Chapter 2

Health systems and institutions

Lucy Gilson

2.1 Introduction

As outlined in Chapter 1, richer understanding of the dynamics of health sectors is necessary in thinking through how to strengthen the health system and enable performance improvements in health sectors [1,2]. To support such understanding, this chapter adopts an institutional lens in considering both the nature of health systems and ways of strengthening them.

Building on Chapter 1, five widely known health system conceptual frameworks are reviewed first. The review highlights the different types of agents, organizations, and organizational arrangements that are embedded within each framework, and seeks to identify the nature of relationships among actors, and the institutions each identifies or implies as underpinning these relationships. Second, recent thinking on health system governance—a central, but less considered, function of every health system that is particularly relevant to health system strengthening—is presented. Third, three complementary bodies of theory (organizational and policy implementation theory, and systems thinking) that draw on institutional perspectives in considering organizational functioning and change, are briefly presented and applied in critique of the health system frameworks. The critique highlights the dominance of a mechanical perspective of organizational functioning within existing frameworks, and a primarily command and control approach to health system strengthening. Finally, two alternative approaches to supporting change within health systems, both of which acknowledge complexity and seek institutional change, are introduced: soft systems methodology and strengthening trust-based relationships.

The concept of an institution is central to this discussion. Where organizations are the social settings within which activities take place, institutions are the rules, laws, norms, and customs that shape behaviour in those settings, generating patterned or shared behaviour over time among groups of actors involved in specified relationships with each other [3]. It has been argued that such institutions have three main components: the regulative pillar of rules that constrain and regulate behaviour (commonly understood to include

economic incentives); the normative pillar of norms and values that confer both responsibilities that constrain social behaviour, and rights that enable social action; and the cultural-cognitive pillar of shared routines, conceptions, and frames through which meaning is made [4]. Although institutions are fairly stable social structures they can and do change over time because there is a two-way process of influence: individual preferences and values are both shaped by, and shape, institutions [3].

2.2 Conceptualizing health 'systems'

Five conceptual frameworks are discussed here, allowing examination of different and changing understandings of the nature of a health system, thus complementing Chapter 1. In order of chronological development, these are: Roemer's 1991 outline framework [5]; the World Health Organization's (WHO') 1993 health care financing framework [6]; Frenk's 1995 relational framework [7]; WHO's 2007 version of the building block framework [1]; and Roberts et al.'s 2008 'control knobs' framework [8].

2.2.1 A focus on health care or on health?

Of these five frameworks, three focus squarely on health care and health services [5–6,8]. Only two encompass activities relevant to promoting, restoring, or maintaining health (but see also [9], discussed in Chapter 10). The Frenk framework [7], for example, includes other sectors and their production of services with health effects. It also gives the population, through community participation, a role in and influence over health care organizations, as well as recognizing its role in providing people, money, and data for the overall system. The broader focus of the WHO building block (WHO BB) framework [1] is more hidden. However, it describes the health *information* system as encompassing the collection and use of information on 'health determinants, health systems performance and health status', and notes that leadership/governance includes concern for the health-promoting actions of other government sectors.

2.2.2 An inventory or relational approach?

Both the WHO BB framework [1] and Roemer [5] appear to adopt an inventory approach [7] to understanding a health system: that is, they identify a set of core functions but do not specify the health system actors engaged in these functions nor the relationships among them. Figure 2.1, thus, gives no sense of the interactions among health system building blocks, nor how they impact on performance outcomes. Similarly, although Figure 2.2 signals interactions

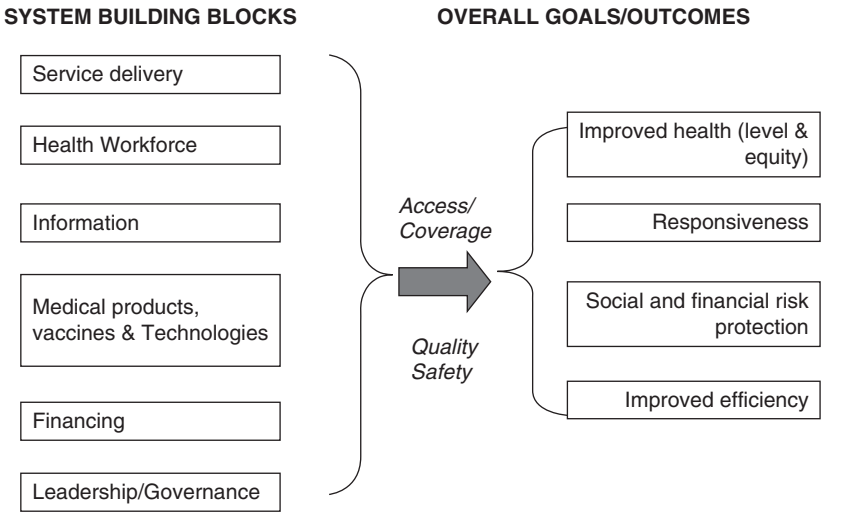

Fig. 2.1 WHO BB [1] framework.

among a set of five health system functions that result in service delivery, it does not clarify their basis or nature: 'These types of approaches are helpful for describing health systems… However, the categorizations are less helpful for understanding how well health systems perform. This would require more detailed subcategories and greater elaboration of the relationships within each category but particularly between categories' [10, pp.514–15].

Nonetheless, the report presenting the WHO BB framework notes that 'A health system, like any other system, is a set of inter-connected parts that must function together to be effective. Changes in one area have repercussions

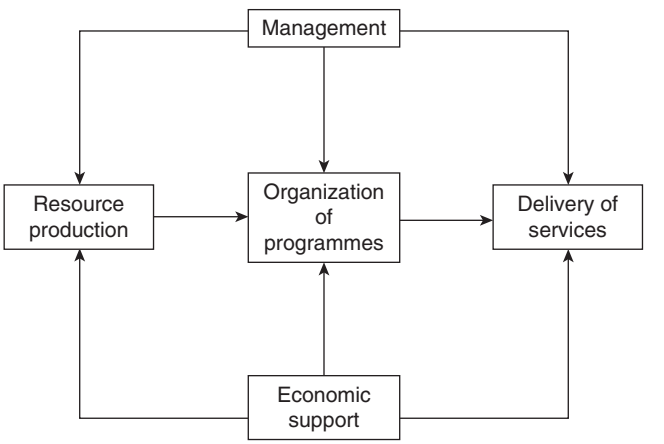

Fig. 2.2 Roemer [5] framework.

