 - Feels that patients is too demanding
 - Patients do not comply to advice/treatment
 - Difficulties in developing rapport with their patients

2. Scenarios :

"A mother with 2 year old child is referred to you for refusal to allow her child to be immunised against measles. The child has history of fever with rashes at the age of five months. The child has six siblings age between 3 to 12 years old. The father is a farmer and the mother is a housewife".

How will you deal with this patient ?

(Look for : How much emphasis the staff give to:

- a) develop rapport and thrust with the patient ?
- b) considers social and cultural background in managing this patient including beliefs ?
- c) to get her family/husband involved in health education and how flexible and innovative in trying to solve the patient's problem.

Appendix 19

Table 1: Public sector personnel interviewed on public-private interactions

Participant code	Position	Sex	Age	Length of service (years)	Duration in the district
PS1	District Health Officer	M	42	17	2 years
PS2	District Health Sister	F	45	26	3 years
PS3	District Health Sister	F	36	17	8 months
PS4	Public Health Nurse	F	37	15	5 years
PS5	Public Health Nurse	F	40	22	3 years
PS6	Medical Assistant	M	43	21	14 years
PS7	Medical Assistant	M	42	16	9 years
PS8	Medical Officer	F	28	2	1 year
PS9	Medical Officer	F	32	6	3 years
PS10	Medical Officer	F	28	3	1 year
PS11	Medical Officer	F	27	3	6 months
PS12	MOIC of District Hospital	M	46	13	2 years
PS13	Medical Assistant	M	43	17	9 years
PS14	Medical Assistant	M	42	22	8 years
PS15	Medical Assistant	M	38	15	15 years
PS16	District Hospital Sister	F	39	17	2 years
PS17	Medical Officer	M	32	4	6 months
PS21	Senior Health Inspector	M	44	17	8 years
PS22	Health Inspector	M	32	4	2 years

Table 2: Private practitioners interviewed on public-private interactions

Participant code	Clinic code	Sex	Age	Length of Service as PP	Duration in the district
PP1	PC2	M	43	12 years	10 years
PP2	PC5	M	39	7 years	7 years
PP3	PC6	M	44	9 years	9 years
PP4	PC4	M	50	20 years	20 years
PP5	PC1	M	49	17 years	17 years
PP6	PC14	M	37	2 years	2 years
PP7	PC8	M	42	7 years	7 years
PP8	PC7	M	40	18 years	18 years
PP9	PC11	M	38	5 years	4 years
PP10	PC8	M	41	6 years	4 years
PP11	PC10	F	45	12 years	12 years
PP12	PC3	M	36	6 months	6 months

IN-DEPTH INTERVIEW GUIDE FOR STUDY OF PUBLIC-PRIVATE INTERACTIONS

Guidelines for interviewer:

- i) The respondents should be contacted few days before the interviews to confirm his/her participation in the interview
- ii) Interview should be carried out in a place where there is no disturbance or interruption
- iii) In private clinics, try to schedule the interview at the time when not likely to be interrupted by patients such as at the end of clinic sessions
- iv) All interviews should be tape recorded.
- v) Start the interview with general topic first before going to specific questions in the interview guide.

IN-DEPTH INTERVIEWS GUIDE FOR PRIVATE DOCTORS

Topics to be covered :

A) GENERAL TOPIC

1. What is your opinion on the interactions between public and private doctor in this district?
2. What kind of activities are you involved with the public doctors? Please describe these activities.
3. What are the problems faced by you with regard to the particular activities ?
4. In his opinion how could it be improved ?
5. Should the interactions be encouraged and how could this be done ?
6. Is there any other form of interactions that you want to suggest?

B) SPECIFIC TOPIC

1. MOH/MMA HEPATITIS B IMMUNISATION PROJECT

- a) Do you take part in this programme ?
(Look for reasons for participation or non-participation)
- b) What is your opinion on the implementation of this programme?
- c) What aspect of the programme should be improved and how?

Pay attention to :

- i) Recruitment and its criteria
- ii) Incentives for participation
such as price of vaccine
getting more patients
- iii) Disincentives for participation
such as: "returns"
- iv) Vaccine supplies and distribution
- v) Competition with other vaccines
e.g. "Hepavacc vaccina "

2. REFERRALS OF PATIENTS

- a) Where do you normally refer your patients?
- b) What is your opinion on the current referral system between private and public sector ?
- c) Is there any areas which need to be improved and how ?
- d) Do you received referrals from public doctors and what are the referrals for ?
- e) Do you have any problems dealing with these referrals ?

3. UTILISATION OF PUBLIC AMBULANCE SERVICE

- a) Have you ever requested for ambulance service from the government facilities?
- b) Can you describe what are the things that you have to do to get the ambulance?
- c) What are your problems in getting this service?
- d) Can you suggest ways to improve this?

4. FOREIGN WORKERS MEDICAL EXAMINATION

- a) Do you provide this service in your clinic?
- b) What are the actual things you do in this activity?
- c) What are the problems you encounter in providing this service?
- d) Can you suggest ways to improve this activity?

5. LOCUM PRACTICE BY GOVERNMENT DOCTORS

- a) Do you employ government doctors to work as locum in your clinic?
- b) Recently there were suggestions by MMA for the government to legalise locum practice by government doctors. What is your opinion on this suggestions?
- c) What are the advantages if locum by government doctors is legalised?
- d) What are the disadvantages if locum by government doctors is legalised?

6. DISEASE NOTIFICATIONS

- a) Do you normally notify notifiable diseases to District Health Office?
- b) What are problems faced by you in this activity ?
(Look for : inadequate forms
improper guidelines
difficult forms
no feed back
problems with the patients
such as : patient's privacy
unsure of diagnosis)
- c) Please suggest ways to improve this ?

