The Gateway Paper

Health Systems in Pakistan - a Way Forward

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Précis

The Gateway Paper is a product of the consensus-driven Action Plan embodied within the *Statement* of Pakistan's Health Policy Forum– a recently-established health-sector *think tank* designed to stimulate, assist in the development of and monitor health policies; foster their implementation and catalyze change through technical and policy support.[1]

This Gateway Paper has been prepared to initiate a dialogue within Pakistan's Health Policy Forum. In a true sense, it is a gateway or *opening of new effort* to address the pressing health needs of the country. The intent is to articulate the raison d'être for health systems reforms within the country, *propose* a direction for reforms and emphasize the need for an evidence-based approach to reforms. In doing so, the Paper does not take a prescriptive orientation; instead, it provides a perspective on reforms – a strategic view – which is expected to generate broad-based stakeholder dialogue. The Paper has also been structured to assist the Forum with the setting of its priorities and to guide its analytical and technically supportive functions needed to support health systems reforms in the country.

The Gateway Paper makes a strong case for systems reforms. Linkages have been proposed to help Pakistan's health systems and its policy cycle work better together. The Paper reviews issues and proposes solutions for the basic functions of health systems – stewardship, financing, service provision and inputs. It also discusses three distinct interface areas critical to performing these functions; these are the federal-provincial interface, decentralization and the public-private interface. In addition, the Gateway Paper also focuses on several overarching health paradigms such as health promotion, legislation, research and the inter-sectoral scope of health as singular areas, with the understanding that each of these is cross-cutting in its scope. In its Finale, the Gateway Paper synthesizes recommendations from each health systems domain discussed in the paper and presents a *viewpoint on the proposed directions for evidence-based health systems reforms in Pakistan.* The proposed reforms point in the direction of four broad areas namely, reforms within the health sector, overarching measures, reconfiguration of health within an inter-sectoral scope and generating evidence for reforms.

1. **Within the health sector, this includes:**

- strengthening the role of the State as the principal steward of the health system;
- setting of priorities for the use of public funds and definition of priority services to be provided universally;
- developing alternative service delivery and financing options at the basic healthcare and hospital levels. The former includes community co-management and contracting out arrangements, maximizing efficiency in the same system or transferring management to lower levels of government – an option complementary to the administrative arrangements within decentralization – whereas the latter involve granting autonomy at a management level and the introduction of cost-sharing at the level of financing; and
- building the capacity of and effectively deploying human resource, establishing a conducive and rewarding working environment and initiating measures to redress imbalances with regard to the existing staff.

2. **At an overarching level, this involves:**

- ✍ establishing a legal, policy and operational framework for public-private partnerships in order to foster arrangements that bring together organizations with the mandate to offer public good on the one hand, and those that could facilitate this goal through the provision of resources, technical expertise or outreach, on the other;
- ✍ building conscious safeguards in order to offset the risk of creating access and affordability issues for the poor in the new service delivery arrangements. This includes the establishment of social health insurance as part of a comprehensive social protection strategy that scopes beyond the formally employed sector, providing a widely inclusive safety net for the poor and the strengthening of waiver and exemption systems in order to provide subsidies to treat poor patients; and
- ✍ institutionalizing civil service reforms centered on good governance, accountability, crackdown on corruption, factoring in of performance-based incentives, mainstreaming managerial audit and building safeguards against political and external interference.

3. **Within an inter-sectoral scope, this entails:**

- ✍ developing alternative policy approaches to health within its inter-sectoral scope with careful attention to the social determinants of health and several contemporary considerations that influence health status;
- ✍ redefining targets within the health sector in order to garner support from across various sectors and setting these targets within an explicit policy framework in order to foster inter-sectoral action; and
- ✍ creating intersectoral agencies that concentrate on prevention and health promotion at multiple levels – legislative, ministerial and others as necessary; development of dedicated provincial agencies that implement such programmes and overarching policy and legislation for health promotion.

4. **Generating evidence for reforms:** health reforms must be firmly grounded in evidence**,** which in turn, should be utilized for appropriate modifications as the reforms get on their way to being implemented – an approach, which allows action accompanied by rigorous evaluation and up-gradation of programmes and policies. The individual components of the health reforms being proposed also mandate robust evaluation; this can allow the evaluation of competing concepts and can, therefore, guide the up-scaling of appropriate initiatives for broader systems-wide adoption. This is critical to the development of well-structured and sustainable service delivery and financing mechanisms. Table 33 on page 177 outlines a list of priority areas where health policy, systems and operational research should focus in order to yield evidence critical to the success of the proposed reforms.

The Gateway Paper concludes by stating that health cannot be extricated from the political, economic, social and human development contexts and that reform within the healthcare system and the health system cannot be separated from several overarching processes. It is widely recognized that factors, which determine health status range much broader than those that are within the realm of the health sector and that modern healthcare has less of an impact on population health outcomes than economic status, education, housing, nutrition, sanitation and population dynamics. A contemporary outlook to health also links it with other sectors. Global pandemics and macro-environmental changes such as global warming and changing ecosystems may have implications for spread of disease and its control; mass damage by biological weaponry is a possible threat to civil infrastructure with public health implications and natural disasters and humanitarian crises as a result of conflict and acts of terrorism are known to impact the health status of those affected. Furthermore, liberalization of international trade under WTO, development of new communication technologies and forms of health financing and governance

and the creation of global markets have created a globally interconnected world with implications, both for public health as well as the medical management of diseases. Within this paradigm, health needs to be viewed in a broader national and international policy context. This highlights the need to link health with social justice, politics, trade, environment and national security, disaster planning and technology. Sustainable progress at the health systems and healthcare systems levels, therefore, depends to a large extent, on the manner in which progress is made in all these areas in addition to human development, the overall rate of economic growth and improvements at a governance level.

The attempt to give the Gateway Paper a reader-friendly orientation has been grounded in a style of expression that merits some description:

- The **Prelude and Finale** is a style of combining a *preamble, an introduction, a background,* a *conclusion* and *recommendations* into one section. In addition to providing an overview of the Gateway Paper, this section also presents a snapshot of the Paper's recommendations and allows access to specific details in the body of the main document via hyperlinks in the electronic CD version. The Prelude and Finale have been configured into two sections, with an uninterrupted flow, at the beginning and the end of the Gateway Paper.

- The tables listing **Issues and Possible Solutions** systematically summarize within each domain, challenges and their possible solutions so as to render them discernable at a glance.

- The insertion of **Questions** throughout the body of the Gateway Paper is intended to address specific questions that need clarifications under respective headings. The document has not been arranged to answer these questions; conversely, these have been arranged to follow the flow of the document.

Contents

1. Inventory of questions

2. Prelude to the Gateway Paper

Why is there a need for health system reforms?

An overview and sojourn of the 58-year expedition of the health system in Pakistan provide evidence of both attempted efforts as well as impediments. Programmes aimed at promoting health have been viewed as a developmental need and have, therefore, drawn policy and financial support from national plans for development with increasing allocations in recent years.[2,3] However, gaps in the implementation of policies and lack of an inter-sectoral approach to health have precluded this intent from fully translating into desired outcomes. Successive governments have attempted to bear the direct delivery of services burden and subsidize healthcare delivery for all. This commitment is evidenced by the existence of an extensive – by infrastructure standards, one of the most elaborate – primary healthcare systems in the world. Notwithstanding, these facilities remain inundated with many challenges which raise questions about the validity of investments made in them. Progress has also been achieved in many public health domains; however, the implementation of these programmes remains hostage to many overarching social service delivery, governance and management issues and interface challenges. Furthermore, several policies and legislative and regulatory frameworks remain poorly implemented due to generic issues inherent to the implementation of laws. Moreover, the country's focus on producing more doctors has led to marked improvements in the doctor-to-population ratio; conversely, challenges relating to quality and capacity and the effective and equitable deployment of health-related human resource still loom large. These issues are further exacerbated by poor regulation of the private sector, amongst an array of challenges.

These and several other issues are contributing to the currently observed intransigency of key health indicators within the country.[I] However, as bad as these may appear, there is still room for hope if appropriate health reforms are instituted in time. This may also be an opportune time for health reforms. Pakistan is experiencing economic growth and has additional fiscal space; this, coupled with the introduction of several parallel reforms related to devolution and privatization and the injection of new resources, makes health reforms a viable proposition.

Health reforms must be strategic and outcome- and equity-oriented, with a comprehensive long-term focus on health systems strengthening.

Why is systems orientation critical to the success of the proposed reforms?

The Gateway Paper overviews health and health reforms in Pakistan within a health systems scope; there are several valid justifications for this approach.

Firstly, there is evidence to show that specific aspects of health systems development are amongst the best determinants of health status achievement as are economic growth, per capita income and female education.[4] As opposed to this, there is little independent connection with

[I] Health indicators are summarized in the section on Public Health Programmes

inputs such as the number of doctors or hospital beds, total health expenditure and/or expenditure dedicated to medical care.

Secondly, decades of focus on programme-based service delivery and emphasis on infrastructure have led to probably an inadvertent neglect at the health systems level; ironically, all these lines of service delivery require systems-level solutions. Gaps in meeting programmatic goals and objectives can, therefore, only be amenable to bridges at the systems level. Pakistan's health sector goals – those that are drawn on the *Millennium Development Goals* (MDGs) and others that are part of the *Medium Term Development Framework 2005-10* (MTDF) [5] – focus on achieving specific programme-related targets and a number of programmes have been structured to achieve these targets. However, analyses of the on-ground situation indicate that the success of current programmes and those that are in the pipeline depends on the robustness of the health systems; these impressions have recently been reinforced by an international policy assessment of the potential that developing countries such as Pakistan have in meeting health-related MDGs.[6] Strengthening health systems and making them efficient, sustainable and responsive is, therefore, vital to meeting the MDGs.

Thirdly, the wide array of new initiatives, programmes and legislative measures currently being introduced at the federal, provincial and district levels require strong health systems to deliver. These new initiatives include the government of Punjab's health reform unit, NWFP's WISHpad, legislation to make hospitals autonomous, the recent introduction of a national strategy to revamp the primary healthcare system, contracting-out pilots for basic health services in Punjab, the National Commission for Career Structures of Healthcare Providers, the Continuing Medical Education (CME) initiative of the College of Physicians and Surgeons, institutional mechanisms such as the National Health Policy Unit; World Bank-led greater impetus to institutionalizing public health surveillance, the multi-donor-supported social protection strategy, recent investments in public health such as in the case of hepatitis and blindness and legislation in several areas.[II] The stand-alone viability of these arrangements is dependent on the manner in which overarching systems-level reforms are introduced with careful attention to respective structural, fiscal and regulatory parameters.

And **lastly,** health reforms need to be comprehensive and across-the-board in order to impact health status. This highlights the need to frame health reforms within a comprehensive health systems vision.

Specific aspects of health systems development are amongst the best determinants of health status achievement as are economic growth, per capita income and female education.

What is the distinction between a health system and a healthcare system in the local context?

The definition of a health system regards it as comprising all the organizations, institutions and resources that are devoted to producing health actions. This encompasses personal healthcare, public health services and/or services/actions by other sectors whose primary purpose is to improve health. This broad definition notwithstanding, often health systems functions are identified with service provision – within a personal healthcare dimension and/or a public health

[II] References to these have been provided in the relevant sections

framework. It must be recognized that providing services is one of the things that a system does; it is not what a health system is.[7] This highlights the need for making a distinction between a *healthcare system* and a *health system.* Most of the available information about Pakistan's health system refers to the provision of and investment in health services – curative more than preventive and palliative – directed at individuals or populations and the antecedent focus around employment, activity and expenditures. This constitutes the healthcare system. However, on the other hand, when the goals of the system are brought to bear, as they should – improving health, responding to the legitimate expectations of the population and fairness of contribution – a vision outside of this narrow definition is delineated. A health system is, therefore, much broader than a healthcare system. The same concept can be extrapolated to the health policy level, which is traditionally located within the public policy domain and a distinction needs to be made between *healthcare policy* vis-à-vis a *health policy.* Within this context, health needs to be viewed in its inter-sectoral scope. It is well established that factors which determine health status range much broader than those which are within the realm of the health sector. Many socio-economic and environmental conditions are known to affect health status; liberalization of international trade, global pandemics, natural disasters and humanitarian crises can be detrimental to public health outcomes as can be changes in international cooperation and geopolitical situations, which may have implications for the manner in which health is resourced in a country such as Pakistan. These considerations need to be factored into health systems planning.

There is a need for making a distinction between a healthcare system and a health system and a healthcare policy vis-à-vis a health policy.

How is healthcare delivered in Pakistan?

The healthcare system in Pakistan is partially vertical and in part, horizontal. Vertical segmentation is reflected in the manner in which separate organizations such as the Federal Ministry of Health, the provincial health departments, private sector healthcare providers, NGOs, armed forces, parastatals and the *Employees Social Security* institutions raise and allocate their own funds, pay their own providers and deliver services. In certain cases, these are truly vertical as they serve non-overlapping populations as in the case of the armed forces, parastatals and Social Security; however, a certain degree of overlap occurs in relation to the manner in which the Ministry of Health and the provincial health departments provide services vis-à-vis the private sector. The system is also horizontally aligned in many areas as, for example, in the case of the Federal Ministry of Health and the national programmes and institutions that fall within its jurisdiction.[III]

Health is generally described as a provincial subject in Pakistan. The role of the federal government (Ministry of Health) involves policy-making, coordination, technical support, research, training and seeking foreign assistance. The provincial and district departments of health are responsible for the delivery and management of health services with a recently enhanced role of the latter in view of administrative devolution. In theory, stewardship tasks in the health sector are entrusted to the Ministry of Health at the federal level and the departments of health at the

[III] The national programmes are discussed in the section on Public Health Programs. Institutions horizontally integrated with the Ministry of Health include the Pakistan Medical Research Council, National Institute of Health, Pakistan Institute of Medical Sciences, Health Services Academy, National Institute for Handicapped, Jinnah Postgraduate Medical Centre, National Institute of Cardiovascular Diseases and National Institute of Child Health.

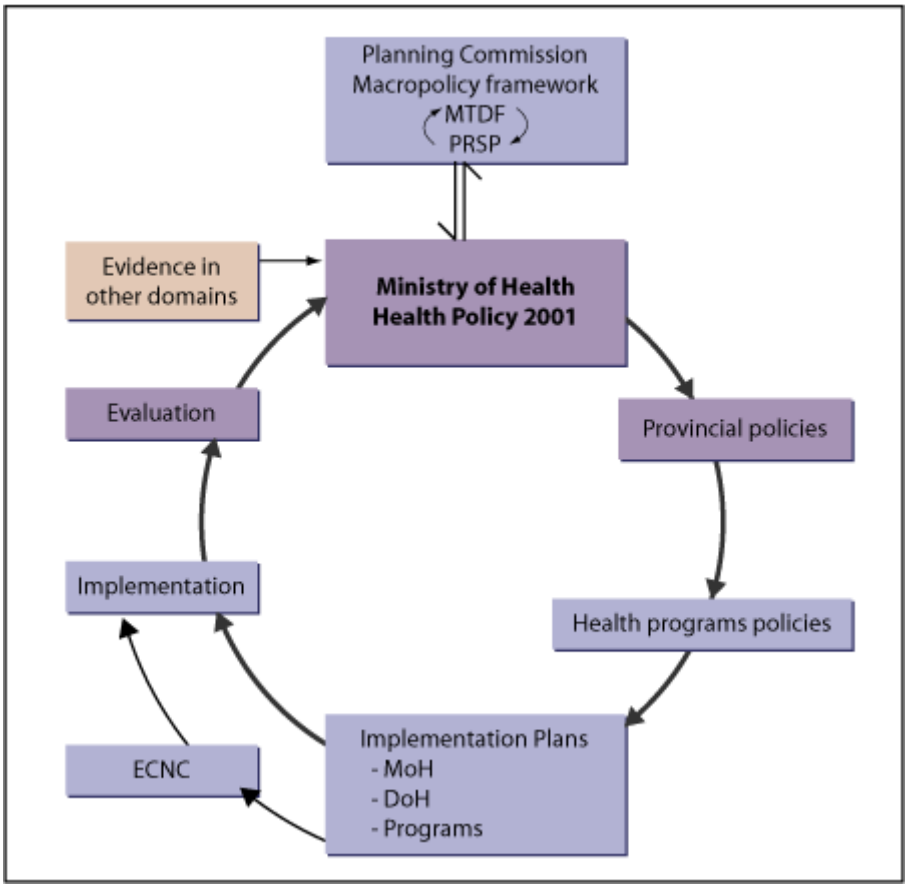
provincial level. These are mandated to guide and regulate other organizations that are horizontally integrated with them and other vertically aligned health systems.

The State attempts to provide healthcare through a three-tiered healthcare delivery system and a range of public health interventions. The former includes *Basic Health Units* (BHUs) and *Rural Health Centers* (RHCs) forming the core of the primary healthcare model; secondary care including first and second referral facilities providing acute, ambulatory and inpatient care through Tehsil Headquarter Hospitals (THQs) and *District Headquarter Hospitals* (DHQs) and tertiary care comprising teaching hospitals. Notwithstanding, most people receive healthcare through private out-of-pocket payments made directly to the providers at the point of care. Taxation and out-of-pocket payments are, therefore, the major modes of financing health within the country; donor contributions add to these. Less than 3.5% of the employees are covered under the Employees Social Security scheme and although there are limited social protection funds such as *Zakat* and *Bait-ul-Mal*, which serve approximately 3.4% of the population in need of care, a comprehensive social protection mechanism does not exist. Limited attempts have been made to mainstream philanthropic grants and private resources as modes of financing health. In recent years, many alternative service delivery and financing models have been introduced at various levels, albeit with limited success.

How can health system reforms be mainstreamed in the policy formulation process?

Before reforms are introduced, the existing health policy cycle needs to be defined as it has a direct bearing on the nature and implementation of reforms.

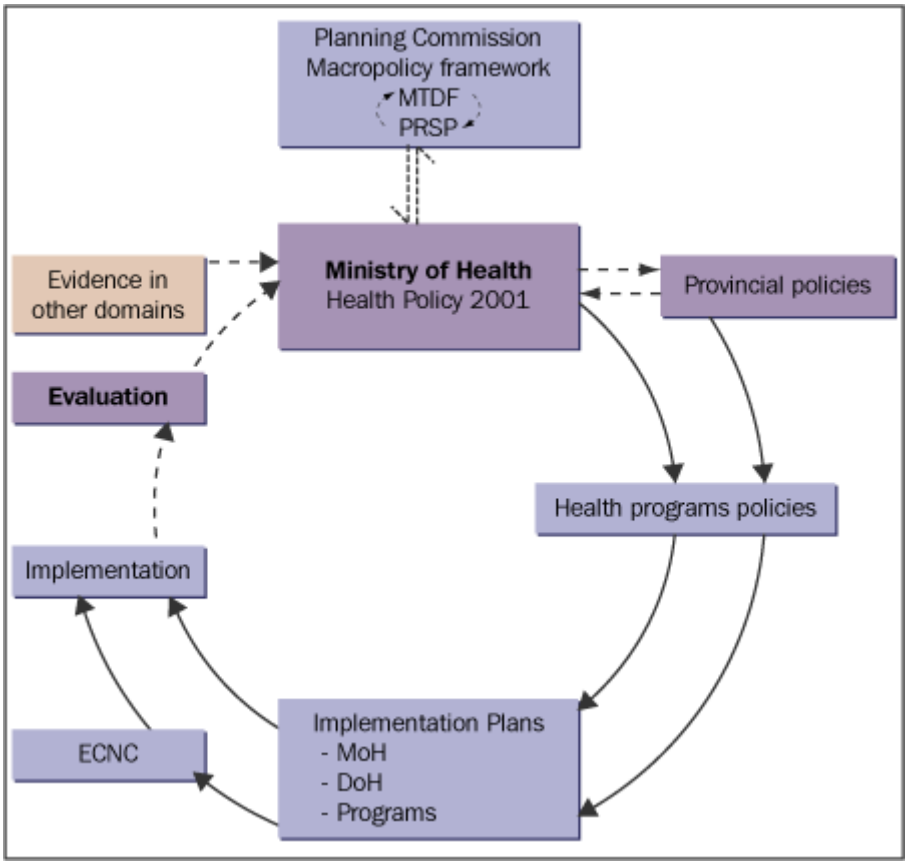
Figure 1. Envisaged health policy-formulation cycle



Viable public policy cannot be viewed or treated in isolation from political, technical or administrative processes that define *what* and *how* care is delivered. Traditionally, a policy cycle links these processes – coordination, consensus-building, decision-making, policy development, its implementation, evaluation and identification of issues. Analysis and interpretation again loop into consensus building, thus completing the policy cycle.

Based on this model – extrapolated to the current configuration of health systems in Pakistan – the ideal health policy cycle should follow the pattern represented in Figure 1. In this configuration, health policy formulation emanates from the macro-policy framework, provincial policies are in complete harmony with the federal policy as per constitutional obligations, national programme policies and plans are in turn reflective of both the provincial as well as the federal policy frameworks and evaluation is deeply intertwined with the implementation of these interventions guiding the ongoing modification of programmes. In the proposed ideal model, decision-making in the health sector also draws on evidence from related sectors. However, in reality, there are gaps in coordination as is illustrated in hatched lines of Figure 2. It is necessary that these gaps in the cycle be bridged if robust policy formulation and its effective implementation are to take root.

Figure 2. Pakistan's current health policy-formulation process



3. Stewardship

3. Stewardship

Who is the steward of health in Pakistan?

It is both the mandate and responsibility of the government to ensure the health and well being of the country's population.[8] However, this is by no means synonymous – as is sometimes perceived – with service delivery. Stewardship, whereby governments give direction and oversee functioning, is the most important element of the health system. The discussion in this section will primarily focus on the role of the Ministry of Health and the departments of health in Pakistan, which perform this function on the government's behalf. The Federal Ministry of Health is responsible for defining a vision, strategic planning, formulation of policies, articulation of priorities, setting of ethical standards and coordination as in the case of external assistance and capacity-building. It is also responsible for regulating the behaviour of stakeholders in the health sector – not only through framing of rules but also via establishing compliance mechanisms. The provincial stewards or the provincial health departments have similar roles within their own domains; however, as service provision is their mainstay, their core stewardship function relates to guidance and regulation in that area.

The Ministry of Health and the respective health departments must also ensure that stewardship is inculcated at the level of other organizations that are horizontally integrated with them; it is also their responsibility to ensure that stewardship is cascaded to other vertically aligned organizations and therefore becomes instilled at all levels of the health system. It is imperative for the Ministry of Health and the departments of health to recognize this role as being their principal function and to commit to enhancing their capacity in this area.

The reforms being proposed in the Gateway Paper place great emphasis on strengthening the stewardship function with particular attention to two key areas. **Firstly**, there should be greater emphasis on a stewardship role for the Ministry of Health and the departments of health in the context of the inter-sectoral scope of health. **Secondly**, the reforms being proposed call for a much stronger role of the State as the regulator of healthcare within the country. The role of the Ministry of Health and the departments of health will become more critical as we move to new models of financing health and delivering services as these will entail the regulation of private sector providers, provision of oversight for ensuring a system for ongoing education and implementation of frameworks for public-private partnerships.

The role of the State as steward and regulator has become critical as we move to new models of financing health and delivering services as these involve the roles of many stakeholders including the private sector.

How are stewardship tasks discussed in the Gateway Paper?

Conventionally, stewardship tasks include formulating health policy, collecting and using intelligence and approaches to regulation. This section deals with issues at the health policy level, set out in a broad context – one that allows the analysis and overview of health policies within the country from three distinct perspectives: their relationship with evidence, their follow-up into planning and finally, their implementation. In doing so, an overview of the first and second stewardship tasks is presented. The third task, which relates to regulation, has been referred to in various sections of the Gateway Paper. This section also provides an insight into policies from a *process-related* dimension; later parts of the document have analyzed policies from *content* and *programme* perspectives.

3.1 The evidence and policy cycle

What is the evidence and policy cycle?

A core prerequisite for developing, updating and strengthening health policies on an ongoing basis, for the purpose of improved and rational decision-making and for the effective implementation of policies, is a firm understanding of the country's health sector needs, the constraints faced by the health system and the relevance, acceptability, feasibility, resource appropriateness and cultural and social suitability of proposed interventions. This can only be possible if there is a strong commitment to *generating evidence* and *utilizing* it for actions.

Evidence can be of causality, of risk or outcomes; it also includes information that may be appropriate for answering questions about the effectiveness of an intervention, the applicability of the effectiveness data, the intervention's positive or negative side-effects and the economic impact and barriers to implementation.[9] Evidence can be generated from epidemiological, health systems or policy studies, randomized controlled trials, operational research or from observations. Evidence can also be derived from wisdom. The generation of evidence must also be viewed as an ongoing process – one that precedes policy development on the one hand, and on the other, features as an integral part of policy and programme implementation so as to guide modification of policies on an ongoing basis. Evidence is, therefore, central to the health policy and planning process and must form the basis of practices in each healthcare domain – be it promotive, preventive, therapeutic, rehabilitative or management-related.

Why has there been an evidence and policy disconnect in Pakistan?

A review of the policy instruments of 1990, 1997 and 2001 indicates that successive attempts were made to streamline respective health policies with what were then regarded as relevant health sector issues. Notwithstanding, gaps remained both at the level of policy formulation and its implementation. These can be attributed to several factors. **Firstly**, there is paucity of locally-applicable evidence pertinent to many aspects of decision-making. This is understandable, given that a necessary prerequisite for generating evidence is the existence of appropriate public health infrastructure and the right capacity within the health system. **Secondly**, there are issues with utilizing existing evidence. As in the former case, lack of capacity and infrastructure are obvious reasons; however, at an operational level, other important factors such as lack of commitment to take appropriate policy decisions based on evidence also act as major impediments. This is compounded by limited rational accountability of the decision-making process. Evidence generally points to the need for long-term remedial measures; however, a combination of factors – lack of institutional maturity, career structures that foster short-sightedness and therefore orientation around short-term outputs – prevent evidence-based enduring actions from taking root. In the **third** place and most critically, the principal issue at a policy level relates to its implementation. It

is generally perceived that even if health policies developed in the past were implemented in their true spirit – in spite of their respective gaps – they would have led to significant improvements in health status ↴See section on *Implementation and Governance.*

Table 1. Issues and possible solutions – the evidence and policy disconnect

Issues	Possible solutions
Paucity of locally-applicable evidence pertinent to various aspects of decision-making Lack of capacity and infrastructure to generate evidence	Strengthen institutional mechanisms for research and bridge gaps in capacity
	Institutionalize and mainstream the systematic collection, consolidation and evaluation of morbidity, mortality and risk factor data and its interpretation, dissemination and utilization for appropriate actions
	Institutionalize and mainstream health systems and policy research and develop a consensus over priority research areas in this domain
	Mainstream operational research and its utilization
	Dedicate funding for priority research activities from budgetary and extra-budgetary sources
	Mainstream and mandate an institutional mechanism for ethical oversight of research
Inadequate utilization of existing evidence for the decision-making process	Foster commitment within the relevant cadres to take appropriate policy decisions based on evidence Institutionalize rational accountability of the decision-making process

↴For related details, see Table 29 on page 156

What are the gaps in generating and/or utilizing evidence?

Several evidence domains draw attention to areas where there have either been gaps in generating and/or paying heed to evidence and/or issues with the implementation of evidence-based policies.

Common knowledge as an evidence base: inequalities abound in the health sector as a result of lack of attention to evidence that has existed as common knowledge. These have led to the rural-urban, prevention-cure, public-private, traditional vs. contemporary medicine and gender disparities. These disparities have been recognized in many overarching and domain-specific policy documents; notwithstanding, they have continued to prevail.

Epidemiological evidence: epidemiological evidence pertinent to policy and planning can largely be provided by a public health surveillance system. This is a prerequisite for effective planning, implementation and evaluation of programmes. However, a review of the health policy process within the country has shown that on the one hand, there has been a paucity of relevant epidemiological data and issues relating to maintaining a continued watchfulness over health events, whereas on the other, existing data have not been effectively utilized in a timely manner.[10,11]

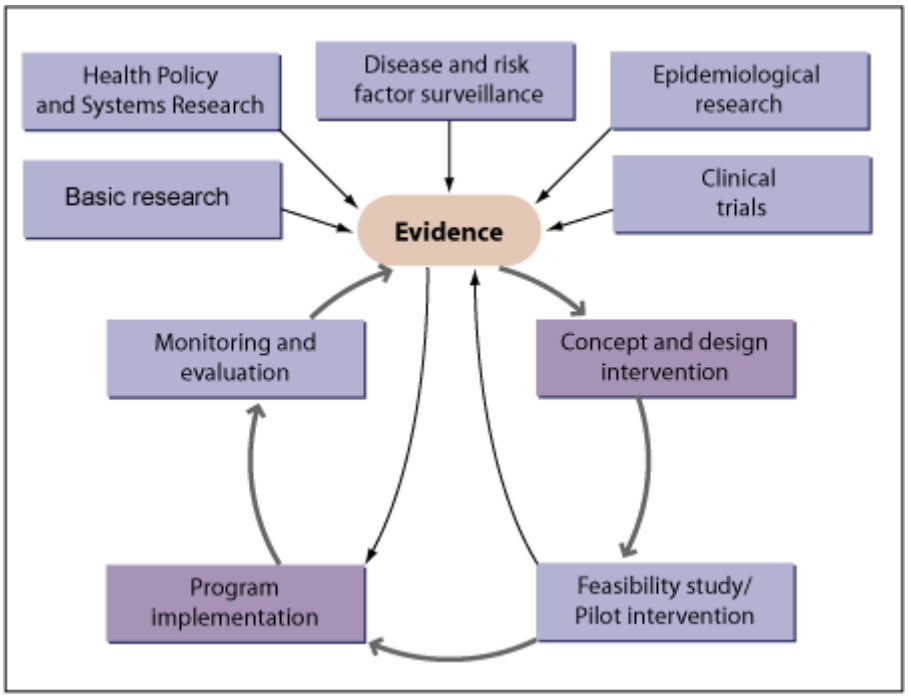
Some recent attempts aimed at bridging these gaps by institutionalizing disease surveillance, strengthening the Health Management and Information Systems (HMIS) and prioritizing a global burden of disease study as part of the work-plan of the National Health Policy Unit are, therefore, important steps. However, it would be critical to institutionalize the use of data gathered for decision-making on a sustainable basis.

Evidence from health systems and policy research: the performance of the health system is one of the greatest impediments to achieving stipulated goals within the health sector. The distinct research field that enables an understanding of such challenges and provides evidence for rational decision-making is called health systems and policy research. This draws upon a range of diverse research sources to yield evidence which can be used by health policy makers and managers for the decision-making process. It is imperative to mainstream systems level and policy research in view of the changes that are being introduced in the country in the health sector.

Evidence from operational and applied research: operational research involves studying the efficiency and effectiveness of programmes; this is as important as studying health events in populations. Operational research includes feasibility studies; pilot testing of interventions; evaluation of processes and monitoring and evaluation of ongoing programmes. By making relevant evidence available, these can enable the efficient utilization of resources, assist with organizing services in order to get the best use of these resources and help to balance costs against effectiveness. Careful attention must be paid to institutionalizing operational and applied research.

Evidence from health policy and systems and applied research can enable the efficient utilization of resources, assist with organizing services to get the best use of these resources and help to balance costs against effectiveness.

Figure 3. Sources and utilization of evidence in decision-making



3.2 Planning

The hallmark of planning within the health system should be an emphasis on *outcomes* around *priority* initiatives. Within this framework, several planning dimensions merit consideration. These include the planning paradigm, its processes and tools.

3.2.1 Planning paradigms

Why is it necessary to pay attention to strategic vs. operational levels of planning? What are the hallmarks of each?

Planning must be approached at the strategic and operational levels. At the strategic level, it refers to overarching policy-level planning as well as planning within individual programmes and service delivery areas. The importance of strategic and operational planning has recently been emphasized by various national programmes.[12,13,14] It is imperative that each programme revisits planning with a view to making it more realistic – balancing ideal approaches with what is feasible and pragmatic. Within any context, a strategic plan of action should, on the one hand, set out the vision, goals, priorities and objectives, and on the other, it should also have some level of operational clarity with clearly defined objectives and envisioned outcomes and therefore scope beyond being a wish list. Operational plans should focus on specific elements such as the definition of indicators, processes, outputs, resource flows, respective contributions and the modes of evaluation, albeit within the context of the strategic framework. Some of these considerations are elaborated hereunder.

Outcome orientation: plans must have a clear focus, both for long-term sustained efforts as well as achievable intermediate and short-term specific objectives. Goals, objectives and envisaged outcomes must be differentiated from activities, outputs and processes. It must be recognized that improved health outcomes are the ultimate objective of the health system whereas outputs, processes and inputs are means of achieving them. However, ironically, our indigenous thinking relating to policy and planning has been somewhat process-driven. During the 8th Five-Year Plan, which was drawn up at a time when the *Social Action Programme* (SAP) was launched, priority was given to building infrastructure. The compelling need to show greater coverage, such as in the case of ensuring a BHU for every union council without due regard to access and efficiency, was part of this trend. There is also a need to ensure that stipulated goals have an outcome orientation. One of the examples where goals have been fully achieved in the health sector is in the implementation of the Basic Health Services Scheme, as part of which, the setting up of BHUs and RHCs in each Union Council was to be achieved under the government's five-point agenda embodied in the 8th Five-Year Plan.[15] Although this goal was met, the establishment of this infrastructure remains an *output* and has caused limited improvement in health outcomes. An analysis of the health policies of 1990, 1997 and 2001 reveal that many other goals/targets are also output- or process-oriented ↴Table 2.

Improved health outcomes should be the ultimate objective of the health system whereas outputs, processes and inputs are means of achieving them.

In addition to goals and objectives focused on health status in quantitative terms, it is also important to develop goals that judge the performance of the health system qualitatively from

citizen satisfaction, risk protection, and equity perspectives. Most importantly, the definition of goals and objectives within the health system must also include societal or social factors. These provide guidance to sectors outside of *health* on measures that need to be taken and are important with regard to impacting health status.[16] The Poverty Reduction Strategy Paper (PRSP) of Pakistan does not stipulate *health goals* in these terms.[17]

The presently defined health sector goals and targets as stated in the Medium Term Development Framework (MTDF) 2005-2010 are projected on the Millennium Development Goals (MDGs); in a sense therefore, these goals are driven by international commitments. As opposed to this, the launching of programmes in the areas of blindness, hepatitis and non-communicable diseases indicates that the health sector in Pakistan has already broadened its scope beyond the MDGs to embrace an MDG+ agenda. It is important to define time-bound, outcome-based targets for these areas and to mainstream them into target-setting at the Planning Commission level. Such efforts must also expand the scope of the current MDG targets in the context of local needs and priorities; the recent work of the Reproductive Health Network to include additional reproductive health indicators in the MDG framework is of relevance in this regard.[18]

Definition of indictors: in order to measure progress towards stipulated outcomes, outputs and processes, indictors must be developed at each level.[IV] Selection of indicators at each level needs to be fully justifiable with careful attention to the relevance and reliability of the information sought and the feasibility of gathering it on an ongoing basis. There should be a valid consensus over the indicators that need to be monitored, the purpose for which they have been selected and the means of monitoring them. It is also important to develop indicators at an intermediate outcome level focused on access, quality and efficiency as these can be helpful in gauging progress towards impacting outcomes and outlining the root-causes of issues. The MTDF and PRSP outline access-level intermediate outcome indicators only. It is suggested that these policy instruments and individual programmes should expand the scope of their target setting to incorporate these elements. However, for indicators to have any meaning, capacity and infrastructure for research has to be built in tandem so as to ensure credible databases, valid analytical methods and instruments and reliability in interpreting and analyzing data.

Priority-setting: priority-setting must be an integral part of the planning process in order to optimize the allocation of meager resources. Most priority-setting tools use cost-effectiveness data as a yardstick; it is imperative to do so with equity as an equally prime consideration. Paucity of local cost-effectiveness data is known to be an impediment to effective priority-setting within the country. It is, therefore, essential to use other locally relevant and softer, but important criteria. These include the extent to which an intervention could be locally feasible, promote community empowerment and participation, build on the strengths of partnerships, address social and economic determinants of health, build capacity and contribute to health systems strengthening. These criteria have already been used by one national programme for priority-setting.[19] A broader policy dialogue should be generated to determine the criteria for setting priorities within the health sector. Based on these criteria, priorities should be defined for the use of public funds.

[IV] **Outcome**: change or benefit; **output**: deliverable result expected from a specific project to attain the outcome; **process:** activities undertaken to achieve the output

Table 2. Definition of goals, targets and indicators in the National Health Policies of 1990, 1997 and 2001[V]

	Indicator/target	Type
Health Policy—1990		
1	To make primary healthcare universally available	Outcome
2	Universal immunization against diphtheria, tetanus, whooping cough, measles, poliomyelitis and tuberculosis	Outcome
3	Drug packets for treatment of 22 common diseases to be made available in villages and BHUs	Output
4	Cadre of trained personnel to be created for attending pregnancy and child birth and caring for children up to at least one year of age; and to enhance nutritional status so that at least 90% of newborn infants have a birth weight of at least 2,500 grams and at least 90% of children have a weight for their age that corresponds to the reference values.	Output Outcome
5	To achieve Infant Mortality Rate for all identifiable subgroups at below 50/1000 live births	Outcome
6	To achieve life expectancy at birth of over 60 years	Outcome
7	To spend at least 5% of the GNP on health with resources distributed equitably between urban and rural areas	Outcome
Health Policy—1997		
1	Reduction in IMR from 86 in 1998 to 40 in 2003 and 20 in 2010	Outcome
2	Reduction in MMR, estimated at 350 in 1998, to 200 in 2003 and 90 in 2010	Outcome
3	Increasing life expectancy at birth from 62 years in 1998 to 65 in 2003 and 69 in 2010	Outcome
4	Increasing the number of immunized children below one year of age from 65% in 1998 to 90% in 2003 and 100% in 2010	Outcome
5	Eradication of polio by the year 2000	Outcome
6	Increasing the number of trained personnel attending pregnancy from 20% in 1998 to 70% in 2003 and 100% in 2010	Output
7	Increasing the number of: doctors from 75,000 in 1998 to 133,000 in 2003 and 142,000 in 2010; dentists from 3000 in 1998 to 6000 in 2003 and 15,000 in 2010; nurses from 24,810 in 1998 to 35,000 in 2003 and 50,000 in 2010; paramedics from 115,000 in 1998 to 170,000 in 2003 and 215,000 in 2010; TBAs from 50,000 in 1998 to 60,000 in 2003 and 65,000 in 2010; and Community Health Workers from 45,000 in 1998 to 75,000 in 2003, and 100,000 in 2010.	Output
Health Policy—2001		
1	**Key Area 1:** immunization coverage will be increased to 80% by 2005 and full coverage reached by 2010. Polio cases will be reduced to less than 100 by the end of 2001 with WHO Certification on Eradication achieved by 2005. Hepatitis B coverage will be available in 70% of districts by 2002 and 100% by 2003, providing 17.3 million doses annually over next 5 years. Full DOTS coverage of TB will be achieved in all districts of the country by 2005 with a detection rate of 70% and cure rate of 85%; this will reduce prevalence of tuberculosis by 50% by 2010. Malaria cases would be reduced by 50% by 2010; Plasmodium Falciparum cases will be kept at less than 40% of all malaria infections.	Outcome
2	**Key Area 2:** 100,000 family health workers will be recruited and trained by 2005 to cover the entire target population.	Output
3	**Key area 3:** rationalization study of RHCs/BHUs will be completed by 2002. Fifty-eight districts and 137 tehsil hospitals will be upgraded over a period of five years.	Process/ output
4	**Key Area 4:** by 2005, 100,000 family health workers will be duly trained as community workers and deployed in the field. The number of nurses will increase from 23,000 to 35,000 by 2005 and 55,000 by 2010.	Output
5	**Key Area 5:** reduce low-birth weight babies from 25% to 15% by 2010. Vitamin A supplementation will be provided to approximately 30 million children every year.	Outcome Output

[V] Goals, targets and indicators have been expressed *as articulated* in the respective original policy documents

Though it is prudent for decision-making in the health sector to be linked with internationally agreed health and development targets and priorities, equally important is the need for it to be cognizant of the local context and indigenous needs. Several questions still loom large in relation to the current health sector priorities. What qualifies to be part of primary healthcare and what does not? What constitutes a pro-poor approach to health and why must we focus only on stipulated MDGs without paying attention to other areas, which are equally, if not more important in Pakistan's healthcare context? Priority-setting must pay due attention to these considerations.

Priority-setting in health should be cognizant of the local context and indigenous needs, in addition to international commitments to meet global health targets.

Resource appropriateness of plans: planning should be explicit with respect to resource flows and their relationship with the recurrent and development budgeting process. It is important to analyze the recurrent cost implications of plans and programmes on infrastructure, personnel and overall recurring costs. A review of the National Nutrition Programme has revealed several weaknesses as a result of lack of attention to these dimensions. Plans must also carefully scrutinize and rationalize staff deployment in relation to their workload in public sector healthcare facilities; this relates in particular, to excess non-technical support staff, which consumes a significant chunk of the salary budget. In addition, several measures discussed as part of hospital restructuring offer potential areas of saving and/or putting low productivity government expenditures to more efficient use. Furthermore, the planning process must also pay careful attention to return on investments and other potential areas of savings ↴ See section on *Health Financing.*

3.2.2 The process of planning

What are the three most critical issues with the process of developing health policies in Pakistan?

The **first** issue with the process of developing health policies relates to sub-optimal grounding in evidence. This has been discussed in detail previously ↴ See section on *Evidence and Policy Cycle.* The **second** stems from lack of due attention to participatory orientation. The development of a conflict with the Pakistan Medical Association (PMA) in 1972 at the launch of the Peoples Health Scheme and the subsequent issuance of the Alternate Peoples Health Scheme can be quoted as an example to illustrate this point.[20] In addition, the federal-provincial relationship with regard to sharing of resources and problems with arriving at a consensus on the National Finance Award is of particular importance. Within this context, it must be recognized that technical aspects of health policy formulation are one feature of the policy process, the other equally important aspect relates to its political dimension, which has a bearing both on the configuration of policy as well as its implementation. Simply put, the technical aspect deals with the details of planning and implementation whereas the political aspect deals with consensus-generation and bringing stakeholders on board, on the one hand, and subsequently using political skills to motivate political leaders to exercise their will in order to support policy implementation, on the other. Careful attention needs to be given to both aspects, especially in the context of Pakistan, where policy-making is a function of both the federal as well as the provincial governments and implementation is a responsibility of the district governments. Policies and plans should, therefore, not only provide common objectives for work to be carried out within the health system at the national, provincial and district levels but also serve as tools to build consensus and garner

support for implementing policies. Within a consensus-building context, the stewards of health theoretically also have the responsibility for coordinating and facilitating contributions of other ministries and agencies for improving health outcomes. It is well-established that health is influenced by many factors outside the realm of the health sector and that the sectors of family planning, food, agriculture, youth, sports, education, commerce, industry, finance, transportation, media, environment and planning all have a bearing on health status ↴See section on *Health Beyond the Health Sector.* Careful attention must, therefore, be paid to proactively engaging these sectors at the stage of policy formulation so as to get a consensus and commitment about roles, responsibilities and contributions.

