Changing causes of death in the West African town of Banjul, 1942–97

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Objective To determine trends in the causes of death in a West African town. Mortality caused by infectious diseases is reported to be declining while degenerative and man-made mortality factors are increasingly significant. Most mortality analyses for sub-Saharan Africa have involved extrapolation and have not been derived from community-based data.

Methods Historical data on causes of death coded by physicians were analysed for the urban population of Banjul for the period 1942–97. As the calculation of rates is not possible in the absence of a reliable population denominator, age-standardized proportional mortality ratios (PMRs) for men and women by major groups of causes of death were calculated, using the 1942–49 data for reference purposes.

Findings Most deaths were attributable to communicable diseases. There was a shift in proportional mortality over the study period: the contribution of communicable diseases declined and that of noncommunicable diseases and injuries increased. These trends were more marked among men than women.

Conclusion The data illustrate that while noncommunicable diseases and injuries are emerging as important contributors to mortality in sub-Saharan Africa, communicable diseases remain significant causes of mortality and should not be neglected.

Keywords: cause of death; mortality, trends; communicable diseases, mortality, trends; chronic disease, mortality, trends; Gambia.

Mots clés: cause de décès; mortalité, tendances; maladie transmissible, mortalité, tendances; maladie chronique, mortalité, tendances; Gambie.

Palabras clave: causa de muerte; mortalidad, tendencias; enfermedades transmisibles, mortalidad, tendencias; enfermedad crónica, mortalidad, tendencias; Gambia.

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Introduction

Over the past century, mortality has declined and life expectancy has increased in most areas of sub-Saharan Africa, as has happened all over the world. In the Gambia the estimated life expectancy at birth between 1973 and 1993 increased from 34.3 to 60.0 years for women and from 32.2 to 58.3 years for men. Reductions in child mortality accounted for 60% of these increases (*1*).

Several recent reports have called attention to the process of health transition in the developing world. The ageing of populations, reductions in fertility, improved preventive and therapeutic control of infectious diseases, and the Westernization of life-styles may all contribute to a decrease in the disease burden attributable to communicable diseases and to an increase in that attributable to degenerative and man-made diseases and injuries. A health transition can be regarded as the combined effect of a demographic transition, involving changing fertility and mortality patterns, and an epidemiological transition involving changes in the environment and in lifestyles (*2–4*).

Murray & Lopez (*5*) developed criteria for a worldwide comparison of disease burdens by classifying causes of morbidity and mortality into three major groups (Table 1). A practical application of this classification indicated that, in sub-Saharan Africa, communicable diseases were still the major

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Table 1. **Classification of causes of death**

Group I	Group II	Group III
Infectious diseases	Neoplasms	Traffic accidents
Pregnancy-related diseases	Cardiovascular diseases	Complications of medical and surgical care
Perinatal diseases	Gastrointestinal diseases	Other injuries (either intentional or unintentional)
Nutritional diseases	Renal diseases	
	Anaemia, non-nutritional	
	Other noncommunicable diseases	

threat to health but that the burden of noncommunicable diseases and injuries could be expected to increase rapidly (*6*). Thus there is a double burden of disease in the developing world: the continuing burden of communicable diseases and the emerging burden of noncommunicable diseases resulting from a health transition (*2*).

This global classification may be intuitively appealing but it has also been criticized. Although shifting patterns of mortality in sub-Saharan Africa are being increasingly recognized internationally, very few reliable data are available on the subject (*7, 8*). There is virtually no information on causes of death among adults in sub-Saharan Africa (*9*). Data for sub-Saharan Africa as used by Murray & Lopez are based on registration data from South Africa only, as vital registration is neither complete nor accurate in most of the subcontinent (*10*). Even in South Africa the quality of vital statistics and routine census collections is considered inadequate for the purpose of obtaining accurate mortality data (*11*). Furthermore, the proposed three groups are heterogeneous, and there is not always a clear distinction between infectious and noncommunicable diseases; for instance, many neoplasms are associated with preceding infections (e.g. stomach cancer with *Helicobacter pylori*; cervical cancer with human papilloma virus).

Our objective has been to study trends in causes of death over time. The allocation of resources and the planning, monitoring and evaluation of health services require knowledge of the causes of death in populations. The availability of death records from 1942 onwards for Banjul, the capital of the Gambia, enabled us to analyse trends in proportional mortality ratios (PMRs). This was a rare opportunity to analyse causes of mortality in an ordinary town in sub-Saharan Africa on the basis of causes of death coded by physicians.