7. IMMUNISATION RETURNS

- a) Do you submit monthly immunisation returns to District Health Office?
- b) Were you informed on the reasons for the returns?
- c) Do you face any difficulty to provide this data?
- d) Do you get any benefit from this returns?
- e) Can you suggest ways to improve this activity?
- f) Do you want any feedback on the data that you sent?

8. VISITS BY DISTRICTS HEALTH OFFICERS

- a) Do any officers from District Health Office ever visit your clinic ?
Please describe what they normally do during their visits
- b) In your opinion, does the visits has any benefits to you ?
- c) Do you have any suggestions on ways to make this visit as means to improved public-private relationship in this district?

IN-DEPTH INTERVIEWS GUIDE FOR PUBLIC STAFF

Topics to be covered :

A) GENERAL TOPIC

- 1. What is your opinion on the interactions between public and private doctor in this district?
- 2. What kind of activities are you involved with the private doctors? Please describe these activities.
- 3. What are the problems faced by you with regard to these activities ?

4. In your opinion how could it be improved ?
5. Should the interactions be encouraged and how could this be done ?
6. Is there any factors in your organisation which hinders interactions between public and private sector ?
7. Is there any other form of interactions that you want to suggest?

B) SPECIFIC TOPIC

1. MOH/MMA HEPATITIS B IMMUNISATION PROJECT

- a) What is your involvement in this programme ?
- b) What is your opinion on the implementation of this programme?
- c) How did the private doctor response to this programme ?
- d) What aspect of the programme should be improved and how?

Pay attention to:

Recruitment and its criteria
 Incentives for participation
 such as price of vaccine, getting more patients etc
 Disincentives for participation such as: "returns"
 Vaccine supplies and distribution
 Competition with other vaccines "Hepavacc vaccine "

2. REFERRALS OF PATIENTS

- a) Where do you normally refer your patients?
- b) What is your opinion on the current referral system between private and public sector ?
- c) Is there any areas which need to be improved and how ?
- d) Do you received referrals from private doctors and what are the referrals for ? Do you have any problems dealing with these referrals ?
- e) Do you refer patients to private doctor and what are the referrals for? Do you have any problems in these referrals?

3. UTILISATION OF PUBLIC AMBULANCE SERVICE

- a) Have any private doctors ever requested for ambulance service from your clinics/hospital?
- b) What do you normally do when you receive such request?
- c) What are your problems in providing this service to the private doctors?
- d) Can you suggest ways to improve this?

4. FOREIGN WORKERS MEDICAL EXAMINATION BY PRIVATE DOCTORS

- a) Have you heard about this service by private doctors?
- b) What is your involvement in this activity?
- c) What is your opinions on this service ?
- d) Can you suggest ways to improve this activity?

5. LOCUM PRACTICE BY GOVERNMENT DOCTORS

- a) Have you ever been employed as locum in private clinic?
- b) Recently there were suggestions by MMA for the government to legalise locum practice by government doctors. What is your opinions on this suggestions?
- c) What are the advantages if locum by government doctors is legalised?
- d) What are the disadvantages if locum by government doctors is legalised?

6. DISEASE NOTIFICATIONS

- a) Do you normally notify notifiable diseases to District Health Office?
- b) Do you normally receive notifications of notifiable diseases from the GP's?
- b) What are problems faced by you in this activity ?
 Look for:
 inadequate forms
 improper guidelines
 difficult forms
 no feed back
 patient's privacy
 unsure of diagnosis
- c) Please suggest ways to improve this ?

7. IMMUNISATION RETURNS

- a) Do you or your staff receive monthly immunisation returns from private doctors?
- b) Can you discuss problems you in getting this data?
- c) Can you suggest ways to improve this activity?
- d) Do you provide any feedback to the private doctors?

8. VISITS BY DISTRICTS HEALTH OFFICERS

- a) Do you visit GP clinics ? Please describe the purpose of your visits and what you normally do during these visits ?
- b) In your opinion, does the visits has any benefits to you ?
- c) Do you have any suggestions on ways to make this visit as the means of improving public-private relationship in this district?

Appendix 21

Table 1: Topics discussed by public sector personnel in In-depth Interviews on Interactions

TOPICS DISCUSSED	PUBLIC SECTOR PERSONNEL																					
	PS1	PS2	PS3	PS4	PS5	PS6	PS7	PS8	PS9	PS10	PS11	PS12	PS13	PS14	PS15	PS16	PS17	PS21	PS22			
MOH/MMA HEPATITIS-B PROJECT	X	X	X	X	X		X	X												X		
PATIENTS REFERRAL	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X		
UTILIZATION OF AMBULANCE SERVICES	X								X													
FOREIGN WORKERS MEDICAL EXAMINATION	X							X	X	X	X	X	X	X	X	X	X	X	X			
LOCUM PRACTICE	X								X	X	X	X	X	X	X	X	X	X	X			
DISEASE NOTIFICATIONS	X								X	X	X	X	X	X	X	X	X	X	X			
IMMUNISATION RETURNS	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X	X	X	X			

PS1 = District Health Officer
 PS12 = MOIC of District Hospital
 PS2 & PS3 = Sisters in District Health Office
 PS16 = Sister in District Hospital
 PS4 & PS5 = Public Health Nurses in Health Centres
 PS6 & PS7 = Medical Assistants in Health Centres
 PS13, PS14 & PS15 = Medical Assistants in District Hospital
 PS8, PS9, PS10 & PS11 = Medical Officers in Health Centres
 PS17 = Medical Officer in District Hospital
 PS21 = Senior Health Inspector
 PS22 = Health Inspector in-charge of communicable disease programme