The process of developing health policies should be evidence-based, participatory and contextually relevant.

The **third** issue with the process of developing health policies relates to gaps in indigenous capacity, which account for limited ability to assess needs and initiate locally-driven actions. The development partners have, therefore, been bridging these gaps by providing technical assistance for policy development and planning. Table 3 summarizes an inventory of public health initiatives launched since the inception of the country; the impetus for many outcomes-oriented initiatives comes from international agencies – most notably WHO and UNICEF. This is significant and must be lauded from a country perspective. However, this has also led to the widely-held perception that the policy formulation process is donor-driven. Ideally, there should be adequate capacity and institutional strength within the health system in Pakistan to analyze health priorities of multilateral and bilateral agencies with respect to their local relevance and needs rather than opting for all-out acceptance. This highlights the need for long-term investments in institutional and individual capacity-building.

Table 3. An inventory of public health and allied initiatives launched by the Government of Pakistan and its partner organizations since 1947.[21-29]

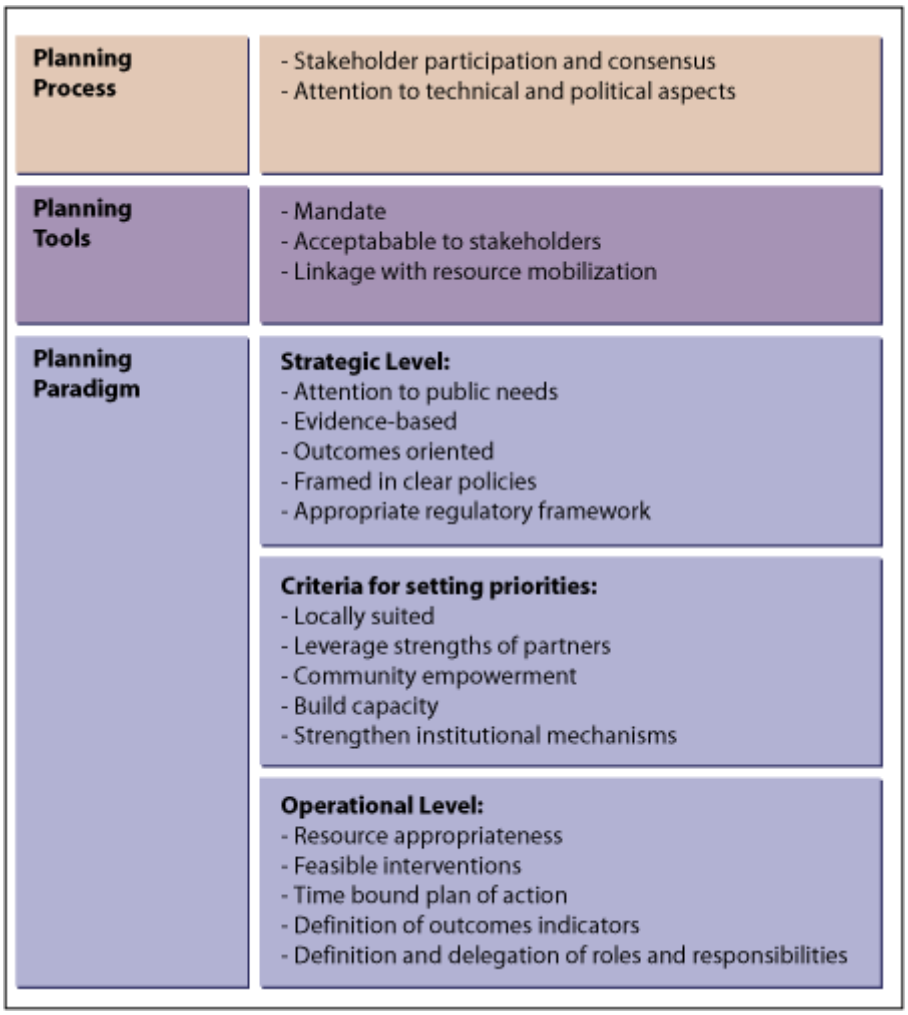
Year	Public health initiatives	Impetus/support/on the recommendations of:
1950	Dai Training (Karachi, Lahore, Peshawar and Dacca)	WHO and UNICEF
1950	BCG vaccination	Bhore Committee as per WHO advice on vaccination
1953	Venereal Disease Control Training Center (Karachi and Chittagong)	Bhore Committee reinforced by the First National Health Conference
1959	National Bureau of Health Education[VI]	First National Health Conference
1960	Malaria Eradication Programme	WHO Malaria Eradication Programme
1960	National Nutrition Programme	WHO and UNICEF's nutrition programmes
1962	National TB Control Programme	WHO TB Control Programme
1962	Leprosy Control Programme	WHO Leprosy Control Programme and Marie Adelaide Foundation
1964	Public Health Association of Pakistan	Private sector
1965	Drug Control Administration	Second National Health Conference
1965	Family Planning Directorate	Family Planning Association of Pakistan
1967	National Health Laboratories (Karachi)[VII]	WHO Vaccines Programme
1967	Employees Social Security Scheme (Punjab, Sindh and NWFP)	Replication of the 1966 US Social Security Scheme
1968	Small Pox Eradication Programme	WHO Small Pox Eradication Programme
1975	Lady Health Visitors Program	Development partners
1975	Malaria Control Strategy	WHO Malaria Eradication Programme

[VI] The Federal Health Education Cell was established in 1976
[VII] Now the National Institute of Health in Islamabad

Year	Public health initiatives	Impetus/support/on the recommendations of:
1978	Expanded Programme for Immunization[VIII]	WHO Expanded Programme for Immunization
1981	Nimkol (ORS) Production Unit in NIH	UNICEF and WHO programmes for Control of Diarrheal Diseases
1982	Accelerated Health Programme	Development partners
1983	Family Health Projects	World Bank
1983	Programme for Control of Diarrheal Diseases	UNICEF and WHO programmes for Control of Diarrheal Diseases
1985	BHU and RHC programme	Alma-Ata Declaration
1985	National Programme for Prevention of Rheumatic Fever and RHD	WHO Global Programme for Prevention of RF/RHD and AGFUND
1986	Guinea Worm Eradication Programme	WHO Guinea Worm Eradication Programme
1986	National Mental Health Programme	WHO EMRO Mental Health Programme
1987	AIDS Prevention and Control Programme	WHO AIDS Control Programme
1988	National HIV/AIDS Programme	WHO AIDS Control Programme
1989	Acute Respiratory Infection Control Programme	WHO Integrated Management of Childhood Illnesses
1990	Health Management Information System	UNICEF Child Survival Project.
1992	Social Action Programme I	Development partners
1994	National Programme for Family Planning and Primary Healthcare[IX]	International Conference on Population and Development 1992
1994	Iodine Deficiency Disorders Conference	WHO, UNICEF and the 1990 World Summit for Children
1994	First National Immunization Days for Polio	WHA 1988 resolution to eradicate polio by 2000
1995	Basic Development Needs Programme	WHO Basic Development Needs Programme
1997	Social Action Programme II	Development partners
1997	Sub-National Immunization Days for Polio and AFP Surveillance	WHO and UNICEF
1998	Roll Back Malaria Programme	WHO Global Roll Back Malaria Programme
1999	Vitamin A supplementation initiated with polio campaign	Multilateral and bilateral agencies
1999	Vaccination against Hepatitis-B	Global Alliance for Vaccines and Immunization; Bill and Melinda Gates Foundation
2000	Strategic revival of the National TB Control Programme for DOTS	WHO/IUATLD DOTS Programme
2001	Women Health Project	Asian Development Bank
2002	National Nutrition Programme	World Food Programme
2003	National Action Plan for Prevention, Control of Non-Communicable Diseases and Health Promotion in Pakistan	Heartfile and WHO
2003	Health-related components of the National Commission for Human Development (Healthcare Extension Project, Family Health Worker Training Project, Community Midwifery Project and Health Capacity-building Project).	National Commission for Human Development
2004	National Food Fortification Alliance	Global Alliance for Vaccines and Immunization
2005	National Plan for the Prevention of Blindness	WHO Vision 2020
2005	Prime Minister's Programme for the Prevention and Control of Hepatitis	Global Alliance for Vaccines and Immunization; Bill and Melinda Gates Foundation
2005	National Maternal, Neonatal and Child Health Programme	Development partners
2005	Safe water programme as part of the *Khushaal* Pakistan Programme	Development partners

[VIII] Tetanus element had additional funding from JICA
[IX] This was not included in the Health Policy of 1990

Figure 4. Hallmarks of planning



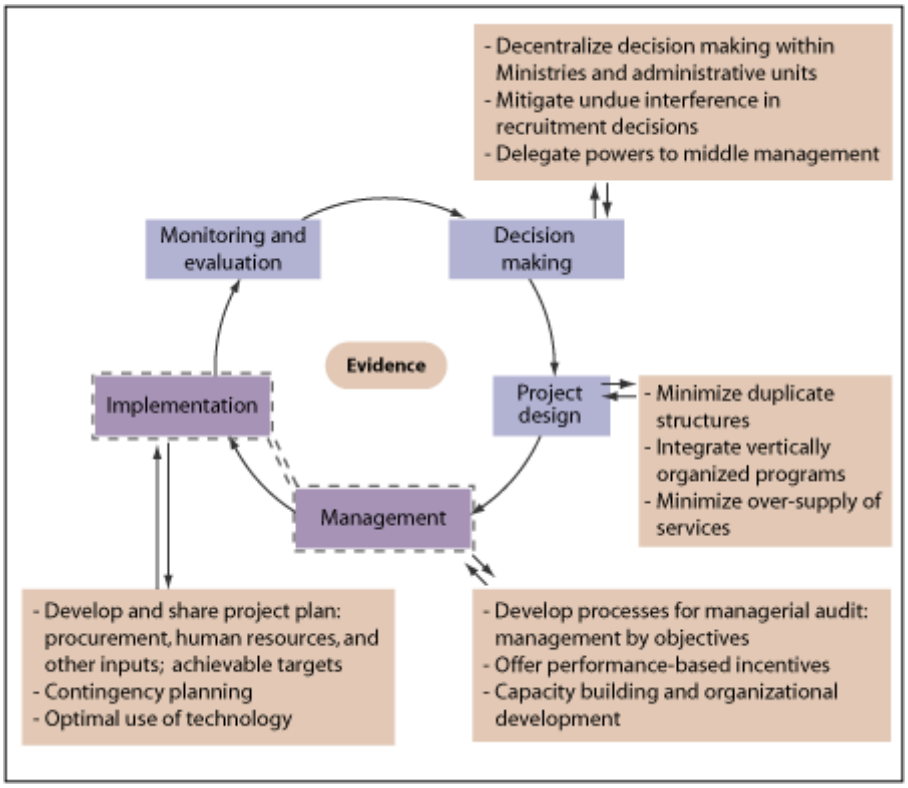
3.2.3 Planning tools

Over the years, a variety of tools have served as health policy instruments – amongst these are the health policies of 1990, 1997 and 2001,[30,31,32] the Peoples Health Scheme of 1972, and various reports from reform commissions and conferences. The latter include the Bhore Committee Report, reforms proposed by Cornelius Commission, General Burki's Report, Health Study Group set up by Governor Nur Khan, the Generic Drug Scheme, General Ateequr Rehman's Commission Report, the Alternate Health Scheme of the Pakistan Medical Association and Country Health Programming proposals of Anwarul Haque, Qamarul Islam, Mahbubul Haq and the Burhanuddin Commissions. However, the Five-Year Plans of the Planning Commission are the most important policy instruments as these have a clear linkage with and implications for resource allocations and fund flows. Efforts should be made to strengthen these. Such efforts must also assess the feasibility of developing mechanisms that garner greater ownership of Planning Commission tools and strengthen the capacity and institutional base of planning within the Ministry of Health and the departments of health. In such arrangements, the role of the Planning Commission can be reconfigured to oversee planning and inter-ministerial coordination at an overarching level. In addition, other stand-alone policy instruments at a programme level must link in with these mainstream instruments with a view to adding value or bringing clarity in relation to operational planning.

3.3 Implementation and governance

The development of a health policy and structuring of its operational plans is one aspect of the policy process. The other, more important aspect, relates to implementation as it is here that policy commitments can translate into desired outcomes. Effective implementation of policies necessitates transparent and efficiently functioning health systems, institutional strength and strong governance and accountability mechanisms. The existing implementation shortcomings, therefore, reflect gaps at the macro-policy level; as these have their roots in economic and political problems, they are essentially amenable to structural reforms only at an overarching systems level. Since programme implementation is inextricably linked to governance, it has been discussed hereunder with a particular emphasis thereupon.

Figure 5. Effective implementation of health systems interventions



Which are the three most important governance-related impediments to programme implementation?

Issues inherent to programme implementation and the antecedent weaknesses at a governance level have long been regarded as a critical challenge in the health sector; these have, therefore, been the target of many reform-orientated interventions in the past. However, meaningful progress in this regard has been painfully slow. Launched in 1992, the Social Action Programme (SAP) – principally geared towards fiscal and balance of payment stability – packaged a social safety net inclusive of primary healthcare, primary education, population welfare, rural water supply and sanitation. As part of SAP, considerable increased investments were made in health during the period 1993-97 and institutional reforms and governance were placed high on the list of priorities. In addition, a third-party validation instrument was also developed to monitor improvement in governance. Notwithstanding, there was poor performance of social service delivery during the SAP years and it continued to be so thereafter because of failure to institute reforms at the

governance level.[33] The Social Action Programme was unduly criticized for failure to achieve social sector outcomes at the grassroots level. However, the determinants of these failures were deeply rooted and speak of many lapses at the institutional, capacity and governance levels. Currently, good governance has become all the more important as social service delivery has been devolved to 100 district governments who have little experience of such responsibilities in the past. This highlights the need for a paradigm shift in the manner in which governance is approached at the social sector level.

The Gateway Paper accords high priority to stewardship and governance. Many governance-related functions and parameters, which relate to leadership and strategic directions have already been discussed ↑See section on *Stewardship.* This section will focus on implementation-specific dimensions grouped under decision-making, accountability and administration.

Managerial authority and decision-making: managerial authority and the delegation of appropriate financial powers have a significant impact on the implementation of programmes. Within this context, excessive centralization of decision-making within ministries and related administrative units and the resultant delays are worthy of note. This underscores the need for *decentralizing* decision-making within bureaucracies. This is particularly relevant to operational decision-making, in relation to domains where strategic and tactical decisions have already been made at a higher level. A case in point is the re-seeking of permission for activities stipulated under approved PC 1s;[X] this accounts for unnecessary delays in addition to having time implications for decision-makers. Due consideration must, therefore, be given to the delegation of appropriate powers to programme managers and senior administrators with respect to decision-making. In tandem, it must be ensured, on an individual basis, that administrators have adequate capacity to utilize these powers; appropriate systems should be developed to hold them accountable for their actions. In addition, it is also imperative to institutionalize transparent managerial audit, which is capable of holding all relevant personnel – including those on the top tier of hierarchy – accountable for undue delays in decision-making. There is also a need to study the determinants of delays at each level. It is perceived that bureaucrats feel unprotected since innovative and expeditious actions taken by them are generally not rewarded and are often perceived as being controversial. Many feel subject to undue accountability by politicians and thus choose to defer decisions. In other instances, they do not feel motivated to perform or take responsibility because of the performance-reward disconnect. This may lead them to resort to measures – legal or otherwise – that are rewarding. As a result, institutional culture fails to evolve in the outcomes/effectiveness improvement context and remains limited to short-term gains.

Political and external interference in decisions, particularly in relation to recruitment, transfers and disciplinary actions, is perceived as an impediment to efficiency, in addition to being a demoralizing factor within the public sector.

An important dimension of governance in relation to decision-making relates to political and external interference in decisions, particularly in relation to recruitment, transfers and disciplinary actions. This is perceived as an impediment to efficiency within the system, in addition to being a demoralizing factor within the public sector.[34] At the district level, these issues can be even more complex; many district officers now report directly to local politicians who can have considerable influence in determining development-related needs. It is envisaged that this might inadvertently influence local health agendas with the risk that visible infrastructure-related interventions are

[X] PC 1: project documents of the Planning Commission

given precedence over health outcomes-oriented interventions as a result of lack of capacity and/or the authority to safeguard health-related interests. The anecdotal reports of health budgets being utilized to construct roads is worthy of note in this regard ↴ See sections on *Federal-Provincial Interface and Decentralization.*

Accountability: by and large, Pakistan's health system fails to hold individuals and organizations accountable for their actions. No mechanisms exist for penalizing those who compromise on professionalism, whereas on the other hand, there is no structured mechanism for rewarding those who perform well; this has a decidedly negative motivational impact. Staff absenteeism is a significant problem in public sector service delivery. This can be attributed to several factors – lack of material incentives being the foremost. Public sector salaries are known to be inadequate and therefore staff seeks remuneration from private sector sources. In many instances, this leads them either to busier towns in search of livelihood – in which case they are persistently absent from their positions – or they preferentially concentrate on private practice within their own towns. In many instances, rural health facility staff is seconded to urban heath facilities officially. Lack of transparent regulation, vested interests and political benefaction are barriers to addressing this issue. There is, therefore, a need to develop a transparent accountability mechanism; however, such an effort can only be sustainable if it is part of comprehensive civil service reforms. The envisaged reforms should expand the base of the current civil service reforms introduced under the Public Procurement Regulatory Authority and the National Anti Corruption Strategy to a comprehensive strategy that centers on good governance, accountability and appropriate performance-based incentives.[35] Careful attention should also be paid to developing appropriate instruments for assessing performance. Currently, the Annual Confidential Report (ACR) is the chief instrument for assessing the performance of public officials in Pakistan. However, ACR is not an effective instrument for promoting accountability as it does not tangibly link performance with rewards; on the other hand, it is also reportedly used as a means of exploitation.

Administration: there is unanimous agreement on the need to enhance administrative efficiency in the public sector. Managerial autonomy, decision-making and accountability have an important role to play in this regard and have already been discussed previously. A number of other steps also need to be taken in the interest of administrative efficiency and resource optimization. **Firstly**, overhead costs should be minimized; this can be achieved by reducing duplicate structures, integrating programmes and mitigating over-supply of services on the one hand, and minimizing transaction costs, acquiring appropriate technology and utilizing personnel efficiently, on the other. **Secondly**, it is critical to minimize abuse, fraud and inappropriate incentives. Inappropriate use of vehicles and other perks, inappropriate promotion of drugs and devices and appropriation of public resources for private practice must be also dealt with. Lack of transparency in procurement has implications for wastage of resources and must be addressed. Procurement procedures must be made transparent and free from political interference. **Thirdly**, managers and health administrators should be given appropriate incentives to enhance their performance. There is currently an unacceptable level of discrepancy between what is regarded as a *public sector-accepted market rate* for professionals – as is evidenced by what consultants within the Ministry of Health are offered – and between the salaries of programme managers; the difference can be as high as 400-700%. Inadequate incentives can have implications for efficiency. Performance-based incentives should, therefore, be built for health managers who have the capacity to deliver on stipulated targets. Incentives should be market-based, albeit linked to performance. However, it must also be recognized that lack of capacity is clearly a constraint on the ability to act on these incentives. The proposed civil service reforms should, therefore, be instituted in tandem with a concerted capacity-building effort. It is clear that these issues are not amenable to short-term measures and must be the focus of sustained long-term action. However, in the short term, a highly selective agenda with feasible targets and specific actions around the targets needs to be prioritized. As part of this package, appropriate attention must be paid to strengthening financial controls, building appropriate incentives for staff and overcoming key implementation bottlenecks.

4. Health Financing

4. Health financing

One of the most vexing problems for health policy-makers in Pakistan relates to financing health for over 150 million people whose majority cannot afford the care they deserve. Health financing is a mode of paying for healthcare. Achieving fairness in financing is only possible through arrangements that make health services equitable. Every effort should be made to make this consideration the centerpiece of planning in relation to financing within the health sector. An ideal health financing mechanism should adopt a *balanced approach* between minimizing costs, controlling costs and using resources more efficiently – in other words, getting the best value for the money, on the one hand, and increasing the pool of available resources, on the other. This section deals with both the approaches.

4.1 Health expenditure in Pakistan

The Government of Pakistan has been spending 0.6 to 1.19% of its GDP and 5.1 to 11.6% of its development expenditure on health over the last 10 years.[36,37] However, these figures reflect spending by the Ministry of Health and the departments of health and do not take into account other public sector health services, which are delivered by the Employees Social Security institutions, military sources, the Ministry of Population Welfare, parastatals and other semi-autonomous government agencies. These estimates are also not inclusive of the expenses incurred on treating government employees, who are entitled to free treatment in government hospitals – costs that are not clearly visible. The actual level of total public sector expenditure on the health sector is, therefore, difficult to calculate; however, estimates place this figure at 3.5% of the GDP.[38] Even this is meager by many standards.[39]

It has been reported that the total health expenditure doubled in the period 1991/92 to 1997/98; significant increases in budgetary allocations for health have also been achieved more recently with a 100% increase observed over the last five years. However, these figures are not adjusted for inflation and population increase and thus the real per-capita growth in health expenditure is never reported. This needs to be determined in order to make a compelling argument for further increases. Enhanced allocations must also favourably impact the ratio between development and non-development budgets. A comparison of the 2003/04 federal and provincial development and non-development budgets shows a major dominance of non-development budget in the provinces ↴See Figure 6. This gap – reflective of a worrying trend – appears to have widened over the last 10 years whereas at the federal level, trends have been favourable ↴See Table 4 and Figure 7.

Budgetary increases should be viewed in the context of inflation and population growth, the real per-capita expenditure and the ratio between development and non-development budgets.

Figure 6. Provincial and federal development and non-development budgets (2003-04)[40]

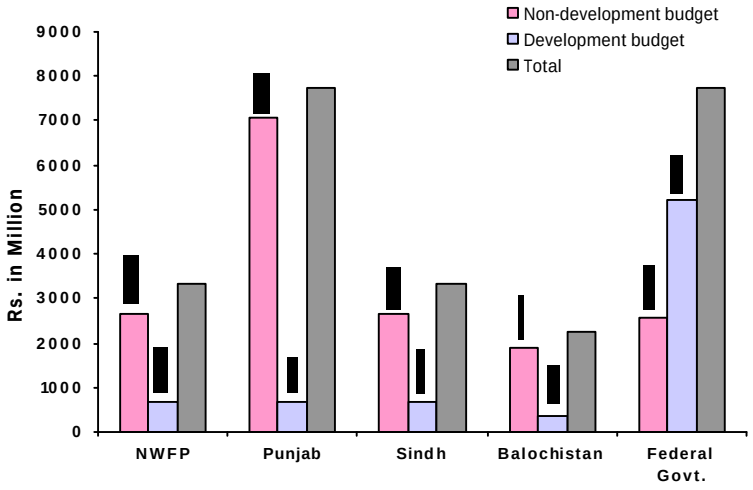
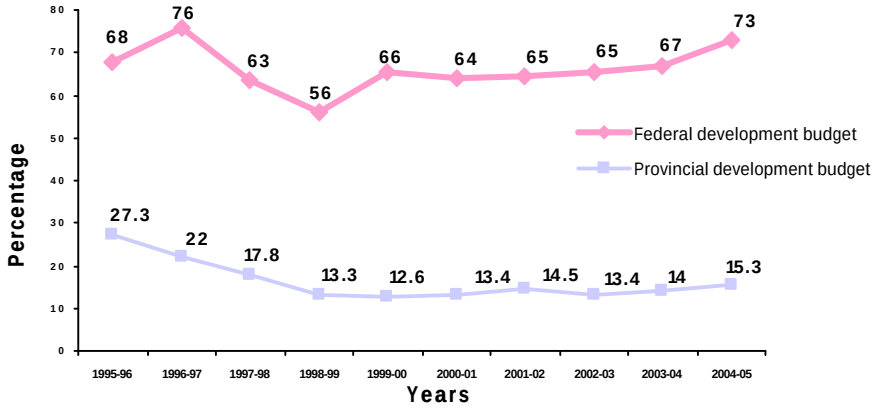


Table 4. Federal and provincial development and non-development budgets: 1995-2005 (in Pak. Rupees [billions])

	1995-96	1996-97	1997-98	1998-99	1999-00	2000-01	2001-02	2002-03	2003-04	2004-05
Federal (development)	2.3	2.9	2.3	1.9	3.3	3.4	3.9	4.4	5.2	7.5
Federal (non-development)	1.1	0.9	1.3	1.5	1.7	1.9	2.1	2.3	2.6	2.8
Total	3.3	3.8	3.6	3.3	4.9	5.3	5.9	6.8	7.7	10.3
Federal development as % of the total budget	**68**	**76**	**63.3**	**56**	**65.5**	**64**	**64.6**	**65.4**	**67**	**72.8**
Provincial (development)	3.2	2.9	2.6	2.0	2.3	2.5	2.8	3.1	3.4	3.9
Provincial (non-development)	8.5	10.6	12.2	13.2	15.6	16.4	16.6	19.9	20.7	21.7
Total	11.8	13.6	14.9	15.2	17.9	18.9	19.4	22.9	24.2	25.6
Provincial development as % of the total budget	**27.3**	**22**	**17.8**	**13.3**	**12.6**	**13.4**	**14.5**	**13.4**	**14**	**15.3**

Figure 7. Federal and provincial development budgets as a percentage of the total public sector health budget



The total *per-capita health expenditure* in Pakistan is reported to be between Rs. 750 to 800 (~ US $12 to 13).[38] While no official figures exist, experts believe that 25% of this is contributed by the public sector and 75% through private out-of-pocket fee-based funding mechanism (Pak. Rs. 570 or US $9.2).

General taxation is the major source of government's financing for health. Government funds are channeled to providers and services through the three levels of government – federal, provincial and district levels. The federal government makes en-bloc grants to provinces; decisions about health sector allocations are made by the provinces themselves. Additionally, federal government contributions (17-20% of the public sector spending on health) are also conditionally earmarked for the national public health programmes, which are implemented at the provincial level. The federal government also assists with in-kind contributions such as drugs and vaccines, particularly in the national tuberculosis and malaria control programmes and the Expanded Programme for Immunization. Furthermore, the federal government supports several tertiary healthcare facilities on provincial territory as well as the population programme of Pakistan ↴ See section on *Federal-Provincial Interface.* In the total provincial health budget estimations, however, expenditures on medical education must also be added as these are reflected in the budget under education, rather than as health expenditures.[41]

Previously, provincial governments were responsible for financing a major part of health service delivery within districts. Recent political and administrative devolution empowers district governments as important financial intermediaries; 60% of the total government health expenditure is, therefore, accounted for in district budgets.[42] However, major contributions to the budget – employee salaries and pharmaceutical purchases – are provincial responsibilities. This creates many implementation-related issues ↴ See section on *Decentralization.*

4.2 Modes of financing

Pakistan principally uses two modes of health financing – taxation and out-of-pocket payments; donor contributions form a sizeable chunk of overall spending on health but most are targeted and health programmes-related. Other sources such as insurance and philanthropic grants make relatively small contributions. A number of factors necessitate increased spending in the health sector. These include population growth, increased demand for healthcare, evolving disease patterns, mass rural to urban migration, the technology boom and increasing life expectancy – a feature of the epidemiological transition through which Pakistan is undergoing. In view of these considerations, many attempts have been made over the last several years to tap alternative sources of financing, albeit with some gaps. These include cost-sharing programmes in major hospitals in almost all the provinces and the introduction of some co-financing schemes in collaboration with NGOs. The merits, disadvantages and implications of such interventions are discussed in the following sections.

A number of factors such as rising population, increased demand for healthcare, evolving disease patterns, mass rural to urban migration, the technology boom and increasing life expectancy warrant an increase in health spending.

Why is it important to explore alternatives to tax-based revenues and out-of-pocket payments as modes of financing health?

Alternative sources of health financing can contribute to achieving a number of health and health-related outcomes in addition to enhancing the level of funding available for healthcare. **Firstly**, they can enable the development of alternatives to low levels of spending by the government. **Secondly**, they can permit a decrease in government subsidies. **Thirdly**, they can make it possible for funds to be used more efficiently and equitably; and **fourthly**, they can facilitate the development of mechanisms that can assist in enhancing the performance of the health system by transforming the management of individual facilities, the incentive structure for staff and the institutional environment in terms of the capability to plan such activities. Alternative sources of health financing – especially in facility settings such as in the case of cost-sharing and community co-financing – also enable the re-appropriation of government budgets to provide a better safety net for the poor. However, these need to be well-structured and sustainable. In the 8th, 9th and 10th Five-Year Plans of the Planning Commission, due emphasis was placed on these reform measures. However, these have not been comprehensively tested in pilot settings, from which robust evidence could have been generated. It is critical to pilot-test all potential alternative financing models before they can be adopted. It is also important to recognize that these financing options need to be part of larger and comprehensive reform measures involving appropriate settings to which they relate. The various forms of health financing in Pakistan are discussed hereunder.

Figure 8. Recommendations for alternative modes of financing

Modes of Financing	Current Scenario	Recommendations
Tax-based revenues	Principal mode of financing	- Expand tax base - Strengthen taxation capacity
Out-of-pocket payments	Principal mode of financing	- Standardize fee structures
Donor funds	Account for 4-16% of health sector allocations	- Allocate according to locally determined needs
Employees Social Security Schemes	Cover 3.06% of workforce in the formal sector	- Expand base; develop similar programs in other settings
Safety nets	Cover 0.3-3% of total health expenditures; via Zakat and other funds	- Develop Social Protection Program based on current inputs
Community co-financing	Contribution undetermined	- Mainstream; restrictions at BHU level
Philanthropic grants	Contribution undetermined	- Contribute to social insurance

4.2.1 Tax-based revenues

Why is it not feasible to solely rely on taxation as a mode of financing health in Pakistan?

Revenue generated from government taxation is one of the main modes of health financing in Pakistan. This implies that the health sector has to compete for public budgets. However, taxation as a main source of health financing demands an extensive tax or contribution collection capacity and is possible largely in formal economies. In Pakistan, the informal sector of the economy is predominant and general taxation accounts for less than 20% of the GDP. Therefore, alongside efforts to reallocate existing tax resources for health – in line with the recommendations of the WHO's Macroeconomics Commission on Health – other options will have to be considered. One of these is pooling of resources in a way to ensure that the risk of having to pay for healthcare is borne by all members of the pool and not by each individual contributor. Over the long term, however, judging from the recent pace of economic progress in Pakistan, it is likely that the volume of economic activity will increase; if this growth is sustained and the population moves into the formal sector, the tax base and taxation capacity of the country will broaden.

Priorities must be defined for the use of tax-based revenues. There is valid justification for supporting certain services as compared to others; these include health-related public goods, a package of universally-available essential services and contributions to offset the costs in treating

poor patients. A consensus must be achieved over these. The feasibility of reallocating certain taxes for relevant public health activities also needs to be explored. For example, earmarking of revenues generated from taxing tobacco companies can be used for public health interventions designed for tobacco control; useful lessons can be learnt from countries that have experience in this area.

Priorities must be defined for the use of tax-based revenues.

4.2.2 Out-of-pocket payments

What is the estimated monthly household out-of-pocket expenditure on health in Pakistan?

The average monthly household out-of-pocket expenditure on health has been reported at Rs. 358 for 2001/02 in Pakistan. This is equal to 5.2% of the total monthly household expenditure and translates into an annual per-capita health expenditure of Rs. 570 or US $9.5.[43] However, more recent estimates report out-of-pocket spending to be much higher. These estimates were derived as part of a population-based cross-sectional survey conducted to determine prevalence of major risk factors of non-communicable diseases. A component of this survey instrument determined level of out-of-pocket payment for treatment of communicable vis-à-vis non-communicable diseases.[XI] Thirty-nine percent of the rural and 36% of the urban households (overall 38%) were spending an average of Rs. 405 (US $6.7) to treat communicable diseases, whereas on the other hand, 39% of the rural and 52% of the urban households (overall 46%) were spending an average of Rs. 3,935 (US $65.6) on non-communicable disease management. These figures represent averages; however, there are variations across different socio-economic groups and it is believed that the poor bear a heavier burden of medical costs.[44]

4.2.3 Donor contributions

How have donors contributed to improving health outcomes in Pakistan?

Several multilateral and bilateral donor agencies have made significant contributions to improve health outcomes in Pakistan for over five decades. Foreign aid as a percentage of total health sector allocation has ranged from 4-16% over the last several years. Donor support is also extended in the form of in-kind contributions such as drugs for the National Tuberculosis Control Programme, vaccines for EPI and diagnostic kits for the HIV/AIDS programme, etc. Additionally, donor involvement has also brought value in terms of technical assistance – particularly in the case of WHO and UNICEF. Donors have also been playing a proactive role in lending impetus to and technically supporting public health programmes since the country's inception.[45] Table 6 summarizes current allocations outlining projects and programmes into which these allocations are channeled.

[XI] In this definition, communicable diseases include diarrhea, malaria, chest infection, influenza and tuberculosis whereas non-communicable diseases include heart disease, diabetes, high blood pressure, injuries and mental illnesses.

Table 5. Foreign aid as a percentage of public sector health allocations for the period 1998/99 - 2004/05 (in Pak. Rs [millions])[36]

Financial Year	Allocation	Foreign aid	Local funding	Foreign aid as a % of total allocation
1998-99	2711.34	435.23	2276.11	16
1999-00	2690.29	115.00	2575.30	4.3
2000-01	2841.37	112.00	2729.34	4
2001-02	3867.00	423.00	3444.00	11
2002-03	3615.00	306.00	3309.00	8
2003-04	4372.52	444.00	3928.52	10
2004-05	6045.00	893.00	5152.00	14.7

Do donor contributions bring in their wake any concerns?

Donor contributions also bring in their wake certain concerns; these must be recognized and addressed.

Firstly, notwithstanding their noble intentions, donor policies, values and priorities – in the absence of well-defined national strategic priorities – may prioritize resource-allocations in specific programme-based areas with measurable outcomes rather than systems-strengthening interventions.[46] The current donor focus on meeting the MDGs is a case in point, as part of which resources are being channeled into specific programmes. Recently, there has been growing recognition of the importance of systems strengthening in the context of meeting these goals and hence initiatives such as DFID's Maternal Health Programme – with a systems-level focus – may have a greater likelihood of impacting outcomes. However, concerns still loom about the extent to which donors will be prepared to highlight challenges, which are the root-cause of poor social service delivery in Pakistan, given the dynamics of donor-country relationships.

Secondly, many concerns emerge in the context of recent modifications in aid management. As part of the Sector Wide Approach (SWAP), many donors provide resources to recipient countries through national budgets. The current budgetary support provided to the Ministry of Health as part of several national programmes is a case in point. Although there is empirical evidence of the value of this approach in terms of ensuring that money is spent on country priorities and is managed by existing structures, there are also potential risks as the controls lie exclusively with the government.[47] There is, therefore, a need to establish independent robust mechanisms for monitoring and evaluating such arrangements and ensuring the active representation of the civil society and the people in decision-making.

Thirdly, undue reliance on donor resources can be detrimental to programme sustainability as donor support is generally dependent on political and general conditions prevalent geographically. Therefore, policy-makers should ensure that there is minimal reliance on donor support for priority programmes.

The **fourth** dimension relates to poverty eradication, which is the centerpiece of current global development efforts. The organization of aid and resource allocations from the developed to the developing countries is being channeled with a greater-than-ever focus on poverty reduction. Additionally, the Poverty Reduction Strategy Paper (PRSP) framework – stipulated as a precondition for debt relief by the World Bank and the International Monetary Fund (IMF) – is making it increasingly necessary for the developing countries to demonstrate that any additional resources made available to them through debt relief would be spent in a manner that benefits the poor.[48] This opportunity can be capitalized upon for enhancing health sector allocations;

however, it is critical to approach it in a locally suited context. Pakistan developed a PRSP in 2002; this addresses health issues traditionally *perceived* as having implications for poverty. However, these may not necessarily be those that impact poverty most adversely. Allocations for health sector poverty reduction efforts must, therefore, be evidence-guided in terms of addressing diseases that carry direct and indirect costs of care, contribute to lost productivity and have implications for precipitating an acute poverty crisis. Recent data comparing household out-of pocket payments for chronic diseases vis-à-vis communicable diseases raise important questions in this regard.

Donor support should link with indigenously-developed policy frameworks.

Table 6. An outlay of current donor contributions

Bilateral agencies and multilateral organizations	Initiatives and funding
Department for International Development - UK (DFID)	
National Health and Population Welfare Facility (NHF)	A four-year project (2003-2007) providing budgetary support to seven national health and population programmes
Reproductive health	- A two-year project (2003-2005) in partnership with USAID and UNFPA and Greenstar and Key Social Marketing for improved social marketing of contraceptives - A five-year (2000-2005) Community-based Reproductive Health Project in Sindh, Balochistan and NWFP - A five-year (2000-2005) reproductive health services project with Marie Stopes Society for Khairpur
HIV/AIDS	- A three-year (2002-2005) project for harm reduction amongst Injecting Drugs Users in partnership with Futures Group Europe; in all four provinces - Six-month National Survey of STI/RTI in high-risk groups with Family Health International (FHI)
Primary healthcare	A five-year (1999-2004) Chitral Primary Healthcare Project with Aga Khan Health Services for the provision of sustainable health services to 65% of the population
	A five-year (2001-2005) Neelum Valley Health Project in partnership with Islamic Relief UK; for the provision of basic health services to 43,000-population along the Line of Control
The United States Agency for International Development (USAID)	
Improved reproductive health and family planning services	- Greenstar Social Marketing Pakistan (2002-2008) - The Futures Group International/Key Social Marketing (2003-2008)
National Health and Population Welfare Facility (NHF)	A four-year project (2003-2007) providing budgetary support to seven national health and population programmes (refer to DFID); USAID co-finances technical assistance via Technical Assistance Management Agency (TAMA) (2003-2008)
HIV/AIDS	Four-year project (2003-2007); partnership with FHI for promotion of HIV/AIDS awareness
Maternal and child health	Five-year project (2004-2009); partnership with John Snow International (JSI) and six NGOs; aimed at improving maternal and child health
Communicable disease control program	- Polio Eradication Strategy; implemented in partnership with WHO and UNICEF country office - Tuberculosis DOTS Strategy: in collaboration with WHO; for the provision of technical assistance to the National TB Control Program
Canadian International Development Agency (CIDA)	
Health systems development	Systems-Oriented Health Investment Programme: A five-year initiative (2005-2010); in partnership with Agriteam Canada Consulting Ltd; aimed at providing support for the decentralization of health services
Community-based Reproductive Health Extension Project	A six-year project (2000-2006); in collaboration with Family Planning Association of Pakistan (FPAP) and Planned Parenthood Federation of Canada
Health services support	A five-year project (2000-2005) aimed at strengthening institutional capacity of Khyber Teaching Hospital; in partnership with Canadian Executive Services Overseas (CESO) and the Frontier Primary Health Care (FPHC)
HIV/AIDS	Canada-Pakistan HIV/AIDS Surveillance Project: A five-year (2004-2008) project aimed at improving GoP capacity to implement second-generation surveillance system for HIV/AIDS; consortium consists of Agriteam Canada Consulting Ltd., and National and Provincial AIDS Control Programmes
TB control	Strengthening patient compliance for Tuberculosis treatment: A two-year programme (2003-2005); in collaboration with WHO, National Tuberculosis Control Programme and LHW Programme; aimed at strengthening TB DOTS strategy in five districts in each province
Japan International Cooperation Agency (JICA)	
TB control	Technical Cooperation for Tuberculosis Programme: A three-year project (2002-2005) aimed at strengthening TB DOTS strategy
Support to EPI	A four-year project (2004-2008) in partnership with EPI
Health Management Information Systems	Study on Health Management Information Systems: A two-year (2004-2006) nationwide study that aims to formulate national plan for information management in the health sector
Safe motherhood	Safe Motherhood: A four-year project (2003-2007) in partnership with the Ministry of Health and the provincial health departments aimed to improve the nutritional status of women
Child health	Improvement of the Children's Hospital, Islamabad: A two-year project (2003-2004) aimed at improving the facility
Polio grant	From 1996 to date: Rs.2748 million over 9 years
Balochistan health grant	For 2004-2005: Rs.156.8million
German Technical Cooperation (GTZ) and German Financial Cooperation (KfW)	
Support to Health Sector Reform in NWFP (GTZ)	A four-year project (2003-2007) implemented by the Department of Health and the Health Sector Research and Reforms Unit
Infrastructure Basic Health Services NWFP (KfW)	The project aims to improve basic health services in four districts of NWFP
Strengthening TB Control Program in NWFP/FATA	Three-year project (2004-2007) aimed at strengthening TB DOTS strategy in NWFP and FATA
Support to the Health Services Academy, Islamabad	Four-year funding (2004-208) for the project that is aimed at capacity building of HSA
Basic Health Program in Northern Areas (KfW)	Support to Aga Khan Health Services, FPAP, Marie Adelaide Foundation

Bilateral agencies and multilateral organizations	Initiatives and funding
Social Marketing	Support to Social Marketing Pakistan
Asian Development Bank	
Women's Health Project	Project supported by processional assistance package (June 2000 to December 2005); $47million**
Reproductive Health Project	$36million
Sindh Devolved Social Services Program	Loan for project that aims to improve peoples education and health (April 2004 to August 2007)
Punjab Devolved Social Services Program	65% of total assistance to the health sector; aimed at expanding coverage
Global Funds to Fight AIDS, Tuberculosis, and Malaria (2003-2008)	
HIV/AIDS component	A four-year project (2003-2007) for improving HIV awareness and screening
TB component	A five-year project (2003-2008) on strengthening of TB DOTS program
Malaria component	A five-years project (2003-2008) on preventive and curative interventions in 23 highly endemic districts
World Bank Projects	
Pakistan HIV/AIDS project	A five-year project (2003-2008) for prevention of spread of HIV/AIDS amongst vulnerable population
Partnership for Polio Eradication Project	A three-year project (2003-2006) for eradication of polio
International Federation of Red Cross and Red Crescent Societies	
Community health & care	A one-year project (2005) for strengthening community health
Comprehensive HIV/AIDS programme	A proposed five-year project (2005-2009) for control of HIV/AIDS in Pakistan
United Nations Agencies*	
United Nations Children Fund (UNICEF)	
Maternal and child health care programme	For improving pregnancy outcomes by increasing family and community support
Immunization Plus Project	To ensure 80% of children in 34 districts are immunized against vaccine-preventable diseases
Child survival and development project	A four-year project (2004-2008) in partnership with GoP for reducing child mortality and increasing survival
United Nations Population Fund (UNFPA)	
Reproductive health	The programme is focused on increasing access to high quality family planning services
Population and development strategies	A five-year project (2004-2008) that aims to strengthen family planning and reproductive health services
World Food Programme (WFP)	
Promoting safe motherhood	A four-year project (2005-2009) for promoting safe motherhood
United Nations Health Commission for Refugees	
	Programmes for Afghan Refugees: immunization services; Tuberculosis Control Programme (TBC); Health Information Systems; Reproductive Health; Leishmaniasis/Malaria Control; Primary Healthcare Workers Training
United Nations Development Programme (UNDP)	
UNDP Regional HIV and Development Programme	A multi-campaign-based programme in partnership with various NGOs geared towards increasing awareness about HIV/AIDS
National multi-sectoral response to HIV/AIDS	A one-year project (2004-2005) aimed at strengthening AIDS control programme
United Nations AIDS Program (UNAIDS)	
UNAIDS support for HIV/AIDS in Pakistan	Strengthening National Response to HIV/AIDS
GAVI support for EPI	
New and under-used vaccines	A five-year project (2001-2006) for the provision of Hepatitis B vaccines
Immunization services strengthening	A five-year project (2003-2007) for strengthening immunization services
Injection safety	Provision of auto-disable syringes and safety boxes for all EPI vaccines (except for hepatitis B)

*The World Heath Organization technically supports and makes financial contributions to support most public health programmes

4.2.4 Health insurance

Health insurance can make services more equitable and affordable for patients as compared to many other financing options. By virtue of this potential, it merits consideration in a resource-challenged setting as a priority health financing option. However, the nature and extent of services offered, the mechanism employed and the size of the risk pools determines the extent to which these can be equitable. Careful attention needs to be paid to these considerations.