The Gambia, situated in the semi-arid Sahel zone, has a rainy season lasting from July to the end of September followed by a hot, humid period continuing until mid-November. The country gained independence from the UK in 1965. Banjul, the oldest urban settlement in the country, is located on a swampy island in the mouth of the River Gambia and is connected to the south bank of the river by a bridge. Decennial censuses suggest that the population increased steadily for the much of the past century but remained stable at around 40 000 inhabitants over the last 25 years, probably because of the limited amount of habitable land on the island (*1*).

Methods

Registration of deaths

A permit, issued by the Department of State for Health upon presentation of a death certificate completed by a physician, is required for every burial in Banjul. In accordance with the tenth revision of the *International statistical classification of diseases and related health problems* (ICD-10) (*12*) the physician has to indicate both the immediate and the underlying cause of death. Contributory factors are indicated separately. The main, i.e. underlying, cause as indicated in the original death certificate is entered in a register of deaths by a registrar. Six of the 20 registers of deaths used between 1919 and the present were traced, covering the periods 1942–59 and 1970 to the present. Unfortunately, the 12 registers covering 1919–42 and the two covering 1960–69 could not be located. For the period from 1981 to 1997, copies of death certificates were available in the Royal Victoria Hospital, the sole hospital on the island. For the period from 1992 to 1997, burial certificate books with copies of issued burial permits were obtained from the Birth and Death Registry of the Department of State for Health. We used the information in the registers of deaths to code the causes of death for the whole period, as these data were the most complete available. Copies of the original death certificates were used to check the accuracy of copying from these documents to the registers of deaths.

Coding

The causes of death were coded in accordance with ICD-10 (*12*). Because the information available was limited, three-digit coding was used and only the underlying causes of death were coded. With the support of a computer-driven training course (*13*), staff received on-the-job training in coding from the Department of State for Health. All coding was done retrospectively by the same group of four coders, and random double coding was performed in order to check for consistency.

Analysis

Deaths were initially assigned to narrow causes and later to three broad categories as shown in Table 1.

The data were grouped by decade. Reported stillbirths were excluded from the analysis because, for most of the period studied, these deaths were not registered. For the purposes of the study, adults were defined as persons aged 15 and above and children as persons aged under 15.

Descriptive analysis and chi-square tests for trend were performed using EpiInfo version 6.04c

(Centers for Disease Control and Prevention, USA) and Stata version 6.0 (Stata Corporation, USA). As in most of sub-Saharan Africa the absence of reliable mid-yearly population denominators undermined the population base necessary for the calculation of rates (*14*). An age-adjusted PMR analysis by sex was therefore conducted, using Excel spreadsheets. The 1942–49 data were used as the reference distribution of causes of death. Expected deaths for each cause of interest, based on the proportions of deaths in the reference distribution, were calculated in 10-year age bands for each sex. The overall sex-specific age-adjusted PMR for a specific cause was then obtained by dividing the total of observed deaths by the total expected deaths. Poisson regression was used to examine differences by sex between the age-adjusted PMRs.

The study was approved by the Gambia Government Medical Research Council Ethics Committee.

Results

A total of 25 831 death records were coded, but 8470 relating to people not resident in Banjul and 11 that could not be dated were excluded from further analysis. The remaining 17 350 records represented 46 years in a 55-year period (1942–59 and 1970–97). Table 2 shows the distribution of records by 10-year period, age group (adult or child) and sex.

For 1577 of these 17 350 deaths (9.1%) only a symptom (e.g. weakness, cough, cardiorespiratory arrest, old age, perinatal death) or no cause of death was given, so these could not be classified. A smaller proportion of records had to be excluded for the period 1942–59 (237/6654, i.e. 3.6%) than for 1970–97 (1340/10 696, i.e.12.5%). This suggested that either ascertaining the causes of death or copying the causes of death into the registers was more complete before 1960 than from 1970 onwards. The large proportion of unclassifiable deaths during 1970–79 (795/4272, i.e. 18.6% of all records in this period) was partly attributable to the large number of deaths for which no cause was given, suggesting that record-keeping procedures were comparatively lax at this time. Among the 3296 records for which we compared copies of the original death certificates with the entries in the registers, only a handful of transcription errors were identified, none of them having any bearing on the major group into which deaths were classified. All unclassifiable deaths were excluded from further analysis.