Table 2: Topics discussed by PPs in In-depth Interviews on Interactions

TOPICS DISCUSSED	PRIVATE PRACTITIONERS											
	PP1	PP2	PP3	PP4	PP5	PP6	PP7	PP8	PP9	PP10	PP11	PP12
MOH/MMA HEPATITIS-B PROJECT	X	X	X	X	X	X	X	X	X	X	X	X
PATIENTS REFERRAL	X	X	X	X	X	X	X	X	X	X	X	X
UTILISATION OF AMBULANCE SERVICES	X											
FOREIGN WORKERS MEDICAL EXAMINATION	X	X	X		X	X	X	X	X	X	X	X
LOCUM PRACTICE	X								X	X	X	X
DISEASE NOTIFICATIONS	X	X	X	X	X	X	X	X	X	X	X	X
IMMUNISATION RETURNS	X	X	X	X	X	X	X	X	X	X	X	X

Appendix 22

Table 1: Participants of FGD on interactions among public sector doctors

Participant code	Clinic code	Sex	Age	Length of Service	Duration in the district
PS18	DH	M	30	4 years	6 months
PS9	HC1	F	32	6 years	3 years
PS11	HC3	F	27	3 years	6 months
PS10	HC5	F	28	3 years	1 year
PS8	HC4	F	28	2 years	1 year
PS19	HC2	F	28	4 years	3 months
PS20	DH	F	29	5 years	2 years

Table 2: Participants of FGD on interactions among PPs

Participant code	Clinic code	Sex	Age	Length of Service as PP (years)	Duration in the district (years)
PP2	PC5	M	39	7	7
PP5	PC1	M	49	17	17
PP7	PC8	M	42	7	7
PP9	PC11	M	38	5	4
PP10	PC8	M	41	6	4
PP13	PC7	M	35	6	6

Appendix 23

GUIDE FOR FGD ON PUBLIC-PRIVATE INTERACTIONS

A) GENERAL TOPIC

1. What is your opinion on the interactions between public and private doctor in this district ?
2. What kind of activities are you involved with the public/private doctors ? Please describe these activities.
3. What are the problems faced by you with regard to these activities?
4. In your opinion how could it be improved?
5. Should the interactions be encouraged and how could this be done?
6. Is there any factors in your organisation which hinders interactions between public and private sector ?
7. Any other interactions that you want to suggest?

B) SPECIFIC TOPIC

Discuss these specific topics in the groups if it is not mentioned spontaneously in the first part of the discussion.

1. MMA/MOH HEPATITIS B VACCINATION PROGRAMME
2. REFERRALS OF PATIENTS
3. MEDICAL EXAMINATIONS OF FOREIGN WORKERS
4. LOCUM PRACTICE BY GOVERNMENT DOCTORS
5. DISEASE NOTIFICATIONS
6. IMMUNISATION RETURNS BY PPS
7. UTILISATION OF PUBLIC AMBULANCE BY PPS
8. VISITS BY DISTRICTS HEALTH OFFICERS

INTERVIEW SCHEDULE FOR USERS
PART ONE (FORM Q9)
(TO BE FILLED BY INTERVIEWERS)

DATE _____
INTERVIEWER _____
CLINIC CODE _____
TIME PATIENT ARRIVED IN THE CLINIC _____
TIME PATIENT CALLED IN FOR CONSULTATION _____
TIME PATIENT GO OUT OF CONSULTATION ROOM _____
TIME PATIENT FINISH AND READY TO GO HOME _____
PATIENT REGISTRATION NUMBER _____

1. Where is the interview done?

- Health Centre
- Private Clinic
- District Hospital

2. Who is the person being interviewed ?

- male adult patient (GO TO Q. 4)
- female adult patient (GO TO Q.4)
- Parent of a sick child
- Relative of a sick child
- others
(specify : _____)

3. Do you stay with the patient?

- Yes
- No

4. Date of birth of the patient?

_____ day _____ month _____ year

5. How old is the patient?
_____ years

6. What is the ethnic group of the patient?

- Malay
- Chinese
- Indian
- Others
(Specify : _____)

7. What is your home address:

8. What is your occupation ?

- Not working
- Farmer
- Fisherman with own boat
- Fisherman without own boat
- Trader
- Shopkeeper
- Factory worker
- Labourer
- Student
- Government servant
- Others _____
(Specify)

9. What is your highest educational level ?

- No formal education
- Primary school
- Form 3 Secondary school
- Form 5 Secondary School
- Form 6 Secondary School
- College
- University
- Others _____
(Specify)

10. How do you come to clinic today ?

- Walking
- Bicycle
- Motorcycle
- Bus
- Taxi
- Others (Specify _____)

11. Number of household members _____

12. Information on household members:

Age	Sex	Relation to patient	Occupation	Educational level

13. Do you or your household members own any of the following?

- Bicycle
- Motorcycle
- Car
- Van
- Lorry
- Fishing Boat
- None of the above

14. Do you or your household members possess plot of land ?

- Yes, how many acres _____
- No

15. Do you or your household members rent plot of land for agricultural purposes?

- Yes, how many acres _____
- No

16. Do you or your household members rent your land to someone else for agricultural purpose?

- Yes, how many acres _____
- No

(If in Q 14, 15 and 16, none of the answer is Yes, GO TO Q 18)

17. What is grown in the land?

Crops	Own land (Acres)	Land rented FROM someone else (Acres)	Land rented TO someone else (Acres)
Paddy			
Cocoa			
Oil palm			
Coconut			
Others (Specify)			

18. Is this the clinic that you usually visit ?

- Yes (Go to Q. 20)
- No

19. What is the clinic that you usually visit ?

- Other Private clinic
- OPD of District Hospital
- Health Centre
- Community clinic
- Midwife Clinic
- Others (Specify _____)

20. Why do you usually come to this clinic ?

- Near to house
- Give effective treatment
- Good 'layan' from staff
- Cheap
- Others _____
(Specify)

21. Is there any other clinic nearer to your home than this one ?

- Yes
- No (GO TO Q 24)
- Don't know (GO TO Q 24)

22. What is the type of clinic which is nearer to your home ?

- Private clinic
- OPD of District Hospital
- Health centre
- Community clinic
- Midwife Clinic
- Others (Specify _____)

23. What is the reason that you do not seek treatment from the clinic nearer to your home ?

24A. (IF THIS IS A PRIVATE CLINIC)

What is the reason you choose to come to private clinic?.