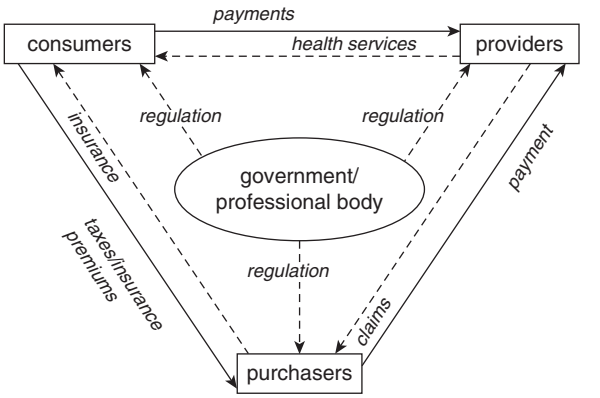

Fig. 2.3 WHO HCF [6] framework.

elsewhere. Improvements in one area cannot be achieved without contributions from the others. Interaction between building blocks is essential for achieving better health outcomes' [1, p.4]. This relational nature of health systems is more clearly represented in the next two frameworks discussed.

Four functions required in any health system (regulation, financing, resource allocation and service provision) are identified in the WHO health care financing (HCF) framework [6] (Figure 2.3), as well as four agents and the relationships among them that underpin the functions. Although not discussed in any detail, the figure also highlights the key institutions that shape these relationships: regulatory authority (based on rules and involving sanctions or economic incentives); payments by patients/population (economic incentives); and provider claims on financing agents (underpinned by rules) (Box 2.1). In a further specification of the framework, government's regulatory role is noted to include structuring the system in line with social consensus on the ethical principles (e.g. ability to pay or social rights) on which it is founded [10].

A more complex set of dynamics among elements of the health system, and between them and the external environment, are represented in Frenk's framework [7] (Figure 2.4).

In illuminating this complexity, the framework highlights, first, the various roles played by the state (the collective mediator), noting that 'there are many public agencies that are not part of the health system per se, but that constitute a key element of its organizational environment. This is the case of the legislative and judicial branches of government, as well as the executive officers dealing with public budgets, taxation and law enforcement. We may conclude, therefore, that the state occupies multiple positions in the health system and its environment' [7, p.27]. Figure 2.4 shows that the state exercises control over health sector agents (here, health care providers and resource generators),

Box 2.1 Health system relationships and their institutional bases [6]

- *Government/professional body and providers*: regulatory authority used to secure, e.g. available and good quality service provision to patients.
- *Government/professional body and financing agents*: regulatory authority used to, e.g. contain costs for patients (controlling pricing and reimbursement levels).
- *Patients and providers*: financial payments exchanged for service provision.
- *Population and financing agents*: financial payments exchanged for insurance coverage.
- *Providers and financing agents:* claims (based on service provision to clients) exchanged for resource allocation (using funds raised from the population).

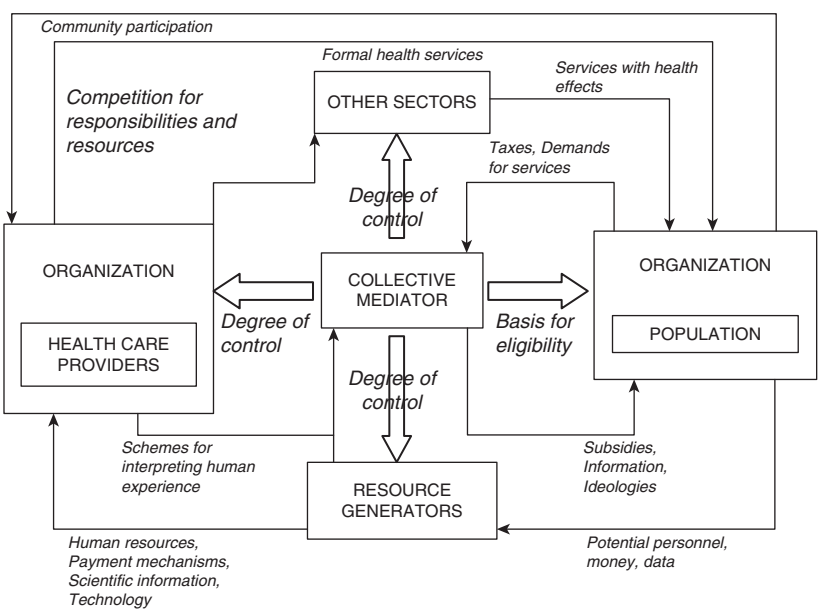

Fig. 2.4 Frenk [9] framework.

through some combination of financing, regulation and direct delivery of services (in effect, ownership). However, it also exercises control over other sectors (recognizing variations among systems in the degree to which broader health promoting functions rest in other sectors) and explicitly acts as the mediator between patients and providers. Finally, the state's relationship to the population involves, on the one hand, offering the subsidies, information, and ideologies that shape population interactions with the health sector and, on the other hand, is based on the basic eligibility principles on which the health sector is founded (which vary between countries from purchasing power, to poverty, to the socially perceived priorities accorded particular population groups, to citizenship). The relationship between the state and the population is thus itself influenced by the prevailing sociocultural norms or consensus that is embedded in these principles.

Indeed, the second layer of complexity embedded in Figure 2.4 is its recognition of both the layers of exchange embedded within health system relationships and the range of institutions underpinning them. Considering the relationship between the population and health care providers, Figure 2.4 indicates that the provision of taxes and demand for services is exchanged for service delivery. However, the figure also shows that the population not only receives services from providers, but also participates in decision-making *with* health care providers, or *about* them. The nature of these exchanges suggest that the underpinning institutions are likely to comprise economic incentives, the rules of decision-making and the norms and values demonstrated by each actor through the experience of decision-making. Health care providers, for example, not only deliver care to the population, but also offer frameworks for interpreting human experience to patients. Frenk [9, p.27] explains these as 'alternatives to magical and religious explanations [presumably of health and illness] that can be used to legitimize modernizing ideologies and to exercise control over the population (for example, in such cases as infectious diseases and mental disorders)'. Providers, thus, offer new frames of understanding, new norms, to shape health seeking behaviour and legitimize health care interventions. Finally, as members of the population and individual providers belong to various organizations at the same time, these organizations (the interests of which may themselves conflict) also influence their members' interactions with other actors.