One way of pooling is through the creation of prepayment mechanisms; there are voluntary and compulsory ways of doing this. Compulsory insurance is largely possible in the formally employed sector as part of employees' insurance schemes. All other forms of insurance fall within the ambit of voluntary insurance. These are discussed hereunder in Pakistan's context.

4.2.4.i Private insurance

Is there a potential in expanding coverage via the private health insurance industry?

Pakistan has a small private health insurance industry. There are 54 insurance companies operating in Pakistan; of these, 40 deal with non-life insurance under which health is categorized. Group health insurance is offered by seven insurance companies and individual health insurance by only one company – Allianz EFU.[49] The health insurance market is concentrated in the urban areas and owing to its high cost, insurance companies have only been able to serve a market segment, purchasing and providing healthcare mainly as an employee benefit for private companies. The corporate-based insurance model is viable – both for the insurance firm and the employer as it pools the risk for the relatively healthy and affluent cohort; most importantly, this model guarantees premium contributions via the employer. The State Bank of Pakistan review of the financial sector for 2003 has shown that as a proportion of GDP, Pakistan's private insurance industry is the smallest in comparison with several other developing countries.[50,XII] Notwithstanding that it is not possible to expand the coverage of private health insurance significantly, the potential within its scope needs to be capitalized.

The passage of the Insurance Ordinance 2000 helped to foster an enabling environment for the insurance industry in general.[51] However, for certain reasons, its benefits have not been reaped by the health sector. Insurance companies do not prioritize health insurance because of a number of reasons. **Firstly**, there is lack of demand owing to high cost of service. Presently, companies offering health coverage operate through private sector medical centers, where the cost of services is high. Partnerships with public sector healthcare facilities can reduce costs; however, these facilities will have to be upgraded and strengthened to meet requirements. **Secondly**, certain areas in non-life insurance have done better than others in recent years. For example, motor insurance has shown robust growth due to the availability of car-financing schemes. Conducive policy and regulation in this area has not only led to growth of the sector, but has also enabled the consumer to protect its risk at a lower premium due to group insurance options. In many ways, it may not be fair to compare this with health insurance due to the differences in the nature and frequencies of risks involved – people get sick more often than they lose cars to accidents and robberies! Notwithstanding, conducive measures need to be explored for the health sector. **Thirdly**, the challenge is to provide insurance coverage to the informal sector, particularly in the absence of financial guarantees to the insurer. In the **fourth** place, it must also be recognized that private insurance tends to exclude groups with the highest risks and costs (the chronically ill and

[XII] Data for 2003 (percentage of GDP): Pakistan 0.5%, India 2.3%, Malaysia 3.7%, Kenya 2.6%, Brazil 2.1%, UK 15.8% and USA 8.8%

retirees) and makes insurance non-viable for those above a certain age. This can be addressed through regulation of the private insurance market either to acquire uniform rates to all (community rating) or limiting the range of allowable price differentials (rating bands).[52] This would necessitate effective regulation on part of the health agencies and compliance on part of the insurance agencies.

The passage of the Insurance Ordinance 2000 helped to foster an enabling environment for the insurance industry in general; conducive measures need to be explored for the health sector.

4.2.4.ii Employees insurance schemes

Do the public and/or private sectors offer health insurance to their workforce?

The *Employees Social Security Scheme* in Pakistan is an insurance scheme as part of which a certain category of employees make compulsory social security contributions for a specific purpose – prepayment to cover health risk and old age benefits. This scheme came into existence in 1967 through an Ordinance of the Provincial Assembly of West Pakistan,[53] and is presently operational in three provinces.[XIII] All private notified industrial and commercial establishments with more than 10 employees under a certain salary scale have to contribute to this scheme. These establishments are liable to make a monthly contribution to the provincial Social Security institution, which in turn provides a range of healthcare services to members through its dedicated network of hospitals and dispensaries.

Employees Social Security is the only comprehensive health coverage system for the labour workforce in Pakistan, with an autonomous system of generating funds for its use and a self-owned healthcare infrastructure. Currently, more than 1.2 million individuals are secured under this scheme. However, this represents only 3.06% of the workforce in Pakistan, with the total workforce estimated at 42.75 million.[54] Clearly, this system needs to be broader-based. The feasibility of expanding this scheme needs to be explored with attention to abolishing the mandatory income slab, expanding its base to the informally employed sector and bringing the agricultural sector within its net, given that it employs more than 48% of Pakistan's workforce. The justification of expanding its scope to Balochistan should also be explored.

In 1994, the Committee on Health Insurance made recommendations to create a Federal Social Security System on the lines of the provincial system after considering all possible options for introducing health insurance for federal government employees. As part of this, the envisaged contribution of the employees would roughly be equal to the amount the government is already spending on health expenditure. The Commission also made recommendations to develop a Group Terms Insurance Scheme and to invite proposals from foreign insurance companies to offer terms for comprehensive medical insurance. The recommendations have not crystallized into action.

The government also encourages parastatals to establish health insurance schemes and medical aid for their employees. Parastatals such as WAPDA, PTCL, PTV, OGDCL, Sui Northern – all with over 10,000 employees – have established elaborate schemes to pool risk for their employees.

[XIII] Punjab, Sindh and North West Frontier Province

Health expenditures form a major chunk of the total expenditures of these giant corporations and it is here that the risk of moral hazard runs high. It is important to gather and analyze information about their organization, number, coverage, benefit packages or utilization patterns so as to maximize the potential within these health systems.

The 1.2 million individuals secured under the Employees Social Security Scheme represent 3.06% of the workforce in Pakistan.

4.2.4.iii Social health insurance

What is social protection? What is its relationship with social insurance? Does Pakistan have mechanisms in place for both?

Social health insurance is a component of social protection or social security. Both the terms can be synonymously used to describe ways of offsetting the risk that competitive and mixed economies have in providing a degree of security, especially against old age, unemployment and ill health.[55] Reviews of existing social protection programmes in Pakistan make a strong case for revamping them. A recent household survey has shown that 28% of the respondents in need of healthcare also need financial assistance; however, only 14% apply for support and 3.4% receive assistance. More than 25% of the respondents in this study were not sure about where to seek help from and more than half were of the opinion that the poor are not heard at all. Results also show that the existing social safety mechanisms deliver transfers infrequently and unpredictably and that these have low coverage relative to need.[56]

The *Employees Social Security Scheme* (referred to above), *Zakat, Bait-ul-Mal, Workers Welfare Fund, Employees Old Age Benefit, Guzara Programme* and *Workers Participation Fund* are all forms of social security. However, other than the Employees Social Security Scheme, all the others are *funds* with their own disbursement mechanisms; these are random, do not pool for insurance functions and are sometimes mis-targeted. These funds provide assistance to a limited number of cases to cover medical treatment costs. In 2002/03, a total of Rs. 152 million was disbursed from the *Zakat* fund to 180,000 health-related beneficiaries – this represented 2.6% of the fund money. There is, therefore, a need to assess mechanisms to channel funds in a manner so that they contribute towards developing a social protection system that pools risk and gives the subsidy to the worst off.

What are the pre-requisites of establishing social health insurance?

Social health insurance is one component of a social protection strategy and must be approached within its framework. However, there are several design and implementation challenges in structuring a social protection system and a health insurance model outside the formally employed sector. These must be recognized and addressed.

Firstly, its setting up entails overarching policy and legislative commitments, which are largely outside the scope of the health sector. The setting up of a social security scheme was recommended by the Bhore Commission Report in 1946; this was aligned on the model of the Beveridge Report that led to the creation of National Health Services in UK. However, the recommendation did not materialize into concerted action. There is a need to pay close attention to setting up social protection systems, given that Article 38 of the 1973 Constitution of Pakistan makes it binding for the state 'to provide basic necessities of life for all citizens as are

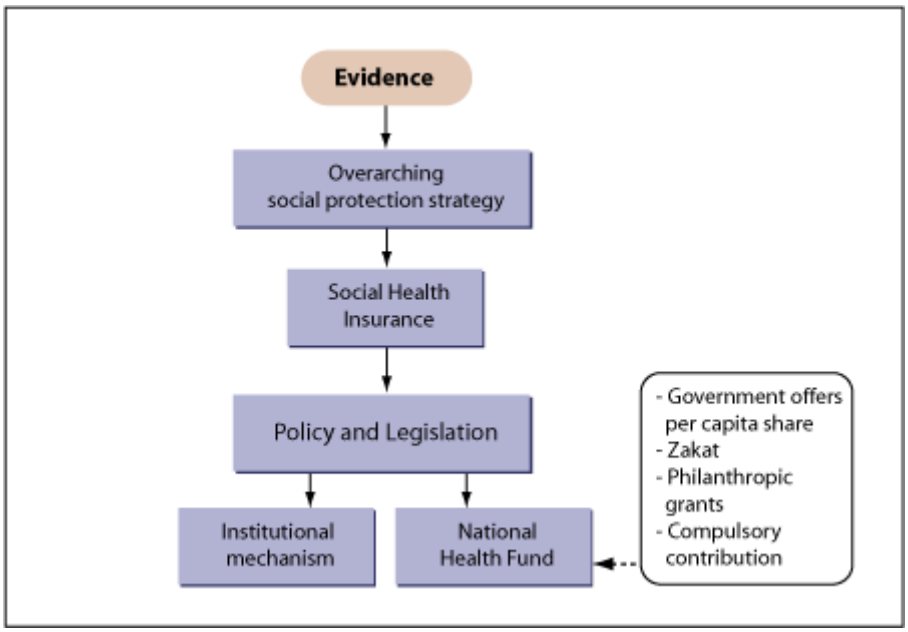
permanently or temporarily unable to earn their livelihood on account of infirmity, sickness or unemployment'.

Secondly, a social protection system needs to be carefully structured. Presently, social security contributions are largely limited to the formally employed sector, where contributions can be made through salary deductions at source as in the case of the *Employees Social Security Scheme*. Broadening this base to develop a comprehensive mechanism for social protection, which can provide a safety net for the poor, requires that it be widely inclusive. This necessitates feasible and pragmatic organizational management to boost prepayment and highlights the need for building enabling mechanisms for the development of a large pool of fund. A number of steps should be taken to achieve this objective. As a preliminary step, a sustainable National Health Fund should be created with the government's commitment to providing per-capita cost-sharing. *Zakat* funds and philanthropic grants can also be channeled into such a fund. Within this context, *Zakat* funds have remained a small contributor to the national health expenditure (0.3-3%) over the last several years and as mentioned earlier, the feasibility of broadening its base needs to be explored.[57] Such a fund should also be protected by investment strategies, which ensure that inflation does not eat into its operational resources.[58] In tandem, a health insurance institutional mechanism should be established and additionally, some level of regulation for the practice of medicine introduced.

Thirdly, an important consideration in social insurance relates to the extent of health cover to be provided. Some insurance schemes provide coverage for hospital care while other more affordable forms provide coverage for primary care. Government funds should preferentially be used for insurance models that cover for priority healthcare; these priorities must be determined in a local context and a consensus should be achieved regarding these.

In the **fourth** place, approaches to compulsory membership of the whole population should be developed. In order to avoid resource-draining adverse selection of voluntary members (those that are sick), steps should be taken to make schemes as widely inclusive as possible and a rational enrolment or qualifying period should be stipulated so as to deter immediate access to financial benefits, which encourage the sick to enrol. **Lastly,** models should be built in a manner so that they reinforce and do not undermine the referral system.

Figure 9. Social health insurance



The myriad of aforementioned challenges necessitate a strategic approach to social health insurance as it needs to be structured within a comprehensive social protection framework; close linkages need to be established with stakeholders. Fortunately, preliminary work in this direction has already begun and a Steering Committee has been constituted by the Planning Commission of Pakistan. The World Bank, ADB and DFID have developed a joint agreement to collaborate in the area of social protection and to provide coordinated technical support to the Government of Pakistan to develop a Strategy on Social Protection, which is expected to be released in early 2006. Furthermore, the Asian Development Bank's Country Strategy Programme for Pakistan (2004-2006) foresees technical assistance for social health insurance in 2005 with the objective of supporting the government of Punjab's task force in its efforts in the area of health insurance on the one hand, and deliberating with the Ministry of Health on the subject, on the other. Useful lessons can be learnt from a previously unsuccessful health insurance pilot in NWFP, which led to the withdrawal of funding support by World Bank and JICA.[59]

A social health insurance system should be developed within the framework of a broad-based social protection strategy. A dedicated policy and legal framework, an institutional mechanism and a sustainable pool of fund with per-capita cost-sharing by the government needs to be established for this purpose.

4.2.5 Philanthropic grants and non-medical revenues

How can philanthropy be mainstreamed as a mode of financing health?

Various foundations, societies, individual philanthropists, community affiliations, Islamic organizations and individuals contribute to financing health in Pakistan. Some of these are also engaged in service delivery at various levels. The exact level of contribution remains unknown and needs to be determined. Philanthropy has significant potential in Pakistan, given that religious and cultural beliefs are supportive of charitable causes. Such contributions can also add to social health insurance funds ↴ See section on *Social Health Insurance.* However, mainstreaming philanthropy warrants careful structuring and management. As a first step, institutional mechanisms should be strengthened to generate and utilize resources appropriately. The *Bait-ul-Mal* currently serves as the institutional mechanism to collect and disburse *Zakat*; however, *Zakat* funds have not been a major contributor to financing health in the past. Efforts aimed at expanding its base should be guided by analyses of impediments, both at the level of collecting *Zakat* and its transparent disbursement to those most in need. Useful lessons can be learnt from private sector institutions such as the *Shaukat Khanum Cancer and Research Center* and autonomous public sector institutes such as *Sindh Institute of Urology and Transplantation* that have capitalized on philanthropy as a major mode of financing services. There is also a need to explore the potential within developing a conducive tax configuration in order to harness the potential within philanthropy; evidence from many developed countries can be instructive in this connection.[60]

Philanthropy is a broad concept – much broader and potentially more widely applicable than the concept embodied within the realm of charity. For example, the corporate sector is mandated with

responsibility towards the society; this entails paying greater attention to the human aspects of their activities – a concept embodied within Corporate Social Responsibility (CSR). The Pakistan Centre for Philanthropy (PCP), as the institution created to harness the potential within CSR, has been promoting greater corporate support for social sector causes within the country; it also acts as an interface between the corporate sector and the district governments in the area of education. The feasibility of expanding its scope to health should be explored, particularly in relation to pilot testing public-private relationships ↴ See section on *Public-Private Partnerships.* Useful lessons can also be learnt from Heartfile's recently launched CSR initiative through which the NGO has fostered ethical collaborative linkages with corporate sector partners, with work presently underway in the area of behaviour change communication.[61]

Philanthropy is a concept broader than the principles embodied within the realm of charity.

4.2.6 Cost-sharing programmes

How can cost-sharing mechanisms be introduced in health facilities? What are the structural prerequisites of doing so?

Cost-sharing programmes refer to fee structures/user charges introduced at the point of care in government-owned health facilities. These can enable the generation of revenue at the facility level and can therefore have implications for institutional sustainability on the one hand, whereas on the other, they can make it possible to provide highly subsidized or even free care to those who cannot pay through the re-appropriation of government budgets to provide safety nets.

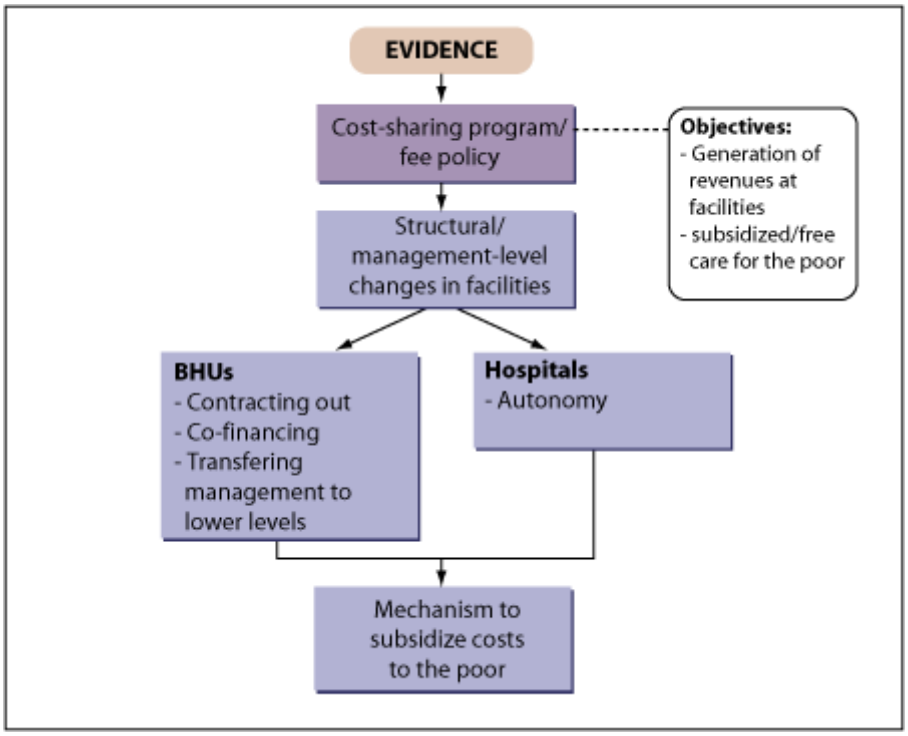
Cost-sharing programmes can be introduced in various health facility settings; however, in order to be sustainable and effective, such financing models have to be instituted in tandem with structural and management-level changes in the respective setting. In large hospitals, fees can be levied and private wards can be established with the idea that hospitals should be able to generate funds from those who can afford to pay; however, this needs to be introduced within the framework of the hospital reform process ↴ See section on *Hospital Reforms.* On the other hand, cost-sharing can also be introduced at the basic care level at BHUs and RHCs with accompanying structural and management changes ↴ See section on *First and Second Level Health Facilities .*

User charges have been introduced by the federal and provincial governments in many hospitals in various forms. By and large, nominal charges are levied for inpatient and outpatient consultations and diagnostics and in many instances, drugs are also provided free of charge. Higher than normal charges are levied at upscale wards. In most hospitals, provisions are made to waive charges for poor patients. The contribution of user charges to public sector hospital budgets is reported to range between 2-10%; however, there are notable exceptions to this. By and large, revenues generated from hospitals do not remain within hospitals and go into the treasury for general reallocation. As hospitals do not benefit from their collections, the incentive for hospital staff to collect fees is usually limited. In addition, there are impressions of there being some degree of free-loading and under-coverage within the existing fee programmes in the country.[XIV] It is, therefore, generally perceived that with notable exceptions, most public sector hospitals have been unsuccessful in optimizing the potential within such interventions. Introduction of user charges, coupled with building incentives for employees and the application of strong

[XIV] Free Loading: households with capacity to pay for health services but do not; under-coverage: households with scant capacity to pay but who do

management skills, is known to enhance hospital performance in many settings within the country. Useful lessons must be learnt from these experiences.

Figure 10. The introduction of cost-sharing programmes in facility settings



The issue of what constitutes a viable cost-sharing policy in Pakistan is complex and is further complicated when considerations of poverty are brought to bear, as they should. In light of these considerations, there are both advantages and potential disadvantages of introducing cost-sharing in health facilities. The approach is known to rationalize and maximize the government's expenditure on healthcare facilities on the one hand, whereas on the other, it may cause access issues for the poor. In addition, there is also the risk that women and girls would be discriminated against in household health expenditure. In theory, therefore, the introduction of user charges may seem contradictory to the government's pro-poor approach, given that the subsidization of health services is part of its anti-poverty strategy. However, a careful analysis shows that the critical issue relates to the manner in which subsidies are targeted. Untargeted subsidies may in fact be anti-poor. Pragmatically therefore, if cost recovery is appropriately structured, it can complement the pro-poor approach to health. However, certain safeguards have to be consciously built into such a model.

Firstly, there is a need to evaluate the current formal and informal fee schemes in Pakistan. This should be followed by setting up pilot studies of interventions, hypothesized as being suitable to addressing key issues. The National Health Facility, whose principal purpose is to increase the utilization of public health services, should consider funding such pilot activities.[62]

Secondly, by utilizing the evidence generated, a national cost-sharing and fee policy should be developed. Ideally, this should enable facilities to retain and utilize 100% of the revenues locally. In order to guide and facilitate this process, mutually acceptable and agreed guidelines and procedures should be developed by the Ministry of Health and the departments of health. Such guidelines must also define the extent of coverage and delineate health services, persons and areas that need to be exempted from the fee structure in order to protect the interests of the poor. Procedural clarity in such waiver and exemption systems must be ensured; staff should be

adequately trained in these procedures and mechanisms should be established to enhance patient awareness of their entitlement in such systems. The Ministry of Health and the departments of health also need to develop guidelines on accounting, safekeeping and utilization of revenues relevant to such arrangements.

Thirdly, mechanisms must be developed to subsidize costs for the poor. Such mechanisms must transparently evolve a definition of poor households and assist them in benefiting from such opportunities. In settings where user fees are introduced, the government must offer cost sharing in order to safeguard the interests of the poor. Funds from *Zakat*, *Bait-ul-Mal* and other sources should be used to supplement government funds and contribute to strengthening social safety nets for the poor ↴ See section on *Social Health Insurance.* For a pro-poor orientation, subsidies need to be targeted rather than being ubiquitous, which enables those in positions of power to misuse them.

In the **fourth** place, the cost recovery and fee policy should also take the size and location of the institution into account. There should be a differential cost recovery policy for the rural and urban areas, with possibly a greater emphasis on cost recovery in the latter. The introduction of user charges in rural areas may lead patients to seek care from untrained healthcare providers known to preferentially practice in rural areas. This also implies that the introduction of user charges in rural areas has to be coupled with an increase in the efficiency of the services offered.

Mutually agreed guidelines and procedures on accounting and utilization of revenues and procedural clarity in waiver and exemption systems are critical in order to protect the interests of the poor in cost-sharing programmes where user fees are introduced in state-owned healthcare facilities.

4.2.7 Community co-financing schemes

What are the different co-financing and co-management options in a Pakistani context? What is the proposed role of communities in such arrangements?

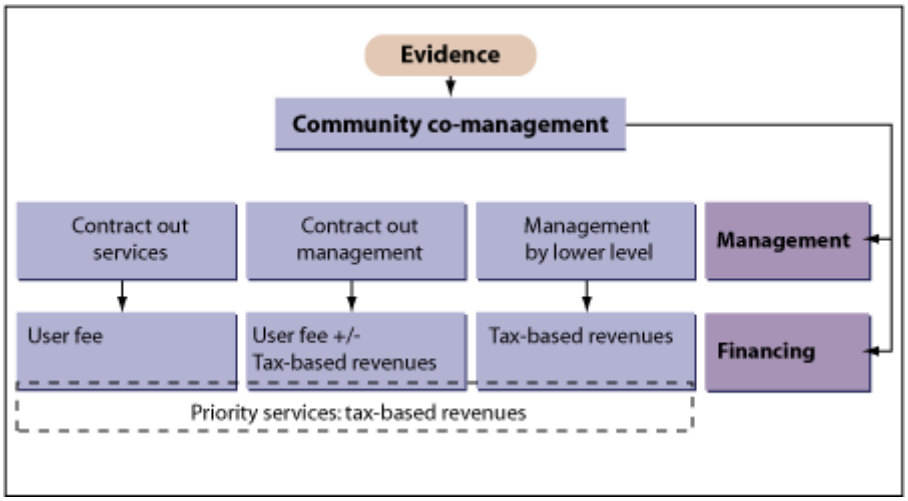
The idea of community co-financing emerges within the context of health financing in countries that have a predominantly rural base such as in Pakistan. In such a setting, general taxation has a limited potential and the majority of workers are not covered by employees insurance since they are not formally employed and out-of-pocket payments pose a major burden for the poor. One of the most unyielding challenges in Pakistan, therefore, relates to effectively and equitably providing health services in the rural areas. There are inadequate incentives for doctors to serve in these areas and the quality of living offered to them is poor; as a result of this, it has become a norm for doctors to be habitually absent from duty; many seek employment elsewhere while still retaining a public sector designation and more than a quarter of the BHUs do not have formally posted doctors at all. Rural residents, therefore, rely on traditional medicines or quacks or travel to larger hospitals in adjoining towns.

Community co-financing, co-ownership and co-management attempts to obviate these issues; in such arrangements, communities are supposed to co-operate and/or co-own the provision of primary and in certain cases, secondary health services and contribute local resources. In this model, part of the management is contracted out either to NGOs, doctors or to community members. The community can play an active part in management by being represented on the local board (or its equivalent), by pooling community resources or by helping with the organization of these resources. Moreover, they can also play an active role by virtue of their willingness to use these facilities and pay for care received, thus helping to make this a sustainable service delivery option.

With regard to financial contributions, community co-financing makes provisions to draw contributions both from communities as well as the government. Community contributions are usually in the form of fee-for-service whereas government contributions are usually in the form of tax contributions or local public sector allocations. At a community level and from a financing stand-point, it is feasible to introduce a modest fee-for-service since substantial sums of money are spent by relatively poor people on traditional healers, quacks and in taking the ill to hospitals in far-flung areas. It is perceived that communities will be willing to contribute financially, albeit to a reasonable extent, if credible services are available locally. In relation to the government's contribution, resources are now available at the district level as part of the devolution initiative; these are meant to be utilized locally at the level of basic health facilities to support public health and primary care activities. However, a lag in granting full district level financial autonomy and issues of capacity at the district level are impediments to the utilization of these resources for co-financing initiatives ↴ See section on *Decentralization.*

Successful models of community co-financing can be developed only if they are part of a comprehensive reform process. This process must involve restructuring and management changes in addition to changes in the patterns of financing. Options include contracting out services as a package to NGOs or individual healthcare providers or transferring management to lower levels of government. In such arrangements, a number of contractual parameters need to be addressed and clarified ↴ See section on *First and Second Level Health Facilities.* The option of community-co financing coupled with local ownership, if locally-tailored and appropriately structured, may be one of the most suitable options for restructuring basic healthcare facilities within the country. Given that it involves local political accountability, it is all the more feasible in the context of the recent devolution of power in Pakistan.

Figure 11. Community co-management



Community co-financing should be part of a comprehensive reform process involving restructuring and management changes in addition to changes in the patterns of financing.

4.3 Fund mobilization and utilization

Within the context of health financing, low levels of spending on health is not the sole contributory factor to the current performance of the health sector as there are several factors other than the level of spending that have an important role to play. These relate to issues with fund mobilization and their efficient utilization, misuse and problems relating to equitable allocation. Addressing these may be equally, if not more important than efforts aimed at increasing fund allocations for health in national budgets and seeking alternative modes of financing.

What are the impediments to efficient utilization of public sector funds currently allocated for health service delivery?

The performance of health systems depends critically on how efficiently funds are utilized. Issues with fund utilization have dated back to the 1st Five-Year Plan as part of which, out of the Rs. 287 million allocated for health sector, only 50% was utilized.[22] Analysis of fund utilization patterns over subsequent years have also shown that budgets have consistently been underutilized. Problems at the level of utilizing budgets can be attributable to a number of factors; these include weak institutional capacity, onerous financial and administrative procedures, delays in decision-making at the individual or institutional levels, lack of coordination and impediments to the release of funds at various levels within the health systems.

The national programme managers of the Ministry of Health are of the impression that the *availability* of funds for programme activities stipulated as part of approved PC 1s is almost never a problem. However, funds have to be *released* and *utilized* or else they *lapse*. Programme managers are held accountable for funds that lapse. However, there is no mechanism to account for the institutional delays, which act as barriers to the release of funds and effective fund utilization. This highlights the need for institutionalizing transparent managerial audit that is capable of holding individuals at various levels accountable for undue delays in decision-making.
↴ See section on *Implementation and Governance.*

Within the health sector, adequate provision and the timely release of salary and non-salary recurrent budgets is critical to smooth operations at the point of service provision. Delayed release of funds from the federal to the provincial and district line spending departments is, therefore, widely perceived as an impediment to the effective implementation of federally-administered public heath programmes in the provinces. For example, undue delays in the payment of honoraria to the LHWs has been a demoralizing factor in what is otherwise a sound public health intervention.[63]

Problems with fund utilization can also be highlighted by reviewing the trends in donor fund utilization. It is well-established that slower than planned disbursement rates frequently result in extending projects beyond closing dates. Within this context, issues highlighted in many donor documents consistently point to problems at three levels: weak institutional capacity, cumbersome administrative procedures and lack of timely coordination. Weak institutional capacity to manage and follow-up required actions for utilizing donor funds results in slow compliance with legal, policy, programme and administrative requirements. Cumbersome administrative, financial and procurement procedures also contribute to causing delays. In addition, gaps in coordination and constrained abilities of public sector institutions to meet counterpart funding requirements in a timely manner have also been highlighted as impediments to fund utilization.

In view of the aforementioned considerations, there is an urgent need to review the existing pattern of health financing in the country with a view to highlighting problems with utilizing funds efficiently. It is imperative to maximize the efficiency of financial administration in public sector health facilities/organizations as finances hold the key to efficient service delivery. The health establishment should take proactive measures to get an insight into onerous financial management procedures, cumbersome administrative details and lack of coordination between stakeholders, which result in undue delays. They should pay close attention, both to training more staff in these areas and bringing procedural clarity in order to ease administrative bottlenecks. Furthermore, measures must also be taken in tandem to curb the widely reported misuse of public sector health budgets and rent-seeking behaviours prevalent within the sector.

The health establishment should take proactive measures to get an insight into onerous financial management procedures, cumbersome administrative details and lack of coordination between stakeholders, which result in undue delays in fund utilization.

Table 7. Issues and possible solution – health financing

Issues	Possible solutions
Low spending on health	Promote the reallocation of tax-based revenues Develop well-structured and sustainable alternatives to low levels of public spending on health in respective health facility settings. Test models in pilot settings to generate evidence necessary for up-scaling models
Alternative modes of health financing	
Private health insurance: limited coverage	Explore conducive policy options to maximize the potential within private health insurance
Employees social insurance: limited coverage - secures 3.06% of the workforce in the country only	Broaden the base of Employees Social Security Create a Federal Employees Social Security Programme
Social health insurance: absence of a system	Develop social health insurance within the framework of a broad-based social protection strategy, which scopes beyond the formally employed sector, establishing a widely inclusive safety net for the poor Develop a dedicated policy and legal framework Develop a financially viable and efficient institutional mechanism – a Health Insurance Agency – for pooling risk for health interventions Establish a large stable and sustainable pool of fund with per-capita cost-sharing by the government. Assess the potential within *Zakat* funds to contribute to this fund Define priority health services for the social insurance model and stipulate a rational enrolment or qualifying period Develop efficient mechanisms to identify poor households Pay due attention to ancillary processes such as regulation of the practice of medicine and reinforcing the referral system
Philanthropic grants: mainstreaming as a major source of health financing	Strengthen institutional mechanisms Assess impediments to collection of funds and their transparent disbursement Explore the feasibility of developing a conducive tax configuration Generate greater corporate support for social sector causes within the framework of the concept of Corporate Social Responsibility
Cost-sharing programmes: gaps in currently existing arrangements	Rigorously evaluate the currently on-ground formal and informal fee schemes and set up pilots of envisaged interventions Develop a national government fee policy Stipulate mutually acceptable and agreed guidelines and procedures on accounting and utilization of revenues Establish procedural clarity in waiver and exemption systems in order to protect the interests of the poor; train staff in these procedures and enhance patient awareness of their entitlement in such systems

Table 7. Continued

Issues	Solution
Donor contributions: Program-based rather than systems strengthening resource allocations and dependency on political and general strategic conditions	Ensure the channeling of donor contributions towards strategic health systems strengthening interventions and evidence-based locally suited programmes Minimize reliance on donor support for priority programmes
Issues with fund mobilization and utilization	Decentralize decision-making and delegate appropriate powers to managers and administrators, paying due attention to accountability Build capacity and develop institutional systems and guidelines to overcome onerous financial management procedures and cumbersome administrative details Institutionalize transparent managerial audit Give performance-based incentives Promote timely coordination of stakeholders
Misuse, pilferage and rent-seeking behaviour	Promote transparent financial administration, budgeting and cost controls
Inefficient and inequitable financing	Develop mechanisms which make it possible for funds to be used more efficiently and equitably and assist in enhancing the performance of the health system by transforming the management of individual facilities, the incentive structure for staff and the institutional environment in terms of the capability to plan such activities

5. Delivery of Health Services

5.1 Public sector health facilities

In theory, the entire population of the country has access to a set of public sector provided health services; however, in reality these services are not available to all for various reasons.[64] It is critical to take account of these realities while structuring service delivery reforms.

Public sector health facilities can be categorized into tertiary hospitals (also often teaching hospitals), district and tehsil hospitals and first level healthcare facilities, which consist of Rural Health Centers (RHCs) and Basic Health Units (BHUs). In this paper, reform-related measures for hospitals are discussed together whereas those that are relevant to BHUs and some RHCs are discussed under basic health facilities.

5.1.1 Hospital reforms

How can hospital autonomy lead to increased efficiency and better health outcomes?

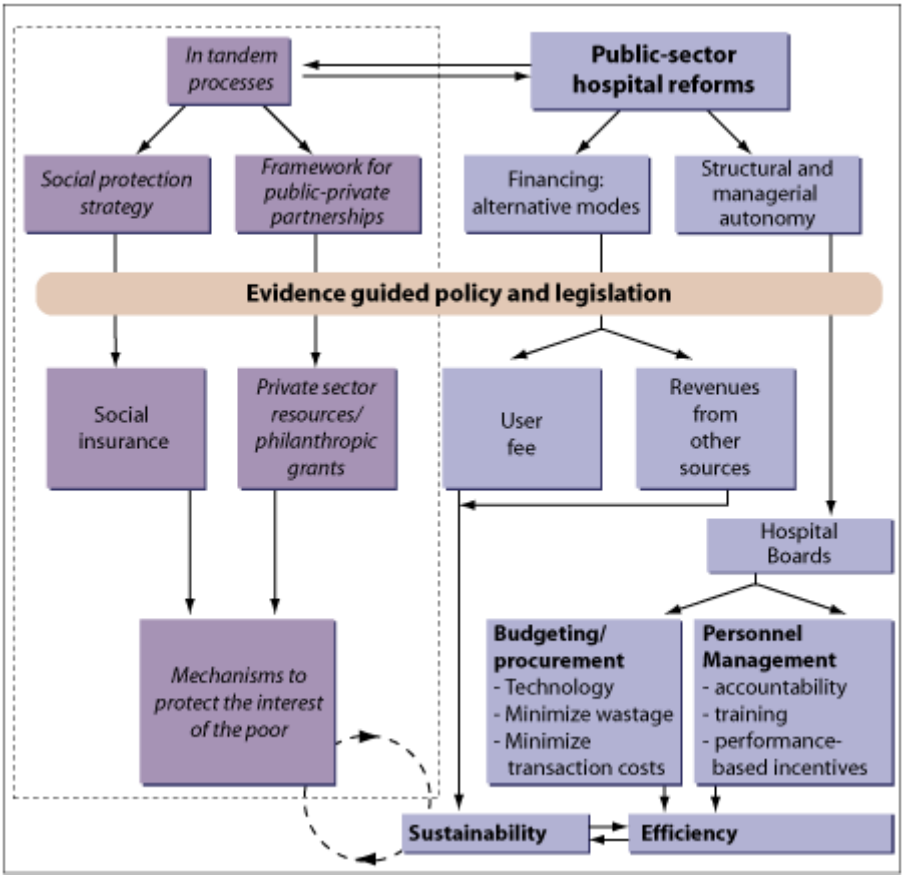
This section focuses on public sector hospitals. There are an estimated 1022 public sector hospitals within the country; of these, 56 are tertiary level, 116 are district level hospitals whereas 850 are small and medium sized hospitals. Notwithstanding exceptions, hospital reforms are necessary at each level. Part of the reason for this relates to the number and size of hospitals, which has increased beyond what public resources can support or manage. This factor, often coupled with gaps at the management level, has resulted in declining efficiency over the years. In addition, most of these hospitals are overburdened as a result of catering to needs, which can be met at the basic level. Hospital restructuring is, therefore, an imperative to improving health outcomes. However, this must take into account available resources and the most essential, equitable and cost-effective clinical services that these hospitals should be providing while maintaining cost-effectiveness. The objective should be to make hospitals efficient and sustainable and at the same time decrease government subsidy, albeit *while still providing safety nets for the poor and disadvantaged.*

Hospital restructuring can allow the development of mechanisms that reduce government subsidies while still providing for the poor and disadvantaged on the one hand, and enabling hospitals to become sustainable and efficient, on the other. The key to this approach is decentralizing hospital management, granting autonomy, developing efficient management structures and cost-sharing financing arrangements, building incentive structures for staff, investing in institutional strengthening and enhancing accountability. These issues relate to the structure, management and financing of hospitals and have been discussed hereunder.

The hospital restructuring process should also pay careful attention to reforms in the referral structures. Most hospitals in the country continue to be overburdened, catering to needs that can be met at a basic level.[65] Studies have shown that more than 40% patients attending secondary and tertiary care levels have a problem of a primary nature that can well be managed at the first level facility. Poor quality of services at the first level healthcare facilities is undoubtedly the single most important contributor to this trend. Other factors include ambiguity on part of the physicians and patients about the extent of coverage available, problems at the next level to handle given health problems, lack of development or dissemination and/or lack of clarity about rules and

regulations governing referrals and lack of capacity or the motivation to carry out referrals. These issues must receive careful attention in tandem with processes that aim at restructuring hospitals.

Figure 12. Public sector hospital reforms



The objective of hospital reforms should be to make hospitals efficient and sustainable, albeit while still providing safety nets for the poor and the disadvantaged.

5.1.1.i Hospital autonomy

Poor performance of hospitals has often been attributed to several factors. These include paucity of resources, limited management expertise, lack of opportunities for staff training, absence of formal management and human resource tools and misunderstandings between administrators and clinicians. Many of these inefficiencies result from lack of authority to take appropriate remedial actions, as almost every action has to be approved by the relevant Ministry of Health/departments of health. Therefore, a key solution to overcoming these impediments is to provide managerial autonomy to institutions. This must be instituted as part of a process that empowers the administration – both at the management and financing levels – with due attention being paid to autonomy as it relates to staffing, personnel, procurements and budgeting. These are closely interlinked, with each dimension having its own legal, policy, management and financial implications and requirements over varying degrees of autonomy. Granting autonomy to

government hospitals is, therefore, a complex issue and one that needs to be undertaken only after a careful assessment. While hospital autonomy is almost universally prescribed, no in-depth study has been done in Pakistan to guide rational decision-making in this regard.

The legal, policy, management and financial implications and requirements of hospital autonomy relating to staffing, personnel, procurements and budgeting must receive due attention.

Legislation on hospital autonomy exists both at the federal and provincial levels. There are also examples where initiatives undertaken by various governments – federal and provincial – to reform hospitals through structural and financing adjustments have enabled selected hospitals to become efficient and sustainable. Under the Punjab Medical and Health Institutes Ordinance of 1998, a certain level of autonomy was granted to six teaching hospitals in Punjab in 1998.[66] Under this legal framework, the Punjab Institute of Cardiology (PIC) underwent successful restructuring which involved the granting of enhanced administrative and financial controls; this, together with efficient management, enabled the hospital administration to develop an incentive structure for staff and a cost recovery arrangement based on the monetary status of incoming patients; both these factors have been critical to revenue generation. Greater financial autonomy also enabled the administration to outsource work, develop management contracts with maintenance providers, tap into extra-budgetary sources such as philanthropic grants and make local fund management efficient. Today, more than 40% of the hospital revenue is internally generated and the hospital functions efficiently though the level of the block grant given to it by the provincial government remains unchanged. In Sindh, a successful example is that of the Sindh Institute of Urology and Transplantation; this is the largest public sector institute in the province and is managed by a Hospital Management Board. Based on this experience, the government of Sindh is currently trying to establish Health Management Boards in all government hospitals and will use the Civil Hospital as an example. In many ways, it may not be fair to compare these examples with other public sector hospitals as these are specialized, contained in size and therefore, easier to manage via autonomous models. Notwithstanding, analyses of their successes can yield lessons for other hospitals. However, it is critical to clearly and objectively assess the implications of these arrangements on access and equity.