- Near to house
- Give effective treatment
- Good 'layanana' from staff
- Cheap
- Others _____
(Specify)

24B. (IF THIS IS A PUBLIC CLINIC)

What is the reason you choose to come to government clinic?.

- Near to house
- Give effective treatment
- Good 'layanana' from staff
- Cheap
- Others _____
(Specify)

CURRENT ILLNESS

25. What was the problem that made you come to the clinic today ?

26. How long has this been going on ?

27. Did you seek care from other government or private clinic for this episode of illness before visiting this clinic ?

- Yes
- No (Go to Q. 23)

28A. What are the clinics that you visited before you come here ?

- Private clinic
- OPD of District Hospital
- Health centre
- Community clinic
- Midwife Clinic
- Others _____
(Specify)

28B. What is the reason for you to come to this clinic after you have sought treatment from other clinic before ?

28C. Were you referred to this clinics by staff/doctors in the clinic you visited previously?

- Yes
- No (GO TO Q.29)

28D. Were you given referral letter to come to this clinic?

- Yes
- No

PREVIOUS ILLNESS

29. (ASK THE PERSON WHETHER HE\SHE SUFFERS FROM ANY OF THE FOLLOWING ILLNESS, DURATION OF EACH ILLNESS, WHETHER ON REGULAR FOLLOW-UP OR NOT AND SOURCE OF CARE USED FOR THE PARTICULAR DISEASE.)

	1. Have 2. Do not have 3. Do not know	Duration of illness	REGULARITY OF TREATMENT 1. Regular 2. Not regular	*SOURCE OF CARE
HYPERTENSION				
DIABETES				
HEART DISEASES				
ASTHMA				

- (* SOURCE OF CARE : 1. Private clinic
2. OPD of District Hospital
3. Health centre
4. Community clinic
5. Midwife Clinic
6. Self-treatment
7. Traditional healers
8. Others (Specify _____)

30. Do the following health workers treated you today?
 Doctor Yes No
 Medical Assistant Yes No
 Nurses Yes No
 Others _____
 (Specify)

31A. During this visit, did you undergo any surgical procedures ?
 Yes
 No (Go to Q.32)

31B. What surgical procedures you have undergone ?

32. What tests/investigations you have undergone ?
 Blood test
 Chest X-ray
 Urine test
 Ultrasound scan
 ECG
 Others _____
 (Specify)

33A. Do you have to pay for this visit ?
 Yes
 No (Go to Q. 26)

33B. How much do you have to pay this visit ?

33C. How do you pay for it ?
 Out of your own pocket
 Paid by your employer
 Paid by your insurance
 Others (Specify _____)

34A. Are you being referred to any other clinic/hospital ?
 Yes
 No (Go to Q. 35)

34B. Why are you referred for?
 For further management
 For investigations
 For admission to ward
 Others _____
 (Specify)

34C. Where are you being referred to ?
 Private clinic
 Private Hospital
 District Hospital Tg karang
 Other government hospital
 Health centre
 Community clinic
 Midwife clinic
 Others (Specify) _____

34D. Were you given referral letters?
 Yes
 No

35A. Were you asked to come back for follow-up ?
 Yes
 No (GO TO Q. 36)

35B. Were you given a specific date to return?

- Yes
- No

36. Can we visit you at your home tomorrow for further interviews?

- Yes
- No

Appendix 25

PART TWO (FORM Q 10) (TO BE FILLED BY THE DOCTOR TREATING THE PATIENT)

DATE _____

CLINIC CODE _____

PATIENT REGISTRATION NUMBER _____

Patient Ethnic group:

- Malay
- Chinese
- Indian
- Others

(Specify : _____)

1. Diagnosis:

2. Investigations done/ordered:

- a) _____
- b) _____
- c) _____

3. Surgical procedures done:

- a) _____
- b) _____
- c) _____

4. Medication given/prescribed:

- a) _____
- b) _____
- c) _____
- d) _____

5. Referral

i) Reason for referral _____

ii) Where patient is referred to _____

Box 1: Background of Parit Serong Malay Village

Parit Serong is a traditional Malay village. It is administered by committee known as JKKKK (Jawatan Kuasa Kebajikan, Kemajuan dan Kebajikan Kampung), the village development, welfare and security committee. Members of this committee were selected by the District Development Council chaired by the District Officer. The JKKKK is headed by the village headman called Tok Sidang. The village population is 870 people; 91% are Malays and 9% Chinese. The size of the village is 9.61 square km. All the 181 houses in the village has electricity, pipe water supply and safe latrine. Sixty five percent of the villagers are farmers, 20% are government servants and 10 percent are unskilled factory workers and 5% shopkeepers/traders. Most of the farmers are Malays whereas shopkeepers and traders are mostly Chinese. Oil palm, paddy, cocoa and coconut are the main crops grown by the farmers. The government servants are mostly teachers and office workers working in government offices within the district. The factory workers were mainly young adults working in electronic factories located in the capital of the state, about 80 km from the district. The nearest town to this village which is the biggest one in the district, is 8 km away and the village is accessible by road.

The only public transport is the bus service which operates through the village to the main town every two to three hours. Most of the villagers use motorcycles as their primary mode of transport. There is a primary school, a religious school and a kindergarten in the village. Secondary school students attended secondary schools in the nearest town. The nearest health facility is a government Community Clinic located in another village about 4 km away. The clinic is run by a Community Nurse. A health centre and the district hospital and six private clinics are located in the nearest town. The villagers also utilised an estate hospital located in an oil palm estate about 10 km from the village. The estate hospital is owned by the oil palm estate to treat the estate workers but it also extends it's service to patients from nearby villages. The villagers do not pay for services at this hospital but the estate management charges the District Health Office for services rendered to the community.