Fig. 1 shows the changing contribution of causes of death among the three groups. Trend testing showed the decline in group I causes and the increase in group II and group III causes to be highly statistically significant ($p<0.001$). It should be noted, however, that the trends are not independent.

Table 3 shows proportional mortality for the causes of death in groups I, II and III by 10-year period and by sex in adults and children. For 1523/17 047 (8.9%) only a symptom was recorded as the cause of death; these records are not included in the table. Both in children and adults, group I causes of death declined and group II and group III causes increased, with little difference between males and females. Testing for trends showed most of these shifts to be highly significant.

Fig. 2 shows the PMRs over time for men and women, using the 1942–49 data as the standard proportions of deaths. Again, group I causes of death declined and there were increases in group II and, particularly, group III causes of death. The shift from group I to group II was more pronounced in men than in women. There was a significant difference between male and female trends.

The major causes of death for children in group I were perinatal factors, acute respiratory tract infections, malaria and gastroenteritis; in group II the major causes of death for children were congenital disorders, anaemia and digestive tract pathology. Of the 219 anaemia diagnoses, 195 (89.0%) were unspecified and classified as group II deaths.

For adults the major causes of death were acute respiratory tract infections, tuberculosis, gastroenteritis and malaria in group I, and cardiovascular disease and malignancies in group II. Among the cardiovascular diseases, cerebrovascular accidents and congestive cardiac failure were the main reported causes of death. Among the malignancies, hepatocellular carcinoma accounted for 29.4% (230/781) of the deaths, followed by other digestive tract tumours, tumours of the female reproductive tract and respiratory tract tumours.

Hardly any AIDS deaths (26/17 350, 0.2%) were reported in the period under study.

In group III, for both adults and children the largest proportion was attributed to causes described as being of unspecified intent and unspecified method. Other causes were traffic accidents, drowning, burns and, for adults, complications of medical and surgical care.

We repeated the calculations of PMRs for group I, II and III causes excluding infant deaths, and obtained comparable results.

Several diseases showed seasonal variation. Malaria was mostly reported from August to November (723/1216, i.e. 59.5% of all malaria deaths). Acute respiratory tract infections were most prevalent in September and October (514/2295, i.e. 22.4% of all deaths attributable to such infections occurred in these two months), and both malnutrition and diarrhoeal diseases peaked between July and October (205/414, i.e. 49.6% and 570/1132, i.e. 50.4% of deaths respectively).

Fig. 3 and Fig. 4 show changes in PMRs over time among males and females separately for major contributors to group I morbidity (comprising 8510/9397, i.e. 90.5% of total group I causes) and group II morbidity (comprising 3935/5562, i.e. 70.7% of total group II causes). Mortality within group III was attributable to a variety of causes, each contributing a relatively small share; the largest specified cause was

Table 2. **Recorded deaths (n, %) in Banjul during 1942–59 and 1970–97 by decade, age group and sex**

Period	Total		Adults (⩾15yrs)		Children (<15yrs)	
	All records	With age/sex recorded	Male	Female	Male	Female
1942–49	3204	3157	1160 (36.7)	636 (20.1)	723 (22.9)	638 (20.2)
1950–59	3450	3442	1183 (34.4)	693 (20.1)	825 (24.0)	741 (21.5)
1970–79	4272	4264	1356 (31.8)	881 (20.7)	1087 (25.5)	940 (22.0)
1980–89	3382	3271	1263 (38.6)	840 (25.7)	620 (19.0)	548 (16.8)
1990–97	3042	2913	1216 (41.7)	770 (26.4)	479 (16.4)	448 (15.4)
Total	**17 350**	**17 047**	**6178 (36.2)**	**3820 (22.4)**	**3734 (21.9)**	**3315 (19.4)**

11 records could not be dated.

For 100 records no sex was recorded; for 185 no age was recorded; for 18 neither age nor sex was recorded.

Fig. 1. **Causes of death by disease groups (see Table 1) among the population of Banjul during the periods 1942–59 and 1970–97**