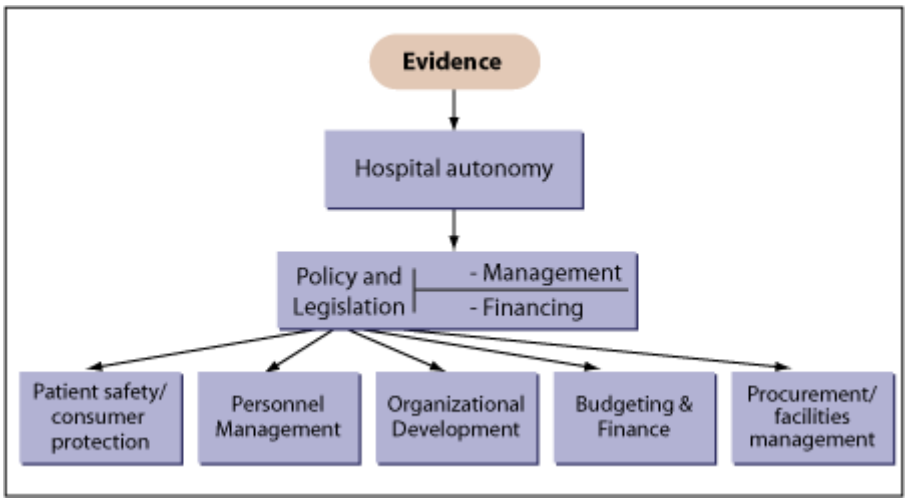
A number of factors are perceived to have implications for the successful implementation of hospital autonomy laws. These include the size of the hospital, poor infrastructure and inability to match incentives offered in the hospitals vis-à-vis the private sector. This highlights the need for instituting measures that can enable the management to optimize hospital incentive structures. Such measures should also entail upgrading infrastructure, structuring smaller administrative units within hospitals and developing options for institutional practice, which are acceptable to all stakeholders. Granting autonomy may be a thorny issue if not initiated with the support and consensus of the existing hospital management and other stakeholders. In Punjab, the appointment of CEOs as part of the process of granting autonomy to hospitals was regarded as a major issue in 2002. Many felt that if hospital administrators had been given administrative and financial powers, they could have performed better than the newly appointed CEOs without the incurrence of additional costs.[67] Restructuring and reform initiatives must, therefore, take cognizance of these realities through pragmatic and participatory decision-making. Useful lessons stand to be learnt from a recent experience in NWFP, where hospital reform measures centered on institutional private practice were unsuccessful.[68]

In order to provide a more rational basis for developing a comprehensive strategy for hospital autonomy at different levels, the aforementioned issues should be analyzed from legal, policy,

managerial and financial perspectives. In particular, assessments should include detailed analyses of the degree of autonomy these hospitals currently have with respect to management, financing, staffing, personnel and budgeting.[69] Based on the evidence generated, an appropriate policy should be developed; this must clearly articulate policy positions with regard to the aforementioned considerations. Its efficient implementation may require legislative support and laws may have to be amended to ensure compliance.

In addition to being based on evidence, hospital reforms must also draw on the support of pragmatic and participatory decision-making. Useful lessons stand to be learnt from a recent experience in NWFP, where hospital reform measures centered on institutional private practice were unsuccessful.

Figure 13. Steps in institutionalizing hospital autonomy



A key feature of autonomous hospitals is their governing boards. It is imperative to define the roles, composition and appointment, powers and authorities, accountabilities and specific duties of hospital boards. Their relationship with the hospital management, with the respective Ministry of Health or the departments of health and with the communities they serve must also be charted and communicated clearly. The membership of these boards should be multidisciplinary, adequately representing major groups of stakeholders embodying sufficient technical expertise to assess and guide hospital management and ensure that scientific evidence is interpreted without any conflict of interests. Only an autonomous governing board free from political influences can deliver the kind of efficiencies associated with this model of governance. In addition, the Ministry of Health and the departments of health should provide a framework for service delivery targets and most importantly, the norms and procedures for providing subsidies to hospitals *for offsetting costs incurred in treating poor patients*. The role of the Ministry of Health and the departments of health will have to be redefined as part of this approach as they will then be the regulator of services, with autonomous hospitals being the provider of services.

5.1.1.ii Hospital financing arrangements

How can alternative modes of financing be introduced in public sector hospitals?

Currently, the government – in its attempts to subsidize health for all – bears the direct delivery of services burden. Most public hospitals are funded from general revenues of the government and consume a major share of the recurrent health budget. Alternative sources of financing can transfer some of this recurrent burden to the users or to the private sector. However, these need to be instituted in tandem with the aforementioned structural reforms.

Financing is one of the important aspects of hospital re-structuring; this must focus on the following elements: reduction in dependence on government subsidies, broadening the revenue base of hospitals and making hospitals more resource efficient. Several measures can be introduced to broaden the revenue base of hospitals. The introduction of user fees is one of these measures. Others, such as health insurance-based reimbursements – which need to be instituted at a more overarching level – have been previously discussed in the Gateway Paper ↴See section on *Modes of Financing.* Hospitals can raise funds by developing mechanisms of channeling funds from external sources and can also develop corporate contracts to provide care. In addition, they can generate funds from non-medical revenue programmes (parking fees, cafeteria, training fee, research). The potential within all of these needs to be explored.

In tandem with efforts to increase hospital budgets, there is a need to focus on making hospitals resource efficient. Governments usually give en-bloc grants to hospitals to bear recurrent costs and to assist in delivering the cost of care for the poor. In most instances, these block grants are given according to hospital cost-per-bed-budget allocation criteria; funds are allocated to institutions without any regard to their efficiency or appropriateness of use. These criteria do not promote hospitals to be more efficient and need to be revised. Progress in achieving outcomes should be the criteria for resource allocation as this could provide incentives to hospitals to be resource efficient and contribute to efficiency. The Ministry of Health and the departments of heath should also explore other opportunities for cost-containment and enhancing efficiency in hospitals. There is also a need to analyze cost-centers and their behaviours to minimize redundant costs. These must include reduction in drug theft and pilferage, improved use of drugs through better physician prescription behaviour, better supervision of food purchases and distribution and better staffing. The ministries and the departments of health can also assist with rationalizing hospital use and general revenues for supplies, basic repairs and other improvements. Unless budgetary allocations are tied to performance – health outcomes and financial – and other incentives are not offered to hospital managements to keep hospitals running efficiently and cost effectively, hospital reforms will fail to crystallize.

Funds should not be allocated to hospitals without regard to their efficiency or appropriateness of use of resources; instead, progress in achieving outcomes should be the criteria for resource allocation.

Table 8. Issues and possible solutions – government healthcare facilities

Issues	Possible solutions
Structure	
Gaps in the present structure of government hospitals	*Tertiary care and teaching hospitals:* Initiate the hospital sustainability reform process through major structural and financing adjustments and develop appropriate policy frameworks Decentralize hospital management to autonomous hospital boards with participatory support and consensus of all stakeholders Develop and implement policies on hospital autonomy as they relate to the autonomy of management, staffing, personnel, procurements, budgeting and financing Provide legal autonomy to hospitals Redefine the roles of the Ministry of Health and the departments of health with respect to autonomized hospitals in order to make them regulators of services and the autonomous hospitals the provider of services and assist in the development of contractual arrangements Develop clearly defined management structures *Primary healthcare facilities:* Contract out services to NGOs or healthcare providers OR transfer management to lower levels of government OR maximize efficiency within the existing systems Bring the existing first level healthcare facilities within a high-level institutional mechanism with broad controls and foster community co-management at the basic healthcare level In the case of contracting arrangements, clarify the government's role and mechanisms for the delivery of preventive services; establish guidelines on ethical and administrative matters and develop sample contracts and terms for price negotiations and mechanisms to safeguard the interest of the poor
Financing	
Financing of hospitals predominantly by tax-based revenues	Develop and implement an evidence-based fee policy Establish guidelines and procedures and staff training on waiver and exemption system for the poor
Lack of control over and benefit from internally generated revenues (except in the case of autonomous hospitals)	Develop appropriate policies and procedures to raise and retain internally generated revenue
Poor incentives to staff	Build incentives for staff and management
Management	
Absence of management expertise	Train a cadre of hospital managers' and develop management tools
Inadequate control of funds, drugs and other supplies	Increase the level of hospital managers authority to make key decisions; improve managerial capability and hold them accountable for their actions
Poor attitudes towards patients; poor standards of care; pilferage and theft of drugs and other supplies; poor maintenance of equipment and other infrastructure	Build performance-based incentives and inculcate professionalism

5.1.1.iii Hospital Management

Hospital management is a specialized discipline that demands appropriate training and skills. The dearth of hospital management professionals is well-recognized within the country – a gap usually filled by clinicians. This necessitates training a cadre of hospital management professionals, developing appropriate management tools and ensuring ongoing training. Until recently, there were no structured hospital management courses available. The recent introduction of this as a specific area for post-graduate training by the College of Physicians and Surgeons is an important step in this regard. Once trained, managers should also be effectively deployed and given authority to take key decisions and made accountable for their actions ↴ See section on *Human Resource.*

Other problems with service delivery such as poor attitude towards patients and low standards of care arise mainly because of failure to introduce a culture of patient-centered healthcare. This can be addressed through better management, factoring in of better incentives for staff and a conscious effort to inculcate professionalism. Better management of hospitals is, therefore, part of the hospital reform process, which is closely linked to the development of better financing structures and enhanced level of autonomy.

In order to streamline management, the government can also contract out ancillary or clinical services or both to individual healthcare providers or NGOs. However, in such a scenario, guidelines on price negotiations and several ethical and administrative matters need to be developed. It is imperative that the interests of the poor and vulnerable are safeguarded in such arrangements and that government funds are utilized for this purpose. Community co-financing and ownership can ensure greater transparency in this regard.

5.1.2 First level healthcare facilities

Why are basic healthcare facilities largely underutilized in Pakistan?

A country-wide extensive infrastructure of BHUs and RHCs and a step above them, the tehsil and district hospitals, are organized in a pyramidal structure of referral. Tertiary hospitals, which also act as training institutes, are at the apex of the pyramid. Although a nominal referral structure exists, it is hardly operational. At the patient-delivery interface, patients are usually not told about the choices they have and thus fail to exercise them. The turnover in BHUs is generally low, with the lowest turnover observed in Balochistan.[70] The quality of care at these facilities is variable but is generally regarded as poor. Most centers either operate only a few hours a day or have been closed. Staff absenteeism is rampant and essential drugs are often not available at these facilities. As a result, tertiary hospitals devote much of their time and resources to care that should have been provided at a BHU or RHC.

A number of reasons contribute to low utilization of basic healthcare facilities, foremost amongst these being the absence of quality inputs. First level healthcare facilities, BHUs in particular, are housed in run down buildings where basic amenities are often not available - 28% do not have electricity and 21% have no female staff. In addition, there are gaps in the availability of drugs in BHUs. A recent survey has shown that contraceptives are unavailable in 25% of the BHUs, 40% do not have vaccines and 51% lack de-worming medicines.[71] Moreover, in a majority of the BHUs, examination tables, weighing scales and other basic equipment is in a dilapidated shape and instruments such as blood pressure measurement devices are never calibrated. There are other reasons for low turnover at these sites as well. These include issues relating to geographical access, inattentive attitude of the staff and out-of-pocket payments for supposedly free services.

As a result of the low turnover in BHUs, a high average cost-per-visit and admission is incurred; this does not justify the present level of investment in infrastructure, staff and equipment at these sites.[72] Furthermore, as a result of low utilization of physical infrastructure, these healthcare facilities are sometimes used for other purposes. There are accounts of Union Council and other government offices being housed in basic health facilities in many parts of the country.

Reforms at the level of basic healthcare facilities should involve restructuring of financing, service delivery and management arrangements. Options include contracting out services, transferring management to lower levels of government and/or maximizing efficiency within the existing system.

How can basic healthcare facilities be restructured in Pakistan?

It is beyond dispute that there is a need to reform basic health facilities within the country. The envisaged reform process, as in the case of hospitals, must involve the restructuring of financing, service delivery and management arrangements. Options include contracting out services as a package to NGOs, individual healthcare providers or to entrepreneurs, with or without providing subsidies on a sliding scale for some years. Other options include the development of community co-management packages, transferring management to lower levels of government and/or maximizing efficiency within the existing system. *However, in all arrangements, there is a critical need to safeguard the interests of the poor.*

Option 1 - Contracting out: first level healthcare facilities can be contracted out to NGOs, healthcare providers or entrepreneurs. However, such contractual arrangements need to be very carefully crafted. In Punjab, lessons learnt from a pilot project in Lodhran lent impetus to the development of the *Rahim Yar Khan* (RYK) Primary Healthcare Project.[73] This involved restructuring of the existing infrastructure of BHUs within RYK. The Punjab Rural Support Programme (PRSP) was given a management contract by the district government to manage all the BHUs. The terms of the contract gave PRSP control of the PSDP funds allocated for BHUs and management autonomy to implement changes at the organizational and management levels; this enabled them to build better incentives for facility staff. The *initial* results, in terms of patient turnover at healthcare facilities have been encouraging with a three-fold increase reported; the supply of drugs has been ensured and the physical condition of the BHUs has improved.[74] Recently, a national strategy has been approved for revamping the primary healthcare system with major structural changes envisaged at the district level that are based upon these initial results.[75] This strategy should pay careful attention to a number of steps that need to be taken in tandem in order to ensure the success of this programme.

Firstly, it must be understood that the dynamics of a pilot intervention are distinct from large-scale interventions. The potential within a pilot intervention to be up-scaled successfully depends on the overarching framework within which it is set. The envisaged intervention – revamping of the primary healthcare system – involves an active role of the private sector in the delivery of care. Though desirable in principle, this needs to be sited within the right policy environment with appropriate safeguards. As a first step, therefore, there is a need to develop an overarching policy framework to legitimize public-private relationships within the country and to set norms and standards for such arrangements ↴ See section on *Public-Private Partnerships*. It is also important to structure a regulatory framework and a dedicated institutional mechanism; moreover, systems of

combined governance for ensuring balanced power relationships need to be established with careful attention to accountability and sustainability-related concerns. *Such frameworks must structurally safeguard the interests of the poor*.

Once overarching parameters are in place, a core prerequisite to contracting out services is to develop operational frameworks. Selection criteria must be specified, procedures for recruitment must be articulated, guidelines on ethical and administrative matters should be developed and procedures for developing price negotiations and contracts should be laid down. The process of awarding contracts has to be open, participatory and transparent as to ensure that there is no conflict of interest.

Secondly, basic healthcare sites within the country serve as community hubs for the delivery of preventive and promotive services; these priority interventions need to be delivered as a public good by the State. As part of the aforementioned contracting arrangements, therefore, the government's role and mechanisms for their delivery needs to be procedurally clarified. There are anecdotal reports of there being issues with the training of LHWs in certain areas where services have been contracted out in RYK. Lessons must be learnt from these so as to enable the structuring of appropriate mechanisms to obviate such issues.

The government's role in the delivery of preventive and promotive serves at the basic healthcare level needs to be determined since BHUs serve as community hubs for the delivery of these services.

Thirdly, both the strategy and dependent processes need to be firmly grounded in evidence. Ideally, there should have been robust and participatory health systems evaluation of the impact of this model on health services access and utilization by the poor and the quality of care offered. In contracting out, it has to be made sure that public funding is used to ensure that poor people who access health services are not disadvantaged or discriminated against and conscious safeguards have to be built for this purpose. This links in with the need to develop comprehensive social safety nets ↴ See section on *Social Protection*. Interventions such as the RYK model can also serve as empirical models. Every attempt must be made to draw useful lessons which have implications for making these arrangements more outcome-orientated. Data from existing evaluations have pointed to the need for having measurable indicators and broadening the scope to include preventive and promotive services; this must receive careful consideration.

Fourthly, and most importantly, revamping of the district health system needs technical, political and administrative consensus to obviate possible turf issues. The recently launched strategy must, therefore, garner broad-based federal, provincial and district level support through participatory decision-making as this would be critical to taking this initiative forward.

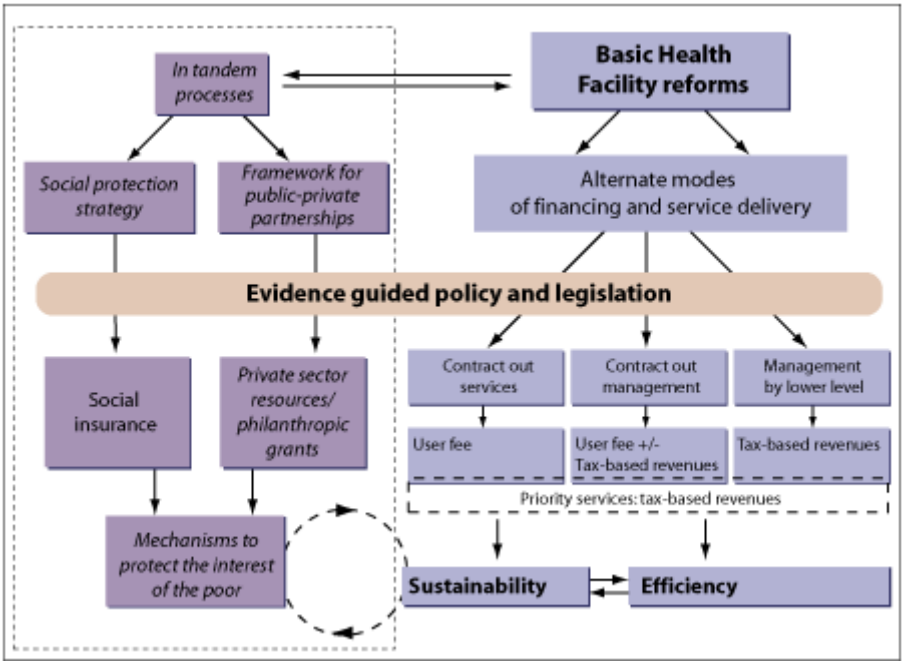
Option 2 - Transferring management: transferring the management of basic healthcare facilities to lower levels of government is another option. However, in each setting, it needs to be locally determined whether management and provision of services can be improved by devolving them. The administrative arrangements within decentralization offer an opportunity to further explore the feasibility of this approach. However, in such arrangements, higher authorities should continue to have a redistributive role in order to ensure that the poorest have access to quality services.

Option 3 - Maximizing efficiency within the existing system: this forms the third option for restructuring basic health facilities. The initial success of the contracting arrangements – which have been alluded to earlier – depend to a large extent on management and financial autonomy

granted to them. However, many within the public sector feel that if the existing arrangements are made administratively and financially autonomous, similar results can be produced without the need for contracting out these facilities. Restructuring and reforms must, therefore, take cognizance of these concerns and base decisions on evidence relevant to each specific setting.

Regardless of the option adopted, two other overarching measures may have to be taken in tandem with restructuring at a local level. The **first** involves bringing the existing first level healthcare facilities within a **high-level institutional mechanism** with broad controls. The Higher Education Commission is a case in point. The feasibility of creating a dedicated institutional mechanism for handling large programme components should be explored. **Secondly**, there is a need to foster **community co-management** at a basic healthcare level; this can be done regardless of the model adopted as it is relevant to all above-mentioned options. The concept of having a community-based body at the facility level to oversee management and quality issues is now realistically possible, given the focus on community development and mobilization as part of the devolution initiative. Community Citizen Boards, Village Health Committees and other grassroots level organizations – mandated as part of the district devolved system – can either play a role in the setting up of co-management boards, overseeing them or serving as one. Many measures can be taken to ensure transparency and garner greater community support for such initiatives; for example, user fees can be made public and prominently displayed. In Uganda, the placement of non-salary budget outside of the health facility increased the volume of resources flowing into the facility within a matter of weeks.[76] At the Emergency Department of the Pakistan Institute of Medical Sciences, the recent posting of a list of medicines available for free has led to a similar positive result. Targeted capacity-building in the area of financial management and control, account keeping and management should be promoted in order to enhance the capacity of communities to serve this role. The feasibility of utilizing village co-management structures for record keeping (as in the case of vital registration) and strengthening the referral systems also needs to be explored.

Figure 13. Basic health facilities reforms



5.2 Public health interventions

This section presents an overview of the public health and related programmes within the country; however, the areas described hereunder are not strictly preventive and promotive as they cross-cut with service delivery at several levels – particularly in the case of maternal, neonatal and child health.

Most of the programme-based interventions discussed are led by the federal government with implementation arms at the provincial and districts levels. Some of the programmes described are disease-specific such as the respective programmes on HIV/AIDS, malaria, tuberculosis, non-communicable diseases and hepatitis. Others are specific to the lifecycle domains such as in the case of maternal and child health, whereas others, such as the National Programme for Family Planning and Primary Health Care and the National EPI Programme are cross-cutting. ↴Table 9

Table 9. National public health programmes and interventions

Federally-led national programmes	The National Programme for Family Planning and Primary Health Care The Expanded Programme for Immunization The National HIV/AIDS Control Programme The National Malaria Control Programme The National Tuberculosis Control Programme The National Nutrition Programme The Women Health Project The National Mental Health Programme
Newly launched programmes in the public sector (2004-05)	The National Programme for Prevention and Control of Blindness Prime Minister's Programme for the Prevention and Control of Hepatitis National Neonatal, Maternal and Child Health Programme
Public health programmes in partnership with NGOs	The National Action Plan for the Prevention and Control of Non-Communicable Disease and Health Promotion in Pakistan (in collaboration with Heartfile) Leprosy Control Programme (in collaboration with the Marie-Adelaide Leprosy Society)

↴See section on *Health Beyond the Health Sector* for related details

What is the existing configuration of the federally-led national public health programmes?

5.2.1 The National Programme for Family Planning and Primary Health Care

Existing configuration: the programme was launched in 1994 as the Prime Minister's Programme for Family Planning and Primary Health Care. Its name was changed to the National Programme for Family Planning and Primary Health Care (NP-FPPHC) in 2001. This programme focuses on delivering essential primary healthcare services to the communities at the doorstep through female community health workers, thus creating a link between the health system and the grassroots level, providing services to women who. for cultural reasons, cannot leave their homes. Currently, there are about 86,000 Lady Health Workers and plans are underway to increase their number to 100,000. Through this programme, locally employed young women are trained in BHUs initially for a one-year duration in a classroom setting followed by training in the field. They are then supervised to deliver several basic services in the field; these include maternal and child health (MCH) activities such as antenatal care, advice on natal and post-natal services, immunization against major infectious diseases, health education, promotion of nutrition, basic sanitation, prevention and control of locally endemic diseases, treatment of common diseases and injuries and the provision of essential drugs and other primary healthcare services. Currently, the estimated population covered and served by LHWs is close to 100 million.[77] Recent estimates show that the annual cost per LHW incurred by the Government of Pakistan is Rs. 44,041; this translates into annual cost per beneficiary of Rs. 44. The Government of Pakistan accords high priority to this programme and has included it in its 10th Perspective Development Plan, thereby ensuring its continuity till 2011.

LHW services have been shown to positively impact the health status of the poor, particularly women and children, through improved hygiene, higher levels of contraceptive use, iron supplementation, growth monitoring and immunization, use of pre-natal care and delivery of services.

Challenges: a third-party evaluation of the NP-FPPHC was conducted in 2002.[63] Results showed that LHW services were positively impacting the health status of the poor, particularly women and children, through improved hygiene, higher levels of contraceptive use, iron supplementation, growth monitoring, immunization, use of pre-natal care and delivery of services. In line with the recommendations made by the evaluating agency, the Ministry of Health increased the number of LHWs. However, on the other hand, in terms of processes, major issues with the payment of stipends and the undersupply of medicines and contraceptives were highlighted in this study. Recent field experiences also indicate that process-related problems continue to undermine the potential within this programme. The NP-FPPHC acknowledges that delays in the release of salaries have been reported in a number of districts due to suboptimal provincial-district level coordination, lack of field monitoring and evaluation at all levels and a number of other overarching upstream issues. Despite the existence of appropriate monitoring tools, monitoring in the field has been one of the weakest areas of the programme. As a result of these factors, a variety of issues emerge. One of these is the selection of non-resident LHWs, which makes them

liable to termination. Another issue relates to the effective deployment of LHWs. The official figures stand at 86,000 but the ground reality may differ. In this regard, non-availability of qualified women, who fulfill the prerequisite criteria, is known to pose a special problem in hard-to-reach rural areas. In addition, lack of field supervision due to limited availability of vehicles, inadequate support for travel and mobility and concerns about the skill level of LHWs are serious issues in their own right. Furthermore, concerns have also been expressed about the knowledge level of LHWs, particularly with regard to curative aspects of care, which they are expected to deliver in the field.

A number of steps are presently underway to address the aforementioned concerns. The new PC 1 of NP-FPPHC, which is currently in the pipeline for approval, has increased the salary packages of LHWs and their supervisors.[78] The PC 1 also places greater emphasis on strengthening monitoring mechanisms. Proactive steps are also being undertaken to strengthen the programme's *Inter Agency Coordination Committee,* which can facilitate better linkages and harmony between the three levels of government and other stakeholders involved in the programme. Efforts are also underway to develop specific criteria for enrolling women in the event of non-availability of qualified women in hard-to-reach areas and then to subsequently train them with their limitation in view. Moreover, the deployment criteria have been revised so as to deploy an LHW for a population of 500 households as opposed to 1000 households in remote areas.

The earlier success of the programme and more recent evidence-based targeted efforts to mitigate specific issues offer hope for maximizing the potential within this programme. However, its ultimate success will depend on a number of overarching factors relating to governance and administration ↴See section on *Unaddressed Barriers* – Page 75. Careful attention also needs to be paid to safeguarding the interests of this programme in view of the ongoing restructuring at this level ↴See section on *First Level Health Facilities.*

Table 10. Provincial outlook of key indicators assessing the performance of LHWs[63]

	Punjab	Sindh	NWFP	Balochistan	AJK/ FANA
Clients receiving preventive and promotive care (%)	39	37	43	32	49
Households visited per week	30	15	27	14	26
Households not visited for last three weeks (%)	26	32	26	35	20
LHWs labeled as high performers (%)	23	26	32	4	39
LHWs labeled as poor performers (%)	22	31	21	50	11
LHW score on knowledge test (%)	70	71	68	60	69
LHW supervisor score on knowledge test (%)	74	75	75	63	77
LHWs without weighing scales and growth cards (%)	24	28	24	55	24

High Performers: Lady Health Workers who provide nearly 70% of their eligible clients with relevant services
Poor Performers: Lady Health Workers who provide only 20% of their eligible clients with relevant services

5.2.2 The Expanded Programme for Immunization

Existing configuration: the national Expanded Programme for Immunization (EPI) provides immunization services against vaccine-preventable diseases to 5 million children under one year of age and pregnant women annually, besides undertaking periodic immunization campaigns for other target groups. Horizontally integrated with the Ministry of Health, the Federal EPI Cell is largely responsible for policy and strategy formulation, procurements, coordination and technical guidance whereas the provincial EPI cells of the provincial health departments are responsible for implementation of the programme. At the district level, services are provided to the target population by District Health Offices through fixed EPI centers and mobile teams.

Immunization coverage for preventable diseases remains variable; however, the trend has been positive with a recently reported 71% overall coverage. The DPT-3, Hep-B 3 and measles coverage in children 0-11 months of age has recently been reported at 69%, 65% and 68% respectively, in 2004 whereas during the same period, TT-2 coverage of pregnant women stood at 43%. In addition, there has been a drastic reduction in the number of polio cases.[79] The objective of the programme for 2005/06 is to interrupt poliovirus circulation by the end of 2005 and increase Routine Immunization (RI) coverage to 80% by the end of 2006. In order to achieve these objectives, the programme has developed a multi-year plan of action. This enabled the introduction of hepatitis B vaccination, support for injection safety, enhanced tetanus immunization efforts in 65 high-risk districts and launching of a social-marking campaign with the Mascot 'Teeku'. [98] Studies such as the Barriers Study, Cold Chain Assessment and the Coverage Evaluation Survey are also underway and there are plans to introduce Vitamin A into RI in 34 districts once NIDs against polio are stopped.

Challenges: despite considerable inputs, evaluation of the programme reveals human resource and service delivery gaps; these can be attributed to overarching issues ↴ See section on *Unaddressed Barriers* – Page 75. Additionally, it is also perceived that concerted efforts toward polio eradication tend to overshadow RI activities. Within the framework of devolution, the influence of the provincial EPI Cell to push RI at the district level has also become limited and weak. Issues with vaccine stock management at the district level result in interrupted supply of vaccines from the province to district and sub-district levels. Furthermore, lack of resources for mobility due to vehicle and POL-related constraints has implications for outreach activities and operational challenges such as the unavailability or intermittent supply of electricity cause problems for vaccine storage.[80] Moreover, the existing dropout/default rates are attributable to outreach-related constraints in the field. It has been reported that male vaccinators are often not allowed access into homes, particularly in the rural areas, whereas villages without functioning BHUs have limited coverage – given that mobile teams reach these sites infrequently or fail to reach them.[81] Attention must be focused on addressing outreach-related operational challenges to build efficiency into the programme.

Immunization coverage for preventable diseases remains variable; however, the trend has been positive with a recently reported 71% overall coverage.

5.2.3 The National AIDS Control Programme

Current situation and programme configuration: as of December 2004, the number of reported HIV-positive cases was 2,431 while the reported cases of AIDS were 310. Computer modeling of these data have estimated that there are 70-80,000 HIV positive people within the country – approximately 0.1% of the total adult population. HIV/AIDS has been addressed as part of the 7th target of the 6th MDG; the two indicators stipulated to measure progress towards achieving the target include HIV prevalence among 15-24 year-old pregnant women and HIV prevalence among vulnerable groups. There are no data from any source within the country in relation to the former. With regard to the latter, the HIV epidemic in Pakistan was considered at a 'low level' till the year 2004, implying that infection among identified high-risk groups was less than 1%. However, recent studies to identify the level of HIV and *Sexually Transmitted Infections* (STIs) among high-risk groups have reported prevalence of HIV infection among *Injecting Drug Users* (IDUs) in Karachi at

23%.[82] The reported level of infection within one high-risk group shifts the entire epidemic scenario of the country to a higher stage – at a concentrated level. The same study has also shown unsafe injection behaviours and practices and unacceptably low levels of condom use. However, recent data with regard to knowledge levels about HIV/AIDS have shown encouraging trends. More than 70% of the general population, 45% of adolescents and 42% married women between the ages of 15-24 years have some level of knowledge about AIDS.[83,84]

The National AIDS Control Programme is currently implementing the Strategic Enhanced Programme (2003-2008) with federal and provincial implementation arms. To date, the programme has played a key role in the delivery of a defined package of services for vulnerable groups, strengthened blood transfusion services, conducted mass awareness campaigns, developed a surveillance system and has worked directly with population groups. The programme has been developing capacity within the system, has managed patients with anti-retroviral therapy and has been engaged in developing partnerships for outreach activities. More than 85% of its budget comes from PSDP allocations. The programme is also being technically supported by ten UN agencies, several bilateral agencies and the Global Fund Against AIDS, Tuberculosis and Malaria.

More than 85% of the budget for the National HIV/AIDS Control Programme comes from the public sector.

Challenges: the current prevalence rate of 0.1% masks a looming HIV crisis. Evidence points to two trends in sexual health in Pakistan, which indicate that a rapid expansion of HIV infection may be inevitable. The first relates to the recently reported high HIV prevalence in selected high-risk groups (referred to above) whereas the second involves high rates of STIs – seen as good proxies for HIV risk – in the high-risk and general population. Both of these create conditions for rapid spread of HIV and STIs in the country. The shifting trend of the epidemic and the upcoming challenges necessitate a strategic review. ↴See section on *Unaddressed Barriers* – Page 75.

5.2.4 The National Malaria Control Programme

Current situation and programme configuration: the National Malaria Control Programme reported a total of 131,179 confirmed cases of malaria from public sector sources in 2003. However, the actual prevalence is envisaged to be much higher, given that more than 50% of the outpatient contacts in the private sector are not reported. During the same year, the Annual Parasite Incidence (API) in Pakistan was reported at 0.8 per 1000 population with significant regional variations; the highest being for Balochistan (5.81/1000 population). In addition, sporadic outbreaks of malaria have been reported from several districts and malaria epidemics occur at an interval of 8-10 years.

Malaria control was initiated in Pakistan in the 1950s and has passed through several evolutionary phases. In 1975, a malaria control strategy was adopted with provincial commitment to implementation and in 1998, Pakistan joined the global Roll Back Malaria (RBM) initiative. This led to the development of a five-year RBM project in 2001 as part of which efforts were intensified in the 28 high-risk districts. More recently, a Strategic Plan for 2005-10 based on the RBM strategy has been developed and a number of steps have been taken for its implementation. The MTDF and MDG targets for malaria prevention – implying an average increase in malaria prevention of 4-5% *p.a* for ten years – although ambitious, may be achievable with the recent expansion of the RBM strategy.

Challenges: despite these steps, several gaps remain in the delivery, monitoring and evaluation of services. These can be attributed to a number of factors such as limited capacity within the public and private sectors with regard to case management and malaria control, insufficient laboratory networks for quality assured microscopy and questionable efficacy of malarial drugs. These are compounded by a number of overarching issues ↴See section on *Unaddressed Barriers* – Page 75. Decreasing the incidence of malaria also necessitates the tackling of many other interlinked issues including the safe disposal of municipal waste, sanitation, addressing dumping problems in urban as well as rural areas, elimination of marshes and fumigation ↴See section on *Health Beyond the Health Sector.*

The MTDF and MDG targets for malaria prevention – although ambitious – may be achievable with the recent expansion of the RBM strategy.

5.2.5 The National Tuberculosis Control Programme

Current situation and programme configuration: Pakistan ranks 6th among the 22 high-burden countries in the world. Tuberculosis is responsible for 5.1% of the total national disease burden; its incidence is reported at 177/100,000 population whereas the annual mortality on its account has been estimated at 67,500. A large proportion of cases occur in the younger age group within the 15-49 year age bracket, with poverty being the main driving force. Inequalities, poor domestic and ambient environmental conditions and poor nutritional status of individuals are the principal predisposing factors in the occurrence and spread of tuberculosis.

Tuberculosis was declared a national emergency in 2000, which is when the programme was strategically revived and reconfigured to implement the WHO/IUATLD-recommended DOTS strategy through PSDP allocated resources. The National Tuberculosis Programme of Pakistan is well-respected in international circles.[XV] The programme has an emphasis on country-wide coverage by end-2005 and progress has been made in a number of areas. It has reported implementation of the DOTS strategy in all the 120 districts of the country, increase in the smear positive case detection rate from a baseline of 7% in 2001 to 54% in 2005 and a treatment success rate of 79% in the cohort of 2001.[85] In view of these data, the programme reports that process targets of the DOTS strategy – 70% detection of smear positive cases and successful cure of 85% of them – may be attainable by the end of 2005. However, these data must be interpreted in the light of the realization that DOTS is currently being implemented in public sector health facilities only and with the understanding that half of the prevalent and incident cases of tuberculosis may be presenting to the private sector, where gaps have been shown to exist in knowledge levels about standard tuberculosis treatment protocols.[86,87,88] The programme is attempting to address these concerns by establishing linkages and partnerships with NGOs with outreach capability, as is evidenced in the case of its recent partnership with Mercy Corps and professional associations such as the Pakistan Medical Association.[89] However, in the absence of a structured mechanism for continuing ongoing medical education, variations in treatment will continue to exist.

Challenges: the operational and field-related challenges encountered by this programme have been summarized in another section ↴See section on *Unaddressed Barriers* – Page 75. In addition, a number of clinical challenges also prevail. Recently, there has been a shift of treatment policy

[XV] The programme represents the EMRO region in the Stop TB Coordinating Board and chairs the DOTS Expansion Working Group, the IUATLD TB Education Working Group and the SAARC TB Governing Board

from individual drugs to Fixed Dose Combinations (FDCs) and the reportedly high under-dosage and early discontinuation are leading to the emerging threat of Multiple Drug Resistance; this is being complicated by the re-emergence of tuberculosis in patients with HIV/AIDS. Increase in the number of mycobacterial isolates in the Pakistani population is also alarming.[90] This is compounded by the shift from a small scale programme to a widespread high coverage national programme, which can hit back through MDR. Addressing these issues will necessitate a concerted effort at several levels.

The National Tuberculosis Programme of Pakistan is well-respected in international circles.

5.2.6 National Nutrition Programme

Programme configuration: a snapshot of the nutritional status of Pakistan's population has been provided in Table 11. Nutrition is an essential *health* intervention; however, prior to 2002, nutrition was housed in the Nutrition Section of the Planning and Development Division of the federal government. Several nutrition activities were implemented in various ministries and provinces, albeit without a clear demarcation of roles and responsibilities between and across the federal, provincial, public and private stakeholders and without any sharing of vital information. In 2002, the Ministry of Health established the *National Nutrition Programme*; its strategic plan and framework was developed after national consensus-building deliberations in 2004. The current scope of the programme includes implementation of the *National Food Fortification Programme*, enforcement of the *Protection of Breast Feeding and Child Nutrition Ordinance* and conducting lactation management trainings, media interventions and research. The *National Food Fortification Programme* involves fortification of wheat flour with iron and folic acid with the assistance of the *National Fortification Alliance* funded by GAIN. It also includes universal salt iodization and addition of vitamin A to edible *ghee*. In addition, its collaborative scope of work includes micronutrient supplementation and training of LHWs on nutrition.

In 2002, the Ministry of Health established the National Nutrition Programme; its strategic plan and framework was developed after national consensus-building deliberations in 2004.

Challenges: at the outset of the programme, its broad mandate could not be supported within the prescribed non-independent financial institutional arrangements. These were compounded by absence of provincial counterpart arrangements and poor infrastructure at provincial levels to support field implementation of the programme. Recently, steps are being taken to bridge some of these gaps by improving provincial institutional mechanisms. Notwithstanding, several issues remain to be addressed ↴See section on *Unaddressed Barriers* – Page 75.

5.2.7 The Women Health Project

Programme configuration: the Women Health Project (WHP) was launched in 2000 with the objective of developing 20 women-friendly district health systems, recruiting additional LHWs and supporting institutional and human resource development within the Ministry of Health and the provincial health departments.[91] The project has since recruited and supported 8000 LHWs, promoted the use of safe delivery kits and has established Emergency Obstetric Care (EmOC) units and upgraded theaters and labour rooms in the WHP districts. In addition, the project has enabled the distribution of tetanus toxoid vaccines in 7 high-risk WHP districts, has supported mass media interventions and assisted in social mobilization through local NGOs. The project has focused on building capacity within the system through the establishment of resource centers and supporting training of staff by providing scholarships. Furthermore, the programme has trained and inducted Grade 17 public health nurses in all WHP districts. Additionally, monetary and non-monetary incentives are given to relevant staff in the WHP districts.[92]

The Women Health Project has recruited and supported 8000 LHWs, promoted the use of safe delivery kits and has established EmOC units and upgraded theaters and labour rooms in 20 districts.

Challenges: the programme faced start-up issues, particularly in the provinces, due to the late establishment of Provincial Coordination Units, insufficient staff and delays in the approval of work plans, particularly in Balochistan. These have been compounded by administrative procedural variations between the donor and recipient agency, modifications in original plans, legal complications and issues with cost estimates ↴ See section on *Unaddressed Barriers* – Page 75.

5.2.8 The National Maternal, Neonatal and Child Health Programme

Current situation: child health has been one of the priority public health areas in Pakistan for several decades and has led to a steady albeit slow improvement in child survival ↴ See Table 11. However, much of the improvement in child survival in Pakistan relates to older infants. Recent analyses indicate that Neonatal Mortality Rates (NMR) have remained relatively resistant to change and despite reported progress, an estimated 400,000 to 500,000 children under 5 years of age (including 160,000 newborn babies) die in their first year of life.[93] The MTDF benchmarks and the MDG targets for Under-5 Mortality Rate and IMR are ambitious and would necessitate quantum shifts in order to achieve these targets. This challenge can be further highlighted by taking a snapshot of the nutritional status of Pakistan's children. Twelve percent of the children below five years of age are severely underweight whereas 38% are moderate to severely underweight. Significant rural and urban disparities have also been shown in child health status; data have shown that the Under-5 Mortality Rates in the rural areas of Sindh are 117 compared to 68 in the urban areas in general and 55 per 1000 live births in the city of Karachi.[94] Disparities have also been reported between the rural (45%) and urban (30%) prevalence of malnourished children and within provinces in relation to the key child health indicators: Infant Mortality Rate of 71, 104, 77 and 79 per 1,000 live births has been reported for Sindh, Balochistan, Punjab and NWFP, respectively.[95,96]

As shown in Table 12, Pakistan has only made modest progress towards impacting maternal health outcomes over the last ten years. However, some recent indicators show a degree of improvement at an intermediate outcomes level; the proportion of women (15-49 years of age) who gave birth during the last three years and made at least one ante-natal consultation has recently been reported at 50% as opposed to earlier estimates for 1999/2000, which stood at 31%. The proportion of births attended by Skilled Birth Attendants (SBAs) has also shown progress, increasing from 18% in 1999/2000 to 31% in 2003 whereas contraceptive prevalence also improved in the last five years, rising from 27% in 1999/2000 to 34% in 2003. Despite this progress, it is well-established that each year 25,000 women die due to complications during pregnancy or childbirth. Ironically, 70-80% of all maternal deaths are due to direct obstetric causes such as haemorrhage, infection, eclampsia and obstructed labour. Moreover, recent estimates for abortion rate are 29 per 1,000 women of reproductive age, with an estimated 890,000 abortions annually; of these, an estimated 200,000 suffer from complications.[97]

The well-conceived National Maternal, Neonatal and Child Health Programme envisages improved access to NMCH services in Pakistan.

Challenges: high maternal, neonatal and child mortality in Pakistan can be attributed to a myriad of reasons; these include poverty, low levels of female literacy, high fertility rates, low skilled birth attendance rates, malnutrition among women and children, high incidence of communicable diseases (ARI, diarrhea, other communicable and vaccine preventable disease) and inadequate access to care. Furthermore, maternal and child health services have remained fragmented with gaps at the level of EmOC, 24/7 services and referral. This has been compounded by barriers at the demand side, low level of awareness about danger signs, a general lack of birth preparedness and low contraceptive prevalence.