Box 2: Background of Pasir Penambang Chinese Village

Pasir Penambang Village is a fishing village located about 15 km from the biggest town of the district. It has a population of 2,336 people, 88 percent are Chinese, 7 percent are Malays and 5 percent are Indian. A survey done in 1984 showed that 76% of the villagers were fishermen, 14 percent were shop keepers and traders and the remaining 10 percent were factory workers, mechanics and construction workers (Gobir et al, 1984). The village leader, the Tok Sidang and 10 JKKKK committee members administer the village. All houses in the village have electricity and piped water supply but most houses do not have a modern system of sewage removal. Household wastes were disposed into the river.

A two kilometre granite road connects the village with the main road of the district. The only public transport system is a bus service operating along the main road. There is a Chinese Primary School in the village. Two private clinics located in the village itself; these operate for two to three hours daily. A public Community Clinic located about two km from the village. The nearest town is about two kilometres away where there is a private clinic and health centre.

Box 3: Background of Sungai Terap Indian Estate

Sungai Terap Estate is located 12 km from the biggest town of the district alongside the main road which runs through the district. It is an oil palm plantation estate owned by a private company. There were 232 people in the estate from 45 households; all of them are Indians. Housing were provided by the estate management. All the heads of the families worked in the 150 acre plantation either as labourers or tractor drivers. All the houses in the estate were supplied with electricity and piped water subsidised by the estate. The families in the estate had organised themselves and elected their temple leader as the headman. Besides functioning as a religious leader for the community, he represented the community in meetings with the estate management and settled disputes among families in the estate. There is an Indian Primary school in the estate. The nearest health facility is a Community Clinic located about 4 km from the estate. A government Health Centre and a private clinic are located about 6 km away. The estate management provide free health care to the families through an estate hospital located in another estate also owned by the company about 10 km away.

GUIDE FOR FGD IN STUDY OF COMMUNITY SATISFACTION

A. Preparation:

- i) Check list of participants given by community leaders
- ii) Replace participants dropped from the list
- iii) Invite participants and confirm their attendance
- iv) Confirm the date, time and place of meeting
- v) Visit the place of meeting to make sure it is suitable
- vi) Make arrangements for refreshments

B. Instructions

i) Facilitator

- * Overall in-charge of the FGD.
- * Introduce yourself and others in the team.
- * Explain to participants on the purpose of the discussion.
- * Reassure participants of confidentiality
- * Encourage discussion among participants on the research topics.
- * Use the guidelines given. You do not have to follow the exact sequence; be flexible but do not miss any topic as far as possible.
- * Start the discussion by asking the participant name; try to remember the names and address the participants by their names.
- * Talk clearly but be polite.
- * Remind the participants that they do not cross talk.
- * Observe the participants as they discussed. Try to make everyone to join the discussion.
- * Start each topic by asking the participant questions to promote discussion.
- * Try to prevent discussion being dominated by some of the participants. Stimulate others to talk by asking them directly.
- * Do not spend too much time on one issue. Move the discussion and refer to the guide on topics to be covered.
- * Summarize the discussions from time to time to stimulate further discussion
- * Do not give your own opinions if the participants ask, pass the questions to other participants
- * Try to reach a stage where the participants are discussing among themselves
- * At the end of the discussion, remind the participants that the meeting is about to end. Ask each participants for any additional comments
- * Thank the participants at the end of FGD and invite them for refreshment
- * Arrange for debriefing with all members of the team after each discussion
- * Arrange for transcribing of all the tapes with team members
- * Translate the transcript into Malay

ii) Recorder

- * Take down personal particulars of participants (name, sex, age, marital status, occupation).
- * Observe the discussion and note down what being discussed
- * Operate the tape recorder.
- * Observe and note all discussion as far as possible especially when participants cross-talks.
- * Observe and note whether all participants are taking part in discussion.
- * Observe and note participants' reactions to issue being discussed; when they all agree or disagree or when they reluctant to give their opinions.
- * Remind facilitator if any topic were missed in the discussion.

iii) General Assistant

- * Arrange the table and chairs
- * Ensure that late comers do not join the FGD once it has started
- * Entertain the late comers
- * Serve refreshment after the discussion
- * Rearrange the table and chairs after the discussion
- * Assist the facilitator and recorder to transcribe and translate the discussion

C. QUESTIONS

1. When you or your family members are sick, which clinic you or your family visit?
2. What are the reasons for choosing the particular clinic?
3. What are the good things about public services ?
4. What are the bad things about public services ?
5. What are the good things about private services ?
6. What are the bad things about private services ?

Obtain response on the following:

1. Operating hours
2. Availability of services
3. Waiting time
4. Charges
5. Availability and effectiveness of drugs
6. Availability of equipment
7. Relations with staff

Appendix 28

Table 1: Community leaders interviewed in study of community satisfaction

	CODE	Sex	Age	Occupations	Status
Malay village	MLM1	M	48	Farmer	Village headman
	MLM2	M	56	Farmer	JKKK member/religious leader
	MLF1	F	43	Housewife	Leader of Women's Institute
	MLF2	F	37	Cook	UMNO Wanita leader
Chinese village	CLM1	M	45	Insurance agent	JKKK member/MCA leader
	CLM2	M	56	Trader	Village headman
	CLW1	F	29	Bank clerk	MCA Wanita leader
	CLW2	F	32	Teacher	Teacher
Indian estate	ILM1	M	53	Headmaster	Headmaster
	ILM2	M	52	Labourer	Workers Union leader
	ILW1	F	42	Housewife	MIC Wanita leader
	ILW2	F	32	Teacher	Teacher