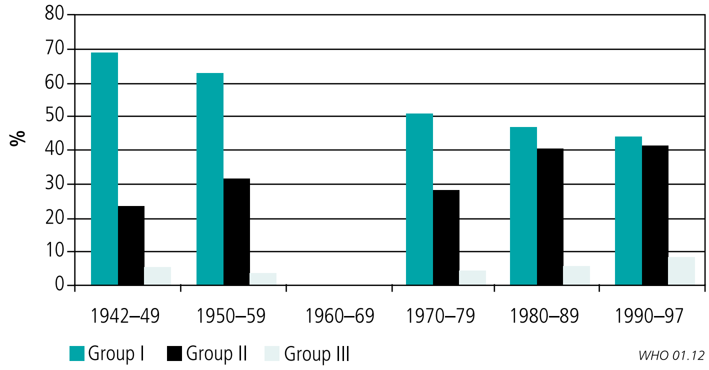
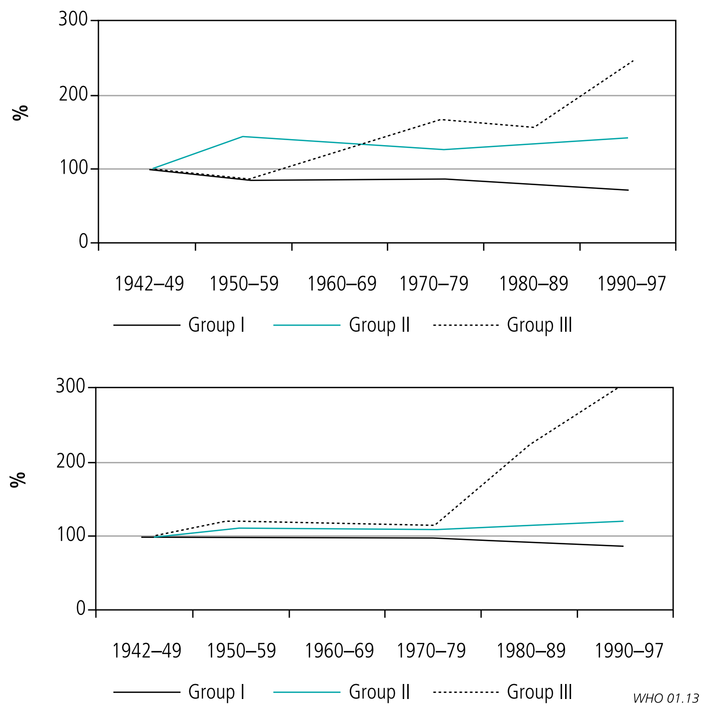


Fig. 2. **Proportional mortality ratios (PMRs) of 3 major disease groups (see Table1) by sex among the population of Banjul over the periods 1942–59 and 1970–97**



traffic-related accidents, accounting for 127/814 (15.6%) of deaths in this group, increasing over the decades (added in Fig. 3 and Fig. 4 with the PMRs of group II).

The PMRs for most infectious diseases in males decreased and for noncommunicable diseases they increased over time. In particular the increase in cardiovascular diseases, cerebrovascular accidents and malignancies as causes of death contributed to the overall increase in group II mortality.

For females there was more variability. While the PMRs of most infectious diseases decreased (including maternal mortality), the malaria PMR increased over the last decade, particularly among women aged 25 to 34. It is noteworthy that for males the decreasing trend in the PMRs for malaria also reversed over the last decade. Among group II causes of death, the increase in cerebrovascular accidents among females was the main contributor to the overall increase in group II mortality; other major group II causes showed less variation.

In both males and females, PMRs for perinatal causes and malnutrition (group I) and congenital causes (group II) increased (Fig. 3, Fig. 4).

As the analysis is proportional and age-adjusted, using another decade as the reference population for the PMR would change neither its patterns nor the conclusions drawn.

Discussion

Significance of the study

The Banjul data are unusual, if not unique, in sub-Saharan Africa. The data available on mortality in other places do not cover such long periods and are often limited to either children or adults (*11, 15–20*). To circumvent the problems associated with the calculation of rates in nearly all of sub-Saharan Africa because of the absence of reliable denominators, we used a PMR analysis to study trends in mortality.

The development of a health transition is now an internationally recognized phenomenon, although so far hardly any reliable historical data have been available to study an actual transition in sub-Saharan Africa. Our data reflect a health transition but also show that the task of controlling communicable diseases is far from finished, especially among young people.

Quality of data

The present historical analysis was based on the retrospective coding of routinely collected information copied from death certificates. There was no rigorous supervision or checking to minimize under-reporting and misclassification. We were therefore concerned to trace potential bias and misclassification.