A number of steps have been taken to address these challenges. The NP-FPPHC now makes it mandatory for LHWs to attend a newborn within the first 72 hours of birth. However, such measures must take into account, the capacity limitations of LHWs in relation to neonatal management. The success of this intervention will hinge on the manner in which necessary skills are provided to them and their capacity enhanced.[98] In addition, the National Maternal, Neonatal and Child Health Programme 2005-2010 envisages improved access to MCH services. This is a well-conceived strategy designed to address most of the barriers alluded to above; however, its successful implementation will depend on the manner in which a number of cross-cutting challenges are addressed ↴ See section on *Unaddressed Barriers* – Page 75. Furthermore, it is envisaged that strengthening of EPI and the Women Health Project and the incorporation of several health-related projects into the work-plan of the National Commission for Human Development will also assist in improving maternal health outcomes.[99]

5.2.9 The National Programme for the Prevention and Control of Hepatitis

Situation: all forms of hepatitis are of concern within a public health framework. Hepatitis A and E – a common cause of acute hepatitis in Pakistan – is amenable to primary preventive measures such as provision of safe drinking water and sanitation.[100] These have been discussed in another section ↴ See section on *Health Beyond the Health Sector*. Primary and secondary prevention of hepatitis B and C pose a challenge in Pakistan given their prevalence, the modes of their transmission and the complexity of the public health response. The prevalence of HBsAg positivity in the male

volunteer blood donors in Karachi has recently been estimated at 2% whereas the sero-prevalence of HCV in blood donors has been reported at 1.8%, with trend analyses revealing a significant linear increase in prevalence of HCV in relatively short durations (1998-2002).[101] The use of unsafe syringes accounts for more than 60% of the cases of Hepatitis C within the country; other causes include dental procedures, multiple and single blood transfusions, non-transfused obstetric cases and reuse of shaving blades and razors.[102,103] Owing to these trends, Pakistan has recently been termed 'the cirrhotic state'.[104,105]

The launching of the Rs 2.59 billion programme for the prevention and control of hepatitis with high-level commitment is a befitting response, given that Pakistan has been termed the 'cirrhotic state'.

The response: in view of the aforementioned trends, the launching of the Rs. 2.59 billion programme for the prevention and control of hepatitis with high-level commitment is a befitting response. This will assist in the mandatory vaccination of all children under one year of age and vaccination of the high-risk groups (healthcare personnel, dialysis patients, hemophiliacs, thalassaemics, hepatitis C virus patients). The programme is envisaged to promote safe blood transfusion, disposal of syringes, sterilization of medical devices, availability of safe water and disposal of sewage. In addition, it also includes health communication and capacity-building interventions. However, the successful implementation of these technically sound interventions will be a challenging task, given the rampant use of syringes – in many instances by non-qualified staff or those that do not adhere to safety concerns. It will also depend upon the manner in which a number of overarching issues are addressed ↴ See section on *Unaddressed Barriers* – Page 75.

Table 11. Pakistan's key health indicators (1947-2004)

Indicators	1947	1965	1971	1988	1991	1993	1999	2001	2003/4
Life expectancy (male)	32.9[i]	52.4[ii]	53.6[iii]	62.3 [iv]	59[iv]	58.1[iv]	62.7[iv]	64[iv]	65[iv]
Life expectancy (female)	34.4[i]	48.7[ii]	47.6[iii]	63.4[iv]	61[iv]	62.1[iv]	60.9[iv]	66[iv]	66[iv]
Crude death rate	-	-	43.1[iii]	36.3[iv]	35.8[iv]	35.3[iv]	32.1[iv]	30.1[iv]	26.5[iv]
Crude death rate	27.4[i]	15[ii]	11.4[iii]	10.8[iv]	9.8[iv]	10.1[iv]	8.3[iv]	7.2[iv]	7.0[iv]
Total Fertility Rate	-	6.6[ii]	7.1[iii]	6.5[iv]	6.0[iv]	5.7[iv]	4.5[iv]	4.1[iv]	3.9[iv]
Infant Mortality Rate	134[i]	136[vii]	145[viii]	107[iv]	102[iv]	102[iv]	82[iv]	77.[iv]	75.9[iv]
Under-5 Mortality Rate	-	-	-	140[iv]	140[iv]	120[iv]	103[iv]	105[iv]	100[iv]
Maternal Mortality Rate	-	-	-	-	533[ix]	-	-	340-400[x]	
Full immunization coverage	-	-	-	-	-	45[xi]	49[xi]	53[xi]	77[xii]
Immunization for measles %	-	-	-	-	-	51[xi]	-	-	57[xi]
Number of polio cases[XVI]	-	-	-	-	-	-	558[xii]	119[xii]	103[xii]
TB-DOTS coverage %	-	-	-	-	-	-	25[xv]	34[xv]	36[xv]
Wasting %*	-	-	-	-	-	-	-	13[xiii]	-
Stunting %*	-	-	-	-	-	-	-	37[xiii]	-
Underweight %*	-	-	-	-	-	-	-	38[xi]	-
Contraceptive prevalence rate %	-	-	20[xiv]	24[xiv]	25[xiv]	25[xiv]	27[xiv]	30[xiv]	34[xiv]
Deliveries by skilled personnel %	-	-	-	-	-	-	18[xi]	23[xi]	31[xi]
Pregnant females immunized against tetanus %	-	-	-	-	-	-	39[xi]	46[xi]	51[xvii]
Anemia (conjunctival pallor) in children < 5 years %	-	-	-	21.9[xiii]	-	-	-	29[xiii]	-
Iron deficiency anemia in pregnant women %	-	-	-	-	-	-	-	36[xiii]	-
Pregnant women visiting health facilities for antenatal	-	-	-	-	-	22[xvii]	31[xvii]	35[xvii]	50[xvii]
Post-natal care by skilled personnel	-	-	-	-	-	-	9[xvii]	9[xvii]	23[xvii]

i. Demographic reports of census, 1946-51[106]
ii. Population growth estimates for 1965[107]
iii. Population Growth Survey for 1971[108]
iv. Pakistan Demographic Surveys, 1988-2003[109]
v. National Impact Survey, 1964-65[110]
vi. Population Labor Force and Migration Survey, 1970-75[111]
vii. Pakistan Fertility Survey, 1965-69[112]
viii. Pakistan Fertility Survey, 1970-75[113]
ix. Pakistan Reproductive Health and Family Planning Survey, 2000-01[86]
x. Planning Commission, 2003[114]
xi. Pakistan Integrated Household Survey, 1990-2001[115]
xii. Polio surveillance Annual Reports, 1999-2003[116]
xiii. National Nutrition Survey, 2001-02[117]
xiv. National Institute of Population Studies, 2003[118]
xv. Pakistan TB Control Programme Annual Reports, 1999-2003[119]
xvi. Pakistan Social and Living Standards Measurement Survey, 2004[120]

**Stunting (low height for age):* reflects shortness-for-age; an indicator of chronic malnutrition calculated by comparing the height-for-age of a child with a reference population of well-nourished and healthy children.

Wasting (low weight for height): calculated by comparing weight-for-height of a child with a reference population of well-nourished and healthy children.

Underweight (low weight for age): measured by comparing the weight-for-age of a child with a reference population of well-nourished and healthy children.

[XVI] Polio Surveillance initiated in 1997

5.2.10 The National Programme for the Prevention and Control of Blindness

The National Survey of Blindness and Low Vision 2002-04 has shown that there are an estimated 1.5 million blind people within the country, with the leading cause of blindness and low vision being cataract – a curable condition.[121] The launching of the National Programme for the Prevention of Blindness and its inclusion in the MTDF 2005-10 in September 2005 is, therefore, fully justified. It is hoped that this programme will build on the successful work carried out earlier by non-profit organizations and will establish appropriate linkages in order to reach its ambitious target of strengthening and upgrading 63 districts and 147 tehsil eye units.

The launching of the National Programme for the Prevention of Blindness and its inclusion in the Medium Term Development Framework is fully justified.

5.2.11 National programmes on non-communicable diseases, mental health and injuries

Non-communicable diseases and injuries are amongst the top ten causes of mortality and morbidity in Pakistan and account for 25% of the total deaths within the country.[122,123] One in three adults over the age of 45 years suffers from high blood pressure;[124] the prevalence of diabetes is reported at 10% whereas 40% men and 12.5% women use tobacco in one form or the other.[125,126] Karachi reports one of the highest incidences of breast cancer for any Asian population.[127] In addition, estimates indicate that approximately one million people suffer from severe mental illnesses and over 10 million individuals from neurotic conditions.[128] Furthermore, 1.4 million road traffic crashes were reported in the country in 1999, of which 7,000 resulted in fatalities.[129]

The National Action Plan for the Prevention and Control of Non-Communicable Diseases and Health Promotion in Pakistan (NAP-NCD) was launched in 2003 under a tripartite collaborative arrangement involving the Ministry of Health, the NGO Heartfile and the WHO office in Pakistan. The terms of the partnership, stipulated in an official Memorandum of Understanding gave Heartfile a lead role in this arrangement.[130] The partnership initiated work with the development of a strategic plan of action, which expanded the traditional definition of chronic diseases to include injuries and mental health within its framework.[131,132] This programme is novel both on the account of the public-private partnership model within which it has been organized and the Integrated Framework for Action which it utilizes to incorporate multi-disciplinary interventions across the broad range of chronic diseases into a single model. Presently in the first phase of its implementation, the current scope of the NAP-NCD work involves the establishment of a surveillance system, a nationwide behavioural change communication campaign, introduction of chronic disease into the work-plan of LHWs, key legislative actions, initiation of work within the provinces and experience-sharing within and outside the country. Details about implementation of the programme are posted at http://heartfile.org/napppp.htm.

Though the programme has made steady progress over the last two years, its implementation has highlighted a number of operational challenges, which stem from lack of procedural clarity in relation to the manner in which the public and private sectors should interface in a participatory mode. These need to be bridged.

The tripartite public-private partnership programme on non-communicable diseases has been spotlighted in the World Chronic Disease Report of WHO in 2005.

5.2.12 Leprosy control activities

In Pakistan, the control of leprosy is the result of one of the most successful and pioneering public-private partnerships in health. Leprosy control efforts have been spearheaded by the NGOs Marie-Adelaide Leprosy Centre and Aid to Leprosy Patients in a public-private partnership with the Ministry of Health. Under this arrangement, part of the cost is borne by contributions from the Ministry of Health. Leprosy was declared controlled in 1996 with an officially reported incidence of 1/100,000. However, the incubation period of leprosy is 3-40 years and surveillance activities need to be carried out for another 20-40 years. With this in view, an operational action plan – supported by public sector resources – is currently being implemented by the aforementioned NGOs; this involves support to leprosy control centers and mobile service delivery units in districts. The expertise and outreach of this network needs to be integrated with other more structured and formal public health outreach mechanisms.

The control of leprosy in Pakistan is the result of a successful public-private partnership in health.

5.2.13 Other areas

The earthquake of October 8, 2005 led to an increase in the incidence of leishmaniasis.

There has been a resurgence of leishmaniasis in Pakistan after the influx of Afghan refugees to parts of NWFP and Balochistan. Afghanistan is one of the 88 countries in the world, in parts of which leishmaniasis is still endemic. Repeated droughts in the region contributed to the spread of the disease, both in Afghan refugee camps of NWFP and Balochistan as well as in host communities. As a result, leishmaniasis is currently endemic in many areas of Balochistan, interior Sindh and Multan and the Federally Administered Tribal Areas (FATA).[133,134] A study conducted in 48 Afghan refugee camps and 19 neighbouring villages in Balochistan and NWFP has shown a 2.7% prevalence of ACL lesions and a 4.2% prevalence of scars. In neighbouring Pakistani villages, the corresponding prevalence was reported at 1.7% and 4.9%, respectively.[135]
The earthquake of October 8, 2005 brought in its wake, many vector-borne diseases. In disaster-struck areas, there were anecdotal reports of increased incidence of leishmaniasis, which is endemic in AJK. The risk of spread is currently high due to ideal breeding conditions for both its reservoir (dog) and its vector (the sandfly). Despite its endemicity, there are no federal or provincial programmes for the control of leishmaniasis. The management of cases through the establishment of *adhoc* response units in areas where media or other sources frequently report

cases constitute the only response to this endemic disease. Based on the epidemiological patterns of the disease, a comprehensive intervention is warranted; this must take cognizance of all the elements of a communicable disease control programme – vector control, prevention of the propagation of the disease and its treatment.

5.2.14 Unaddressed barriers

What are the invisible barriers to the implementation of well-resourced federally-led public health programmes at the provincial and district levels?

Notwithstanding all the challenges alluded to in the aforementioned sections, it must be recognized that the national programmes and other public health initiatives have many strengths. Through these programmes, considerable field outreach and presence at the grassroots level has been achieved; this enables the health sector to organize field-level activities at a nationwide level such as in the case of the national immunization days. The presence of LHWs at the grassroots level has led to a positive impact in terms of notable differences in health-related knowledge and behaviour and the use of immunization, reversible methods of contraception and antenatal care between communities served by LHWs as compared to those that are not.[136]

Another positive aspect of Pakistan's public health interventions stems from their scope, which goes beyond the MDGs – thus adopting what can be termed as a local MDG+ agenda. Pakistan is one of the few developing countries, which has mainstreamed non-communicable diseases and injuries into its public health agenda and justifiably so, given that these are amongst the top ten causes of mortality and morbidity in the country,[137,138] and more recently, national programmes for the prevention and control of hepatitis and blindness have been launched. However, a review of each of these programmes has shown a number of cross-cutting challenges; these are discussed hereunder. It is critical to the ultimate success of these initiatives that these challenges are proactively and effectively dealt with.

Pakistan is one of the few developing countries, which has mainstreamed non-communicable diseases and injuries into its public health agenda and justifiably so, given that these are amongst the top ten causes of mortality and morbidity in the country.

The federal-provincial interface: problems at the level of the federal-provincial interface are most frequently apparent within the health system while implementing the federally-led national public health programmes at the provincial level. *At the federal level*, personnel, infrastructure and institutional arrangement-related gaps in provincial counterpart arrangements have been reported.[139] In addition, issues such as unavailability of full-time properly trained programme managers, the absence of counterpart provincial PC 1 and provincial implementation units, shortage of technical and administrative staff and gaps in specific implementation-related administrative and infrastructure requirements such as blood transfusion services, food fortification labs, cold chains, etc., have also been reported. On the other hand, at the *provincial level*, it is perceived that planning and budgetary allocations at the federal level do not adequately address the recurrent cost implications of these programmes in the provinces, nor do they factor-in appropriate resources for provincial capacity-building and that often, budgetary releases to the

provinces are less than the actual requirements reflected in the PC 1. More importantly, within some programmes, there are impediments to the timely release of allocated budgets from the federal level to the provinces and from the provinces to the districts, as a result of decision-making and/or institutional delays. These problems are compounded by lack of coordination and turf issues ↴ See section on *Federal-Provincial Interface.*

The provincial-district interface: the process of devolution has created another imperative for the clear definition of roles and responsibilities at each level of government. Under the district devolved system, many health sector activities are now meant to be locally implemented; however, in many instances, these are affected by provincial-district souring of relationships and the undue control that provinces exercise over fund-flows and personnel. There is, therefore, a need to devolve fiscal and administrative responsibilities fully to the districts. However, this will only be successful if there is adequate capacity and transparency at the district level; this must be the target of a concerted effort ↴ See section on *Modes of Decentralization.*

The process of devolution has created another imperative for the clear definition of roles and responsibilities at each level of government.

The inter-sectoral scope of health: factors that determine health status with reference to the goals being targeted through the federally-led public health interventions range much broader than those that are within the realm of these programmes. Social and developmental conditions such as poverty, unemployment, illiteracy, malnutrition and gender biases are known to have important implications in this regard. The health status of children in particular is strongly influenced by the educational status of the mother; it is well-established that increasing the level of education of mother can be one of the most effective public health interventions for reducing child mortality.[140] Such evidence – if analyzed within the Pakistani context – challenges the *scope* of our present public health interventions. There is, therefore, a need to broaden the vision for health. **Secondly**, the disease-focused preventive and promotive programmes have, in a sense, taken the *health focus* away from other areas such as water and sanitation, which have a strong bearing on health status. Recently, efforts are underway to bridge this gap. The admission of safe water as one of the priority interventions as part of the *Khushaal* Pakistan Programme is an important step in this direction.[XVII] However, it would be critical to use evidence-guided interventions to achieve stipulated objectives ↴ See section on *Health Beyond the Health Sector.* Public health interventions to secure the provision of clean water and solid waste disposal must receive close attention on an ongoing basis.

It is critical to use evidence-guided feasible interventions to achieve stipulated objectives of the *Khushaal* Pakistan Programme.

Programme vis-à-vis systems orientation: in Pakistan, public health has been oriented around several national programmes over the last several decades. The implementation of each programme yields evidence which points to the need for strengthening of the health systems. Robust systems would be effective and efficient channels for the delivery of each programme. This realization, which has been reinforced recently during the round of MCH consultations, must receive careful attention.

[XVII] The Khushaal Pakistan Programme is the Government of Pakistan's recently launched pro-poor intervention

Programme integration: at the systems level, it is critical to integrate programmes so as to make the best use of available resources. There is a need to capitalize on existing opportunities to integrate activities and interventions across the national programmes in order to optimize resources. Integration can be achieved at the disease, systems or action levels; it can also be achieved by combining prevention, control and health promotion in one programme. Each of these must receive careful consideration.

Governance and implementation: administrative bottlenecks, decision-making delays and onerous financial and administrative procedures are known to undermine programme implementation. There is a clear need to address these issues; in tandem, capacity must be built within the respective cadres to overcome these impediments. There is also a need to institutionalize management and governance reforms and build better incentives through civil service reforms so as to ensure efficiency at the management level. These considerations have been discussed in detail in an earlier section ↴ See section on *Implementation and Governance.*

Public health programmes are also challenged by issues specific to low-resource settings and remain largely unaccounted for. Problems such as misuse of vehicles, wastage of resources, pilferage, drug theft, inadequate and irregular power supply with implications for storage of vaccines often go unnoticed and are unaccounted for, especially in remote areas. These are amenable only to overarching processes and have been discussed in several places in this document.

Public health programmes are also challenged by issues specific to low-resource settings and remain largely unaccounted for.

Role of the private sector in outreach: the public sector is currently responsible for delivering public health services to people in the country. However, 70% of the healthcare delivery is provided by the private sector; the latter must be drawn into the loop and its outreach capacity harnessed for enhancing the scope of these interventions. However, issues of quality and capacity will have to be addressed and a regulatory framework will have to be developed to regulate private sector providers in an appropriate manner ↴ See section on *Private Sector Healthcare.*

Performance of basic health services and the new service delivery models: the delivery of preventive services is also linked to the performance of BHUs and RHCs as they serve as the channel for delivering of these services. Efficient delivery of preventive health services should therefore, ideally, dovetail with structural reforms at this level. A number of new service delivery models at the basic healthcare level are currently in the process of being launched within the country. These involve contracting out services to NGOs and building on the evidence gathered from a pilot intervention in Punjab. Such models are shown to increase utilization patterns, patient turnover and the availability of drugs in healthcare facilities; however, on the other hand, it is perceived that they can undermine public health activities in the absence of a conscious effort to safeguard them since they structurally focus on curative aspects of care. Notwithstanding major issues in their present form, BHUs and RHCs are training hubs for LHWs and serve as an integral cog in the delivery of many other public health services; within this context, it is of concern that in the present model, the State appears to relinquish control to a large extent. This highlights the need for a conscious and concerted effort to mainstream preventive, promotive and disease-control-related activities in these new contractual relationships. The State must define mechanisms for the delivery of health-related public goods and priority services and its new operational role in these models. Such reforms should also assess the feasibility building incentives for promoting preventive practices in the communities these serve; measures such as

distribution of iodized salt, free bed nets in malaria-affected rural areas and branded soaps can create added interest in preventive activities. Partnerships with NGOs can be rewarding and fruitful in this connection; however, these necessitate the development of a policy and procedural framework ↴See section on *Basic Health Facilities.*

Partnerships with NGOs can be rewarding and fruitful; however, these necessitate clear policy and procedural frameworks.

Human resource: shortage of professional and technical staff is an important consideration in the delivery of preventive services; as opposed to this, there is a ban on recruitment of staff even for vacant posts. There is a need to rethink the rationale for generalizing this ban. Public health staff is usually given inadequate incentives to work within the public sector – the level of incentives offered is totally incompatible with what they are likely to be offered in the private sector, which is where many opt for services ↴See section on *Human Resource.*

Prevention-cure disparity: one of the unaddressed challenges in relation to the delivery of preventive services relates to resource allocations – preventive vis-à-vis curative. Despite a high prevalence of epidemic and endemic preventable diseases and the purported focus of successive policies on prevention, public spending has been directed towards treatment and tertiary care. A comparison of the primary healthcare budgets with clinical health programme budgets in successive Five-Year Plans shows that clinical services have consistently consumed more than 45% of the total health budget.[141] Additionally, part of the PHC budgetary allocations reflected in Table 12, earmarked for BHUs and RHCs, are also diverted to curative care. These disparities must be addressed.

Table 12. Primary healthcare and clinical care programme allocations in Five-Year Plans: 1955-2004 (in Pak. Rs. [Million])

	1st Plan 1955-60	2nd Plan 1960 -65	3rd Plan 1965-70	4th Plan 1970-78	5th Plan 1978-83	6th Plan 1983-88	7th Plan 1988-93	8th Plan 1993-98	9th Plan	10th Plan
Primary healthcare i	20 (26%)	81 (46%)	171 (61%)	1,265 (53%)	1,954 (43%)	5,640 (50%)	7,371 (56%)	16,205 (50%)	24,000 (60%)	65,000 (76%)
Clinical health program ii	50 (66%)	83 (48%)	98 (35%)	970 (41%)	2,423 (53%)	5,250 (47%)	5,275 (40%)	10,000 (31%)	12,000 (30%)	95,000 (11%)
Sub-total (i+ii)	70	164	269	2,235	4,377	10,890	12,646	26,205	36,000	74,500
Total plan allocation for health	76	174	281	2,381	4,584	11,255	13,200	32,360	40,000	85,000

Five-Year Plans: Planning Commission, Government of Pakistan

Rural-urban disparity: seventy percent of Pakistan's population lives in the rural areas; however, health indicators in the rural areas are considerably worse off compared to urban areas ↴See Table 13. Recent surveys have reported significant rural-urban disparities in child health status. Data from the Multiple Indicator Cluster Survey 2003/04 in Sindh have shown that the Under-5 Mortality Rate in the rural areas of the province is 117 compared to 68 in the urban areas whereas the Under-5 Mortality Rate in the city of Karachi has been reported at 55 per 1000 live births. Stark disparities have also been reported between the rural (45%) and urban (30%) prevalence of malnourished children in various parts of the country.

The Survey has also shown significant provincial disparities in key child health indicators such as IMR. Infant Mortality Rates of 71, 104, and 77 per 1,000 live births have been reported for Sindh, Balochistan and Punjab respectively, whereas the same survey conducted in 2001/02 reported an IMR of 79 per 1000 live births for NWFP. This shows that IMR in Balochistan is very high compared to the national average. High maternal, neonatal and child mortality in Pakistan is attributed to high fertility rate, low skilled birth attendance rate, low levels of female literacy, poverty, malnutrition among women and children, communicable diseases (ARI, diarrhea, other communicable and vaccine preventable disease) and inadequate and unreliable access to maternal and child care services.

The public sector prioritizes delivery of health services in the rural areas; however, despite the existence of an elaborate infrastructure, there have been issues with service delivery. On the other hand, 30% of the population enjoys geographical access to tertiary care hospitals, even for basic services such as immunization and oral re-hydration. A review of budgetary allocations at the federal and provincial levels reinforces impressions about rural-urban disparity in relation to health expenditures – a predominance of teaching and specialized hospitals and medical schools in the distribution of recurrent expenditures is clearly evident.

The Under-5 Mortality Rate has been reported at 117 in the rural areas and 68 in the urban areas of Sindh and 55 per 1000 live births in the city of Karachi.

Surveillance, monitoring and evaluation: reviews of most programmes show weaknesses in the area of surveillance and monitoring; in addition, inadequate attention has been paid to formative aspects of research while structuring preventive interventions. These considerations have been discussed in detail in the Gateway Paper ↴ See section on *Research.*

Table 13. Rural-urban disparities in selected health indicators

Indicator	Punjab			Sindh			NWFP			Balochistan			Pakistan		
	Urban	Rural	Overall	Urban	Rural	Overall	Urban	Rural	Overall	Urban	Rural	Overall	Urban	Rural	Overall
Fully immunized children (12-23 months of age) %	89	81	84	87	62	73	85	73	76	79	55	62	87	72	77
Infant Mortality Rate	55	82	77	44	87	71	-	-	-	88	106	104	-	-	76
Antenatal care %	67	47	56	74	40	55	51	35	39	57	27	35	66	40	50
Post-natal consultations %	32	17	23	41	16	27	29	17	21	32	10	16	34	16	23
TT immunization of pregnant women %	72	54	62	68	34	48	58	40	45	46	17	25	67	41	51
Contraceptive use %	43-52	32	36	46	21	31	45	28	30	33	9	13	-	-	36
Houses with tap water %	49	16	32	71	20	45	63	41	48	85	23	40	60	23	39
Under-5 Mortality Rate	75-107	119	112	60	123	100	-	-		130	16	158	-	-	103
Undernourished children %	23-30	40	34	30	45	40	-	-		44	41	43	-	-	38
Skilled provider-assisted childbirth %	55-73	37	44	64	23	36	40	26	28	47	16	21	39	15	31

i. Pakistan Social and Living Standard Measurement Survey, 2004-05[142]
ii. Pakistan Demographic Survey, 2003[143]
iii. National Institute of Population Studies, 2004[144]
iv. Pakistan Reproductive Health and Family Planning Survey, 2000-01[84]
v. National Nutrition Survey, 2001-02[117]

Table 14. Issues and possible solutions – preventive and promotive programmes

Issues	Possible solutions
Lack of integration	Integrate actions across the range of programmes Integrate preventive and promotive services with the existing public health and social welfare programmes
Paucity of locally relevant evidence and lack of utilization of existing evidence	Build infrastructure and capacity to generate evidence *relating to* outcomes; the relevance, acceptability, feasibility, resource appropriateness and social suitability of proposed interventions and the effectiveness of interventions Strengthen surveillance systems; generate empirical evidence in priority areas and stipulate monitoring of interventions as a key programme function ↴See section on *Research*
Gaps in planning	Define priorities and indicators Clearly lay out strategic and operational plans Pay careful attention to the planning *process* and use appropriate planning tools Foster stakeholder participation, ownership and clearly define roles and responsibilities at each level Conduct feasibility assessments and take into account evidence from pilot interventions
Institutional impediments to the implementation of programmes	Decentralize decision-making Institutionalize managerial audit Prioritize governance and management reforms Minimize administrative overheads through management and personnel efficiency Develop guidelines and build capacity to overcome key implementation bottlenecks
Problems at the federal-provincial level	Establish a national coordinating mechanism to review actions initiated at the federal and provincial levels within the context of national health sector planning Develop expeditious mechanisms for a broad-based federal-provincial dialogue
Unrealized implications of federal programmes at the provincial level	Carefully analyze the infrastructure, personnel and overall recurring costs of federal programmes at provincial levels and dedicate appropriate resources
Gaps in personnel, infrastructure and institution-related provincial counterpart arrangements	Create appropriate counterpart institutional arrangements in the provinces Designate provincial focal points Allocate appropriate resources at the provincial level and clearly define roles and responsibilities at each level

Table 14. Continued

Issues	Solutions
Gaps at the district level	Ensure timely release of budgets Decentralize fiscal and administrative responsibilities Build capacity at the district level
Staff absenteeism, misuse of funds, pilferage, fraud, abuse and theft of resources	Build adequate performance-based incentives for staff Transparently regulate and implement laws relating to these matters
Requirement-release discrepancy in budgetary allocations	Carefully assess and fulfill budgetary requirements of federally-led programmes at the provincial and district levels
Limited outreach	Harness the strength and outreach of private sector healthcare providers, traditional healthcare providers and the not-for-profit sector to deliver preventive services
Unsustainable and underutilized basic health units	↴See section on *First Level Health Facilities*

5.3 Private sector healthcare

The private health sector – defined as providers and suppliers of health inputs outside the government sector – includes both for-profit providers and NGOs. This section deals with the for-profit sector; the non-profit sector has been discussed elsewhere in the Gateway Paper ↴See section on *Non-governmental Organizations*. The sector constitutes a diverse group of doctors, nurses, pharmacists, traditional healers, drug vendors, as well as laboratory technicians, shopkeepers and unqualified practitioners. The services they provide include hospitals, nursing homes, maternity clinics; clinics run by doctors, nurses, midwives, paramedical workers, diagnostic facilities and the sale of drugs from pharmacies and unqualified sellers. However, in some cases, the distinction between public and private sectors is not very clear as many public sector practitioners also practice privately – legally or illegally. The sector is fragmented and is characterized by a mixed ownership pattern, many types of providers and different systems of medicine. Majority of private sector hospitals in Pakistan has sole proprietorship or a partnership model of organization and very few belong to the 'corporate public limited' category. Stand-alone clinics all across Pakistan are the major providers of out-patient care, and except for a minute number, majority of these clinics falls in the sole proprietorship category.

Table 15. Physical infrastructure for health service delivery[145,146]

Type	Public sector (no)	Private sector (no)
Tertiary care hospitals	56	8
District headquarter hospitals	116	-
Small and medium sized hospitals	850	692
Basic Health Units	5,290	-
Rural Health Centers	552	-
Total number of available beds	98,684	20,000
Total private healthcare institutions	-	73,650
Partnership-based private clinics	-	71,106
Sole proprietorship private clinics	-	1,271
Trust hospitals/operated by NGOs	-	581
Maternity care centers	907	-
Tuberculosis clinics	289	-

Pakistan is a large market for private healthcare delivery. The private sector has developed considerably by capitalizing on demand despite the lack of a conscious effort by the government to promote it. Its mammoth size notwithstanding, this sector has remained poorly regulated. As a result, most facilities have been established to provide a living or profits to the owner but do not offer universal financing concessions to poor patients. The Health Policy of 2001 underscores the need to mainstream private sector health delivery into public sector planning. However, tangible steps need to be taken to translate this policy commitment into actions.

The health policy of 2001 underscores the need to mainstream private sector health delivery into public sector planning. Tangible steps need to be taken to translate this policy commitment into actions.

How can health policy-makers best capitalize on the strengths of the private sector for delivery of better healthcare services to the people?

It is the government's duty to facilitate the private sector in general and this holds true for the health sector as well. However, the government also has a fiduciary responsibility to regulate and guide the patient-centered delivery of services by the private sector, given that its tax-payers receive care from this sector. This underscores the need to address two issues. The first relates to quality assurance whereas the second relates to the free-market approach which has commercialized the delivery of care in an environment where conflicting interests abound. The challenge is therefore, to foster, promote and strengthen private sector healthcare delivery – inherently structured for profit-making objectives – and balance it against quality and patient safety on the one the hand. On the other hand, there is a need to safeguard the interests of the poor and the marginalized to whom the government has a responsibility to deliver essential health packages as a public good. Within the context of the latter, the government must explore ways of utilizing the extensive infrastructure of the private sector to deliver health-related public goods; it should, at the same time, strengthen the private sector for improved service delivery outcomes. However, this must go hand-in-hand with efforts to safeguard the interests of the poor and the disadvantaged. Work in this direction can begin by testing models that use public funding to ensure that poor people who access health services through private providers are not disadvantaged or discriminated against ↴See section on *Social Health Insurance.* A cohesive and inclusive policy must be charted to address these interrelated issues, which have a strong bearing on health status and the health system.

The government must explore ways of utilizing the extensive infrastructure of the private sector to deliver health-related public goods, and at the same time, strengthen the private sector for improved service delivery outcomes.

5.3.1 Private sector and the broader delivery context

Policy-makers focus on the income level of patients as a determinant of access. What is the situation from the providers' perspective?

The vast majority of healthcare in Pakistan is financed out-of-pocket. Various studies conducted on the dynamics of private health sectors in low-income countries reveal that income does contribute to the development of, but is not the main factor determining the size of the private sector. If income were the real barrier to access, the private sector in Pakistan would not be the provider of 70% of care and the pharmaceutical industry would not have experienced such growth. People are willing and do pay whatever they can to get the best level of care available; studies

have shown that people prefer private ambulatory services over public care for quality reasons. Paradoxically, however, people prefer public hospitals for inpatient care owing to the fact that private facilities are not well-equipped and costs can be inhibitory. A plausible explanation to this stems from the fact that the majority of care is provided by stand-alone clinics operated by individual providers who want to maximize profits while making the minutest investment in facilities and services, given the visible commercialization of the practice of medicine in Pakistan. As a result, the financial standing of the provider, the inhibitory cost of technology and absence of stipulated standards for such clinics leaves the private healthcare provider vacillating between a cost and quality tradeoff. The government should explore options for subsidizing care through partnerships with the private sector in order to mitigate these issues.

Pakistan has an informal private sector and despite the presence of a huge market, no formal private health systems have been set up in the country. The country's private health sector remains unconsolidated and the corporate sector has never formally tried to strengthen it. In the US, the corporate sector has played a major role in financing and developing the health sector by virtue of an employer-based health insurance model; this has led to the creation of a large health system for managed care consolidating existing providers. Useful lessons can be drawn from this experience.

Private providers, even when employed in the public sector, work quite independently of the public sector. The lack of a regulatory mechanism and/or issues with the implementation of laws leads to disconnect between the public and private scopes of work. Both the sectors need more interfacing so that collaborative institutional processes can be set into motion; these will ultimately benefit the health of the nation. Within this context, the Gateway Paper discusses a number of points in an issue-oriented approach. Other important and pertinent areas have been covered elsewhere in the document ↴ See sections on *Public-Private Partnerships, Non-Governmental Organizations* and *Health Financing.*

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5.3.2 Quality of healthcare delivery

The private sector is heterogeneous and provides varying levels of care; issues related to provider-driven over-consumption of health services, over-prescription, and over-use of diagnostics are well known. These issues need to be approached through appropriate legislation and regulation. However, in order to address them effectively, there is also a need to bring about changes in the attitudes and orientation of the public and the private sectors. This necessitates actions at several levels including better monitoring of healthcare providers, ensuring their adherence to stringent professional ethical guidelines, the development and dissemination of low-resource-setting-sensitive capacity-building tools and the development of an inherently sustainable CME programme, which makes ongoing education both obligatory as well as rewarding for private sector healthcare providers. If quality of care is not high on the agenda, a quality culture will never be fostered. Training of hospital management, medical directors and health staff is vital to introducing this culture and the government must take responsibility for this ↴ See section on *Human Resource.*

5.3.3 Credentialing of providers

What are the issues with service provider credentialing?

The ever-increasing problem of quackery is compounded by weak regulatory mechanisms that make credentialing of providers all the more important and relevant in the private sector's pursuit of quality in healthcare delivery. Often, paramedics in small cities operate independent practices in surrounding rural areas in the evenings. These providers are apt at administering intravenous procedures and can 'handle' minor cases of RTI, diarrhea and other common illnesses. In some cases, these illegal practitioners enjoy considerable respect and may be preferred over public providers. The credentialing of providers can be very effective in curbing quackery but the mechanism must be based on empowering purchasers of healthcare via an effective communication strategy. Any such strategy should constitute a reporting system – web-based and/or printed material – that provides information about physicians and their credentials. Similar procedures could be adopted for nurses, paramedics and alternative medicine providers.

5.3.4 Accreditation of private hospitals, nursing homes and clinics

Why is an accreditation mechanism critical to the success of hospital reforms?

There are currently no accreditation or quality maintenance mechanisms for private hospitals and nursing homes in Pakistan. As a result, there is no incentive or disincentive for ensuring or not ensuring optimal quality of service particularly when facilities seem to make a high return on investments. This also manifests itself as inadequate clinical and support services in the case of most hospitals and nursing homes. With notable exceptions, hospitals, nursing homes and clinics in Pakistan do not follow facility design standards and the high cost of building a hospital almost always leads to a tradeoff between quality and costs. Private clinics are more than often set up in unhygienic environments and employ rudimentary medical technology; additionally, the ownership patterns characterized by sole proprietorships or partnerships (amongst doctors) usually do not have enough leverage to establish multidisciplinary facilities with optimal technological backup. Once facilities have been established, no formal mechanism exists to ensure continued quality of care through yearly or biennial inspections by local health authorities. On the other hand, PMDC only licenses doctors to practice medicine but does not provide minimum standards for the establishment of healthcare facilities.

The government should establish mechanisms to ensure optimal quality for different tiers of providers across the continuum of care. Such measures should also include the establishment of an institutional mechanism – the National Council for Healthcare Quality. The Council should be mandated to formulate minimum quality standards for the establishment of hospitals, nursing homes and clinics. It should also provide specific criteria for yearly/biennial inspection of healthcare facilities and undertake inspections to ensure compliance with these standards. The *Aga Khan University Hospital* and the *Shaukat Khanum Memorial Hospital* are in the process of getting accredited from the Joint Commission for Accreditation of Hospital Organizations, USA, which certifies facilities worldwide on specific performance criteria. There is a great need for a local accreditation council for defining and maintaining optimal standards of management, quality and health outcomes of services provided in private facilities. The potential within PMDC to play a role in this connection needs to be explored.

The government should establish mechanisms to ensure optimal quality for different tiers of providers across the continuum of care. Such measures should also include the establishment of an institutional mechanism – the National Council for Healthcare Quality.

5.3.5 Provider reimbursement

Physicians and hospitals are reimbursed through individual out-of-pocket payments; there is no limit on provider fee in Pakistan. Competition has not shown to limit the fee charged by doctors and the growth in Consumer Price Index (CPI) for doctors' fees is known to be faster than that of drugs in the country. During the period October 2003 to September 2004, the CPI for drugs increased by 1.00 points while it grew by 1.61 points for doctors' fees.[147] As with other areas, this aspect of private healthcare provision has never been comprehensively evaluated; there is therefore a need to explore the fee structures and other provider reimbursement mechanisms prevalent in the private sector and their implications for access in low-income groups in the country. In addition, there is also a need to establish an independent private sector representative body that mandates standardized reimbursement fee structures.

5.3.6 Clinical support services and diagnostics

What are the ethical issues surrounding irrational use of diagnostic services?

The practice of medicine in Pakistan has traditionally relied on provisional diagnosis or the objective findings of the doctor based on history, signs and symptoms of the suspected disease. Historically, this has been due to the lack of use/under-use of modern diagnostic technology and high costs, especially in the case of small private clinics. However, during the early 90s, there was a mushroom growth of diagnostic facilities due to the lucrative returns on investment; most of these surrounded large public hospitals. While there are no clear data on ownership, management, costs, or other functions of these facilities, implicit mechanisms for commission-based incentives have evolved over the years which, more often than not, lead to over-use of these services and add to the total cost of care. In many cases, these facilities are owned by public sector employed doctors who have organized practices across the street. There are anecdotal reports of incidences where managements of public facilities deliberately impede certain tests since these are offered at private facilities across the street.

In addition to these implicit incentives that providers have established to maximize profits, the support-services sector is marred by other problems such as absence of design standards, no stipulated minimum requirements (technology, human resource, and quality) for establishing such facilities, lack of an accreditation mechanism and lack of public-private partnerships to minimize cost incurred by the patient. The private health sector does not have an incentive to optimize the quality of these tests or to reduce the number of tests performed per patient. Additional research in this area is needed to facilitate policy-makers in their pursuit to rationalize and to build efficiency in clinical support services amongst private sector providers of clinical support and diagnostic services.

There are anecdotal reports of incidences where the managements of public facilities deliberately impede certain tests since these are offered at private facilities across the street.

5.3.7 Patient safety

As quality and patient safety become core issues in the delivery of healthcare internationally, there is a clear need to rethink how the practice of medicine in Pakistan can be made safer and more patient-centered and quality-oriented. All three of these issues are intertwined and serve both the patient and the provider. Patients whose medical treatment goes wrong can suffer harm and physical problems. However, they can also suffer a second trauma from the way the incident is subsequently handled. Doctors often fail to explain what went wrong and why, and then are not willing to admit their faults. Healthcare organizations are seen as defensive and patients are left questioning events, not knowing what happened and how it can be put right. There is a clear need to introduce a culture of patient safety in health systems – from medical colleges and teaching hospitals to private clinics, nursing homes and hospitals. Healthcare staff – doctors, paramedics and nurses – needs to be trained in what entails patient safety. For example, medication errors tend to fall into three categories: prescribing, dispensing and administering of medicines. If the provider is not trained, there will be no formal monitoring of such errors and thus a culture of patient safety will never evolve. There is a need to build capacity to collectively examine ways to reduce the frequency of medical errors.

5.3.8 Measuring and reporting performance

With the exception of some hospitals – *Aga Khan University Hospital, Shaukat Khanum Memorial Hospital* and a few others – hospital performance is neither measured nor reported to the public. Some hospitals do, however, perform audits and gather demand or productivity-related data for internal planning purposes; these reports are generally not in the public domain. A few consumer empowerment groups and advocacy organizations have pressed for increased patient awareness in order to facilitate informed decision-making. One of the ways to this end is the development of quality measurement and reporting mechanisms that are accessible to the general public. The feasibility of introducing quality audits by independent organizations must be explored as a first step and specific quality indicators will have to be developed.