SEX: M = Male; F = Female

Appendix 29

GUIDE FOR IN-DEPTH INTERVIEWS OF COMMUNITY LEADERS IN STUDY OF COMMUNITY SATISFACTION

PREPARATION:

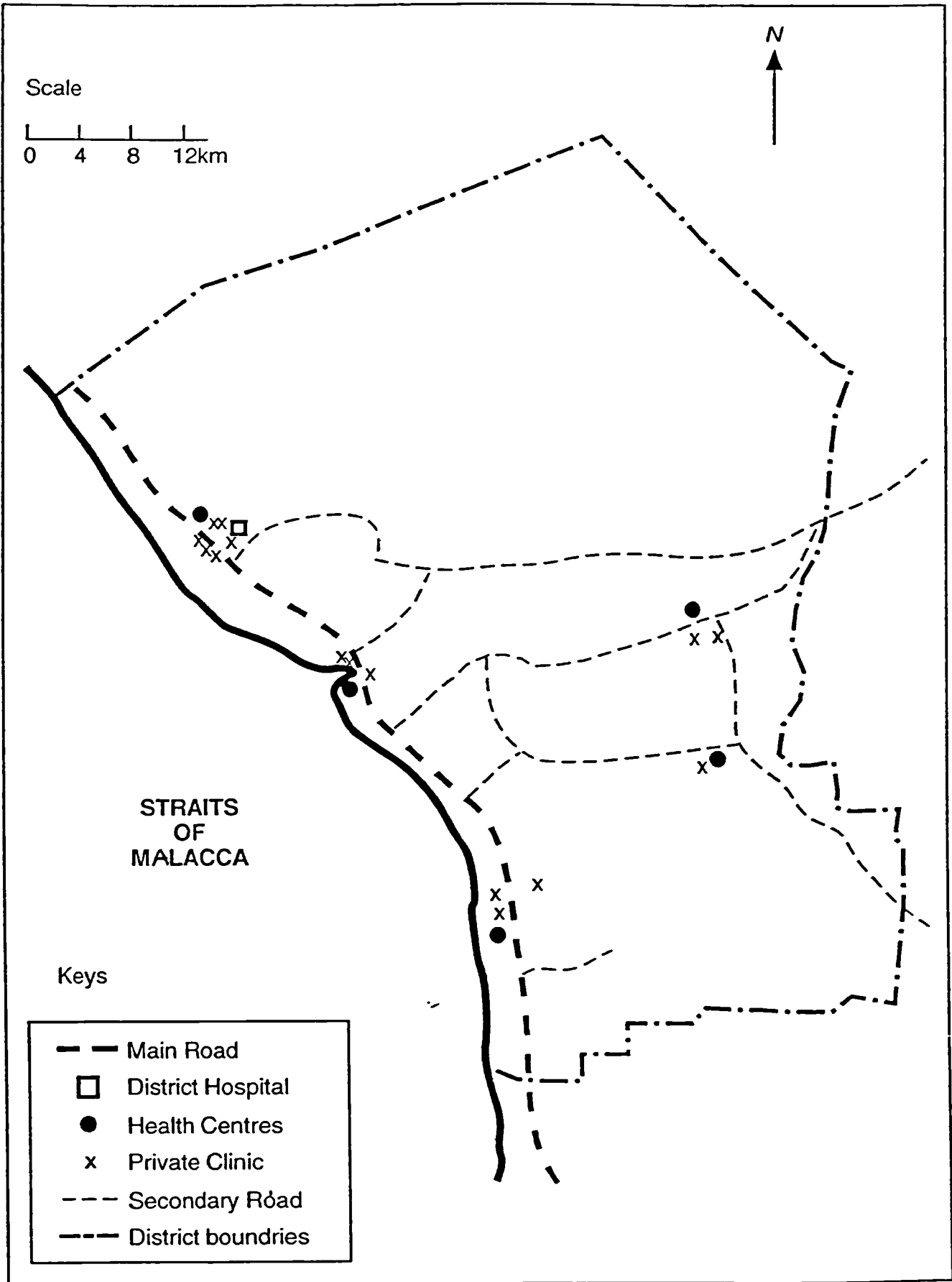
- * Confirm the date and time of interview
- * Check the recorder, batteries and cassettes
- * Note personal particulars of respondents
 - Name
 - Age
 - Position in the community
- * Label the cassette and the notes

TOPICS TO BE COVERED:

1. When you or members of your family are sick, which clinic do you or your family usually visit ?
2. What are the reasons for choosing this particular clinic?
3. What are the good things about government clinics ?
4. What are the bad things about government clinics ?
5. What are the good things about private clinics ?
6. What are the bad things about private clinics ?

Obtain response on the following:

1. Operating hours
2. Availability of services
3. Waiting time
4. Charges
5. Availability and effectiveness of drugs
6. Availability of equipment
7. Relation with staff



PUBLIC AND PRIVATE FACILITIES IN KUALA SELANGOR DISTRICT

Appendix 31

Table 1: Vaccine storage in public and private facilities

Clinics	Fridge condition	Temperature monitoring	Ice pack in freezer	No Food stuffs	No Vaccine on door shelves	No Expired vaccines
Long Hours PCs						
PC1	Good	X	X	X	X	1
PC2	Good	X	X	X	1	1
PC3	Good	X	X	X	X	1
PC5	Good	X	X	X	X	1
PC6	Good	X	X	X	X	1
PC7	Poor	X	X	X	X	X
PC8	Good	X	X	X	X	1
PC10	Poor	X	X	X	X	1
PC11	Good	X	X	1	X	1
PC14	Good	X	1	1	1	1
Short Hours PCs						
PC4	Good	X	1	X	X	X
PC9	XXX	NR	NR	NR	NR	1
PC12	Poor	X	X	X	X	1
PC13	Good	X	1	1	X	1
PC15	XXX	NR	NR	NR	NR	1
Public Facilities						
DH	Good	1	1	1	1	1
HC1	Good	1	1	1	1	1
HC2	Good	1	1	1	1	1
HC3	Good	1	1	1	1	1
HC4	Good	1	1	1	1	1
HC5	Good	1	1	1	1	1