As Table 2 shows, the proportion of deaths by sex remained more or less stable over the decades under study, while the proportion of deaths increased in adults and decreased in children. The shift among age groups, i.e. the occurrence of proportionally fewer children's deaths in the later years, was compatible with the reported decline in child mortality over the decades (*1*), and the differential sex proportions are comparable to those in the 1993 census data. Mortality in the Gambia is higher among men than women (*1*). Differential underreporting of deaths in women cannot be excluded; indeed this was revealed by the analysis of mortality data reported at the 1993 census over a 12-month period (*1*). Better ascertainment of male deaths than of female deaths may have contributed to the difference, and there is a possibility that misclassification of residence occurred. As the observed trends were stronger in males than in females the potential underreporting of female deaths may have caused a dilution of the trend among women.

Another potential source of differential underreporting is the small number of infant deaths reported over the period 1942–59. The return of pregnant women to their mothers' homes for delivery in the Gambia might have contributed to this. Small numbers of events in the reference period may have given rise to larger fluctuations in subsequent time periods.

Few people in the Gambia know their exact date of birth, which means that the reporting of age is often approximate, particularly among the older age groups. The reported ages at death show clear digit preference, with clumping of ages at complete decades. Since we calculated the PMRs on the basis of 10-year age bands (e.g. 15–24, 25–34), this is unlikely to have had a marked effect on the outcome of the analysis. Furthermore, there are always possibilities for the misclassification of causes of death because of diagnostic interpretation and limitations, as in any medical setting, and because of transcription errors or coding mistakes. Over time the medical training of physicians working in Banjul may have varied substantially.

Diagnostic and coding misclassification in general is more likely to occur within groups than between groups. An exception might be unspecified anaemia diagnoses in our data set, which were subsequently classified as group II deaths. It is possible that in many instances the underlying cause of death was related to parasitic infection, particularly malaria, and to nutritional deficiencies, in which events the deaths would have been correctly classified as belonging to group I. However, the total number of deaths where anaemia was given as the sole cause of death was small (219/17 350, 1.3%). Thus a potential bias from such a misclassification would not change the overall analysis in trends in causes of deaths. On the other hand, nearly half the group II adult deaths attributed to the digestive system were caused by liver failure. In view of the high prevalence of hepatitis B carriers in the Gambia these might well include deaths caused by late sequelae of infection, e.g. cirrhosis.

The Second World War might have contributed to differential underreporting of infant deaths, and it is also possible that several unspecified injuries included

Table 3. **Causes of death (n, %) by disease group in Banjul during 1942–59 and 1970–97 per decade by sex and age**

Women	**Group I**	**Group II**	**Group III**	**Total**
1942–49	315 (51.6)	278 (45.4)	16 (2.9)	**609**
1950–59	295 (45.1)	339 (52.1)	16 (2.8)	**650**
1970–79	310 (41.7)	415 (56.3)	15 (2.0)	**740**
1980–89	252 (32.5)	502 (64.4)	24 (3.0)	**778**
1990–97	216 (31.5)	452 (63.5)	34 (5.0)	**702**
Trend test	p<0.001	p<0.001	p = 0.063	
Total	**1388 (39.9)**	**1986 (57.0)**	**105 (3.2)**	**3479**
Men	**Group I**	**Group II**	**Group III**	**Total**
1942–49	641 (56.8)	383 (34.0)	94 (9.2)	**1118**
1950–59	483 (42.4)	605 (52.9)	53 (4.7)	**1141**
1970–79	414 (36.4)	630 (55.2)	97 (8.5)	**1141**
1980–89	368 (31.9)	702 (60.3)	86 (7.7)	**1156**
1990–97	348 (31.0)	633 (56.6)	139 (12.3)	**1120**
Trend test	p<0.001	p<0.001	p<0.001	
Total	**2254 (39.6)**	**2953 (51.9)**	**469 (8.5)**	**5676**
Girls	**Group I**	**Group II**	**Group III**	**Total**
1942–49	588 (94.2)	24 (3.8)	12 (1.9)	**624**
1950–59	666 (91.2)	49 (6.7)	15 (2.1)	**730**
1970–79	659 (90.4)	59 (8.1)	11 (1.5)	**729**
1980–89	428 (85.8)	54 (10.8)	17 (3.4)	**499**
1990–97	344 (84.7)	46 (11.3)	16 (3.9)	**406**
Trend test	p<0.001	p<0.001	p = 0.035	
Total	**2685 (89.9)**	**232 (7.8)**	**71 (2.4)**	**2988**
Boys	**Group I**	**Group II**	**Group III**	**Total**
1942–49	648 (92.6)	37 (5.3)	15 (2.1)	**700**
1950–59	706 (87.8)	69 (8.6)	29 (3.6)	**804**
1970–79	764 (88.5)	71 (8.2)	28 (3.2)	**863**
1980–89	472 (82.8)	69 (12.1)	29 (5.1)	**570**
1990–97	349 (78.6)	63 (14.2)	32 (7.2)	**444**
Trend test	p<0.001	p<0.001	p<0.001	
Total	**2939 (86.9)**	**309 (9.1)**	**133 (3.9)**	**3381**

Adult = age 15 and above; child = age below 15.