2.2.3 Descriptive, analytical, or predictive?

The four frameworks so far presented either describe health system components [1,5], or support analysis of their functions and operations [6,7]. The framework of Roberts et al. [8], illustrated in Figure 2.5, goes further, seeking

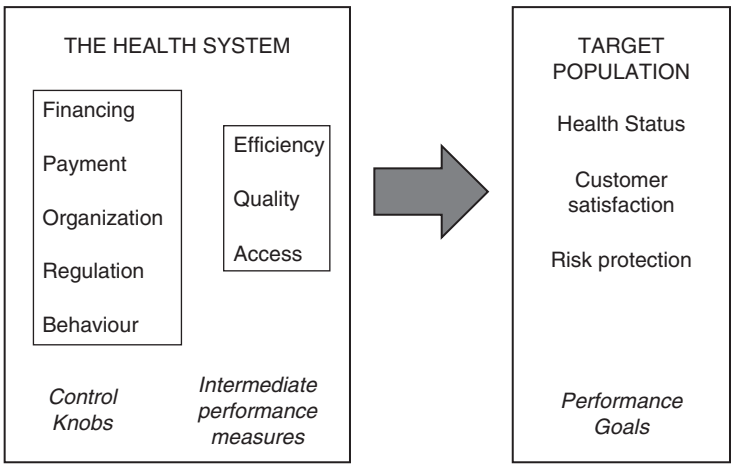

Fig. 2.5 Roberts et al. [8] framework.

to answer the question, 'what factors influence how well the functions perform in a system?' [2, p.9].

Focused only on health care, this framework identifies five 'control knobs' that can be adjusted by government action to influence the relationships among health system elements. Although several of these knobs resemble the functions of other frameworks, they are seen here as 'power mechanisms' through which actors adjust the health system and generate measurable changes in system outcomes [2]. As Table 2.1 illustrates, they do this by adjusting the institutional drivers of the behaviour of health system agents.

Table 2.1 The institutional drivers underpinning the control knobs framework

Control knob	Influences
Financing	Who pays and who benefits from health care, as well as generating funding for the system as a whole;
Payment	The ways in which money is transferred to health care providers, creating financial incentives influencing how they behave;
Regulation	The use of state coercion to control the behaviour of other actors within the system;
Organization	The incentives for the organization; and the incentives, authority, skills and attitudes of both managers and workers; and
Behaviour	Information provision and marketing, incentives and coercion shaping how patients and providers act in relation to health and health care (addressing treatment seeking behaviours, health professional behaviours, and patient compliance, lifestyle and prevention behaviours).

The health system strengthening interventions highlighted by this framework include those discussed in the health reform debates of the 1990s [10,11], such as financing, resource allocation, regulatory and service delivery reforms. Possible organizational reforms include changing: the mix of organizations or division of tasks among them, through, for example, privatization; the interactions among health sector agents and their relationship with the rest of the system, through strategies that change incentives such as competition or contracting out; or what happens inside health care organizations through decentralization, total quality management, and other types of management strengthening or corporatization. Reforms focused on the behaviour knob, meanwhile, include quality improvement programmes targeting provider behaviour and social marketing programmes targeting patient behaviour. In broad terms, this knob acknowledges the importance of provider–patient and state–patient relationships in overall health sector and system performance.

However, Roberts et al. [8] emphasize that achieving performance and equity improvements also demands paying careful attention to six steps in the reform process:

1. Clarifying goals and related policies, prioritizing among the range of performance outcomes through ethical reflection, as well as political and technical analysis of feasibility.
2. Carrying out an honest diagnosis of current problems, to identify where action is required.
3. Developing a plan that can be realistically expected to work in a specific national context; recognizing also that the process of plan development will itself influence its acceptability to key actors and interest groups.
4. Embracing politics: health sector change affects interest groups differently and is subject to broader contextual changes, so all reform processes require active political management.
5. Focusing on implementation, as health sector actors often resist change, either from self-interest or anxiety, and it is always necessary to keep an eye on results and outcomes.
6. Learning from mistakes—even successful reform generates new problems.

2.2.4 Recognizing international influences?

None of these five frameworks consider international influences. Yet, as discussed in more detail in other chapters (especially Chapters 8–11), international factors directly impact on national health systems, through trade in goods, services, and people, and related international agreements, bio-technological

advances, and through levels of, and approaches to, channelling, financial and technical support. They also indirectly impact on the causes of disease, to which health systems must respond, and, by influencing the wider economic situation, on national health funding levels. Finally, international factors have influenced the institutional underpinnings of health sectors: for example, the market-oriented health sector reforms promoted by international agencies have implications for the eligibility principles (or social contract) of some national health sectors [12]. Future conceptualization of health systems must, therefore, recognize that national health systems are open systems that interact with their external environment, including international factors (for example, by adopting the systems thinking approaches discussed later).

2.3 Governance and governance reforms

Although not well reflected in Figure 2.1, the function of governance is sometimes portrayed in the WHO BB framework as the central point around which the other building blocks turn (reflecting the collective mediator of Frenk [7], Figure 2.4). Synonymous with the notion of stewardship, it involves the protection of the public interest or 'the careful and responsible management of the well-being of the population' [13, p.2]. More specifically, governance involves guiding the whole health sector through six subfunctions that emphasize both some areas of health sector reform and the need to pay attention to the reform process (Table 2.2).

However, an explicit focus on governance also offers new insights about health system relationships and the actions required to strengthen them. The dominant institutions underpinning these relationships are not economic incentives and regulatory rules. Instead they are the rules, norms and values that confer responsibilities and rights. These 'can be both formal, embodied in institutions (e.g. democratic elections, parliaments, courts, sectoral ministries), and informal, reflected in behavioural patterns (e.g. trust, reciprocity, civic-mindedness)' [14, p.3]. Power is also recognized as a dimension of relationships, with the state and providers seen to be generally more powerful than citizens. The focus on governance, thus, clearly highlights the normative institutional pillar of any health system.