1 = Present X = Absent XXX = No refrigerator in the clinic NR = Not relevant

Fridge conditions:

Good = Fridge in good working order, no rusty parts, no leaking, door seal is good

Poor = Fridge is old, some parts of the door are rusty, evidence of leaking and faulty door seal

Appendix 32

Table 1: Availability of medical procedures in public and private facilities

Clinics	Wound dressing	Toilet & suturing	Incision & drainage	Male circumcision	Setting of fractures
Long Hours PCs					
PC1	1	1	1	1	1
PC2	1	1	1	1	1
PC3	1	1	1	X	X
PC5	1	1	1	X	X
PC6	1	1	1	1	X
PC7	1	1	1	1	X
PC8	1	1	1	X	1
PC10	1	1	1	X	X
PC11	1	1	1	1	X
PC14	1	1	1	X	X
Short Hours PCs					
PC4	1	1	1	X	X
PC9	1	1	1	X	X
PC12	1	1	1	X	X
PC13	1	1	1	X	X
PC15	1	1	1	X	X
Public Facilities					
DH	1	1	1	1	1
HC1	X	X	X	X	X
HC2	1	1	1	1	X
HC3	1	1	1	1	X
HC4	1	1	1	1	X
HC5	1	1	1	1	X

1 = services available X = services not available

Appendix 33

Table 1: Medical records kept in public and private facilities

Clinics	OPD record	Appointment card	Antenatal record	Immunisation record	Referral form	Notification form	Medical certificates	Drugs register
Long Hours PCs								
PC1	1	1	X	X	X	X	1	1
PC2	1	1	X	X	1	X	1	1
PC3	1	X	X	X	X	X	1	1
PC5	1	1	X	1	1	X	1	1
PC6	1	X	X	X	X	X	1	X
PC7	1	1	X	X	X	X	1	X
PC8	1	1	X	X	X	X	1	X
PC10	1	1	X	1	1	X	1	X
PC11	1	X	X	X	X	X	1	X
PC14	1	1	X	X	X	X	1	X
Short Hours PCs								
PC4	1	1	X	X	X	X	1	X
PC9	1	1	X	X	X	X	1	X
PC12	1	X	X	X	X	X	1	X
PC13	1	X	X	X	X	1	1	X
PC15	1	1	X	X	X	X	1	X
Public clinics								
DH	1	1	1	1	1	1	1	1
HC1	1	1	1	1	1	1	1	X
HC2	1	1	1	1	1	X	1	X
HC3	1	1	1	1	1	1	1	X
HC4	1	1	1	1	1	X	1	X
HCS	1	1	1	1	1	X	1	X

1 = Available X = Not available

STANDARD REFERRAL FORM USED IN PUBLIC FACILITIES

(Cap Pusa Keihatan)

Tuan/Puan,
Sila periksa dan beri nasihat/rawaian bagi:

Nama Umur Lelaki/Perempuan.
No. K.P. No. Iknny
Alamat

Cerita Penyakit (Complaints)

Butir-butir Pemeriksaan (Findings)

Diagnosa Provisional (Provisional Diagnosis)

Rawatan yang telah diberi

Terima kasih,
Yang besar,

Tandatangan (.)
Jawalan
Tarikh

U-P-N-KL

(Cap Hospital)

Tuan/Puan,
Nama Umur Lelaki/Perempuan
No. K.P. No. Iknny
Alamat

No. Kad di Hospital

Tarikh dirawat sebagai Pesakit Luar
Tarikh Masuk Hospital Tarikh Keluar
Keputusan Kajiur-kajian (Investigation results)

Diagnosa

Rawatan diberi

Nasihat

Tarikh Lawatan akan datang

Terima kasih,
Yang besar,

Tandatangan (.)
Jawalan
Tarikh

U-P-N-KL

HEALTH I FORM

(Health I)
(Rev 7/71)

NOTIFICATION OF INFECTIOUS DISEASE

To
THE HEALTH OFFICER,
SIR,

I have the honour to report the following case of infectious disease:

- Name
- Residence
- Age
- Sex
- Occupation
- Nationality
- Disease
- Date of onset
- If a case of smallpox, whether vaccinated or not
- Date of my first visit to the patient
- Date of my last visit to the patient

I have the honour to be,
Sir,
Your obedient servant,

Dated 19

The following are notifiable diseases in the States of West Malaysia.
Anthrax acute poliomyelitis cholera (including cholera due to the El Tor vibrio) meningococcal meningitis, chickenpox, chancroid, diphtheria, dengue fever, dysentery (amoebic and bacillary), acute infective encephalitis, filariasis, food poisoning, gonococcal infections, haemorrhagic fever, infectious hepatitis, leprosy, leptospiral infections, measles, malaria, mumps, ophthalmia neonatorum, plague, puerperal fever, pemphigus neonatorum, rabies, smallpox including variola minor (alastrim), syphilis and its sequelae, septic abortion, typhus, typhoid fever (including paratyphoid fever), tuberculosis (all forms), tetanus neonatorum, trachoma, whooping cough, yellow fever, yaws and any other disease of an infectious or contagious nature which the Minister may by order published in the *Gazette* declare to be included within the expression "infectious disease".