For 1523 records where age and sex were available only a symptom was recorded as the underlying cause of death; these records are not included.

war-related injuries. Furthermore, some young men might have left to fight in the war and died elsewhere. The small number of reported AIDS deaths reflects the currently low endemicity of the HIV epidemic in the Gambia (*21*), although underdiagnosis and misclassification may have contributed to underreporting.

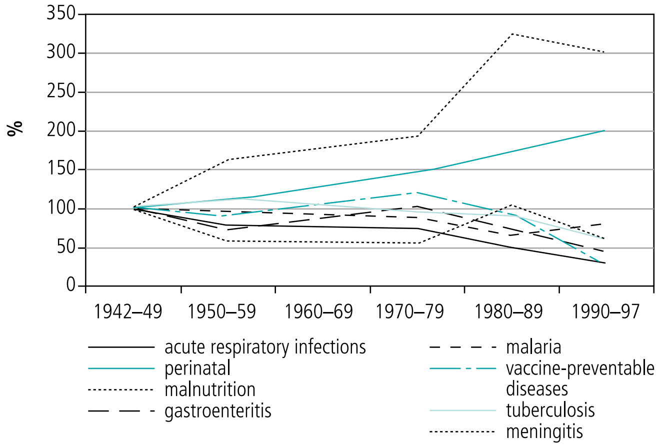
It is worth noting that deaths were only coded for Banjul residents whose families wanted a burial in the town. Since 1942 there have been some shifts in the ethnic composition of the town's population and there may have been accompanying trends in the proportions of dead persons buried there.

Health transition

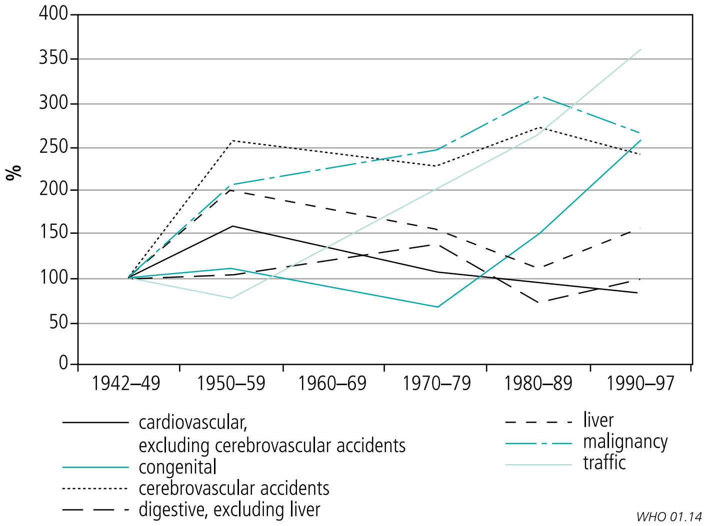
The concept of a health transition describes the combined impact of an epidemiological and demo-

Fig. 3. **Proportional mortality ratios (PMRs) among Banjul males, 1942–59 and 1970–97, for major causes of death**

3a. Males, selected group I causes of death (see Table1)



3b. Males, selected group II and III causes of death (see Table1)



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graphic transition on health. During such a transition the causes of death shift from group I to group II as total mortality declines (*2–4*).

The Banjul data show a clear trend with a decline in group I conditions and an increase in group II and group III conditions. The trend for men is stronger than that for women. In the Global Burden of Disease Study it was estimated that, in 1990 in sub-Saharan Africa, 64.8% of deaths belonged to group I, 22.7% to group II and 12.5% to group III; the corresponding figures for established market economies were 6.4%, 87.4% and 6.3% (*10*). Setting aside unclassifiable deaths, our figures for the period 1990–97 were 47.0% for group I, 44.7% for group II and 8.3% for group III.

Our data support the notion of a continuing transition in health in this urban West African population. However, it is important to be cautious about extrapolating the trends to the still mainly rural population of sub-Saharan Africa.