From this perspective, health governance is about putting in place effective rules that 'condition the extent to which the various actors involved fulfil their roles and responsibilities, and interact with each other, to achieve public purposes' [14, p.3]. When these interactions operate well they ensure:

1. Some level of accountability of key actors to the beneficiaries and broader public;

Table 2.2 Leadership and governance sub-functions [1]

Subfunction	Tasks
Policy guidance	Formulating sector strategies and also specific technical policies
	Defining goals, directions, and spending priorities across services
	Identifying the roles of public, private, and voluntary actors and the role of civil society
Intelligence and oversight	Ensuring generation, analysis and use of intelligence on:
	Trends and differentials in inputs, service access, coverage, safety;
	Responsiveness, financial protection and health outcomes, especially for vulnerable groups;
	The effects of policies and reforms;
	The political environment and opportunities for action; and
	Policy options.
Collaboration and coalition building	Across sectors in government and with actors outside government, including civil society, to:
	Influence action on key determinants of health and access to health services; and
	Generate support for public policies; keep the different parts connected—so-called 'joined up government'
Regulation	Designing regulations and incentives and ensuring they are fairly enforced
System design	Ensuring a fit between strategy and structure and reducing duplication and fragmentation
Accountability	Ensuring all health system actors are held publicly accountable
	Transparency is required to achieve real accountability

2 A policy process that engages key and competing interest groups on equal terms (given fair rules of competition), and allows negotiation and compromise among them;

3 Sufficient state capacity, power and legitimacy to manage policy making and implementation processes effectively; and

4 Engagement by non-state actors in policy processes, service delivery partnerships and in oversight and accountability.

Health system governance must, thus, seek to strengthen the critical processes through which norms and values are demonstrated, and rules established. Reflecting Table 2.2, such action might include: more effective engagement with policy actors and better use of information in the policy process (influencing interactions between citizen and state, and state and providers);

enhanced community participation (influencing interactions between citizen and state, and citizens and providers); and increased accountability and transparency, reducing corruption (influencing interactions among all three sets of actors).

2.4 Insights from wider theory relevant to health systems debates

The insights of three different and overlapping bodies of conceptual thinking are briefly presented in this section, and used both to examine the health system frameworks and think further about health system strengthening.

2.4.1 Understanding organizations

Although not a comprehensive theoretical overview (for that see, e.g. [15]), Table 2.3 summarizes three perspectives which illuminate different facets of organizational realities [16]. The machine perspective sees organizations as hierarchical arrangements of defined components that work together efficiently and reliably, as in an idealized bureaucracy. The variability of human behaviour is more or less written out of organizational life in this perspective. Instead, as Table 2.3 suggests, people working within an organization are assumed simply to comply with changes, responding to the exercise of organizational authority and related rules and procedures. The economic perspective, meanwhile, suggests that rather than controlling people through rules, 'the self-interested behaviour of people needs to be taken into account in the structuring of institutional arrangements… [and also]… provides a means of control and motivation' [16, p.15]. This perspective suggests that economic incentives rather than rules represent the institutional basis of organizations.

The WHO BB [1] and Roberts et al. [7] frameworks (Figures 2.1 and 2.5) seem to reflect the institutional understandings of some combination of these two perspectives; and the WHO HCF framework [6] (Figure 2.3) clearly reflects the economic perspective. Not surprisingly, therefore, the health sector reforms they emphasize (see Table 2.3) include standardized packages (such as decentralization, packages of care), those intended to encourage market-type relationships or strengthen financial incentives and the use of scientific evidence to identify the best technical solutions.

The sociocultural perspective, in contrast, sees organizations as networks or clans. It emphasizes that the behaviour of those working in organizations is fundamentally influenced by social relationships, and by both the norms and values *and* shared social meanings embedded in them. A growing body of empirical evidence also confirms this unpredictable human element within

Table 2.3 Three perspectives of organizational life

		Machine perspective	Economic perspective	Sociocultural perspective
Theoretical considerations	*View of organization*	Clearly defined parts working efficiently together in routinized ways	Atomistic economic actors engaged in market relations	Reflective, responsive people forming a complex social system
	View of human behaviour	Compliant: Humans simply comply with organizational changes	Calculating: Humans are individualistic and motivated by self-interest	Social: Human behaviour is influenced by social networks and relationships
	Organizational form	Hierarchy/bureaucracy	Market	Social network/community/clan
	Coordinating mechanisms	Formal rules and procedures Authority	Prices Competition Financial incentives	Norms Values Trust Shared meanings
	Institutional pillar	Regulative	Regulative	Normative Cultural-cognitive
Links to health system reform debates	*Reforms of focus*	Standardized packages such as: Restructuring, decentralization Scientific search for best technical solutions	Modify incentive structures through: Privatization, outsourcing, internal markets, competition, performance management	Strengthening norms and values Democratization

health systems. In Nepal, for example, the contradiction between the values-in-use of district health staff and the values expected to support bureaucratic functioning resulted in training interventions rarely improving performance [17]. Similarly, there is Indian evidence that the disjunctions between the ideals and practice of heath system supervision and disciplinary action reflect local level norms and power relations [18]; and evidence from Pakistan shows how societal gender norms infuse health system management, making working life difficult for female health workers [19].

This sociocultural organizational perspective is most clear in Brinkerhoff and Bossert's governance framework [14], although that tends to emphasize rights and responsibilities over shared social meanings as the institutional basis of health systems. The Frenk framework (Figure 2.4) also acknowledges social relationships, values and a range of institutional influences over behaviour, but the Roberts et al. framework (Figure 2.5) only hints at this perspective (in highlighting the importance of managerial changes in promoting better performance, in combination with economic incentives).

2.4.2 Understanding policy implementation

Policy analysis theory broadly considers how ideas, interests, and institutions play out in policy-making and includes theoretical perspectives on the processes of policy implementation. Understanding implementation as the interaction between policy and action, this body of theory is clearly relevant to thinking about how to strengthen health systems and has overlaps with organizational theory (see Table 2.4).

The mechanical model of implementation, for example, reflects the organizational machine perspective and both are rooted in reductionist thinking that simplifies complexity by dividing a problem into subproblems. In implementation this process is translated into a rational planning and management approach involving a linear sequence of activities controlled by policy actors at the centre or top of the organization [20]. Working through economic incentives rather than rules, the economic perspective on organizations also commonly assumes such a top-down approach to reform implementation [21].