Table 16. Issues and possible solutions – private sector healthcare providers

Issue	Possible solutions
Regulation: lack of a formal regulatory mechanism for private sector healthcare providers and delivery mechanisms	Develop and transparently enforce a regulatory mechanism in order to ensure adherence to stringent professional standards by healthcare providers
Lack of formal private health systems: absence of formal private health systems within the country	Explore policy options to support the development of private health systems within the country and develop policy objectives
Outreach: 70% of the outpatient contacts in Pakistan are with service providers in the private sector; however, private sector health delivery has not been mainstreamed into planning	Use the private sector's on-ground infrastructure to deliver health-related public goods and essential health services Use public funding to ensure that poor people who access services from private providers are not disadvantaged or discriminated against
Capacity issues: absence of a formal mechanism for building capacity and ensuring quality	Develop an institutional mechanism and national standards to update the knowledge and skills of private sector healthcare providers Develop a CME programme that makes ongoing education obligatory and rewarding Develop low resource setting-sensitive capacity-building tools Explore the feasibility of broadening the scope of the Pakistan Medical and Dental Council
Accreditation: absence of accreditation or quality maintenance mechanisms for private hospitals and nursing homes	Develop a National Council for Healthcare Quality and mandate it to formulate minimum quality standards for the establishment of hospitals, nursing homes and clinics Develop specific criteria for yearly/biennial inspection of healthcare facilities and inspection mechanisms to ensure compliance with these standards
Lack of evidence: paucity of data on functioning of the private health sector	Conduct research to: assist with rationalizing and building efficiency in clinical support services assist with the monitoring of patient safety errors develop quality measurement and reporting mechanisms accessible to the general public mitigate provider-driven over-consumption of health services, over-prescription and over-examination

↴ See section on *Human Resource*

5.4 Non-governmental organizations

Pakistan has a relatively sizeable non-profit private sector with more than 80,000 not-for-profit non-governmental organizations (NGOs) registered under various Acts.[148,XVIII] The sector is largely heterogeneous; many *bona fide* NGOs are known to be making a significant contribution to achieving social sector outcomes within the country. However, on the other hand, it is also known that many NGOs have been established for reasons that may be otherwise.

What value can NGOs bring to health delivery?

The predominant view pertaining to NGOs within the health sector appears to denote that the sector is relatively small and somewhat concentrated in urban areas. This may be true in relative terms; however, it is also well-established that the sector has many strengths that can complement the functions of the public sector in health service delivery. These strengths include technical expertise in specific programme-related areas, the flexibility to introduce innovations and outreach advantage as in the case of non-facility health programme approaches, community distribution channels and mobile health units. Many NGOs also preferentially target special groups that do not traditionally access conventional services; amongst others, these include People Living with HIV/AIDS, victims of drug abuse and rape and non-camp based refugees. In addition, successful NGOs are usually the product of visionary and committed individuals, who can serve as good partners to work with. Above all, most NGOs largely focus on the poor and marginalized; this is inherently complementary to the role of the private sector in providing social safety nets for the underprivileged.

Table 17. Strengths of selected health-related NGOs

Strength	NGO
Outreach	Edhi, AKRSP, NRSP, other rural support programmes, FPAP, Sungi, HANDS, Marie Stopes, Ahung, Behan Beli, Marie Adelaide, Aid to Leprosy Patients, Sight Savers, Save the Children and others
Programme-based focus and advocacy	Sahil, ARUP, Rozan, War Against Rape, TheNetwork for Consumer Protection, Shirkat Gah, FPAP, Heartfile
Social marketing	Futures Group, Green Star
Technical and policy support	SDPI, SDPC, Heartfile, TheNetwork for Consumer Protection, FPAP

Non-governmental organizations have many strengths that can complement the function of the public sector in health service delivery.

[XVIII] Societies Registration Act, 1860; Trusts Act, 1882; Voluntary Social Welfare Agencies (Registration and Control Ordinance), 1961; Companies Ordinance, 1984; Religious Endowment Act, 1863; Charitable Endowments Act, 1890; Mussalman Wakf Validating Act, 1913; Mussalman Wakf Act, 1923; Mussalman Wakf Validating Act, 1930; Charitable and Religious Trusts Act, 1920; Cooperative Societies Act, 1925; Industrial Relations (Trade Unions) Ordinance, 1969; Registration Act, 1908; Charitable Funds (Registration of Collection) Act, 1953

Non-governmental organizations also have an important stand-alone role within the health sector in relation to advocacy, performing a watchdog function and assisting with policy formulation and its monitoring and implementation. However, NGOs also face several limitations; they largely remain resource-constrained, lack an institutional base and most have serious issues with sustainability. Small NGOs may also have issues with capacity in administrative, technical and other functions.

What should the public sector's role be with regard to NGOs?

The public sector's role in relation to the non-profit sector should be one of *legitimate regulation*, providing them within an *enabling environment* and *fostering relationships* that harness their potential. However, in view of the weak capacity of the public sector in relation to functions that are necessary to achieving these objectives, it remains to be seen as to what extent progress in this direction can be envisaged in the medium term. Focus on these areas should be the mainstay of sustained long-term actions to foster public-private relationships. Details relating to the legal, fiscal and procedural frameworks of public-private partnerships and the ethical and operational challenges in such relationships have been discussed elsewhere in the Gateway Paper ↴ See section on *Public-Private Partnerships*.

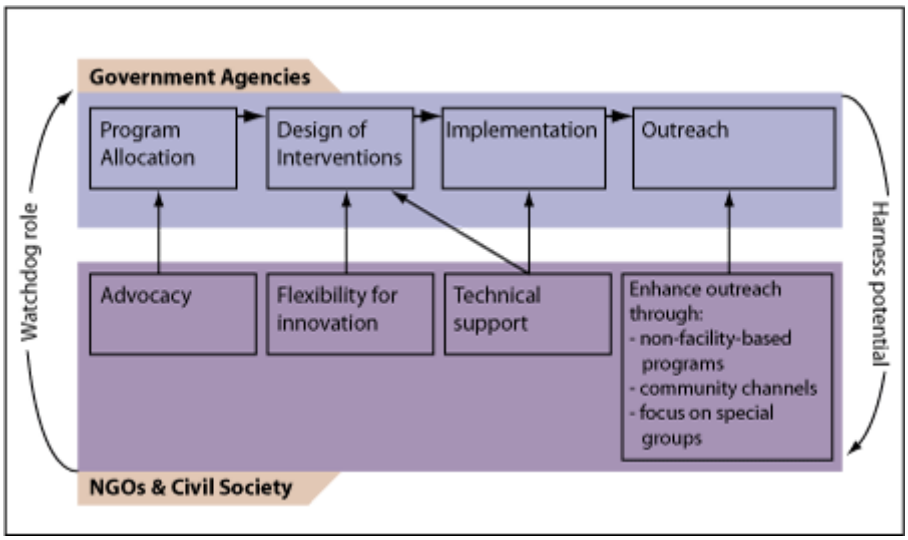
There is also a need to regulate the NGO sector; recently, the government has also made several references to this. However, the State must carefully and rationally use the expressions 'regularize' and 'control the NGO sector' within this context. Unnecessarily controlling and policing of NGOs by institutions with limited capacity can have a demoralizing and negative effect and may prove unnecessarily restrictive to the function of NGOs. It is imperative for any regulatory mechanism to be conducive, fair, participatory and transparently autonomous.

The public sector's role in relation to the non-profit sector should be one of *legitimate regulation*, providing them within an *enabling environment* and *fostering relationships* that harness their potential.

A certification programme has been developed for NGOs by the Pakistan Center for Philanthropy (PCP) – an institute mandated through an Act of Parliament. The process of certification is voluntary and is intended to enhance the credibility of NGOs. The third-party evaluation that precedes this provides an opportunity to assess the potential within NGOs, thus serving as a mechanism for building public-private relationships. Within this framework, PCP has been fostering partnerships with the private sector in the education sector; its role needs to be enhanced in the health sector. In addition, procedures for NGO registration must be updated and institutional mechanisms must be strengthened to assess their potential and explore ways to link them with the process of national development.

The Pakistan Center for Philanthropy also aims to generate corporate support for social sector causes; this mechanism is a useful interface between NGOs, the corporate sector and governments at different levels. The corporate sector is generally supportive of contributing resources at the district level; however, it is generally not possible to promote institutional arrangements where the corporate sector can give direct grants to district governments as this raises issues of transparency. In such arrangements, NGOs can act as intermediaries to facilitate the delivery of key deliverables at the grassroots level in addition to having a participatory role. This model has been tested by PCP in the education sector; its validity and feasibility in health needs to be established.

Figure 14. The role of NGOs in supporting delivery of services by the public sector



At an overarching level, there is a need to develop a comprehensive institutional mechanism to facilitate the NGO sector, mainstream the services of bona fide NGOs into the national development process and foster public-not-for-profit relationships. This approach will also have implications for the sustainability of NGOs. With the introduction of the World Bank Sector Wide Approach, NGOs funding is likely to be compromised in the future with shifting donor focus on 'programme aid', as part of which donors provide funds through national budgets rather than directly to NGOs. Mainstreaming NGOs into the national process of development will, therefore, also provide alternative mechanisms for sustaining and supporting bona fide NGOs within the country.

At an overarching level, there is a need to develop a comprehensive institutional mechanism to facilitate the NGO sector, mainstream the services of bona fide NGOs into the national development process and foster public-not-for-profit relationships.

Table 18. Issues and possible solutions – Non-Governmental Organizations

Issues	Possible solutions
Non-governmental organizations not fully mainstreamed into national planning and development	**Capitalize on the potential strengths of NGOs:** Technical expertise in specific areas Outreach and community distribution channels Non-facility health programme approaches Flexibility to experiment with and introduce innovations Focus on special groups Advocacy and watchdog function
Resource constraints and issues of sustainability	Use the currently existing certification programmes and third-party evaluations as instruments to assess the potential within NGOs; mainstream NGOs into the national process of development; develop mechanisms to enable the non-profit sector to contribute towards achieving national goals and support them within this framework
Limited capacity of small NGOs in administrative, technical and other functions	Use the currently existing certification programmes and third-party evaluations as instruments to assess gaps in capacity Develop institutional mechanisms to assist in capacity-building
Weak regulation of the non-profit sector	Legitimately regulate the non-profit sector in a manner that is fair, participatory and conducive. Regulation should provide an enabling environment and foster relationships that harness the potential of the private sector
Lack in procedural clarity in public-private relationships	↴See section on *Public-Private Partnerships*.

5.5 Traditional medicine and practice

Traditional medicine and practice is more deeply-rooted in Pakistan than generally perceived. A large percentage of the population – especially in the rural settings - seeks healthcare from traditional healers as they cannot afford the ever-escalating cost of allopathic treatment. Besides, traditional medicine has been an integral part of the cultural heritage of the subcontinent where it has cured and healed people for thousands of years. Three types of practices characterize traditional medicine; these are *Tibb-e-Unani*, Homeopathy and *Ayurvedia*.

Historically, *Tibb-e-Unani* or Greco-Arab practice of medicine and its practicing *hakeem* or *tabeeb* have been the major care providers for centuries and even today, there are an estimated 45,799 registered practitioners in the country. *Tibb-e-Unani* takes a holistic approach towards prevention and management of diseases and its arsenal includes drugs made from medicinal plants, herbs and minerals. Though relatively new, the concept and practice of Homeopathy is gaining momentum in Pakistan and currently, there are well over 84,000 registered practitioners referred to as homeopathic doctors. The word *Ayurvedia* means life and knowledge. This mode of treatment largely relies on herbs, plants and minerals. Currently, over 600 *Vaids* are registered with the National Council for Tibb.

Though precise estimates of the percentage of population accessing these systems of care do not exist, the fact that there are more than 130,000 registered practitioners of traditional medicine and 83 recognized homeopathy medical colleges versus 103,535 registered doctors and 53 medical schools speaks somewhat about the nature of demand.[149,150] The same is reflected in the size of the local herbal market, which is estimated to be over Rs. 7 billion, with more than 400 manufacturers and an export volume of US $10 million.[151]

130,000 registered practitioners of traditional medicine, 83 recognized homeopathy medical colleges versus 103,535 registered doctors and 53 medical schools speaks somewhat about the nature of demand for traditional medicines.

The government granted recognition to the traditional system of medicine by enacting the Unani, Ayurvedic and Homeopathic Practitioners Act in 1965; there have been major gaps in the implementation of this law, which had some inherent weaknesses to begin with. Efforts are currently underway to bridge these gaps. Recently, the Tibb-e-Unani, Ayurvedic, Homeopathic, Herbal and Other Non-allopathic Drugs Act of 2005 has been promulgated and a National Policy on Traditional Medicines is in its final stages of being drafted.[152] There also seems to be an indication of a renewed interest in harnessing the potential within this system as was evidenced by the due representation of traditional medicine on the agenda of the National Health Conference 2004.[153] In view of these developments, a critical question emerges:

To what extent can the system of traditional medicine and practice be integrated with the existing healthcare system?

The answer to this must be rooted in scientific evidence and needs to be backed by concomitantly taken overarching decisions. With the existing level of evidence, it seems logical to explore ways to leverage the outreach of this system to deliver services such as those related to immunization, family planning and health education, which are currently being delivered by non-physician healthcare providers within the country. Successful examples show that these services can be integrated with formal health systems in developing countries.[154,155,156] However, in order to harness their potential, institutional mechanisms such as the National Council for Tibb and Homeopathy and others as appropriate, will have to be strengthened and appropriate linkages established with national programmes.

Other steps – currently being proposed – need to be guided by evidence. Within this context, there is a need to determine access to care patterns; conduct randomized controlled trials to assess the efficacy of drugs prescribed under this umbrella and assess the practical feasibility of developing a district cadre of professionals. In addition, it is also important to define the role of this system in the 'pathways to care' chain.

There is also a need to explore the potential in expanding the definition of traditional medicine in selected health sector domains. Faith healers – widely recognized as moral and spiritual guides within the country – can play a useful role within the ambit of contemporary psychiatry. The potential of including them in the establishment of referral pathways has been tested in Pakistan with successful results.[157] Furthermore, there is also a need to review public-sector investments in this area.[158] Appropriate resources should be allocated in order to yield evidence, which can then guide appropriate decision-making.

With the existing level of evidence, it seems logical to explore ways to leverage the outreach of the traditional medicine system to deliver preventive services.

Table 19. Issues and challenges – traditional medicines

Issues	Possible solutions
No concerted effort to harness the potential within this system for delivering preventive and promotive services	Explore ways of harnessing the potential within this system – leveraging its outreach and integrating it with the formal healthcare system – for the delivery of preventive and promotive services
Share in the distribution of care undetermined	Define the role of the system in the pathways to care chain and identify its access to care patterns
Efficacy of drugs unknown	Conduct randomized controlled trials on key and most commonly used herbal drugs
Gaps in legislation	Update legislation in the areas of education, research, registration and the sale, storage and import and export of traditional medicines Strengthen institutional mechanisms to implement the law
Low public sector investments	Review budgetary support and resource allocations to the sector
No formal cadre of professionals	Explore the feasibility of developing a formal cadre of professionals

5.6 Health communication

Health communication refers to communication-related activities geared towards modifying behaviours of individuals, groups, communities and healthcare providers. These have a strong bearing on health status and form a critical and inseparable component of the health delivery system. These must be systematically and structurally orientated around a number of social, cultural and individual perceptions, values and beliefs that determine health-related knowledge and behaviour.

How have health education activities been organized within Pakistan's public sector health system? What are the major gaps in this area?

The health sector in Pakistan has been trying to achieve a balance between high-coercion efforts such as regulation and prohibition (as in the case of tobacco control, blood transfusion, etc.) and low-coercion behaviour change approaches; the latter includes the dissemination of information relevant to the domains of the public health programmes as in the case of immunization, HIV/AIDS, nutrition, chronic disease, etc. The Federal Ministry of Health has a dedicated institutional mechanism for health communication – the Health Education Cell. This Cell is operationally and administratively responsible for all health education interventions at the federal level. In addition, it is also responsible for tobacco control-related interventions. The individual public health education departments that are part of the national programmes, work operationally in concert with the Health Education Cell, albeit with some gaps. The provincial health departments, on the other hand, have centralized health education activities except in the case of the provincial HIV/AIDS programmes, which have a decentralized model. As opposed to the health education interventions at the federal level, which focus on broad-based national print and electronic media interventions, the provincial health education departments have a greater focus on print media and regional channels; there are exceptions to this though.

A health education budget of Rs. 300 million was allocated at the federal level in 2005/06; this was 2.86% of the total federal PSDP (Rs. 10.5 billion) and represented a 300% increase as compared to Rs. 100 million allocated for 2001/02. Allocations for health education are a sizeable proportion (20-40%) of public health programme budgets. Successive health education surveys have shown that investments in health education over the last decade have yielded positive results in many areas. For example, the awareness level for AIDS was reported at 4% in the general population of Pakistan by the Pakistan Health Education Survey of 1991/92; a comparable instrument showed that the level of awareness increased to 62% in 1998/99. Despite these positive trends, there are gaps in the manner in which health education is being approached. Health education activities are currently fragmented, given that they are housed within several public health programmes, albeit with several common areas and overlapping objectives. For example, child health is part of the EPI, Nutrition and NMCH programmes as well as the Women Health Project. Some level of informal coordination does exist in an attempt to harmonize interventions across programmes; however, by and large, there is lack of concerted cross-programme integration and no safeguards against duplication of efforts. The Health Education Cell has theoretically been mandated to coordinate interventions so as to ensure that they are mutually reinforcing. However, inadequate staffing and resources are an impediment to achieving this function. This highlights the need to strengthen its institutional mechanism and recruit additional staff with appropriate skills. There is also a need to clearly demarcate the role of the Health Education Cell and separate its core role from other *information-related* functions.

Health communication and its strategies need to be the core function of the Health Education Cell; other public relations-related activities, which it has increasingly been burdened with over the last few years, need to be delegated outside it and appropriately resourced.

Health education activities are currently fragmented, given that they are housed within several public health programmes, albeit with several common areas and overlapping objectives.

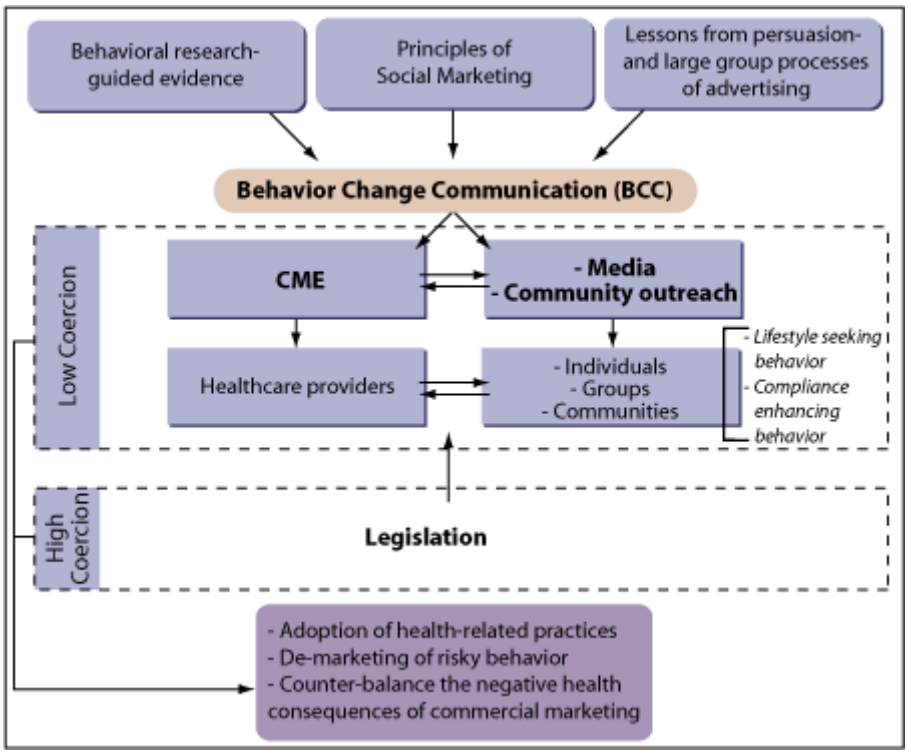
Is there a health education vis-à-vis behaviour change communication gap within Pakistan's health system?

A number of steps need to be taken to maximize the potential within health education and to give it a Behaviour Change Communication (BCC) orientation. Over the last several decades, health education has focused on individual problem-based lifestyle and prevention behaviours via different programmes (anti-smoking, breast feeding, nutrition, mother and child health, family planning and more recently non-communicable diseases). However, these have been targeted within a population-based framework at individuals and communities and have not been fully exploited to address broader issues in order to improve health-system performance. Behaviour change communication must be approached in a broad context – one that allows the development of interventions that can be targeted at healthy individuals, people with risks and patients and healthcare providers, with careful attention to supply and demand considerations. In addition to lifestyle and prevention behaviours, these must address patient compliance behaviour, treatment-seeking behaviour and health professional behaviours. In order to achieve these objective, behavioural change interventions must take a holistic approach and need to be systematically interlinked with complementary and synchronous strategies, measures and tools in order to target the behaviours of all actors in the system. An important aspect of this would be to link BCC with a comprehensive CME programme. Behavioural change can also be used as a tool to complement health reform measures at the structural and financing levels.

Secondly, behaviour change interventions must scope beyond the public service announcement approach and use behavioural research in areas such as persuasion and large group processes employed by advertising. Increased consistency in public health messages that are coherent and mutually reinforcing and the use of social marketing approaches is the key to this approach. Social marketing is a conceptual framework for designing social sector interventions based on marketing principles. It prepares packages and presents messages with the intention of producing specific behavioural change and often uses influence and persuasion based on emotion and symbolism in addition to providing information. Social marking has had widespread application in the field of family planning in many developing countries. In Pakistan, social marketing has been promoted by Green Star and Key Social Marketing interventions. More recently, the use of the mascot *Teeku* by EPI for promoting universal immunization is part of this approach.

Thirdly, the existing population-based BCC interventions within the country have been desirably focused, both on fostering the adoption of health-related practices (family planning, nutrition, breastfeeding etc) as well as de-marketing of risky behaviours (smoking, certain sexual practices as part of the HIV/AIDS campaign). However, there is a need to further build on this approach and capitalize on the strengths of health communication as a powerful tool to offset the negative health consequences of commercial marketing.

Figure 15. Behaviour Change Communication



Fourthly, the health system requires structured health communication interventions that can reach out to different segments of the Pakistani population with diverse cultures, levels of education and socio-economic status. By western standards, our public health systems are ill-equipped and under-funded. However, the tightly-knit community structure in Pakistan can be conducive to community health communication interventions. The influence of local opinion leaders, religious leaders and community activists can be harnessed in this connection. Mosques and places of communal meetings can be regarded as natural sites for advocating behaviour change. Studies conducted in Pakistan have shown that religious leaders in rural settings can reach more conservative groups in society, and thus contribute effectively to bringing about positive change, particularly within a reproductive health context.[159] Moreover, there are channels such as those created through social welfare and population control activities, which have outreach capability at the grassroots level. These channels must be utilized for health communication. The feasibility of utilizing educational institutions and institutionalizing health communication in schools also needs to be explored.

At a health systems level, behavioural change interventions need to be systematically interlinked with complementary and synchronous strategies, measures and tools in order to target the behaviours of all actors in the system.

At an overarching level, with regard to the discussion on health education, it must be recognized that the Pakistani society has deeply-rooted social, cultural and religious values; therefore, pulling newly-desired concepts to existing values held by individuals have a better chance of success

rather than seeking to push certain practices or ideas on people, which are alien to their beliefs and may inadvertently become controversial.

Table 20. Issues and possible solutions – behaviour change communication

Issues	Possible solutions
Health education activities are currently fragmented	Strengthen the institutional mechanism of the Health Education Cell, recruit additional staff; clearly demarcate roles and separate its core role from other information-related functions
Behaviour change has not been fully exploited in order to improve health-system performance in Pakistan	Reorient the behaviour change strategy for impacting the behaviour of all actors in the health system: individuals, groups, communities, all categories of healthcare providers, health administrators and other stakeholders Systematically orient the behaviour change strategy around a number of social, cultural and individual perceptions, values and beliefs, which determine health-related knowledge and behaviour Dovetail behaviour change communication with continuing ongoing education programmes Use health communication as a tool to complement health reform measures currently being proposed
Behaviour change is disproportionately focused on lifestyle and prevention behaviours in a health education style	Address the other three categories of individual behaviours, which include patient compliance behaviour, treatment-seeking behaviour and the behaviour of health professionals
Gaps at the level of low coercion behaviour change approaches	Expand the scope of health communication beyond the public service announcement approach; use behavioural research in areas such as persuasion and large group process that the advertising industry utilizes Use social marking approaches for health communication Develop a balance between fostering the adoption of particular health-related practices and de-marketing of risky behaviours Attempt to counterbalance the negative health consequences of commercial marketing Capitalize on the strengths of the tightly-knit community structure and the influence of local opinion leaders, clergy, religious leaders and community activists Use social welfare and population infrastructure, which has outreach capacity at the grassroots level for community-level health communication Pull new, desired concepts to existing values held by individuals
Gaps at the level of high-coercion behaviour change efforts	Promulgate and implement laws in key areas related to health communication

6. Service Delivery and Financing – Interface Considerations

6.1 The federal-provincial interface

Is health a provincial or a federal mandate?

Constitutionally, health is a provincial subject in Pakistan. However, it must be recognized that the federal government has important functions in this area and the Constitution clearly defines roles and responsibilities – both of the provinces as well as the Federation. Released in 1946, the *Bhore* Commission report recommended that the federal government should assume responsibilities for coordination, development of health policy and technical support and generate grants-in-aid for programmes that are implemented at the provincial levels.[160] In line with this recommendation, the Constitution and the Rules of Business mandate the federal government to assume responsibilities for policy-making, coordination, resource distribution and acquiring foreign assistance through the Economic Affairs Division whereas the provincial ministries have legal responsibility for delivery and management of health services. Within this framework, the Federal Legislative List opened an avenue for the federal government to create institutes in order to promote research, technical and professional training and special studies.[161] This provision also made it possible for the federal government to open federal hospitals on provincial territory and hence engage in service delivery. Provincial governments, which are usually resource-constrained have, by and large, welcomed this trend. The Federal Legislative List also mandates the federal government to take a lead in national planning and national economic coordination. This has enabled the federal government to develop national programmes that are integrated with the provincial health delivery systems.

Over the years, overlapping services have created ambiguities between federal and provincial roles and responsibilities and administrative authority; these issues have been compounded by conflicts over sharing of resources and financial arrangements. Owing to these problems, the federal-provincial interface has become one of the overarching systems-level thorny issues in the health sector – a problem, somewhat *complicated* further after the passage of the Local Government Act.[162] A clear understanding and consensus over roles and responsibilities would, therefore, be an initial step in resolving issues at the federal-provincial interface.

The Constitution clearly defines roles and responsibilities – both of the provinces as well as the Federation – in the area of health.

What is the role of the federal government in 'health'?

The federal government plays a role in a number of areas in the health sector; this can be mutually reinforcing to the service delivery function of the provinces.

Policy-making: firstly, as part of its mandate, the Federal Ministry of Health has the prerogative to develop national health policies. However, there are operational ambiguities about the extent to which keeping in line with these policies is binding on the provinces; this undermines the concept of 'a national policy' and its jurisdiction. There is a need for a broad-based dialogue to deepen this understanding and to develop a consensus on a policy position regarding this issue.

Legislation: secondly, legislative actions instituted at the federal level, with respect to matters stipulated in the Federal Legislative List, are binding in provinces. Notwithstanding, it is well-established that many health-related laws are not implemented in their true spirit at the provincial level. Within this context, it must be understood that effective implementation of legislation is a generic challenge and cannot be attributed to problems at the federal-provincial interface.

National public health programmes: thirdly, there are many justifications for the Federal Ministry of Health to spearhead the national public health programmes. A centrally planned and administered programme configuration is warranted in these programmes as they require rigorous technical support at inception and follow-up; they are also best centralized for quality assurance purposes. Their implementation should, however, be harnessed to strengthen capacity in provinces with a view to subsequently promoting greater controls at the provincial and district levels; this approach is currently being followed, albeit with varying levels of success. In the past, many programmes have been structured at the federal level as they were part of larger national development initiatives and required donor resource inputs, as well as had central reporting requirements. The Social Action Programme in particular was an example. Many other programmes currently underway such as the national programmes on HIV/AIDS, EPI, malaria and tuberculosis; the National Programme for Family Planning and Primary Health Care, and the Women Health Project needed to be rolled out at a national level. In these cases, whereas provincial service-delivery mechanisms were key to outreach, equally important was the need for centralized planning with regard to the standardization of programme parameters, development of instruments of evaluation and tools of intervention. The development of federal-provincial partnerships within the health sector as part of these programmes can play a major role in stabilizing and harmonizing the federal-provincial interface. However, overviews of the national programmes reveal a certain level of disconnect at this stage. Gaps are known to exist at the level of counterpart institutional arrangements in provinces. In addition, it is perceived that there are wide variations in the levels of provincial commitments and/or capacity to implement programme activities and in a number of instances, mirroring PC 1s and/or dedicated staff do not exist at the provincial level. A case in point is the National Nutrition Programme, which is enduring implementation-related challenges because of lack of appropriate counterpart provincial arrangements in some provinces. As a result, there are operational impediments to implementing the multi-pronged activities of the programme, such as fortification and micronutrient supplementation, as these require a strong operational arm in the provinces and entail the use of provincial infrastructure for effective implementation. It is, therefore, imperative that national public health programmes should be reviewed in the context of the aforementioned considerations and proactive efforts taken to bridge gaps through the creation of appropriate counterpart institutional arrangements at the provincial level. There is also a need for clearer demarcation of roles and responsibilities at both levels. An active participatory role should be given to the provinces in relation to all aspects of decision-making at the federal level so as to garner greater ownership and to facilitate consensus-building on locally suited approaches in federally-led interventions. In particular, project implementation designs must allow for the incorporation of appropriate guidance from the provinces as this is critical to the success of these interventions at the provincial level. The federal government should also work with the provinces to develop an integrated and robust plan for monitoring and evaluation and should define relevant indicators as this will enable the ongoing assessment of issues.

Health education: fourthly, the Federal Ministry of Health plays an important role in health education – a health-related public good; this role needs to be further strengthened. It is well-established that locally targeted behavioural research and social marketing-guided communication strategies have a significant potential to modify individual, group and community behaviour and have implications for improving health outcomes ↴See section on *Behaviour Change Communication.* One of the major tools of intervention as part of this approach – the electronic media in general and television in particular – requires a centralized focus intrinsically. This makes a

valid justification for the Federal Ministry of Health to continue playing a role in this area albeit while incorporating regional inputs. Recently, the licensing of regional channels opened the door to greater provincial role in media activities in the health sector. However, there is a need to harmonize federally-implemented health education interventions with other media initiatives and community-level supplementary health education activities at the provincial level in order to foster consistency in public health messaging and to ensure that messages are coherent and mutually reinforcing.

Federal-provincial-district partnerships in the health sector as part of federally-led national public health programmes can play a major role in stabilizing and harmonizing the federal-provincial interface.

What is the role of the provincial governments in health? How do issues relating to resource-sharing complicate this role?

The provinces have a Constitutional mandate in relation to health. Provinces can also legislate in many areas under the Concurrent Legislative List.[163] However, as a policy, it is binding for legislation in the provinces and at the federal level to be in harmony.

As stated earlier, health is a provincial subject and as such its systems-level dimensions and issues are discussed throughout this document. This section focuses on specific problems at the federal-provincial interface. Some of these – within the context of the federally-led national public health programmes – have already been alluded to in the previous section. However, the key issues relate to conflicts over sharing of resources and disagreements over financial arrangements; these are discussed hereunder.

Provincial development budgets are financed by the federal government en-bloc through the National Finance Awards as unconditional federal grants; allocation decisions are made by the provinces independently. It is perceived that gaps in understanding provincial requirements and/or prerogatives create problems with budgetary allocations. As a result, decisions about provincial resource allocations are often problematic and many provinces claim more than what is actually budgeted for them. Certain tensions in the federal-provincial relationships have been reduced with the convening of the National Finance Commission and the Council of Common Interests; however, issues still remain to be addressed. There is, therefore, a need to proactively involve the provinces in decision-making.

The federal government also supplements provincial development budgets through conditional or tight grants. In contrast to the former mechanism, this enables the federal government to allocate resources in specific areas. The potential within this financial instrument to serve as a tool for enhancing provincial performance and stimulating innovation must be capitalized upon. The process can also be utilized to signal the importance of certain programmes and to garner greater support for federal-provincial relationships.

Provincial non-development budgets are, in theory, funded from provincial government revenues. During the SAP years, part of the recurrent budget was also made available by the federal government; however, this has since been largely discontinued. This poses a problem with the implementation of federally-led programmes in the provinces. At a provincial level, it is perceived that federal programmes do not clearly analyze their implications on overall recurring costs at the provincial level, and that in many instances, the provincial health departments – already resource-constrained – have problems with supporting infrastructure and personnel costs to support

federally-led development initiatives. It is, therefore, imperative that recurrent implications of development initiatives be fully recognized and that federal budgets should appropriately factor for these costs.

A national coordinating mechanism with the mandate and capability of reviewing actions initiated by the federal and provincial systems within the context of comprehensive national health sector planning should be a priority.

There is also a need to develop a national coordinating mechanism with the mandate and capability of reviewing actions initiated at the federal and provincial levels in the context of comprehensive national health sector planning. Mechanisms and tools that foster greater federal-provincial harmony for coordinated national programmes should be promoted. Planning Commission tools such as umbrella PC 1s with provincial and federal components need to be promoted as a standard norm rather than under duress. Broad-based consensus should also be developed in order to create expeditious mechanisms to counter delays in the development and implementation of such arrangements.

Table 21. Issues and possible solutions – the federal-provincial interface in health

Issues	Possible solutions
Operational ambiguities about the extent to which keeping in line with federal (national) policies is binding on the provinces	Develop a broad-based consensus on national policy positions
Lack of provincial ownership of federal initiatives	Facilitate consensus-building and harness provincial commitment by ensuring their active role in the decision-making process Incorporate appropriate guidance from the provinces in the design of interventions
Gaps in provincial counterpart arrangements	Ensure appropriate resource allocations and the creation of institutional mechanisms for implementing programme activities Strengthen provincial service delivery mechanisms Strengthen capacity in the provinces
Ambiguities about federal and provincial roles and responsibilities	Clearly demarcate roles and responsibilities
Conflicts over sharing of resources and gaps in understanding provincial requirements	Give the provinces an active participatory role in decision-making and planning to garner greater ownership; fully recognize and support, to the extent possible, the recurrent costs of programmes at the provincial level
Poor coordination	Institutionalize a federal-provincial coordinating mechanism to review actions at both levels with regard to progress on meeting stipulated targets Develop plans for a monitoring system and defining relevant indicators to measure such progress

6.2 Decentralization

The Bhore Committee Report promoted decentralization as one of the key health systems strategies. Since then, each Five-Year Plan has dwelt on its significance. However, tangible steps were not taken in this direction until the passage of the Local Governments Ordinance (LGO) in 2002, which is undoubtedly one of the boldest governance reforms undertaken in the country.[164] As part of its stipulations, devolution/decentralization of the government was meant to open avenues for accelerating progress in social service delivery. It was perceived that the district-based system would enhance public sector effectiveness by bringing those responsible for delivering services close to intended beneficiaries and making them accountable. The system was also expected to allow local voice to set priorities, encourage innovation and improve efficiency of resource allocation; it was, therefore, envisaged to improve the delivery of services. The establishment of local councils and the setting up of legal and political structures to devolve power and responsibility, including those related to social services, is an opportunity to improve health outcomes. However, the challenge is to make *devolution of political leadership* and *decentralization of fiscal and administrative responsibilities* to districts *work* effectively for the social sector. Though a number of steps have been taken to date, this process is still in its early stages and time is needed before full implementation of political, fiscal and administrative reforms produce results in terms of impacting social-sector outcomes at the grassroots level. A number of reviews and assessments highlight problems with implementation of the LGO. This raises an important question:

What are the most frequently reported problems relating to implementation of the Local Government Ordinance of 2002?

These are summarized hereunder:

Governance: the Local Government Ordinance of 2002 is robust and has the potential to impact outcomes if implemented in its true spirit. However, field experience has shown that the law is frequently exploited and interpreted to suit situations and personal interests. Furthermore, assessments of its implementation over the last three years reveal gaps. These can be attributed to a variety of factors, of which poor governance is the most critical. District governments have had little experience with such responsibilities in the past and although it makes perfectly good sense to encourage local decision-making in relation to priority-setting and resource utilization, limited capacity – for governance, planning and implementation and evaluation of programmes – raise serious issues. Poor governance at the district level is known to have led to the demise of well-structured social sector programmes in the past. One of the main reasons why the Social Action Programme (1993-97) failed to achieve stipulated outcomes – despite considerable fiscal inputs, strategic planning and technical support – was due to gaps in governance. Learning from past experiences, therefore, investments in building capacity for good governance should be one of the cornerstones of the devolution initiative.

The Local Government Ordinance of 2002 is robust and has the potential to impact outcomes if implemented in its true spirit.

Financial and administrative autonomy: implementation of the LGO has been complicated by the lag in granting full district-level financial and administrative autonomy – a feature critical to

decentralization. With regard to the administrative component, provincial governments still retain influence over establishment decisions and have considerable de facto control over recruitments, career management, transfers and termination. In certain instances, this is complicated by political polarization between the provincial and the district governments; this is known to have led to politically-motivated transfers of senior managers with a consequent negative impact on the quality of health services. In addition, political interference in hiring of staff on contractual arrangements at the district level has also been reported. The new system also creates discrepancies in reporting relationships; for example, the District Coordination Officer (DCO) reports to the *nazim* but remains part of the federal District Management Group or provincial administrative service whereas the Executive District Officer (EDO) Health reports to the DCO while his/her promotion and transfer is determined at the provincial level.

Provinces have a role to play in determining financial allocations for line departments within districts; it is envisaged that in many instances, this does not adequately take the district perspective into account. In addition, provincial governments have considerable control over many procurement decisions for districts. This poses a problem – most notably in the area of drug procurement within the health sector. Provincial governments must, therefore, concentrate on delegating financial and administrative powers to the districts and providing for administrative and inter-governmental fiscal frameworks in order to strengthen controls at the district level. However, granting financial and administrative autonomy will depend to a large extent, on the capacity of the district authorities on the one hand, and the capability of the provincial governments to supervise and support these functions, on the other. The availability of adequate skilled staff is central to this function at both ends. This underscores the need to invest in targeted capacity-building in specific areas such as financial management skills, planning and programme implementation. Capacity-building should also pay careful attention to the differences in the performance of districts. A recent district survey has shown that full immunization coverage ranges from 1-85% in Balochistan.[165] As a preliminary step in this direction, an assessment of the factors that influence variability in outcomes should be conducted in order to identify opportunities for improving performance.

Granting financial and administrative autonomy to the districts will depend, to a large extent, on the capacity of district authorities on the one hand, and the capability of the provincial governments to supervise and support these functions, on the other.

Operational clarity: the rules of business of the local government system define roles and responsibilities of various cadres. In doing so, they articulate *what to do*; however, there is also a need to bring procedural clarity in the *how to do it* dimension. This is critical at the field level as it has implications for the support that councilors and union *nazims* can provide to health service delivery. Field-level pilot interventions conducted by NGOs such as RSPN and Aurat Foundation – who have developed and used pilot instruments – show that there is considerable demand for *how-to manuals* at a councilor and *union nazim* level.[166] There is, therefore, a need to develop a consensus on the configuration of such instruments and provide guidance on adapting these locally.

Centralization within the decentralized system: political and administrative 'decentralization' has also paradoxically created 'centralization' of some functions within the district itself. In the present set-up, the DCO has centralized control over all the staffing decisions vis-à-vis EDOs, many cadres and levels of district staff have less financial powers than before and planning, budgeting and

expenditure authorization is unduly centralized. As a result, DCOs in many districts are known to be under political interference. There is a need, therefore, to rationalize financial and administrative powers within the districts. Political polarization within the districts is also known to undermine the performance of District Development Committees (DDC), which are under the control of the DCO. In many districts, *souring of relationships* between the DCO and the *nazim* leads to turf issues with negative implications for the manner in which these committees evolve and function. Lag in the devolution of responsibilities to lower levels of governments also creates issues with the delivery of services. Water and sanitation, which is a critical public health area is a case in point; responsibilities for this are not yet devolved. As a result of this lack of control, they are unable to deliver on improved water and sanitation services.

Political and administrative *decentralization* has also paradoxically created *centralization* of some functions within the district itself.

Community empowerment: the real challenge in relation to political and administrative decentralization is for it to go side-by-side with empowerment and devolution of power at the grassroots level. There is a need to pay close attention to this in order to help the districts develop into self-directing, efficiently managed and autonomous institutions. The precise substance of devolution is to improve representation and participation of communities in the process and enhance responsiveness to citizen demands, rights and services. This must be at the heart of the devolution initiative. The LGO is grounded in this concept; as per the LGO, 25% of the budgetary allocation is meant for use by the Community Citizen Boards (CCBs) formed within the districts. However, this has been considerably slow as a result of various factors; these include reluctance on part of the local government and/or district bureaucracy; mistrust for CCBs, lack of capacity of the CCBs to develop proposals and comply with requirements for formal documentation and lack of capacity in the local community to make the 20% contribution in the overall scheme budget due to poverty. Efforts must be promoted at a local level to bridge these gaps. Some of these issues are amenable to long-term measures such as investments in building capacity at the local level in the areas of financial management and control, account-keeping and strengthening of the government-community interface. On the other hand, revisiting the CCB roles and responsibilities and allowing greater participation of communities according to resources at hand is likely to make a difference. It has been reported that in many areas, most people are willing to offer assistance in kind whereas the CCB guidelines do not support such contributions. Extensive and fairly clear guidelines have been provided by the National Reconstruction Bureau to CCBs.[167,168] In many instances, these have also been translated to local languages with partner collaborations.[169] However, these guidelines have not been widely disseminated and in many cases the staff concerned and CCBs are not aware of their existence. There is, therefore, a need to step up their dissemination in order to enhance the understanding and awareness of the communities, elected representatives, and government functionaries about the various roles, regulations and procedures pertaining to CCBs.