Several studies have attempted to study and trace a health transition on the basis of available records or modelling. Changes in causes of death have been reported for many developed countries as well as for developing countries. Where the data are more or less complete and consistent, more refined analysis is possible. There have been reports of a decline in some specific noncommunicable diseases, such as cerebrovascular accidents and stomach cancer, and of an increase in specific infectious diseases in countries considered to have progressed well in their transition (*22–24*). On the other hand, increases in some cancers and in traffic-related and smoking-related conditions have been reported from countries just embarking on a transition (*25–27*). Cluster analysis of causes of death suggests that, during a transition, infectious diseases do not all follow the same pattern of decline (*28*). Waterborne and foodborne infectious diseases decline first, followed by airborne and nutrition-related infections, and then by a group that only decreases after antibiotics become available.

The Banjul data suggest a similar diversity. The decline in deaths from vaccine-preventable diseases such as measles more or less coincides with the introduction of a national immunization programme with good coverage in the 1980s. The decline in deaths caused by gastroenteritis among children occurred in parallel with the development of a primary health care system, when oral rehydration therapy became available and the supply of safe water increased (*29*). The implementation of improved WHO management guidelines for acute respiratory tract infections including pneumonia may have contributed to the decline in mortality among children in the last decades. Nevertheless, these associations are speculative and hard to substantiate in the light of these historical data alone.

The rise in deaths attributed to malaria is worrying and may reflect the decreasing sensitivity of *Plasmodium falciparum* to chloroquine, reported since the early 1980s (*30, 31*). Increasing misdiagnosis of febrile illnesses as malaria is another possible explanation, as diagnosis is often made on clinical grounds only. The increase in reported malaria deaths is more marked among females than males. This has contributed greatly to the smaller decline among women in group I proportional mortality. It is possible that an increase in pregnancy-related malaria has contributed to the increasing malaria PMR of women.

Data from countries where HIV has affected a larger proportion of the population than the estimated 2% in the Gambia (*21*) indicate that AIDS and related infections could also become a cause of increasing group I mortality (*16, 18, 32–34*).

Conclusion

An age-standardized PMR analysis shows that, in spite of an ongoing health transition, communicable diseases are still the major causes of death in Banjul. In adults, group II conditions have become the leading causes of death in recent years. The decline in group I and the increase in group II and group III causes of death were more marked among men than women. In children, group I causes of death remain very prominent. The high proportion of deaths related to perinatal events and malnutrition is particularly worrying.

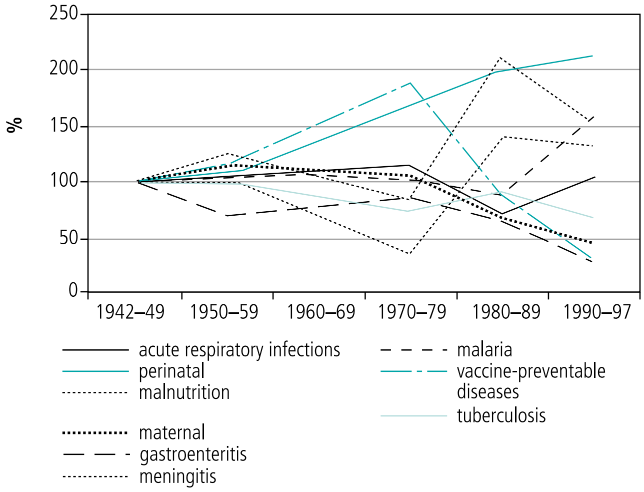
The general decline over time in proportional mortality of group I causes of death and the proportional increase in group II causes suggest that these trends may continue in the future. However, the increase observed over the last decade in proportional mortality attributable to malaria, together with a threatening AIDS epidemic, could reverse these trends.

Given the virtual absence of reliable data elsewhere in sub-Saharan Africa and the clear trends demonstrated in this paper, the large quantity of unique data presented are very valuable, notwithstanding their limitations.