In contrast, the cultural model of the policy-action relationship reflects the sociocultural perspective on organizations, illustrating the ways in which the human dimension of organizations plays out in policy implementation. This model and related work showing the influence of organizational culture on organizational performance [22,23], emphasize the influence of shared social meanings over policy implementation. The political model (Table 2.4), meanwhile, reflects a more political view of organizational life than so far discussed. It emphasizes the power relationships among actors between and within organiza-

Table 2.4 Models of policy implementation

The mechanical model	
Central actors have power, working as controllers	
Only central actors learn	
Other components (departments, organizations, people) of a system are connected through static and predictable mechanisms	
To bring about change central actors apply a new mechanism from above	
The cultural model	**The political model**
Human beings are meaning makers and act on the basis of their own understandings, and interpretations of events	All system actors have their own interests and preferences, and seek to use their power to influence outcomes of system
In making meaning, they draw on a stock of shared social meanings about specific issues, including the language of politicians and policy makers	Actors at the bottom of the system, including citizens, always have discretionary power (actors at the top cannot control every action)
These social meanings shape how people respond to new ideas and policies	Power is not necessarily used for personal gain, but how it is used influences outcomes
Public managers and professionals draw on and use these meanings in making policy in their own environments	Policy and delivery is a result of power balances and of the strategies used by actors

Source: Derived from Open University teaching materials on the Policy-Action relationship. Available at: http://labspace.open.ac.uk/mod/resource/view.php?id=179001 (accessed 2 August 2009)

tions, including the discretionary power of implementing actors who work at the local level, such as front-line providers [24], and of beneficiaries [25]. Environmental health officers in Ghana [26], for example, and community health workers in Brazil [27], exercised their power to support policy implementation; whereas in South Africa [28] and Tanzania [29] resistance from local level health workers and managers undermined the achievement of policy objectives.

These two implementation models suggest, therefore, that policy implementation is a much more negotiated and contested process than that envisaged in the mechanical model. Indeed, where this latter model suggests that implementation can essentially be commanded by those at the top, the bottom up perspectives of the other models indicate that implementation should be regarded as '…a policy-action dialectic involving negotiation and bargaining between those seeking to put policy into effect and those upon whom action depends… Policy may thus be regarded as a statement of intent by those seeking to change or control behaviour, and a negotiated output emerging from the implementation process' [21, p.253].

Given their largely mechanical and economic bases, health system frameworks are, however, often linked to a rational and top down perspective on

how to implement change [30]—even when recognizing the importance of managing the politics of change. The institutional bases of resistance to, and so contested processes of, implementing change within health systems are essentially ignored.

2.4.3 Understanding systems

The ways in which 'systems thinking' see any system, including a health system, was highlighted in Chapter 1. Although more widely recognized in high-income countries, such thinking is only just beginning to influence work of relevance to health systems in other settings. The approach offers new insights into the complex and relational nature of health systems and their sociocultural bases, going well beyond the complexity presented in the Frenk [7] framework.

Of particular relevance to this discussion, and reflecting the sociocultural organizational perspective and the cultural model of policy implementation, is the insight that agents in a system respond to their environments using internalized rules, 'instincts constructs, and mental models' [31, p.626]. In the form of institutional memory, some rules are shared across a system, but others may not be shared and may change over time. Emerging from the interactions among its agents, the behaviour of the system is, therefore, often unpredictable, generating unexpected (and sometimes creative) outputs [32].

Further comparison of a systems thinking perspective on organizations with that of the machine and economic/market perspectives, shows different understandings of relationships and diversity (Table 2.5). It also makes clear the systems thinking contributions on learning, power and the importance of the local, rather than central, level. Reflecting bottom-up implementation theory, a systems thinking perspective suggests that efforts to implement policy through a top-down approach are 'doomed to failure because policy makers neither command nor control the whole of the system. Worse still attempts to impose command and control can end up destroying the system's ability to adapt—or, in other words, restrict its ability to learn and adapt in the face of a changing environment' [33, p.203].

Atun and Menabde [34] argue that the characteristics of health systems, such as the many interacting feedback loops and the unpredictability of intervention outcomes, clearly show the relevance of systems thinking to health systems. The health system barriers to TB DOTS implementation in the Russian Federation, for example, included the inherent disincentives created by existing financing and provider payment systems and organizational structures, as well as the political difficulties of required reductions or re-allocations of staff posts and the sociocultural norms which underpinned staff resistance

Table 2.5 Comparing systems thinking with other organizational perspectives [35, p.101]

Principle	Machine (linear hierarchy)	Market (linear network)	Ecosystem (non-linear network)
Relationships within the system	Simple, static, pre-set	Contractual; directed by price, supply and demand	Diverse and dynamic
Relationship to the environment	Closed	Relatively open	Open
Diversity of elements	Static diversity designed in	Some diversity of elements, little diversity of structure or process	Diverse elements, structure and processes continually changing
Knowledge management	Intelligence designed into the machine and remains fixed	A degree of learning	Learning perspective
Power	Power remains at the top of the hierarchy and is generally unresponsive	Power resides with the larger player and is responsive to resources	Power and influence are distributed locally and reside in relationships
Strategic focus	Little strategic focus	Some strategic focus, particularly by major players	Emphasis is on local level

to an externally developed programme. Thus, 'the context, the interaction between health system elements and context-health system interactions affect the way rules norms and enforcement mechanisms are interpreted to generate response that may not be easy to predict and may indeed be counter-intuitive' [34, pp.133–4]. Importantly, context is understood here as encompassing the values, norms, and understandings shaping the behaviours and relationships of heath system actors, rather than only referring to more material and structural factors [36].

2.4.4 Summary

All three bodies of theory presented here affirm the relational nature of health systems and the wide range of institutional influences embedded within them. The drivers of actor behaviour go beyond rules and financial incentives to include their relationships with others, the wider set of norms, values, and, importantly, shared meanings that underpin those relationships, and conflicting interests and relative power. Policy implementation theory and systems

thinking also emphasize the importance of the local, rather than central, level in strengthening systems. Local level forces are the vital influences over system performance, and local actors, the ultimate implementers of any policy change.

In contrast, as Table 2.6 shows, current health system frameworks are imbued with a mechanical perspective on health systems, and a command and control approach to health system strengthening. The relational nature of the health system, its dynamic complexity, is perhaps most fully reflected in Frenk [7] and Brinkerhoff and Bossert [14] frameworks. However, neither offers much guidance on how to work with that complexity in seeking to strengthen health systems.