Appendix 36

Table 1: Factors considered by FPs in charging patients

Clinics	Patient's SES	Patient's age	Drugs prescribed	MMA fees schedule	Payment methods	Other factors
Long Hours PCs						
PC1	1	1	1	X	1	1
PC2	1	X	1	X	X	1
PC3	1	X	1	X	X	X
PC5	1	X	1	X	1	1
PC6	1	X	1	X	1	X
PC7	1	X	1	X	1	1
PC8	1	X	1	X	X	X
PC10	1	1	1	X	1	X
PC11	1	X	1	X	1	X
PC14	1	1	1	X	1	1
Short Hours PCs						
PC4	1	X	1	X	X	X
PC9	1	X	1	X	1	X
PC12	1	1	1	X	1	X
PC13	1	1	1	X	1	1
PC15	1	1	1	X	1	X

1 = Considered
 X = Not considered
 SES = Socio-economic status
 MMA = Malaysian Medical Association

Table 2: Difference in number of patients estimated by interviews and prospective recording.

Clinics	Estimated average	Average from recording	Differences
Long Hours PC	356	305	+14.3
Short Hours PC	71	66	+7.0
District Hospital	1350	1390	-3.0
Health Centres	515	493	+4.3

Appendix 37

Table 1: Top ten conditions among patients attending public and private facilities

PUBLIC		PRIVATE	
Conditions	%	Conditions	%
URTI*	16.3	URTI*	27.8
Antenatal check-up	10.5	Asthma	4.2
Child health screening	10.3	AGE	4.0
Hypertension	8.8	Gastritis	3.8
Transport accidents	6.0	Skin infections	3.8
Gastritis	5.1	Bronchitis	3.4
Asthma	4.3	Eczema	3.0
Diabetes mellitus	3.8	'Fever'	2.7
'Cough'	3.4	'Backache'	2.5
'Fever'	3.1	Hypertension	2.5
Others	28.4	Others	42.3

* URTI = Upper respiratory tract infection
 ** AGE = Acute gastroenteritis

Table 2: Types of tests undergone by patients attending public and private facilities

Type of tests	PUBLIC (3855)		PRIVATE (3376)	
	Nos	%	Nos	%
Blood tests	246	(38.9)	16	(12.6)
Urine analysis	255	(40.4)	39	(30.7)
Stool exam.	13	(2.1)	0	(0.0)
Sputum exam.	11	(1.7)	0	(0.0)
ECCG	26	(4.1)	0	(0.0)
X-rays	80	(12.7)	11	8.7)
Ultrasound	0	(0.0)	61	(48.0)
Total	631	(100.0)	127	(100.0)
Rate per 100 patients		16.4		3.8

Appendix 38

IMMUNIZATION RETURN FORM USED BY PPS

Laporan Bulanan dari Doktor Swasta untuk Bulan

Kepada Pegawai Kesihatan
Daerah/Majlis Perbandaran
.....

Borang EPID 24
(Pindaan Opas 90)

URUSAN SERI PADUKA BAGINDA

JENIS PELALIAN (TYPE OF IMMUNISATION)	BILANGAN DOS/SUNTIKAN (NO. OF DOSES/INJECTIONS)			
	Primary course (Under 1 year)			Booster
	Pertama (1st)	Kedua (2nd)	Ketiga (3rd)	
BCG				X
Hepatitis B				X
Triple Antigen (DPT) or Double Antigen (DT)				
Oral Polio				
Measles or MMR (under 1 year)				X
Rubella (females)				X
Tetanus toksoid (antenatal)			X	

Kepada:

PEGAWAI KESIHATAN,
PEJABAT KESIHATAN,
DAERAH.....
.....

Daripada:

Cop Klinik/Hospital.

* Komen (jika ada)

Tandatangan.....
Doktor/Pegawai Pelapur

* e.g. Primary immunisation
for children above 1 year.

Alamat Klinik/Hospital:
.....
.....

Tarikh:

Box 1: List of notifiable diseases in Malaysia

AIDS *
Cholera*
Dengue fever and dengue haemorrhagic fever*
Diphtheria
Dysenteries (all types)
Food Poisoning*
Leprosy
Malaria
Measles
Plague*
Poliomyelitis (Acute)*
Rabies*
Relapsing fever
Chancroid
Gonococcal Infections (all forms)
Syphilis
Tetanus
Tuberculosis (All form)
Typhoid and other Salmonellosis
Typhus and other Rickettsioses
Viral Encephalitis
Viral Hepatitis
Whooping cough
Yellow fever*

* : Diseases need to notified urgently through telephone

Appendix 40

Table 1: Number of patients selected in each facilities in user interviews

Facilities	Total no. of patients seen per week	No. selected (%)
Private clinics		
PC1	196	21 (10.7)
PC2	660	71 (10.8)
PC3	177	19 (10.7)
PC4	78	9 (11.5)
PC5	136	15 (11.0)
PC6	290	33 (11.4)
PC7	415	46 (11.1)
PC8	350	39 (11.1)
PC9	50	6 (12.0)
PC10	300	33 (11.0)
PC11	660	72 (10.9)
PC12	81	9 (11.1)
PC13	94	10 (10.6)
PC14	380	39 (10.3)
PC15	51	6 (11.8)
Total	3918	428 (10.9)
Public facilities		
DH	1350	162 (12.0)
HC1	275	34 (12.4)
HC2	579	74 (12.8)
HC3	569	73 (12.8)
HC4	659	82 (12.4)
HC5	494	64 (12.9)
Total	3926	489 (12.5)

Table 2: Ethnic and gender distributions among patient attending public and private facilities

Ethnic groups	MALE		FEMALE	
	Public	Private	Public	Private
Malays	124 (56.6)	95 (43.3)	228 (68.9)	103 (31.1)
Chinese	13 (15.9)	69 (84.1)	22 (32.3)	46 (67.6)
Indians	36 (47.4)	40 (52.6)	62 (47.0)	70 (53.0)
Others	1 (20.0)	4 (80.0)	3 (75.0)	1 (25.0)
Total	174 (45.5)	208 (55.5)	315 (58.9)	220 (41.1)

$\chi^2 = 39.98$ d.f= 2
 $p < 0.0001$

$\chi^2 = 40.34$ d.f= 2
 $p < 0.0001$