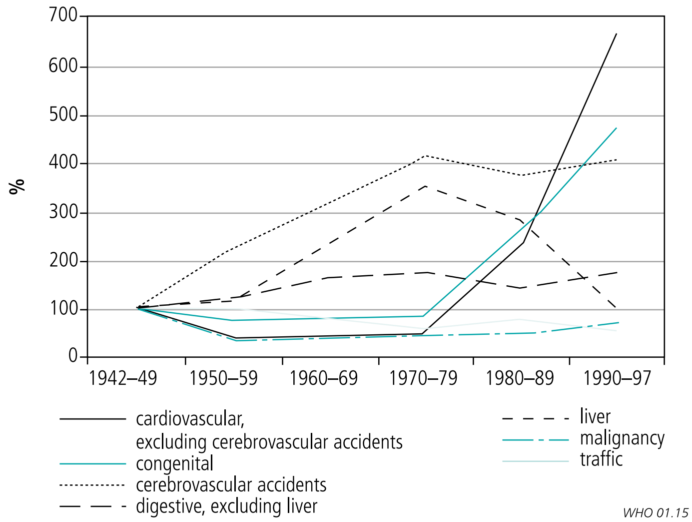
Our data illustrate the persistence of group I diseases as major causes of mortality in sub-Saharan Africa, alongside the emergence of noncommunicable diseases. While international resources are rightly earmarked for research into and the management of noncommunicable diseases in sub-Saharan Africa, caution should be exercised in order to avoid excessive concentration on this area at the expense of the unfinished agenda of group I diseases (*11*). These diseases continue to be a major source of mortality in sub-Saharan Africa, especially among the young and the poor (*2*). ■

Fig. 4. **Proportional mortality ratios (PMRs) among Banjul females, 1942–59 and 1970–97, for major causes of death**

4a. Females, selected group I causes of death (see Table1)



4b. Females, selected group II and III causes of death (see Table1)



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Résumé

Evolution des causes de décès dans une ville d'Afrique de l'Ouest : Banjul, 1942-1997

Objectif Définir l'évolution des causes de décès dans une ville d'Afrique de l'Ouest. La mortalité due aux maladies infectieuses serait en diminution tandis que les facteurs de mortalité anthropiques et dégénératifs joueraient un rôle croissant. La plupart des analyses de la mortalité en Afrique subsaharienne ont consisté en extrapolations ne s'appuyant pas sur les données obtenues en communauté.

Méthodes Les données historiques concernant les causes de décès codées par des médecins ont été analysées pour la population urbaine de Banjul sur la période 1942-1997. Dans la mesure où le calcul du taux de mortalité est impossible vu qu'on ne dispose pas au dénominateur d'un chiffre fiable de l'effectif de la population, les taux de mortalité proportionnelle (PMR) standardisés sur l'âge ont été calculés pour les hommes et pour les femmes en fonction des grandes causes de décès, en utilisant comme référence les données de 1942-1949.

Résultats La plupart des décès sont attribuables aux maladies transmissibles. On observe un déplacement du taux de mortalité proportionnelle au cours de la période d'étude : la part correspondant aux maladies transmissibles diminue tandis que celle due aux maladies non transmissibles et aux traumatismes augmente. Ces tendances sont plus nettes chez les hommes que chez les femmes.

Conclusion Les données montrent que si les maladies non transmissibles et les traumatismes sont des facteurs émergents importants de mortalité en Afrique subsaharienne, les maladies transmissibles restent des causes majeures de mortalité et ne doivent pas être négligées.

Resumen

Evolución de las causas de defunción en una ciudad de África occidental: Banjul, 1942-1997

Objetivo Determinar las tendencias de las causas de defunción en una ciudad de África occidental. Se ha señalado que la mortalidad atribuible a enfermedades infecciosas está disminuyendo, al tiempo que las enfermedades degenerativas y los factores de mortalidad asociados a la actividad humana están cobrando cada vez más importancia. Sin embargo, la mayor parte de los análisis realizados sobre la mortalidad en el África subsahariana han consistido en extrapolaciones, no en cálculos efectuados a partir de datos basados en la comunidad.

Métodos Se analizaron datos retrospectivos sobre las causas de defunción codificadas por los médicos para la población de Banjul durante el periodo 1942-1997. Como no es posible calcular las tasas sin un denominador fiable de la población, se calcularon las razones de mortalidad proporcional (RMP) normalizadas para la edad para hombres y mujeres según los principales grupos de causas de defunción, empleando los datos de 1942-1949 con fines de referencia.

Resultados La mayoría de las defunciones eran atribuibles a enfermedades transmisibles. Se observó un desplazamiento de la mortalidad proporcional a lo largo del periodo de estudio: la contribución de las enfermedades transmisibles disminuía, mientras que la de las no transmisibles y los traumatismos aumentaba. Estas tendencias eran más acusadas entre los hombres que entre las mujeres.

Conclusión Los datos muestran que, si bien las enfermedades no transmisibles y los traumatismos contribuyen cada vez más a la mortalidad en el África subsahariana, las enfermedades transmisibles siguen siendo una importante causa de mortalidad y no deberían ser desdeñadas.

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