Table 2.6 Summary review of health system frameworks

Framework	Institutional drivers considered?	Recognizes relational nature of health system? (dynamic complexity)	Assumes command and control approach to HSS?	Recognizes role of local level?
Roemer [5]	None	No	n/a	No
WHO HCF [6]	Rules and incentives	Partially	Implicitly yes	Not clearly
Frenk [7]	Rules, incentives, sociocultural norms and values	Yes	Unclear	Not clearly
et al. HO BB [1]	None	No (though implied in text)	Largely; need for political management noted	No
Roberts [8]	Rules and incentives emphasized; power acknowledged	Partially	Largely; notes need for political management and for participatory diagnosis and planning	Unclear
Brinkerhoff and Bossert [14]	Rules, socio-cultural norms & values, power influences	Partially	No	Partially

2.5 Enabling system governance

The bodies of theory examined in sSection 4 suggest that health system strengthening will be better supported by participatory implementation approaches that seek to manage meaning and strengthen the norms and values shaping actor behaviour, rather than working primarily through rules, authority and economic incentives. But how can local level actors be engaged? Two complementary insights are drawn from the theoretical perspectives considered here.

First, a systems thinking perspective suggests that problem-solving must be based on testing and learning from action, rather than predominantly applying reductionist and rational approaches. The complexity of systems makes anticipating problems almost impossible. Instead systems must support local-level learning over time by encouraging open relationships and free exchange among system actors [32]. Such learning is 'more about problem coping than problem solving' [33, p.21].

Systems thinkers argue that whilst central planners ought to establish the general direction of the change they seek and the limits of the change they would find acceptable, they should allow local flexibility in achieving those goals and in resource use. Learning is fostered by encouraging experimentation, diversity, and reflection—and embracing both success and failure [37, 38].

Soft systems methodology (SSM) is an approach to such learning. It is particularly relevant where operational staff are seen to be influential and their ownership of improvements is essential for bringing about change [37], or where managers within organizations are willing to learn from the new ideas and perspectives of actors outside the system [33]. Undertaken by those directly involved in the area of concern, it involves groups of people working together to: explore the problem situation; develop an idealized model of how to transform it; identify the feasible and desirable changes required to bring about such transformation; taking any of those actions that they can; and, finally, reflecting and repeating the cycle of action and learning.

There are three key aspects of SSM analytical approaches and tools. They require iterative processes of action and learning. They allow multiple perspectives to be gathered about current challenges and ways of working differently. They seek to understand the complex chains of interactions underlying current problems as a basis for identifying the key points through which managerial action can leverage cycles of improvement. Some tools also allow consideration of who has to act differently in bringing about improvement. Hard analytical methods, such as cost-effectiveness analysis, may be used

depending on the nature of the problem [39]. Nonetheless, the main strength of SSM 'is its ability to bring to the surface different perceptions of the problem and structure these in a way that all involved find fruitful. Because the process is strange to most participants, it also fosters greater openness and self-awareness. The process is very effective at team-building and joint problem-solving' [37, p.76]. On this basis, a ten-step approach to designing and evaluating health system strengthening interventions that is rooted in wide stakeholder involvement, including front-line providers, and knowledge sharing has been proposed [38].

Second, trusting relationships are commonly acknowledged as a critical basis for encouraging learning. 'For individuals to give of their best, take risks and develop their competencies, they must trust that such activities will be appreciated and valued by their colleagues and managers. In particular, they must be confident that should they err they will be supported, not castigated. In turn managers must be able to trust that subordinates will use wisely the time, space and resources given to them through empowerment programmes and not indulge in opportunistic behaviour. Without trust, learning is a faltering process' [40, p.65]. Trust is also identified, along with rules and contracts, as one of three possible bases for policy implementation and local management [41]. Indeed, given the distribution of power within them, implementation (or co-production) through local actor networks within and across organizations requires a more persuasive approach to management than that associated with rules or contracts.

Trust is often seen to be of particular importance to health due to the uncertainty and unpredictability of ill-health, and the influence of trusting relationships over caring behaviour [42, 43]. For instance, four detailed South African case studies of primary care facilities showed widespread distrust in the employer. Yet in the two better performing facilities (as assessed by health care managers, health facility users, and researcher observation), there was also higher staff motivation levels (assessed qualitatively), some degree of trust in colleagues and the manager was widely trusted. In contrast, in the worse performing facilities, there were lower staff motivation levels and little trust in colleagues or the managers [44].

Although not yet well developed, ideas about how to develop trust within health sector relationships highlight the importance of strengthening both inter-personal behaviours and the institutions shaping them. Relevant interpersonal behaviours include competence, sincerity, empathy, altruism, fairness and reliability; and these are enabled by institutions that allow the trustor to judge whether the trustee will act in her best interests or, at least, without malice. Such institutions encompass all three institutional pillars: organizational

roles and procedures, rules and legal frameworks, and the communication and decision-making practices that generate shared meanings. They generate, in particular, information about how people are treated by others and the values driving their behaviour, and support the development of mutual understanding and shared interests. Indeed, it is often said that trust is constructed through use and worn out by dis-use [45].

In thinking about how to develop trust it is also necessary to acknowledge power: whilst trust may provide the basis for the exercise of legitimate power, trusting too much, without caution, may lead to the abuse of power [45]. Thus, where communication practices are strongly influenced by the underlying power relationships between actors, trust may be coerced and so illegitimate. Voluntary trust can only be generated when communication is 'sincere, open and directed towards achieving understanding and consensus' [46, p.437]. This represents a particular challenge for health systems given that the taken-for-granted power of the doctor or the system commonly results in 'instrumental and non-participatory communication based on the belief that the bio-medical approach is "right"' [47, p.1458].

Nonetheless, if managed carefully, participatory management approaches can provide opportunities to build trust. The application of soft system methodology, for example, may generate trust when based on open communication and dialogue among those involved, and the development of shared interests. Their use may, then, also, provide the basis for the co-production necessary to implement agreed actions. However, some initial trust will be needed to encourage open communication and draw in multiple perspectives. So in using these, or other participatory management, approaches it is important to pay particular attention to the procedures of dialogue, the provision of institutional guarantees of trust and to limiting the exercise of power during discussions [14, 47]. Other possible arenas and approaches for the trust-generation that can strengthen health system performance are summarized in Table 2.7.