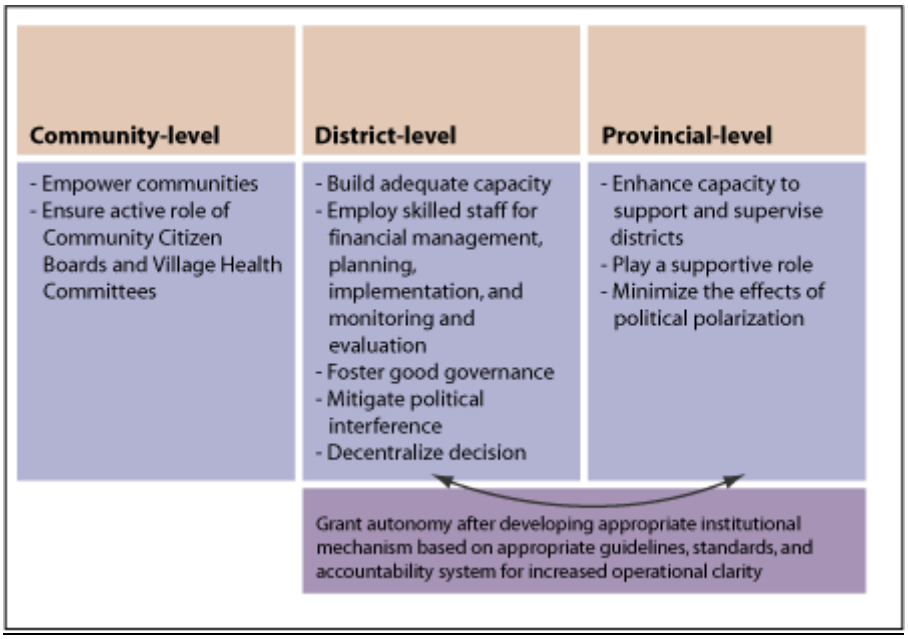
Many NGOs in Pakistan are known to have experience in the area of community mobilization and development and have significant outreach – particularly the national and provincial Rural Support Programmes. Every effort must be made to harness their strength in such efforts. Precedence has been set in this area with the signing of an MoU between the Devolution Trust for Community Empowerment and the Rural Support Programme Network (RSPN).[170] There is a need to further build on such arrangements and to institutionalize them.[171,172]

At a community level, there is also potential in strengthening Village Health Committees with the active role of Lady Health Workers in areas such as vital registrations, promotion of preventive

practices and strengthening of the referral chain. However, any such effort must link with a sustainable institutional mechanism.

The real challenge in relation to political and administrative decentralization is for it to go side-by-side with empowerment and devolution of power at the grassroots level.

Figure 16. Prerequisites of federal-provincial-district harmony for implementing programmes



What are the overarching considerations in the context of devolution?

In addition to the aforementioned district-specific problems, a number of overarching issues need to be taken into consideration and addressed within the context of devolution.

Roles and responsibilities: firstly, there is a clear need for a consensus over a set of policies, priorities and resource allocations at all three levels of government. Roles and responsibilities for all three levels need to be clearly articulated and *a consensus over these must be arrived at*. The degree of oversight and technical support to be provided by the provincial department/s vis-à-vis district-managed services needs to be clarified. Investments have been made in developing the terms of reference at each level and defining the roles of stakeholders within a healthcare setting in the district devolved system. These tools and deliverables need to be disseminated at the district level and fully utilized.[173]

Institutional mechanism: secondly, the National Reconstruction Bureau (NRB) must be supported to implement evidence-based decisions that are in the best interest of devolving power and responsibility at the district level. Amendments to the law should be made only after a participatory consensus has been achieved by all stakeholders. It is widely perceived that the recent amendments to the Act may have major implications for the manner in which it gets

implemented.[174] NRB has also developed extensive documentation to foster procedural clarity in matters relating to administrative and financial devolution;[175] however, there is a need to enhance the utilization of these tools.

Monitoring: in the third place, it is critical that this initiative is closely monitored and the evidence generated utilized for improving its configuration. The LGO provides institutional arrangements for the monitoring of service providers. Some of these such as the Monitoring Committees (MC) are internal to the structure of the local governments; others provide channels for the direct influence of citizens on the performance of the service providers (District Public Safety Commissions) whereas still others provide a mechanism for community management of facilities (CCBs). Pre-devolution initiatives have also been revitalized through the LGO. Furthermore, NRB has also laid out elaborate guidelines for the establishment of the Monitoring Committees; however, for a number of reasons – lack of capacity, suboptimal coordination between the respective line departments and lack of allocation of funds – these are not having the envisioned impact. Field experiences show that MCs feel excluded from the process of planning and budgeting whereas, on the other hand, departments accuse them for interfering in administrative issues. This highlights the need to strengthen local government commissions so that they serve as impartial arbiters of disputes.

In addition, data sources must also be strengthened at the district level – at the critical unit of account in order to permit the district authorities to identify needs, priorities and assist in resource allocations. In addition, administrative, financial and procedures must be streamlined.

There is a clear need for a consensus over a set of policies, priorities and resource allocations at all three levels of government.

Table 22. Issues and possible solutions – the decentralization 'agenda' from a health sector perspective

Issues	Possible solutions
Problems at the governance level within districts	Invest in building capacity for good governance at the district level
Problems at the capacity level within districts	Prioritize targeted capacity-building in areas such as financial management skills, planning and programme implementation and data collection and its interpretation and utilization for decision-making. Pay careful attention to the differences in the performance of districts
Problems at the capacity level to support district-level functions	Invest in capacity-building at the provincial level, enabling them to provide support in these areas
Lag in granting full district-level administrative and financial autonomy	Institutionalize the administrative and inter-governmental fiscal framework in order to strengthen controls at the district level Delegate financial and administrative powers to the districts and strengthen capacity at the provincial level to regulate these functions
The scale of grass-roots empowerment does not match political and administrative devolution	Support grassroots empowerment and devolution of power at the grassroots level Strengthen Community Citizen Boards by harnessing the potential of NGOs with presence at the grassroots level Restructure CCBs to allow greater flexibility at the local level and disseminate tools and guidelines so as to assist with their strengthening
The full potential of Village Health Committees has not been harnessed	Revitalize Village Health Committees within the devolution framework and harness their potential to promote preventive practices and strengthen the referral chain
Gaps in communication with regard to the envisaged roles of various political cadres within districts and the manner in which they are expected to assist with health service delivery	Develop, disseminate and communicate 'how to' guidelines
Excessive centralization of decision-making within districts	Rationalize financial and administrative powers within districts
Lack of clear definition of roles and responsibilities	Build a consensus over a set of policies, priorities and resource allocations at all three levels of government – assign roles and responsibilities, accordingly; clarify the degree of oversight and technical support to be provided by provincial and federal departments
Lack of attention to the motivational aspect	Explore incentives for improving district-level performance Assess the feasibility of fiscal transfer of funds to districts based on certain performance-based criteria
Inadequate utilization of evidence gathered from monitoring	Strengthen monitoring mechanisms to assist with the generation of evidence and foster the use of these data in the decision-making process without any political interference

6.3 Public-private interface

What are public-private partnerships? Why is there is a need for such arrangements and why is it critical to approach them with clarity?

The current understanding about public-private partnerships gives a collective name to a variety of relationships and arrangements in which the public and the private sectors play a collective role. These are interface arrangements that bring together organizations with the mandate to offer public good on the one hand, and those that could facilitate this goal though the provision of resources, technical expertise or outreach, on the other.

The need to foster such arrangements is supported by an understanding of the public sector's inability to provide public goods entirely on their own, in an efficient, effective and equitable manner because of lack of resources and management issues. It is, therefore, logical that the public sector should enter into mutually synergistic arrangements with the private sector; such groupings allow the public sector, access to additional resources and/or enhanced outreach, on the one hand, whereas on the other, it allows the private sector to contribute towards achieving national health goals and fulfilling its social obligations.[46]

Though seemingly straightforward, the subject of public-private partnerships is intricate. It needs to be approached with clarity relating to several considerations. **Firstly**, not all public-private relationships can qualify to be called partnerships as this is a value-laden connotation. These relationships fall along a spectrum, which ranges from an interface arrangement to a true partnership. **Secondly**, recognition of what the public sector is, and what the private sector constitutes, is important. The former includes national, provincial and district governments; local government institutions and all other government and inter-governmental agencies whereas the *private* denotes two sets of structures: the *for-profit* private encompassing commercial enterprises of all sizes and the *not-for-profit* private comprising NGOs, philanthropies and other not-for-profit organizations. A variety of combinations emerge when these are interfaced; however, these can broadly be grouped into two categories as discussed below.

In the first category, the for-profit private sector can assist in financing infrastructure needs and opening of new sectors. In such settings, the private sector's resources, entrepreneurial talent and management efficiencies can be combined with a policy, regulatory and legal environment that fosters fairness, social cohesion and transparency.[176] However, the challenge in such *interface arrangements* is to balance profit-making against safeguarding the interests of the poor. On the other hand, public-private partnerships can be developed to achieve social sector – including health outcomes within this context. A variety of combinations have emerged over the years as partnership arrangements by bringing government and inter-governmental agencies together with the commercial and the non-profit sectors. Large transnational infectious disease partnerships have been created to improve access to *products* and *services* in many developing countries. These are generally regarded as prototype public-private partnerships in the health sector.[177] These involve UN agencies, multi-source donor support, international NGOs and several levels of government within countries. However, many other public-private arrangements can also be configured at a country level. Such relationships generally involve one public sector partner and a private sector entity.

Public-private partnerships are interface arrangements that bring together organizations with the mandate to offer public good on the one hand, and those that could facilitate this goal though the provision of resources, technical expertise or outreach, on the other.

How can public-private partnerships be modeled and configured within the health sector in Pakistan?

Public-private partnership within the country can take one of the following forms:

Pakistan's involvement in transnational partnerships: many transnational partnerships such as GAIN, GAVI and STOP TB operate within Pakistan. Although they present a very powerful mechanism for leveraging the strengths of various partners, they also pose complex ethical and process-related challenges. Careful attention needs to be paid to ethical, methodological, accountability, sustainability and governance issues in such relationships.[46,178,179]

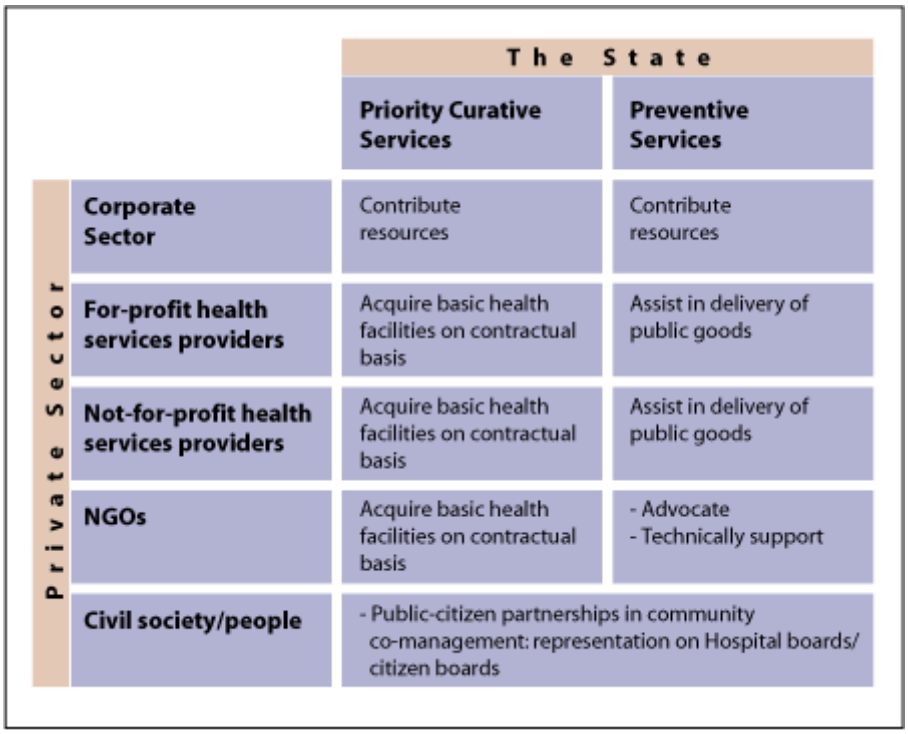
Contracting out services to the private sector: Basic Health Units, other under-utilized primary healthcare facilities and hospitals can be revitalized through the infusion of private sector resources and management skills ↴See section on *First Level Health Facilities.*

Partnerships with private sector healthcare providers: private sector healthcare providers can be engaged in partnerships in two distinct areas; **firstly**, for service delivery and **secondly,** to deliver health-related public goods. Partnerships can and should be developed to harness the outreach of the private sector healthcare providers in order to deliver preventive services such as immunization, health education and delivery of services such as for example, TB DOTS. The involvement of private sector healthcare providers in the polio campaign for strengthening surveillance activities in Karachi is an example of a meaningful partnership, which needs to be carefully assessed with regard to its potential for up-scaling.

Partnerships with NGOs having outreach and access: partnerships can be developed with NGOs either to deliver preventive programmes or for enhancing mobile service delivery. The pioneering public-private partnership of the Ministry of Health with Marie-Adelaide Leprosy Centre, which has been instrumental to leprosy control efforts within the country, is a classical example in this regard. Structuring of relationships with NGOs as part of the HIV/AIDS programme is also a good example where the potential within the social sector has been harnessed in mainstream programmes with clear selection criteria. In such contracting arrangements, there is a need to pay close attention to balancing the *contractual* and *participatory* roles of NGOs.

Public-citizen partnerships: some public-private partnerships can take more of a public-citizen partnership orientation rather than having the configuration of an organizational partnership. An important grassroots level example includes Citizen Community Boards and Village Health Committees as part of the Devolution initiative ↴*See section on Decentralization.* At the hospital level, the Citizen-Participatory Hospital Management Board of the Sindh Institute of Urology and Transplantation (SIUT) is an example, which is being followed in some other hospitals of the country. There is empirical evidence to suggest that such interventions bring value if appropriately managed.

Figure 17. Contributions of private sector in State [public] delivery of services



		The State	
		Priority Curative Services	**Preventive Services**
Private Sector	**Corporate Sector**	Contribute resources	Contribute resources
	For-profit health services providers	Acquire basic health facilities on contractual basis	Assist in delivery of public goods
	Not-for-profit health services providers	Acquire basic health facilities on contractual basis	Assist in delivery of public goods
	NGOs	Acquire basic health facilities on contractual basis	- Advocate - Technically support
	Civil society/people	- Public-citizen partnerships in community co-management: representation on Hospital boards/ citizen boards	

Partnerships with NGOs having technical capability: NGOs with technical strengths can become partners in order to assist the government in specific areas. The National Action Plan for the Prevention and Control of Non-Communicable Diseases and Health Promotion in partnership with the NGO Heartfile and the involvement of Save the Children and the Family Planning Association of Pakistan in MCH activities are examples of this approach.[180,181] However, such partnerships bring in their wake, challenges that result from a lack of procedural clarity, issues with accepting the private sector partner in a dominant role and lack of a support mechanism to NGOs outside of the contractual mode.

Partnerships with the corporate sector: in the world we live today, global agendas are being increasingly shaped by the private sector. The immense resources of the *for-profit* private sectors make it an irresistible partner for public health initiatives. These arrangements can also be mutually synergistic. Governments can tap into additional resources to fulfill their mandate whereas the commercial sector can fulfill its social responsibility, for which it is being increasingly challenged. However, concerns relating to conflict of interest and sustainability must be given due regard in developing such relationships.

In addition to the aforementioned settings, health sector partnerships can also be potentially crafted in a similar manner in which partnerships are currently being promoted for infrastructure development within the country. Legislation is being promoted in Punjab to develop partnership arrangements on the lines of BOT (build, operate and transfer), BOO (build, operate and own) and ROT (rehabilitate, operate and transfer). The feasibility of expanding the scope of this model for health needs to be explored.

Table 23. The public-private interface in health – scope and rationale – the where and why

- Transnational partnerships – to improve delivery of products and services through a global mechanism
- Contracting out services – to revitalize health facilities through the injection of private sector resources and management skills
- Partnerships with private sector healthcare providers – to deliver health-related public goods and preventive services
- Partnerships with NGOs having outreach and access – to enhance mobile service delivery
- Partnering with NGOs having technical capability – to capitalize on technical expertise
- Partnering with the corporate sector – to tap into resources within a corporate social responsibility framework
- Partnering with citizens on health facility management boards – in order to maximize efficiency and transparency

What is the way forward with regard to health sector public-private partnerships at the health systems level?

The public sector in Pakistan is currently modeled on the colonial system as part of which its functions are regulatory and administrative and involve control over resources through a variety of regulatory checks. The private sector, on the other hand, has been modeled on the western capitalist societies of free enterprise that regard profit maximization and rewards-based incentives as the driving force behind all initiatives. Both of these have very little relevance to the problems of the public sector today which relate to harnessing the entire resources of the economy towards the goal of development. There is, therefore, a need for fundamental reforms at both levels – the public sector has to be orientated to the needs of the society whereas the private sector will have to realize its social obligations.[182] A vision of partnerships in health activities should be developed; this should outline a scope of interventions that are built on shared responsibility, allowing agencies to participate according to their own missions, mandates and resources. It must be recognized that partnerships and interface arrangements between the public and private sectors can enable the government to share responsibility for getting these programmes out to the communities by relying on groups and national organizations that have complementary mandates.

There is a need to strengthen principles, policies, legislative frameworks and operational strategies for such relationships. Governance and accountability structures need to be defined clearly. Safeguards must be stipulated against potential conflict of interest and processes that weaken and fragment the public health system. In addition, institutional mechanisms must be created to address such issues on an ongoing basis ↴ See section on *Non-Governmental Organizations.*

As a first step, therefore, overarching standards and norms for public-private partnerships will have to be developed. These must stipulate certain criteria in relation to their relevance to the overall goal of development. As a next step, these norms will have to be reflected as appropriate legislative measures that legitimize and give clarity to the roles and responsibilities of the public and private stakeholders in combined models. The Punjab government is currently drafting a law on public-private partnerships that is expected to lay down a statutory framework and procedures of formalizing the participation of the private sector in building infrastructure in the province.[183]

However, this law and the institutional mechanisms which it will create are primarily relevant to building infrastructure and outlining contractual agreements on the basis of BOT, BOO and ROT – expressions that have been referred to in the Medium Term Development Framework. However, legislation on public-private relationships needs to be more overarching than a mere attempt to bring procedural clarity in contractual relationships. This must pay careful attention to the ethical, methodological, accountability, sustainability and governance dimensions of true partnerships for achieving social sector outcomes, in a participatory – rather than a contractual – mode. Moreover, such a legal framework needs to stipulate standards for the entire country – the federal, provincial and the district levels according to the prevailing situation and needs at these levels.

Table 24. Issues and possible solutions – public-private partnerships

Issues	Possible solutions
No locally established principles	Develop a set of norms and ethical principles, stipulating that partnerships should: o bring 'benefit to the society' rather than 'mutual benefit to the partners' o focus on the concept of equity in health o strengthen social safety nets o complement and not duplicate state initiatives and be in harmony with national health priorities o be optimally integrated with national health systems o have no conflict of interests o have an outcome orientation
No legislative framework, policies and operational strategies relating to public-private partnerships	Develop legislative and policy frameworks to legitimize public-private relationships Develop specific guidelines to steer such relationships Develop selection criteria and help specify roles of the public and the private sectors
Lack of clarity in relation to combined governance models	Develop systems of combined governance, with careful attention to accountability and sustainability-related parameters
Skewed power relationships	Develop and mandate a participatory approach to decision-making in public-private partnerships

7. Inputs

7.1 Human resource

A review of the previous and following sections of this document reveals that the existence of appropriate capacity – institutional as well as individual – is one of the cornerstones of the health system; it is critical both for generating evidence and utilizing it for programme planning and implementation as well as streamlining and maximizing the role of the health system for improving health outcomes.

Building institutional and individual capacity can be viewed as being part of a generic process, closely linked to the broader economic, social and developmental context. However, in the health sector, this issue has been complicated by the absence of a well-defined policy on human resource development, lack of formal in-service training, low numbers for certain categories of health professionals, migration of skilled workers, mis-distribution of workforce and the proverbial brain drain – a manifestation of the lack of economic opportunities and incentives often complicated by other factors.[184] The recent establishment of the National Commission for Career Structures of Health Professionals and the constitution of a working group to enhance the capacity of the district health management by the Ministry of Health are, therefore, steps in the right direction.[185] It is hoped that these initiatives will lead to the development of a well-defined and locally-suited policy on human resource.

Building human resource capacity within the health sector involves building the capacity of health service providers – doctors, paramedics, nurses and outreach staff such as Lady Health Workers – on the one hand, whereas on the other, it must also include health managers and administrators at the senior, mid and first-line levels. In addition, it must also focus attention on building the capacity of the stewards of health. Careful attention must be paid to building sustainable institutional mechanisms for this purpose.

7.1.1 Quantitative issues

What are the quantitative human resource-related issues within the health sector?

Since the inception of the country, much attention has focused on producing more doctors. Human resource development was given a high priority in the social uplift schemes chalked out during the first and second Health Conferences held in 1947 and 1951, respectively. During the 1st Five- Year Plan, therefore, licentiate training was discontinued and several medical schools were opened. Today, the doctor to patient ratio in Pakistan stands at 1:1300, having increased from a baseline of 1:60,000 in 1947. However, the implications of supporting more doctors for the healthcare system have never been analyzed and the establishment, number and location of medical schools and their seats in particular have been determined, not by the needs of the health services but by political expediency. Notwithstanding, the increase in the numbers of doctors has been favourable *per-se* compared to other developing countries; however, other areas such as capacity-building, training and effective deployment have received little attention.

Table 25. Evolution of health-related human resource in Pakistan[186, 187]

Figures	1947	1965	1971	1993	1999	2004
Doctors	1,200	15,600	11,782	63,340	83,802	108,000
Specialist doctors	48	1,600	3,220	10,017	12,464	14,786
Dentists	-	230	1,100	2,600	3,577	5,057
Nurses	186	3,600	4,480	21,000	28,348	31,426
Lady Health Visitors	-	-	2,100	7,460	11,965	12,730
Lady Health Workers	-	-	-	1,994	43,000	71,600
Hospital beds	13,769	25,603	30,969	80,047	92,174	98,000
Hospitals	292	379	495	799	879	947
Dispensaries	722	1,695	2,136	4,206	4,583	4,800
Rural Health Centers	-	30	105	490	530	581
Basic Health Units	-	-	-	5,180	5,185	5,798
MCH centers	91	554	631	849	855	1,084
TB clinics	-	-	-	250	264	357
Doctor/population ratio	1:60,000	1:12,000	1:8,982	1:1,910	1:1,500	1:1,300
Beds/population ratio	1:48,000	1:1,900	1:1,745	1:1,550	1:1,470	1:1,400

In quantitative terms, there is a shortage of pharmacists, technologists, nurses and other paramedics within the country. This shortage is compounded by issues related to their effective deployment. The career structures of many cadres are also not well-defined and in certain circumstances, there is scarcity or unavailability of dedicated posts, such as in the case of skilled birth attendants. In the case of Lady Health Workers, non-availability of qualified women fulfilling the requisite criteria is a challenge, given the shortage of LHWs in remote/underserved areas. In addition, there is chronic shortage of well-qualified senior and mid-level managers and health administrators. Some efforts are underway to bridge these gaps. Very recently, a task force has been created for developing a plan for nursing reforms;[188] dedicated posts are envisaged to be created through the newly-launched NMCH programme ↴See section on *Maternal, Neonatal and Child Health,* whereas the NPFPPHC is looking at ways of redefining criteria for enrolling LHWs in remote areas and restructuring training in tandem. These efforts must be institutionalized and appropriately resourced.

7.1.2 Qualitative issues: training and capacity-building

What should be the hallmarks of capacity-building efforts in the health sector from a human resource perspective?

Doctors: scant attention has been paid to the content and format of training and teaching, particularly at the undergraduate level.[189] This gap is particularly pronounced in specific areas such as preventive care and health promotion, where the undergraduate training curriculum and format does not match ground realities. Majority of the healthcare facilities in the rural and urban areas are not adequately equipped; however, despite that, a model of healthcare continues to be taught, based on the assumption that these facilities are ubiquitous. Primary healthcare and preventive services, which are the mainstay of our policies, merit only a very small fraction of the training time – except in some private medical schools such as the Aga Khan University, where they are introduced right at the very beginning. Those against this view may argue that community health is a full-time one-year subject. This is indeed the case; however, in most medical schools, it

is introduced towards the end of undergraduate training, at a time when there are many other pressing priorities for students. Thus, the country's medical education system produces doctors who generally tend to regard community health and health promotion – core elements of our healthcare priorities – low on their list of priorities. In addition, there is disconnect between training and practice which is further worsened by weaknesses inherent in training and the increasing gap between theory and practice. In addition, issues in relation to the quality of undergraduate education – both in the public as well as private sectors – are widely recognized. Privatization of medical education has given a significant boost to the sector; however, there has been no structured evaluation of how this has affected the quality of medical education. The Pakistan Medical and Dental Council, which is responsible for regulating these institutions, should devise evidence-guided strategies for bridging these gaps with careful attention to striking a balance between coercive and facilitative measures.

Deficiencies in undergraduate training are exacerbated by the absence of a comprehensive CME programme in the country; therefore, in many ways, skill-building of healthcare providers is totally at the mercy of the pharmaceutical sector, which channels resources into conferences and seminars. By and large, these have played a positive role in sensitizing physicians to contemporary concepts in the field of medicine, promoting curative aspects of care and facilitating the networking of professionals within specialty domains. However, they also raise conflict of interest-related concerns; moreover, as they are largely tertiary and secondary healthcare-orientated, these do not focus on skill-building programmes/measures in priority health sector activities and therefore, minimally contribute to impacting nationally agreed targets. It is critical to devise an appropriate CME package and to structure it in a manner so as to complement and dovetail with nationally agreed targets and goals in order to assist physicians in playing a meaningful role in achieving these targets. The recent initiative by the College of Physicians and Surgeons of Pakistan (CPSP), to develop a policy for CME and its subsequent adoption by the Ministry of Health is, therefore, a step in the right direction. However, it would be important to continue building on this effort. The feasibility of incorporating CME as a prerequisite for maintaining PMDC license should also be explored. In addition, the Commission for Career Structures, the Higher Education Commission and other stakeholders should work in coordination to periodically analyze supply and demand, distribution and training needs of medical/paramedical staff. Priority training needs must be determined and specific budgets should be allocated for health sector scholarships in disciplines that are high in demand and low on local capacity.

Undergraduate, CME and in-service training should prime and train healthcare providers in playing a role to achieve national health targets.

Comparatively, the postgraduate academia has done better, both in quantitative terms and in terms of the quality of education imparted. The total number of graduates of the College of Physicians and Surgeons has increased from 657 in 2001 to 879 in 2004.[190] However, the numbers are still low and need to be increased to meet the growing demand for specialists in the country. The CPSP currently deals with 52 clinical specialties. Recently, it has expanded its scope to develop a new career line for doctors through the introduction of a diploma in healthcare systems management; this is expected to be developed into a fellowship programme soon. In addition, it has also introduced training of trainers in the CPSP-accredited institutions in order to build the capacity of supervisors and trainers. Both these are important steps that need to be further strengthened.

Non-physician healthcare providers: training of paramedics (dispensers, LHVs and LHWs) in the public sector, through the Provincial Health Development Centers (PHDCs) and the District Health

Development Centers (DHDCs), is more structured as compared to that of doctors. The DHDCs and the PHDCs are institutional mechanisms with their own infrastructure and staffing. During the period 1992-99, the World Bank-funded Family Health Project used this infrastructure for human resource development; recently, a study was conducted to analyze the cost of training during the implementation of that project within the context of its financial implications and sustainability for the department of health. The results showed that utilizing DHDCs and PHDCs was a viable option for sustaining training programmes; furthermore, the study showed that these institutional mechanisms need to be recognized and strengthened. The study showed that 70% of the cost incurred during trainings could be attributed to TA/DAs and that alternative incentives needed to be promoted for enrolling healthcare providers in such training programmes.

Many other institutional mechanisms also exist. These can prove useful if streamlined and strengthened to serve as a resource in order to enhance the standard and output of professional education for paramedics. The potential within institutes such as the Pakistan Nursing Council and the Pakistan Nursing Foundation should be harnessed for this purpose.

Health system managers: lack of professionally trained health administrators within the country is of particular note – a problem compounded by limited training capacity. There is, therefore, a need to strengthen in-service training for the formally employed managers. The Health Services Academy (HSA) and the provincial public health institutions have been playing a role in building capacity in this area. However, this role needs to be further strengthened. The Health Services Academy Act was promulgated in 2002 in order to give managerial autonomy to HSA so that it could play its due role. However, subsequent progress in institutional development has been slow. It is imperative to take note of organizational and administrative impediments to institution-building.

Medical and management education universities and institutions in the private sector can be utilized for training of health system administrators. In this context, an assessment of needs in specific disciplines should be conducted; these needs should be met by accredited health system educational institutions. The effective development of the health system and the reconfigured service delivery models – articulated in the Gateway Paper – hinge on the availability of well-trained health system managers. This would require curriculum development, accreditation of participating institutions and mechanisms for post-training absorption of such graduates – something on the line of the Lahore University of Management Sciences.

The recent introduction of healthcare systems management as a specialty area by the College of Physicians and Surgeons of Pakistan into mainstream postgraduate education is also envisaged to bridge some of these gaps.

The effective development of the health system and the reconfigured service delivery models – articulated in the Gateway Paper – hinge on the availability of well-trained health system managers.

Public health professionals: appropriate capacity within the public health system is the key to effective and efficient public health interventions. It is critical that investments be made in this area as a priority, both as a short and a long-term measure. The Federal Ministry of Health must place capacity-building high on the priority list and use the federal-provincial interface as part of its national programmes as an opportunity to assist with capacity-building in the provinces and districts. The multi-donor funded National Health Facility, in addition to providing budgetary

support and technical assistance to priority programmes, must be utilized for targeted capacity-building in key areas.[191]

7.1.3 Effective deployment

How critical is the effective deployment of health-related human resource?

Producing more healthcare providers and investments in training can only impact health outcomes if doctors are effectively deployed, given adequate incentives and managed efficiently in health systems. It is well-established that lack of incentives prompt providers – specialist clinicians, nurses and other paramedics – to serve in the private sector or to seek employment overseas where better incentives are offered; many amongst these continue to hold public sector jobs, even in absentia. Medical officers compete for postings in health facilities in busier towns where they are more likely to have a profitable private practice on the side. Trained public health professionals most often opt for private sector jobs due to better remuneration; furthermore, disparities in the distribution of doctors and their placement in the rural versus urban areas are well recognized.

This trend raises several issues with regard to *effective deployment* of the formally employed workforce in the public sector. Policies need to be clear on the number of doctors currently being produced, their demand and the implications that the increased and unemployed workforce will have for the government's employment policy. By and large, it is recommended that policies should be supportive of maximizing the potential of existing manpower, enhancing capacity and addressing imbalances in addition to increasing outputs. It is also important to build appropriate incentives and career structures for healthcare providers. The National Commission for Career Structure of Health Professionals has been mandated with the task of developing recommendations for suitable career structures for different cadres of heath professionals, suitable salary packages and others incentives and a comprehensive plan of action for the implementation of its recommendations. It is important to institutionalize these arrangements.

Effective regulation and its transparent and even-handed implementation is critical for addressing human resource-related imbalances. This highlights the need for personnel management reforms at the health systems level. Traditionally, within the health service structure, personnel management is regarded as being synonymous with personnel actions – recruitment, positioning, transfers, promotions – in many instances with significant bias and external influence. Scant attention has been paid to setting standards of performance and their monitoring. This must be the cornerstone of personnel management. Public service and financial and non-financial performance-based incentives must be built in for doctors and health administrators.

Human resource solutions need to be realistic and must be phased in with participatory consensus of all stakeholders. Most countries have faced the problem of doctors holding dual jobs and this problem is not specific to Pakistan. There is a need to find ways of pragmatically dealing with this reality rather than imposing coercive bans on private practice; lessons must be learnt from the recent NWFP experiences in this regard. Practitioner regulation will also have to be developed and effectively enforced in order to curb widespread quackery – the practice of medicine by people with no formal training who pass themselves off as *doctors*.

Overall, there is a need for broader and more fundamental reforms to deal with human resource capacity development. In many ways, this cannot be extricated from the overall economic, social and political development and institutional stability within the country. In the short term, however, there is a need to develop and introduce structured training programmes for all categories of healthcare providers. These need to incorporate scientifically valid, culturally appropriate and

resource-sensitive training modules, which must be delivered through transparent mechanisms. Ideally, such training activities should be set within a sustainable and comprehensive CME programme structured around broad-based goals and objectives. However, a CME programme must dovetail with the behavioural change communications programme so as to fully benefit from the opportunity to reinforce messages. The first step towards achieving this objective includes establishing appropriate linkages and generating a broad-based dialogue on these issues with the provincial health departments, the Pakistan Medical and Dental Council, College of Physicians and Surgeons in Pakistan, university departments, medical schools, professional associations such as the Pakistan Medical Association (PMA) and other professional societies.

7.1.4 The Pakistan Medical and Dental Council

A statutory autonomous organization, the Pakistan Medical and Dental Council was constituted under the Pakistan Medical and Dental Council Ordinance, 1962. Being the only regulatory organization in the health sector, it sets minimum standards for basic and higher medical education, defines minimum standards for appointment of faculty at medical and dental colleges, inspects new medical colleges on a periodic basis and grants recognition to those fulfilling the necessary criteria. The Council consists of members from all four provinces, the National Assembly, medical and dental faculties and the Armed Forces. The president and vice president are elected by members of the Council.

The Council has played a significant role in regulating the medical profession but has fallen short of its targets. Established for the sole purpose of maintaining excellence in medical education, it has only busied itself with registering doctors, dentists and medical colleges. Though it prescribed the Code of Medical Ethics for the Registered Medical Practitioners 'to enforce ethical practice and prevent professional negligence', both ethical practice and professional negligence remain issues of significant concern. This Code is seldom communicated to doctors and the medical communities as well as patients remain unaware of what constitutes minimal standards. Secondly, the code itself has no mention of patient safety and quality of services as the primary concern of a physician. Neither are patients aware of the existence of a process for addressing complaints and nor does the hospital management promote the concept.

The Council focuses on registration of doctors; however, credentialing of doctors and dentists is another area that needs to be institutionalized through it. The hiring of physicians for public and private facilities should be based on professional record – the current registration process only registers and renews every five to ten years without due consideration to malpractice or ethical concerns. This gap can only be filled if the registration process goes hand-in-hand with annual peer review reports and effective credentialing of doctors. Moreover, the complaint system needs to be strengthened via mandatory constitution of patient safety councils in hospitals. Curriculum revision is another area where the Council has not paid much attention. Locally-suited approaches to disease management, patient safety and quality need to be established and the incorporation of clinical guidelines to decrease variation in care must be a priority if the standard of medical education is to be raised. The Council should also collaborate with CPSP in developing a CME programme through annual performance-based credentialing of doctors whereby doctors have to meet specific criteria to get their registration renewed each year. Without the development of incentives, the adaptability of a CME programme is not possible.

The Council regulates and recognizes private medical institutions with an explicit aim of checking their mushroom growth. The essential function is to recognize institutions that fulfill specific criteria. However, issues remain unsorted at quite a few private institutions where class action suits have been filed against the college administration owing to the unrecognized status that does not qualify students for PMDC registration. Policy-makers need to ascertain whether there is

a demand for these doctors or not; whether the self-finance scheme can be strengthened at existing public medical institutions; and whether optimal barriers to entry exist for students as well as private institutions to ensure quality of medical education. The stringent admission criteria at medical institutions throughout the world are instructive – policy-makers have to grapple with the essential question of whether to increase the number of doctors per capita or to raise the quality of education imparted at existing medical institutions. Unless due consideration is given to matching supply with demand, equity and quality issues, maintaining academic excellence will remain a far-fetched goal. The Council needs to organize its activities to facilitate national priorities and policies. There is a need for greater coordination and communication between the medical community, policy-makers and the Council to promote excellence in medical education and the accountability of teaching medical facilities and doctors.

Table 26. Issues and possible solutions – human resource development

Issues	Possible solutions
Limited capacity: capacity is linked with the overall development, socio-economic and political context and institutional strength and stability	Promote progress at an overarching level
Quantitative problems, ineffective deployment and brain drain	Develop and implement a well-defined policy on human resource development Objectively analyze human resource needs and institute measures to enhance numbers Cleary define career structures of all categories of healthcare providers Create dedicated posts based on an objective situational analysis of supply and demand Effectively deploy the formally employed workforce Develop a conducive and rewarding working environment Institutionalize personnel management reforms, which go beyond personnel actions, set standards for performance and build mechanisms for their assessment and reward Develop incentives for professionals opting to work in remote and underserved areas Train health administrators and public health professionals and other cadres as appropriate
Qualitative considerations: Gaps in the quality of undergraduate training	Assess the quality of undergraduate education in the public and private sectors; study the determinants that affect quality of medical education and the impact of privatization of medical education on quality. Define and strengthen an institutional mechanism to develop evidence-guided strategies to bridge identified gaps
Content and format of training at the undergraduate level does not match ground realities and national health priorities	Pay due attention to the content and format of training at the undergraduate level, particularly with regard to preventive and promotive aspects

Table 26. Continued

Issues	Possible solutions
Absence of in-service training of health professionals	Formally structure in-service training for doctors and administrators Strengthen in-service training of non-physician healthcare providers by reinforcing the District Health Development Centers Establish a comprehensive CME programme in the country; dovetail this with a comprehensive behavioural change communication intervention Develop scientifically valid, culturally-appropriate and resource-sensitive training packages that can be delivered through transparent systems Determine priority training needs in the health sector within Pakistan; work in partnership with the Higher Education Commission to support foreign scholarships in disciplines that are high in demand and low on capacity Accredit health systems educational institutions (medical and management universities and institutions); pay careful attention to curriculum development, accreditation protocols and mechanisms for post-training absorption of graduates
Gaps in regulation	No comprehensive regulation of medical practitioners to curb quackery

7.2 Pharmaceuticals

Pharmaceuticals account for the major share of private health expenditure in the country; Pakistanis spend more than 80% of their total health expenditure on buying medicines due to lack of public financing, relatively higher prices and the virtual absence of health insurance and reimbursement schemes. Despite the inelastic demand, high costs can be inhibitory to accessing live-saving drugs. However, on the other hand, the mere availability of essential drugs or the ability to afford them does not mean that these drugs will be used rationally. Problems with drug use are compounded by lack of information, increasing number of brands in the market, counterfeits and unethical marketing practices. The most important question in the context of pharmaceuticals, therefore, relates to the manner in which issues of irrational use and misuse on the one hand, and under-use due to lack of access or affordability, on the other, are effectively addressed by policy-makers.

7.2.1 Drug policy and legislation

Pharmaceuticals and vaccines make a vital contribution to health. Pakistan had no pharmaceutical manufacturing unit after its independence in 1947 and the local demand was met by traders importing medicines primarily from India. The local marketers were only involved in packaging and distribution of imported drugs. The first units were established through the efforts of the Pakistan Industrial Development Board (PIDB), subsequent to which manufacturing capacity continued to increase. Currently, the pharmaceutical sector in the country is a sizeable industry – by dollar size and growth rate standards – with an annual turnover of more than Rs. 70 billion (US $1.2 billion)[XIX] and an annual growth rate of 10-15% for the past few years. The industry comprises 411 local manufacturing units and 30 multinational corporations (MNCs), which produce 125 categories of medicines and meet around 80% of the country's requirements.[192] Over the past 59 years, the MNCs have – owing to their R and D capacity – broadened the scope of modern medicine through the provision of quality assured medicines to the nation's population.

The most important question in the context of pharmaceuticals relates to the manner in which issues of irrational use and misuse on the one hand, and under-use due to lack of access or affordability, on the other, can be effectively addressed.

Pharmaceuticals were under the stipulations of the Pharmacy Act 1967 and the Drug Act 1940 prior to 1972, which is when the bold Generic Drug Act was introduced.[193] It is widely perceived that the Act had robust scientific merit and had it been implemented in its true spirit, it would have facilitated access to affordable drugs. The Generic Drug Act was geared towards favouring the national industry; however, in many ways, it also had an inadvertent adverse effect on the local industry in terms of the diminishing competitive capability in the international markets, which led to decreased exports. In the aftermath, the local industry benefited from the Generic Drug Act – by

[XIX] Estimates for the year 2002-2003

virtue of increased local market capitalization. Unfortunately, the Act was repealed amidst heavy opposition from the commercial sector and a range of other stakeholders including the medical fraternity.

Table 27. Profile of the pharmaceutical industry in Pakistan (Data for 2003)[194]

Parameter	Outlay
Imports	US $275 million
Exports	US $50.4 million
Number of units	431
Total investment in the pharmaceutical sector	Rs.21.12 billion
Local production	US $1billion
Local consumption	US $1 billion
Share of MNCs %	47
Share of local companies %	53
Increase in export of pharmaceuticals %	17

What are the salient weaknesses of the Drug Act 1976?

The Drug Act 1976 – which came decades before the National Drug Policy of 1997 – was enacted subsequent to the managed failure of the Generic Drug Act. At the time of its promulgation, drug-related legislation was a highly contentious area. Notwithstanding, it was both well-conceived and well-received. However, it is perceived that the Drug Act 1976 is weak in a few areas. It must be recognized that some of these weaknesses – being contemporaneous – have emerged over time and do not reflect on the original configuration of the law. **Firstly**, the drug quality assurance mechanisms, which it stipulates, lack coordination and are not consumer-friendly. The Act relies heavily on evidence – relating to efficacy and safety – generated in the developed countries and does not allow adequate room for Adverse Drug Reactions (ADR) monitoring and pharmacovigilance. This allows for the registration, and therefore, the use of drugs on the premise that they are licensed for use in the developed countries, despite knowledge of the fact that many drugs are registered in such countries only for the purpose of being exported. The absence of appropriate provisions to mandate local scientific analysis is not only detrimental to building research capacity in the area but has also enabled many substandard drugs to gain access to the market. In this context, the Pakistan Association for Pharmaceutical Physicians has recently made valid recommendations to amend drug rules in order to make pre-marketing trials and post-marketing surveillance mandatory. In addition, it has also recommended that it should be made mandatory for all pharmaceutical and marketing companies to have pharmacovigilance departments and designated safety officers for ensuring the safety of the products being marketed and manufactured. These recommendations must receive careful attention. **Secondly**, its lack of attention to traditional medicine has been well-recognized and it was not until 19 years later that efforts – currently underway – were instituted to bridge these gaps. **Thirdly**, certain policy decisions subsequent to its enactment created ambiguities about the stipulations of the Drug Act of 1976; lack of clarity in relation to drug pricing – post-deregulation and partial freeze in 1993 – is worthy of note within this context ↴ See section on *Drug Pricing.* **Fourthly**, the Drug Act has also not been updated in view of the information communication technology boom, which has created a new era of cross-border marketing and promotion. Ideally, the law should have been modified in order to keep it up-to-date with contemporary advertising trends. **Lastly** and importantly, however, the gravest issue stems from *poor implementation of the currently existing law*.[195] This manifests itself in the shape of problems with the availability of and access to safe, efficacious and cost-effective drugs despite huge proportional spending on buying drugs both by the public sector (40% of recurrent health budget) and consumers (more than two-thirds of the household health

expenditure). Poor implementation of the law at the level of public sector healthcare facilities results in drug theft, pilferage and problems with supply cycles.[196] Impediments to implementation of the law highlight serious cross-cutting systems-level challenges, which have been propelled by huge vested interests. Therefore, implementation of the law in its existing form is equally, if not more important, than the need to update it in order to bring it in conformity with contemporary considerations. There is also a need to strengthen the currently existing law; in addition, it is also important to update the present policy and legislation, enabling it to conform to contemporary trends in relation to pricing and quality assurance.