2.6 Implications for health system strengthening

Health systems and health sectors within those systems comprise sets of relationships. However, the institutional foundations of these relationships are commonly seen through lenses that emphasize rules and economic incentives. Only the more recent governance frameworks give clearer attention to the norms and values that underpin systems, and there remains little consideration of the shared social meanings that shape individual and organizational performance.

Table 2.7 Generating trust

Relationship	How to generate trust (from health system perspective)
Provider-patient	Strengthening provider communication and listening skills and institutional strategies of communication (e.g. signage, interpreters, employing patient care advisors, working with expert patients, supporting peer support networks)
Health manager-citizen	Developing structures and approaches allowing health officials and communities to work together, supported by resource allocation to enable community engagement and procedures to protect deliberate dialogue
Health manager-health worker	Human resource management practices that offer institutional guarantees of fairness and transparency (e.g. checks on decision-making, opportunities for review, regularity, 360º appraisal systems), that are consistently implemented by managers with strong communication and listening skills and that are backed up by public messages from senior managers and politicians supporting staff without condoning abusive behaviour
Public-private health managers	Formally agreed and fairly enforced contracts, backed up by informal dialogue and engagement to support contract implementation
Health system-citizen	In terms of public health problems and interventions, for example: the provision of clear and consistent formal information messages through wide-ranging communication channels, backed up by consistent public messages (including actions) from senior managers and politicians

Sources: [45,47]

In low- and middle-income countries, health reform debates, action to strengthen health sectors has, meanwhile, often been portrayed as a centrally controlled intervention involving particular sets of structural or incentive reforms. In essence, the reformer is seen as an actor intervening from above and outside who adjusts the rules of the game (e.g. through control knobs) that other health actors play. Although there is growing recognition of the importance of adapting reforms to particular contexts on the basis of both careful diagnosis of the problems facing any health system and a deliberate process of managing change, the reformer is still commonly seen as a rational *deus ex machina* [8].

In contrast, this analysis argues that the complexity of health systems and sectors means that it is difficult to strengthen them through central action. Effectively implementing any change requires understanding implementation as the 'enculturation of change' [21, p.260]. It requires re-wiring the institutional drivers of

local level behaviour and relationships to sustain new practices or activities. That means paying more attention to the inner workings of the system, and particularly to the overlooked institutions of norms and values, including trust, and shared social meanings, rather than to its outer structure of rules and incentives. Central level guidance for action must, therefore, be combined both with the local level learning that allows new ideas and interventions to be adapted effectively to local circumstances, and with deliberate action to build trusting relationships. This is the crux of health system governance, a critical leverage point for health system strengthening [38].

Soft systems methodology offers one concrete approach to local level learning and trust-building, and can be supported by other actions to generate trust. All such action also requires local leadership and engagement, and new ways of managing local relationships. The range of leadership strategies needed [48] include the ability to:

- Exercise authority through participation and negotiation, rather than control and command. Leaders must establish fair and transparent procedures that engage key stakeholders (political authorities, the scientific community, health professionals, civil society, and citizens) in the process of decision-making, generate legitimate decisions and contain the influence of particular interest groups.
- Use a wide range of data and information in decision-making, going beyond the statistics normally produced by health information systems and identifying operational and systemic constraints. This information must also be publicly accessible, flowing up the public bureaucracy through open knowledge networks that involve field level experimentation and adaptation, and learning-through-doing.
- Manage the political and implementation process actively, to secure high-level political support and the other resources needed to initiate reforms, and to bring about the changes in organizational structure and culture that sustain implementation and limit resistance to change.

To strengthen health systems, new attention must now be paid to how to develop these managerial leadership capacities, and enable the emergence of organizational cultures and structures that support local level learning and action.

References

1 World Health Organization (2007). *Everybody's Business: Strengthening health systems to improve health outcomes. WHO's framework for action*. WHO, Geneva

2 Shakarishivili G (2009). *Building on health systems frameworks for developing a common approach to health systems strengthening*. Prepared for the World Bank, the Global Fund

and the GAVI Alliance Technical workshop on Health System Strengthening. Washington, DC, June 25–27 2009. Available at: http://siteresources.worldbank.org/INTHSD/Resources/376278-1114111154043/1011834-1246449110524/HealthSystemFrameworksFINAL.pdf (accessed 14 May 2010).

3 Ben-Ner A, Putterman L (1998). Values and institutions in economic analysis. In Ben-Ner A, Putterman L (eds) *Economics, Values and Organization*, pp.3–69. Cambridge University Press, Cambridge.

4 Scott WR (2001). *Institutions and Organizations*. Sage Publications, Thousand Oaks, CA.

5 Roemer MI (1991). *National health systems of the world. Vol 1: The countries*. Oxford University Press, Oxford.

6 World Health Organization (1993). *Evaluation of recent changes in the financing of health services* (WHO Technical Report No. 829). WHO, Geneva.

7 Frenk J (1994). Dimensions of health system reform. *Health Policy*, **27**, 19–34.

8 Roberts MJ, Hsiao W, Berman P, Reich MR (2008). *Getting health reform right: A guide to improving performance and equity*. Oxford University Press, New York.

9 Gilson L, Doherty J, Lowenson R, Francis V (2008). *Challenging inequity through health systems*. Final report of the Knowledge Network on Health Systems, WHO Commission on the Social Determinants of Health. Johannesburg: Centre for Health Policy, EQUINET, London School of Hygiene and Tropical Medicine.

10 Mills AJ, Ranson MK (2006). The design of health systems. In Merson MH, Black RE, Mills A (eds) *International public health: diseases, systems and policies*, pp.513–47. Jones and Bartlett Publishers, Sudbury.

11 Berman P (1995). Health sector reform: making health development sustainable. *Health Policy,* **32**(**1**), 13–28.

12 Labonte R, Blouin C, Chopra M, *et al.* (2007). *Towards health-equitable globalisation: rights, regulation and redistribution - final report to the Commission on the Social Determinants of Health*. Globalization Knowledge Network. Institute of Population Health, University of Ottawa. Available at: http://www.who.int/social_determinants/resources/gkn_final_report_042008.pdf (accessed 14 May 2010).

13 World Health Organization (2000). *The World Health Report 2000. Health systems: improving performance*. WHO, Geneva.

14 Brinkerhoff D, Bossert T (2008). *Health governance: concepts, experience and programming options* (Health Systems 2020 Policy Brief). Available at: http://www.eldis.org/assets/Docs/36831.html (accessed 14 May 2010).

15 Morgan G (1997). *Images of organizations*. Sage publications, London.

16 Blaauw D, Gilson L, Penn-Kekana L, Schneider H (2003). *Organisational relationships and the 'software' of health sector reform*. Background paper prepared for the Disease Control Priorities Project, Capacity Strengthening and Management reform. Available at: http://web.wits.ac.za/NR/rdonlyres/01AB730B-0E2E-44F7–955B-DC81DD64ACE2/0/b52.pdf (accessed 13 July 2009).

17 Aitken JM (1994). Voices from the inside: managing district health services in Nepal. *International Journal of Health Planning and Management,* **9**, 309–40.

18 George A (2009). 'By papers and pens, you can only do so much': views about accountability and human resource management from Indian government health

administrators and workers. *International Journal of Health Planning and Management,* **24**(**3**), 205–4.

19 Mumtaz Z, Salway S, Waseem M, Umer N (2003). Gender-based barriers to primary health care provision in Pakistan: the experience of female providers. *Health Policy and Planning*, **18**(**3**), 261–9.

20 Green A (2002). *An Introduction to Health Planning in Developing Countries*, 2nd edn. Oxford University Press, Oxford.

21 Barrett SM (2004). Implementation studies: time for a revival? Personal reflections on 20 years of implementation studies. *Public Administration,* **82**(**2**), 249–62.

22 Grindle MS (1997). Divergent cultures? When public organisations perform well in developing countries. *World Development,* **25**(**4**), 481–95.

23 Mannion R, Davies HTO, Marshall MN (2005). *Cultures for performance in health care*. Open University Press, Maidenhead.

24 Lipsky M (1980). *Street-level bureaucracy: dilemmas of the individual in public services*. Russell Sage Foundation, New York.

25 Long N (2001). *Development sociology: actor perspectives*. Routledge, London.

26 Crook R, Ayee J (2006). Urban service partnerships: 'Street level bureaucrats' and environmental sanitation in Kumasi and Accra, Ghana: Coping with organisational change in the bureaucracy. *Development Policy Review*, **24**(**1**), 51–73.

27 Tendler J, Freedheim S (1994). Trust in a rent-seeking world: health and government transformed in Northeastern Brazil. *World Development*, **22**(**12**), 1771–91.

28 Penn-Kekana L, Blauuw D, Schneider H (2004). 'It makes me want to run away to Saudi Arabia': management and implementation challenges for public financing reforms from a maternity ward perspective. *Health Policy and Planning*, **19**(**Suppl. 1**), i71–i77.

29 Kamuzora P, Gilson L (2007). Factors influencing implementation of the Community Health Fund in Tanzania. *Health Policy and Planning,* **22** (**2**), 95–102.

30 Mackintosh M (2000). Do health care systems contribute to inequalities? In Leon D, Walt G. (eds) *Poverty, Inequality and Health: An International Perspective*, pp.175–94. Oxford University Press, Oxford.

31 Plsek PE and Greenhalgh T (2001). The challenge of complexity in health care. *British Medical Journal,* **323**, 625–8.

32 Kernick D (2004). An introduction to complexity theory. In Kernick D (ed.) *Complexity and health care organization*, pp.23–38. Radcliffe Medical Press, Oxford.

33 Hudson J (2007). Learns lesson from policy experience. In Bochel H, Duncan S (eds) *Making policy in theory and practice*, pp.191–210. The Policy Press, Bristol.

34 Atun R, Menabde N (2008). Health systems and systems thining. In Coker R, Atun R, McKee M. (eds) *Health systems and the challenge of communicable diseases: experiences from Europe and Latin America* (European Observatory on Health Systems and Policies Series), pp.121–40. Open University Press, Maidenhead.

35 Kernick D (2004). The search for the correct organisational solution for the NHS. Kernick D (ed.) *Complexity and health care organisation*, pp. 93–104. Radcliffe Medical Press, Oxford.

36 Pawson, R. (2006). *Evidence-based policy: a realist perspective*. London, Sage Publications.

37 Chapman J (2004). *System failure: why governments must learn to think differently*, 2nd edn. Demos, London. Available at: http://www.demos.co.uk/publications/systemfailure2, (accessed 14 May 2010).

38 de Savigny D, Adam T (eds) (2009). *Systems thinking for health systems strengthening*. Alliance for Health Policy and Systems Research, WHO, Geneva.

39 Powell J (2004). An introduction to systems theory from hard to soft systems thinking in the management of complex organisations. In Kernick D (ed.) (2004) *Complexity and health care organization*, pp.43–58. Radcliffe Medical Press, Oxford.

40 Davies H, Nutley S (2004). Organisations as learning systems. In Kernick D (ed.) (2004) *Complexity and health care organization*, pp.59–68. Radcliffe Medical Press, Oxford.

41 Hill M, Hupe P (2009). *Implementing Public Policy*, 2nd edn. Sage Publications, London.

42 Bloom G, Standing H, Lloyd R (2008). Markets information and health care: towards new social contracts. *Social Science and Medicine,* **66**(**10**), 2076–87.

43 Calnan M, Rowe R (2008). *Trust matters in health care*. Open University Press, Maidenhead.

44 Gilson L, Khumalo G, Erasmus E, Mbatsha S, McIntyre D (2004). *Exploring the influence of workplace trust over health worker performance. Preliminary national report: South Africa*. Report prepared for the Health Economics and Financing Programme, London School of Hygiene and Tropical Medicine, UK. Available at http://www.hefp.lshtm.ac.uk/publications/downloads/working_papers/06_04.pdf (accessed 14 July 2009).

45 Gilson L (2007). Acceptability, trust and equity. In McIntyre D, Mooney G (eds) *The Economics of Health Equity*, pp.124–48. Cambridge University Press, Cambridge.

46 Robb N, Greenhalgh T (2007). 'You have to cover up the words of the doctor': the mediation of trust in interpreted consultations in primary care. *Journal of Health Organization and Management,* **20**(**5**), 434–55.

47 Thiede M. (2005). Information and access to health care: is there a role for trust? *Social Science and Medicine,* **61**(**7**), 1452–62.

48 World Health Organization (2008). *The World Health Report 2008: Primary health care now more than ever*. WHO, Geneva.