The implementation of policies and legislation needs to be overseen by an independent Drug Regulatory Authority. This concept has received support in the 10th Medium Term Development Programme (2005-2010) and has also been supported by the private sector including Pharma Bureau.[197] Work is currently underway by the Ministry of Health, assisted by the WHO EMRO office, to create a statutory and semi-autonomous Drug Regulatory Authority under the umbrella of Federal Ministry of Health with its own independent governance and enforcement mechanism.[198,199] Once created, the DRA should be made responsible for policy issues relating to regulation and monitoring of the implementation of the National Drug Policy and the Drug Act.

Impediments to implementation of the Drug Act 1976 highlights serious cross-cutting systems-level challenges that have been propelled by vested interests.

What are the two important post-1976 drug policy interventions?

Post 1976, partial deregulation of drug prices in 1993 is the next important event in the chronology of drug policy and legislation. This promoted free market competition and created two categories of drugs – controlled and decontrolled. This also allowed local companies to fix the same prices as multinational companies and led to a huge increase in the prices of drugs ↴ See section on *Drug Pricing.*

In 1997, the long-awaited National Drug Policy was announced; this was received by concerned circles as a well-conceived document. Both the National Drug Policy and the Drug Act 1976 are conducive to the development of the pharmaceutical industry. This is befitting, given that the industry provides jobs, contributes to economic development and plays an important role in the maintenance of health. However, the present policy has yet to deliver benefits to people in terms of enhanced access to quality-assured essential medicines.

Why it is important to ensure congruity of policies in the drug sector?

Within a drug policy context, it is important for respective *policies* to be congruent. The case of *attaining self-sufficiency in the formulation of finished drugs* will be referred to in order to highlight this point. The National Drug Policy stresses on the need for the country to 'attain self-sufficiency in formulation of finished drugs and to encourage production of pharmaceutical raw materials by way of basic manufacture of active ingredients'. However, only a little backward integration has taken place in the industry and currently, only three manufacturers namely: Pharmagen Beximco Ltd., Army Welfare Trust and Highmont Private Ltd., are involved in basic manufacture of raw materials whereas almost 95% of the basic raw material is imported from countries like China, the United Kingdom, India, Japan, Germany and the Netherlands, amongst others. This has been assisted by the government's open policy on import of pharmaceutical raw materials. The manufacturer only has to get the raw material registered with the government/the Central Board

of Revenue and the minimal tariff structure is in no way inhibitory. The government even repays to local manufacturers who import raw materials and then export finished products to the international markets – a policy which favours the manufacturer only in the short term. From offering rebates to manufacturers (for tax paid on import of raw materials) to subsidies given on general delegation, the government provides a broad array of incentives to attract new capital inflow. Furthermore, in April 2002, the government exempted all domestically produced pharmaceutical-related raw materials from General Sales Tax (GST). Most but not all imported pharmaceutical inputs subject to a 10% customs duty rate are also exempt from payment of GST. These subsidies are not conducive to the policy objective of attaining self-sufficiency in the production of raw materials. The government, therefore, needs to review its own policies in order to streamline them with objectives stated in the National Drug Policy.

The self-cancellatory incentives – from a policy perspective – do not serve the interests of the tax-payer also. They favour a two-way traffic, whereby the local industry is exploring foreign markets and the MNCs are making profit from the local market. The overall objective should be to make the existing policies pro-consumer with a favourable outlook for affordability, access, safety and rational use.

Why it is important to ensure congruity of drug policies with related policies in other sectors?

Drug policies need to be congruent with related policies in other sectors. The case of *export of drugs* will be referred to in order to highlight this point. The government has set a current target of US $1 billion in exports for the local industry.[200] Within this context, however, the negative propaganda from pharmaceutical trade unions in the West clearly undermines efforts of the local industry to increase its exports. Recently, two reports – one from the Association of Pharmaceutical Manufacturers (EU) and the other from the US Trade Office – alleged Pakistani market as having almost 50% substandard or spurious medicines. Pakistan's exports to Canada increased to a hefty 196% during 2004 while in the US, one of Europe's most respected voice on pharmaceutical fraud warned a key Senate Committee against importing drugs from Pakistan and testified that he himself had negotiated to buy counterfeits from Pakistan, India, China, Germany, Poland and other countries. These allegations were not heeded to by anyone in the public or private sectors – a fact that only points to the lack of response mechanisms or a even a cohesive strategy for governing this industry that is as important to the health of the nation as it is critical for the economy. The government must also, therefore, have a clear policy and a mechanism for safeguarding its own industry against undue negative propaganda. Collaborative arrangements should be fostered with organizations such as the Pakistan Pharmaceutical Manufactures Association, the Pakistan Association of Pharmaceutical Physicians and the Export Promotion Bureau in order to facilitate export of drugs.[201]

The government must have a clear policy and a mechanism for safeguarding its pharmaceutical industry against undue negative propaganda.

7.2.2 Drug pricing

Drug pricing is an important policy issue since high prices are a major barrier to accessing medicines especially for the poor.

Why are drug prices higher in Pakistan as compared to India?

If brand-to-brand and generic-to-generic pricing is compared, it becomes evident that generic brands from top pharmaceutical units in India – which have EU and FDA approvals – are costly. However, studies have shown that the retail prices of many drugs are higher in Pakistan as compared to other countries.[202] A comparison of prices with the Indian market also reveals disparities. In 2001 Vioxx[XX] was introduced in Pakistan at a cost of Rs. 80 per tablet while at the same time it was available for an equivalent of Pak. Rs. 4 in India and Rs. 70 in the UK.[203] Ciprofloxacin (an anti-infective prescribed widely for Typhoid) is up to eight times more costly in Pakistan as compared to India.

There are several factors that contribute to the availability of low-priced drugs in India. This has largely been a dividend of several long-term protectionist measures. Key amongst these are local industry-friendly policies in the 1950s and 60s, investments in drug manufacturing technology, low cost of raw material and other supply-side strengths achieved through the economies of scale, high-density pharmaceutical manufacturing capacity, the huge demand by virtue of the sheer size of the market, the information technology boom and process patenting as opposed to product patenting as a policy. These have led to the growth of the local industry in India as well as the availability of low-price drugs.

How has the pricing of drugs been regulated? What are the implications of deregulation?

The monopolistic elements of the pharmaceutical market necessitate some level of price controls; such controls are not uncommon in the developing world. In Pakistan, drug prices are regulated under Section 12 of the Drug Act 1976; this Act gave the Ministry of Health complete control over drug pricing, which it freely exercised till June 1993. However, in 1993, as part of the government's deregulation policy, a complete deviation occurred and the Ministry of Health partially relinquished its authority to regulate drug prices in favour of free market. The resultant increase in prices was unprecedented in that the prices of certain drugs increased to over 400% of the regulated-era prices. This led the Ministry to respond promptly by imposing a freeze in prices. A virtual freeze exists till today; notwithstanding, prices have continued to rise. Part of the reason for this stems from a failure to follow this up with appropriate and more specific legislative measures. The apparent void gave way to a plethora of Statutory Regulatory Orders (SRO), which though legitimate, created an environment for maneuverability and price increase. Currently, the pricing policy is enigmatic and requires pro-consumer revisioning as to make it more transparent.

Drug pricing-related deregulation policies have serious implications for the poor in the context of affordability.[204] The evidence regarding the inverse relationship between deregulation of prices and access to drugs comes from other countries also – many of whom have devised strict price regulatory mechanisms to provide relief to deserving people. Studies conducted on the impact of liberalization on drug prices in Pakistan reveal that deregulation has a direct impact on prices of pharmaceutical products and worsen people's access to drugs.[205] Even when under the vigilant control of the Ministry of Health during the 1980s, prices of drugs increased by an average of 30%. It is, therefore, not surprising that withdrawal of such controls in 1993 led to an unprecedented rise in prices.

[XX] A non-steroidal anti-inflammatory drug later taken off the market

Presently, there is reason to believe that the current macroeconomic policies might encourage a move towards *free play of the market mechanism* in the pharmaceutical sector on the premise that it promotes *efficiency* and *growth*. However, the promotion of such policies should be guided by a careful balance between health-related, economic and national development objectives with equity as a prime consideration.

It is imperative for the State to continue to play a regulatory role, albeit modified, in areas related to drug pricing. Such a policy must clearly articulate mechanisms for improving access to drugs by the poor in free market conditions. However, policies need to be implemented in their true spirit to create a significant impact. This calls for strengthening the role of regulatory bodies as to make them autonomous, efficient and resourceful.

Drug pricing-related deregulation policies have serious implications for the poor in the context of affordability.

What are the determinants of drug pricing?

Drug pricing is a complex issue with many inconsistencies; prices are influenced by a variety of upstream and downstream factors and markups charged at different levels. **Foremost** amongst these is lack of clarity in the pricing formula, which is currently based on the industry-reported cost of production as opposed to the international comparative prices of raw materials. Cost-pricing has been abandoned by many European countries since it is hard to determine the true cost of production. **Secondly**, MNCs use transfer pricing to favourably influence their calculations of production costs. Pricing is also complicated by the plethora of vague categorization of drugs into essential and non-essential, controlled and decontrolled, and those upon which taxes such as GST and others are levied or not. **Thirdly**, ownership of the same product by the principal and the subsidiaries creates price differentials due to a complex interplay. As a result, the prices of many drugs are known to be high and the need for downward revision has been repeatedly highlighted. This underscores the need to revise the pricing formula and to make it transparent on the basis of international competitive prices of raw materials. In addition, a robust and transparent mechanism must be developed to monitor prices. Studies should be conducted to enhance the level of understanding about actual prices, price composition, prices that patients pay to obtain medicines, the relationship between procurement prices and final prices, the relative prices of proprietary brands of medicines and their generic equivalents,[XXI] prices in different parts of the same country and affordability of treatment by ordinary people. Studies should also assess the pattern of mark-ups charged on prices at various levels. An ongoing study at TheNetwork for Consumer Protection is currently looking at a variety of overarching policy and operational issues within these domains. Appropriate evidence from such studies must be utilized in order to guide efforts to make the pricing formula transparent and consumer-focused.

Prices of drugs are also likely to be influenced by the TRIPS agreement – a key WTO Agreement affecting health – and the Patent Ordinance 2000 of Pakistan, which was promulgated in compliance with TRIPS regulations. Under this, the term of the patent has been extended to 20 years instead of 10 years. This will strengthen the monopoly of the MNCs with higher prices for longer durations of time. This has been discussed in a following section ↴ See section on *WTO Agreements and Health.*

[XXI] A generic equivalent is a product other than the innovator brand that contains the same active ingredient (substance) and has proven bioequivalence and bioavailability, whether marketed under another brand name or the generic name.

Low-income markets can afford drugs at low prices and equity demands that prices be set according to the income of the population; this can be achieved through many mechanisms, for example, differential pricing. The feasibility of developing such a system – mutually agreeable to all stakeholders – needs to be explored with the overall view to ensuring that the poor and the marginalized do not have to pay higher prices for essential drugs, thus protecting them against paying higher prices as a proportion of their income on buying drugs.

Prices of drugs are also likely to be influenced by the Patent Ordinance 2000 of Pakistan, which was promulgated in compliance with TRIPS regulations.

7.2.3 Drug registration

Drugs marketed in Pakistan are required to be registered under Section 7 of the Drug Act 1976. Fortunately, the Act is clear on all issues related to drug registration; however, the law is being poorly implemented. In last 30 years, more than 30,000 medicines have been registered in Pakistan; this amounts to more than three medicines registered per working day.[206] Drug registration is known to be faster in Pakistan as compared to other developed countries.[207] Though this is indicative of procedural efficiency, it may also point to certain weaknesses that need to be assessed and addressed.

One of the overarching challenges with regard to registration relates to its scope. Currently, several health products are not within the ambit of the law. Therefore, as a fundamental step, policy-makers need to redefine the scope and rationale of the registration procedure.

One of the pre-requisites of registration is the availability of safety and efficacy data. The Drug Act 1976 makes provisions for accepting documented proof from any source. This has contributed to liberal registration of drugs on the premise that they were licensed for use in another country. However, this also raises issues as many drugs are registered in countries only for the purpose of being exported. There is anecdotal evidence to suggest that many of these may be substandard. This poses a problem in the case of generics. There is, therefore, a need to make bio-equivalence studies mandatory prior to registration.

There is also a need to evaluate the process of registration. Careful attention should be paid to the governance mechanism of the Registration Board and the procedures for nomination and representation of members. Registration procedures should be reviewed, based on the evidence gathered. Measures must be taken to stop unregistered medicines from being sold in the market. Furthermore, traditional medicines must be brought under the realm of regulation and licensing.

Unnecessary registration of non-essential drugs should also be curbed. Some molecules have over 100 brands in the market. The Ministry of Health should set a cap on the number of manufacturers that can market one molecule. People against this view argue that free market competition limits price-hike beyond a certain range. However, looking at the relative elasticity of demand, research has proven beyond doubt that inflated prices do not act as a barrier to usage and that competition does not always reduce prices of drugs. On the other hand, such treatments often significantly add to the catastrophic cost of illness borne by the poor.

In the last 30 years, more than 30,000 medicines have been registered in Pakistan; this amounts to more than three medicines registered per working day.

7.2.4 Unethical marketing practices

Why does marketing promote unethical practices in the pharmaceutical industry?

The marketing of pharmaceuticals is different from that of consumer goods in that it relies on intermediaries or physicians who decide the appropriate choice of drugs to be prescribed to the principal i.e., the patient or the end-user. The asymmetric information – a patient's limited knowledge of his/her condition, treatment and prognosis – necessitates heavy reliance of the patient on the physician. Since the prescriber does not pay for the price, he/she takes little account of it, and in some cases, the physician actually has financial incentives to prescribe certain drugs. In Pakistan, more than 350 pharmaceutical companies manufacture almost 20,000 brands of different medicines and some molecules have over 100 brands in the market. Such competition may lead to unethical marketing practices whereby a company tries to influence physicians to make them prescribe the brand/s it manufactures. A conflict of interest arises when a physician, under the influence of incentives offered by pharmaceutical firms, prescribes medicines without due consideration for appropriateness of need, socio-economic status of the patient or the quality of medicines; it is this hospitality-based incentive-intense marketing that adversely affects medical practice and treatment decisions of physicians.

It is well-known that certain pharmaceutical companies engage in unethical practices in order to enhance their market share. Unfortunately, the additional costs incurred in such activities get added up in the final retail price, which pose an additional burden for poor consumers, whereas at other times, commercial interests outweigh safety concerns. Rule 10 of the Drug Act 1976 (Licensing, Registration and Advertising) holds the manufacturer responsible for updating safety information on drugs; additionally, legal provisions also exist that mandate inclusion of 'black box warnings' on the package. However, in many cases, these are disregarded.[208]

Hospitality-based incentive-intense marketing adversely affects medical practice and treatment decisions of physicians.

A careful review of the federal and provincial drug laws and sales rules by an expert panel constituted in 1998 had concluded that enforcement of the existing laws in their true spirit could result in a significant improvement in the situation with regard to unethical practices. The Drug Rules also have a Code of Marketing; this needs to be re-notified and implemented in letter and spirit. The Ministry of Health should also issue instructions to bodies like the PMA and specialty organizations to issue their own code. The DRA should be mandated to enforce this in order to penalize pharmaceutical firms, physicians or pharmacists who fail to comply with this code.

7.2.5 Irrational use of drugs

Irrational use of drugs, which encompasses irrational prescribing, irresponsible dispensing, self-medication and non-compliance by the consumers/patients can be a result of inappropriate actions or inactions at the level of the prescriber, dispenser, retailer or the user of drugs.[209] Irrational use entails misuse, under-use or over-use of drugs and manifests itself as escalated spending on drugs per capita or as lack of access to drugs due to inhibitory cost or failure to reap the benefits of drugs owing to a failure in communication about its usage.

What are the factors contributing to irrational use of drugs?

Several factors contribute to irrational use of drugs. **Firstly**, almost all forms of drugs are easily accessible over the counter; this is compounded by the unregulated sale of medicines in private stores, many a times by inexperienced retailers. The sale of narcotic analgesics is regulated by a specific provision of the Drug Act 1976 as part of which their sale is strictly regulated; despite this, narcotics such as Pentazocine are freely available in wholesale markets in major cities.[210] The absence of prescription-based dispensing of drugs at the point of purchase is an important contributory factor in this regard. Over-use and misuse is not unlikely when all forms of drugs are easily accessible over the counter and where there is no barrier to self-prescription or substitution of drugs by unqualified sales people. The Drug Act 1976 currently requires pharmacies to ask for prescription before they can dispense specific classes of drugs such as anti-anxiety and a few others; however, by and large, prescription-based dispensing of drugs has never been introduced in the country and no local study has been conducted to date on its effect on access or sale of drugs. In addition to its implications for rational use of drugs, prescription-based dispensing can also facilitate drug sales information systems and provide accurate information on current disease and sale trends. The feasibility of introducing prescription-based dispensing needs to be assessed.

Secondly, the inappropriate use of drugs by healthcare providers is a well-established phenomenon.[XXII] This is partly due to lack of capacity, which is compounded by the absence of a comprehensive CME programme and gaps in the development/dissemination of guidelines. A survey has recently shown that guideline manuals for procedures and responsibilities are not available at more than 90% of the public sector healthcare facilities and that the Essential Drugs List is unavailable at 30% of these sites.[211]

There are several ways to minimize medically inappropriate, ineffective or economically inefficient use of drugs. To achieve this purpose, appropriate evidence-based educational, managerial and regulatory interventions need to be introduced in order to improve the quality of health and medical care. The development and strengthening of drug control organizations – particularly at the district level – can play an important role in this connection. There is also a need to address deficiencies in pharmacy and pharmacological education with reference to rational and cost-effective drug use; introduce certified trainings of drug-sellers in the private sector and ensure the physical presence of pharmacists in pharmacies in hospitals. Moreover, standard treatment guidelines and trainings on rational prescribing of medicines should be a part of CME efforts ↴See section on *Human Resource.* There is also a need to broaden the scope of interventions to include the demand side so as to empower consumers with appropriate knowledge critical for promoting rational use of medications.

[XXII] Use of the wrong drug, in the wrong manner, use of drugs with doubtful efficiency, uncertain safety status and/or the use of drugs when no drug therapy is required

7.2.6 National Essential Drugs List

What is the National Essential Drugs List and why has the concept been unsuccessful in playing a major role in improving access or reducing costs?

The National Essential Drugs List (NEDL) or formularies are invaluable tools for rationalizing pharmaceutical expenditure and are meant to be used as the basis for pharmaceutical procurement and prescribing. The Ministry of Health defines essential drugs as drugs 'that satisfy the healthcare needs of majority of the population'. They should, therefore, be available at all times in adequate amounts and in appropriate dosage forms. The Drugs Control Office has published the third revision of the NEDL, which is an index of drugs that qualify the aforementioned criteria. The list currently contains 452 drugs belonging to different pharmacological classes. This is the largest NEDL in the South Asian region. The Ministry of Health publishes and disseminates this list amongst healthcare professionals as part of efforts to increase the acceptability of the concept – as envisaged in the National Drug Policy. The concept has received significant support from the WHO since 1975; the rationale provided states that NEDL guides rational selection, supply and use of drugs.

The Ministry of Health mandates the procurement of drugs from within the list by the provincial health departments and the local health authorities. Though it is hardly followed in practice, the concept offers a cost-effective mechanism for public procurement of drugs and its use should be promoted. Within this context, a number of issues need to be addressed. **Firstly**, the selection of drugs on the list has been debatable as the NEDL consists of a very large number of drugs, many of which are outliers in terms of their usage. **Secondly**, some molecules are marketed under more than 100 brands of varying prices and the price differential causes much confusion to the procurement officials. **Thirdly**, another issue that compromises this concept is the paucity of data on total public spending on pharmaceuticals. Further research is needed to determine price handles – factors that contribute to or have the potential to increase or decrease costs – along the pharmaceutical supply chain. In the absence of information on current utilization patterns, costs, and/or demand, policy-makers cannot make effective decisions about improving access or reducing or shifting costs. Policy-makers must find alternative ways of capitalizing on the concept as it holds tremendous potential for ensuring the availability of high-quality low-cost drugs in the public sector.

Policy-makers must find alternative ways of capitalizing on the concept of NEDL as it holds the promise of ensuring the availability of high-quality low cost drugs in the public sector.

7.2.7 Shortage of drugs

The inside front page of TheNetwork's quarterly Drug Bulletin runs a timeline series on 'Availability of Essential Medicines'; the extensive list provides information on essential drugs that are available, in short supply or are unavailable in different districts of the country. The survey findings have been consistent with the observation that low-profit drugs – though essential and life-saving – remain in short supply.

Why do some drugs remain in short supply in the market?

Shortage of drugs in the market may also be due to genuine reasons such as the unavailability of raw materials or problems with manufacturing. However, more commonly, shortages arise as a result of decreased responsiveness of the manufacturer due to low demand of a particular drug. Shortages are also known to be induced as means to achieving certain objectives such as getting a price increase from the Ministry of Health.[212]

The most critical aspect of this problem is shortage of essential drugs. Many essential drugs with no alternatives have been missing from the market for several years.[XXIII,213,214]
A case in point is Thiazide diuretics, which is the drug of choice for the treatment of high blood pressure [unless there is a compelling indication to use another drug]. Thiazides are the cheapest and amongst the safest of all blood pressure-lowering drugs; however, they have been unavailable in Pakistan for a long time as this segment is not a very profitable entity.

A manufacturing monopoly is usually evident in the case of drugs that are habitually short in the market. To counter this problem, drugs on the NEDL should be manufactured by more than one company. It is also important to pragmatically review the prices of drugs that are habitually short with a view to coming up with options that will make it viable for the industry to manufacture such drugs. The drug Thyroxin is a case in point where the price of 100 tablets is Rs. 7.
It is also essential that the Ministry of Health strictly binds manufacturers to the terms and conditions of registration, which also include assurance of regular supply. Once a drug is registered, the Ministry of Health should have an effective mechanism for ensuring regular supply of drugs to all parts of the country. Reported shortages should be responded to immediately with drugs from alternative/parallel manufacturer/s. The DRA should have the authority to penalize any firm found to have induced such shortage. The current Drug Act 1976 makes provisions for such penalties; however, these are seldom imposed. In addition, doctors should be educated to prescribe essential drugs as necessary and should be informed about missing drugs and their alternatives.

Factors related to shortage of drugs outlined above relate to shortages within the market. The dynamics of drug shortages in pharmacies of public sector healthcare facilities are other than these. These arise due a combination of factors that are discussed elsewhere in the Gateway Paper ↴ See section on *Implementation and Governance*

Low-profit drugs – though essential and life-saving – remain in short supply in the market.

[XXIII] Thyroxin, Griseofulvin, Digoxin, Penicillamine, Flumazenil, Desferroxamine and Protamine Sulphate, etc.

7.2.8 Drug quality and quality assurance systems

Does the drug quality assurance mechanism established under the Drug Act 1976 need to be strengthened?

A drug must fulfill three criteria before it is used – quality, safety and effectiveness. Quality assurance systems precisely deal with ways to ensure and maintain optimal quality of drugs along the supply chain; they ensure that the raw material is of highest standards; that drugs are manufactured under Good Manufacturing Practices (GMP); that the distribution channels take appropriate measures for storage and that no lateral entries are entertained in the supply chain to avoid counterfeits. Many parties have a stake and therefore, an interest in drug quality: doctors want to maintain their patient trust and future visits of patients, consumers care for the potential for cure and costs, pharmaceutical companies need to maintain or build their reputation and future profits and health promotion and preventive programmes rely heavily on drugs as a way of ensuring people's trust in medicine will be honoured and rewarded through prevention and cure.

Recently, drug quality has become a source of growing concern amongst medical circles and consumers as reports have shown that availability of substandard and counterfeit drugs has reached a disturbing proportion.[215] A recent study conducted by the United States Pharmacopeia (USP) Drug Quality and Information Programme on the quality of anti-infectives in Asia reported that spurious and low-quality drugs are known to exist in the country and that drugs smuggled across the porous borders add to this bulk.[216,217] The use of low-quality drugs not only produces serious health implications, it also wastes resources. In the wake of the increasing exports and the government's target to increase pharmaceutical exports to $1 billion, the need for establishing a formal quality assurance system becomes all the more important.

Within this context, the drug quality assurance mechanism – established under the Drug Act 1976 – needs to be strengthened. Pharmaceutical manufacturers in Pakistan are supposed to follow international standards for the production of pharmaceutical products given in the British and US Pharmacopoeia. From the procurement of suitable quality-assured raw material to appropriate storage and distribution, GMP provides criteria for quality control departments. Under GMP, there is a statutory binding for manufacturers to have independent quality control units, which perform specific quality-maintenance functions. As opposed to this, it has been observed that many manufacturing units, though ISO-certified, have inadequately functioning quality control departments; this has resulted in the mushrooming of spurious drugs and counterfeit of generic and patented products. Ensuring compliance with GMP is the function of the Ministry of Health; this warrants stronger regulation. Furthermore, none of the manufacturing units is FDA-certified; FDA certification may be relevant for some manufacturing units, given the opportunities for export that such certification provides.

The issue of poor quality was taken up by a high-level initiative by the Punjab government in 1998. This initiative was bitterly opposed by local manufacturers and retail sellers, who saw it as being part of a multinational agenda. However, this did not appear to be the case as the PPMA was also a member of this task force. As part of this effort, the government of Punjab revitalized drug courts which penalized many offenders. However, these efforts need to be formalized through the development of appropriate institutional arrangements.

The Drug Act 1976 stipulates at least one drug-testing laboratory in each province; however, Balochistan does not have a testing laboratory and the number and capacity of the human resource (inspectors and analysts) throughout the country is much less than the essential requirements of an effective quality assurance system. This is not just a quantitative limitation but also links with limited demand because of poor regulation in this area. One of the biggest drug-

testing facilities in South Asia was set up in Islamabad under the financial and technical assistance of Japan International Cooperation Agency (JICA). The facility had the capacity to perform a wide array of tests on drugs and is housed at the National Institute of Health (NIH). However, due to the absence of formal testing mechanisms – a management function – the facility was termed as a *graveyard of equipment* by one of the authors of the National Drug Policy. It is, therefore, necessary to devise a formal quality assurance system that will be linked to all provinces and will offer one-window operational mode for drug-testing. Periodic testing of drugs, the sharing of results amongst all stakeholders, the development and utilization of quality scorecards, the establishment of a reporting mechanism, and the periodic formal publication of and sharing of report cards based on quality testing can stimulate increased quality-oriented competition amongst manufacturers. In addition, these initiatives will empower patients to make informed choices.

Many manufacturing units, though ISO-certified, have inadequately functioning quality control departments; this has resulted in the mushrooming of spurious drugs and counterfeit of generic and patented products.

7.2.9 Traditional medicines

There are no official figures available regarding the number of manufacturers producing *Unani*, *Ayurvedic*, Herbal, or Homeopathic medicines in the country. However, estimates from the Pakistan Tibbi Pharmaceutical Manufacturers Association (PTPMA) put the figure at around 400; of these, 86 are registered with the PTPMA. The total market for traditional medicines was estimated to be around US $125 million (Rs. 7,500 million) in 2004 while total imports were estimated at approximately US $4 million and exports stood at US $9-10 million.

The present government is trying to formalize this sector and a draft bill has been moved on the floor of the National Assembly for discussion. The National Institute of Health (NIH) has recently published a list of essential drugs in *Unani* Medicine and the Herbal Medicine Division is currently working on GMP for the sector.

Traditional medicines provide an alternative for healthcare delivery in resource-constrained settings. However, such a contribution can only be possible if they are institutionalized. As a first step, therefore, traditional medicines must be brought under the oversight of the proposed Drug Regulatory Authority. In addition, randomized controlled trials must be conducted to assess the efficacy of drugs prescribed under this umbrella. Only then can meaningful inferences be made for rational policy decisions ↴ See section on *Traditional Medicine and Practice.*

7.2.10 Clinical research

The Drug Control Organization of the Ministry of Health does not require evidence of safety and efficacy in the local settings. In most cases, the registration criteria depends on approval by the US and European regulatory authorities. Though these standards optimally guard against the registration of unsafe drugs, they fail in gauging the safety and efficacy profile of registered drugs in a different setting owing to ethnic and other demographic dissimilarities. Since indigenous research on the effect of these drugs is never carried out, their adverse effects remain masked

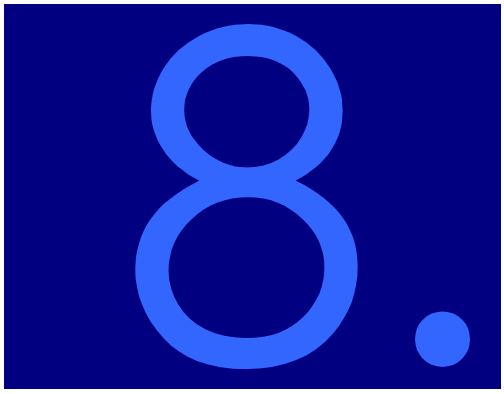
and are sometimes diagnosed as isolated morbidity. Clinical trials are resource-intense when carried out for discovering new drugs or researching the effects of drugs in local settings. Local pharmaceutical companies are not interested in carrying out the latter as there are no incentives or legal requirements to do so. As for the former – discovering new molecules – the local pharmaceutical industry has not undertaken any major study to this effect owing to the increased costs associated with clinical trials. In the post-WTO scenario, there has been an increase in the interest of the local industry in clinic research. This must be supported and guided by regulatory mechanisms and standards. Collaborative linkages should be established with agencies such as the Pakistan Pharmaceutical Manufacturers Association (PPMA) and the Pakistan Association of Pharmaceutical Physicians (PAPP). The latter has recently issued recommendations that call for exemption of duties on import of equipment necessary for conducting clinical trials. Such views must be supported.

Table 28. Issues and possible solutions – drugs and supplies

Issues	Possible solutions
Lack of clarity in present policies	Reconfigure the existing policy in order to make it consumer-friendly with a favourable outlook for affordability, access, safety and rational use
The Drug Act 1976 is weak in certain areas	Update the law to address: ? Gaps in the quality assurance mechanism ? Inadequate room for ADR monitoring and phamaco-vigilance ? Lack of attention to traditional medicine ? Ambiguities about stipulations of the Drug Act and lack of clarity in relation to drug pricing – post-deregulation and partial freeze in 1993 ? Gaps in view of contemporary advertising trends and liberalization of trade under WTO ? Incongruity between the Drug Policy and other related policies Amend drug rules in order to make: ? Pre-marketing trials and post-marketing surveillance mandatory ? It mandatory for marketing companies to have pharmaco-vigilance departments and designated safety officers to ensure the safety of the products being marketed and manufactured
Poor implementation of the law	Establish a statutory, semi-autonomous Drug Regulatory Authority under the umbrella of the Federal Ministry of Health with its own independent governance and enforcement mechanism to guide and oversee stricter implementation of the Drug Act 1976 Develop a formal quality assurance mechanism linked to all provinces with the capacity to offer operational modes of testing
Unrecognized implications of WTO agreements	Develop a baseline position to clearly articulate the Pakistan-specific public health impacts of the WTO agreements Take advantage, as appropriate, of certain prerogatives that countries have, to override certain provisions of WTO in the interest of making drugs accessible
Restricted opportunity for local pharmaceutical industry to produce generic drugs	Allocate public sector resources to build and support the research base of the local pharmaceutical industry Assist in the promised technology transfer to the local pharmaceutical industry
Lack of clarity in the pricing formula	Cleary articulate one policy position on drug pricing and implement it transparently ? Make the pricing formula transparent and consumer-friendly ? Strengthen the regulatory role in relation to drug pricing ? Conduct studies to: ? Examine upstream issues and markups that have implications for drug pricing ? Develop an understanding about actual prices, price composition, procurement prices and final patient prices, the relative prices of proprietary brands of medicines and their generic equivalents amongst stakeholders
The poor pay more as a proportion of their income on buying drugs	Assess the feasibility of instituting policy measures to make low-priced drugs available e.g., a differential pricing system, generic prescribing, etc.

Table 28. Continued

Issues	Possible solutions
Gaps in the process of registration and its scope	Redefine the scope of drug registration within Pakistan Conduct an evaluation of the process of registration with a view to modifying it on the basis of evidence generated Make it transparently binding for pharmaceutical manufacturers to adhere to registration procedures Ensure enhanced utilization of efficacy and safety data for registration Conduct an assessment of the performance of the registration board Ensure public access to drug registration data Bring traditional medicines under the realm of registration Register generics only when data of bio-equivalence and bioavailability are provided
Unethical practices	Re-notification and implementation, in letter and spirit, of the Code of Marketing embodied within the Drug Act 1976 Develop and transparently implement Standard Operating Procedures for drug selection, procurement, storage, dispensing and rational prescribing Enhance post-marketing surveillance in order to monitor adverse drug reactions and other issues
Irrational use of drugs	Introduce appropriate evidence-based educational, managerial and regulatory interventions Introduce certified trainings of drug-sellers in the private sector Introduce standard treatment guidelines and trainings on rational prescribing of medicines into the CME effort Explore the feasibility of prescription-based dispensing
Shortage of drugs/vested interest	Mandate the registration of essential drugs by more than one company with appropriate representation given to private companies Avoid unnecessary registration of non-essential drugs Educate doctors to prescribe essential drugs as necessary and inform them about missing drugs and their alternative treatments Work closely with the pharmaceutical company to guard against supply break
Large size of NEDL and debatable selection of drugs. Price differentials-related discrepancies that create confusion with respect to procurements. Paucity of data on total public spending on pharmaceuticals	Conduct research to find alternative ways of capitalizing on the concept of NEDL to ensure the availability of high-quality low-cost drugs in the public sector Conduct research to determine price handles along the pharmaceutical supply chain



Cross-cutting Scope of Health

8.1 Health promotion

What is health promotion? How can health promotion interventions be scaled up within the country?

Health promotion, as defined by the Ottawa Charter, is the process of enabling people to increase control over and to improve their health.[218] Several conferences as a follow-up to the Ottawa meeting have been in harmony with the principles embodied in this concept. [XXIV] The recent Bangkok Charter has broadened this concept by identfying parameters to address the determinants of health in a globalized world through health promotion strategies.[219] Health promotion involves the population as a whole in the context of their everyday life, rather than focusing on people at risk for specific diseases. It is set in the belief that a healthy life course during childhood, adolescence and working life and in homes and environments is critical to the health and well being of individuals. Health promotion encompasses diverse and complementary actions directed towards determinants and causes of health, which involve effective public participation in the context of their everyday lives. These actions include building healthy public policy, creating supportive environments, strengthening community actions, developing personal skills and reorienting health services. Appropriately structured and targeted actions can encourage, support and enable people to take better care of their own health, make appropriate use of health services and develop the personal skills necessary to exercise greater control over their health and well being. Empowering communities enables them to gain increased control over their environments and conditions which impact health. Health professionals – particularly those involved in primary healthcare – also play an important role in nurturing health promotion. Health promotion is, therefore, a multidimensional concept that necessitates the recognition of the diverse influences that have a bearing on health and well being.

Health promotion and disease prevention are classified as two separate concepts in health literature; however, practically these concepts are overlapping and complementary and can be present in the same programme with similar interventions and yet hold distinct meanings for two sets of target audience. A number of prevention and control-related programmes are currently being implemented within Pakistan; it is imperative that these and other social services develop a health promotion orientation. This necessitates that environmental, educational and social development professionals as well as citizens from different walks of life work together so that varied and complementary actions at the individual, group, community and policy levels can be assessed for their health promoting potential and therefore, reorientated.

An important component of this approach is to aim for changes within populations in defined geographic areas – a valid approach in the Pakistani setting, given that it is principally the responsibility of the district governments to deliver social services. Local bodies must own their responsibility of providing clean water, sanitation, vector control, checking food adulteration and creating an environment that allows communities to preserve and enjoy improved health and well being. However, in order to groom them in this role, the federal and the provincial governments will have to set standards and provide the tools that can assist the district governments and other stakeholders to develop multi-sectoral approaches to health. These should dovetail with other

[XXIV] Sundsvall Statement on Supportive Environments for Health; Adelaide Recommendations on Healthy Public Policy; Fourth International Conference on Health Promotion, Jakarta, Indonesia 1997 and 5th Conference on Health Promotion, Mexico 2000.

traditional prevention and control efforts and should feature strongly as part of the behaviour change communication strategy. The federal/provincial governments will also have to assist with the creation of mechanisms to develop mandatory institutional linkages at the district level in order to synchronize efforts and ensure that the roles of various stakeholders are complementary.

A useful starting point to scale up health promotion interventions within the country is to develop health promotion interventions in pilot settings. In addition to providing local evidence of effectiveness, such pilot settings can also enable the building of capacity in relevant areas such as assessment of issues and needs, planning interventions, priority setting and evaluation within the framework of community health promotion. Quetta had previously been part of the 'Healthy City' projects in the developing countries as part of UNDP LIFE initiative.[220,221] Initiated in 1995, this project provided an opportunity to pilot-test an intervention to improve the health and environmental conditions in parts of city where poor people lived. The initiative focused on environmental interventions, particularly solid waste disposal. However, no comprehensive information about the project is currently available and it appears that it was discontinued after 1999. It would have been useful if this project had been piloted over the long-term through indigenous resources and evaluated in an intervention-monitoring framework. Such an opportunity could also have enabled the introduction of health promoting concepts in schools – a well-established health promotion setting. The feasibility of building further on this work needs to be explored, seeking evidence from some other pilot interventions.[222]

In view of the robust evidence on the effectiveness of health promotion, it is imperative that the Ministry of Health and the departments of health recognize health promotion as a priority health issue and develop dedicated institutional mechanisms in order to mainstream it into health planning.[223] Many issues touched upon in the aforementioned discussions with regard to the role of the local and provincial governments in health promotion activities and measures outlined in another section are relevant in this regard ↴ See section on *Inter-Sectoral Scope of Health.*

Health promotion necessitates that environmental, educational and social development professionals as well as citizens from different walks of life work together so that varied and complementary actions at the individual, group, community and policy levels can be assessed for their health promoting potential and therefore, reorientated.

8.2 Research

Why has there been a failure to foster a research-promoting culture in the health sector?

As a country, Pakistan recognized *research in health* as a specific domain at the time of its inception; this was evidenced by the creation of a Health Research Fund and an institutional mechanism – the Pakistan Medical Research Council – in 1954. Currently, there exists a well-distributed infrastructure of institutions, with research as a primary or secondary function. These include the Ministry for Science and Technology (MoST); commissions on science and technology and biotechnology; the Pakistan Council for Science and Technology; 27 nuclear medicine and radiotherapy centers under the Pakistan Atomic Energy Commission; the National Institute of Health, the Health Services Academy, the Pakistan Institute of Medical Sciences, the Jinnah Postgraduate Medical Centre, the National Institute of Child Health, the National Institute for Cardiovascular Diseases and 20 public sector undergraduate medical colleges. Despite this elaborate infrastructure, the system has not been performing as desired.

Several factors contribute to this trend. These include the absence of a comprehensive policy on research, lack of institutional and individual research capacities, lack of academic incentives for research and limited resources. Currently, there are few public sector budgetary heads for research; majority of them are available sporadically, have cumbersome procedures for tapping into and are largely available to researchers working in the public sector only. The PMRC has limited grants; as a result, their staff and infrastructure remain underutilized. The Ministry of Science and Technology gets regular allocations for funding for a range of research activities including health research – in 2000, the allocation was increased manifold. However, in comparison, its allocations for health have remained low. Furthermore, under Section 12 of the Drug Act 1976, the Ministry of Health has been collecting a Central Research Fund from licensed manufacturers at the rate of 1% of the gross profits over several years. Recently, after years of delay, there have been attempts to channel these funds for research activities.[224] This is a sizeable fund; however, it is dedicated for research related to drugs only. Clearly, there is a need to broaden the base of budgetary and extra-budgetary funding sources for research and to make funding mechanisms facilitative.

A key issue in research relates to lack of qualified and motivated researchers within the health system. Studies have shown that trained researchers who attempt to pursue their careers in Pakistan face complex issues, lack academic liberty and incentives to sustain their research efforts and have limited job opportunities.[225] Building capacity for research should, therefore, be one of the priority areas within the health sector. Institutions with research as a core mandate should be strengthened with careful attention to bridging gaps in technical capacity in order to make them capable of offering technical and other forms of support in various programme areas.[226] On the other hand, there is also a need to build appropriate incentives and rewards for fostering research. Useful lessons can be learnt from private sector establishments in this regard. The Aga Khan University has been successful in institutionalizing research as its core mandate. The Shaukat Khanum Memorial Hospital and Research Center has recently introduced an incentive programme for physicians along the lines of the merit-awards of the NHS-UK; amongst other incentives, the programme rewards research activities. Similarly, proactive measures must also be taken to build a conducive research environment in the public sector. Overarching measures such as building incentives for research can play an important role in this regard.

Trained researchers who attempt to pursue their careers in Pakistan face complex issues, lack academic liberty and incentives to sustain their research efforts and have limited job opportunities.

Research issues pertinent to specific disciplines will be addressed within epidemiological, policy and systems, operational and applied domains.

8.2.1 Epidemiological research

Epidemiological studies generate evidence relating to the frequency, distribution and determinants of disease. They also enable evidence-generation related to causality, risk and outcomes. Epidemiological evidence pertinent to policy and planning can be provided by a public health surveillance process and other epidemiological studies.

8.2.1.i Surveillance

Why is disease surveillance so critical to decision-making and what does it involve?

Access to reliable data on an ongoing basis is a necessary prerequisite for effective planning, implementation and evaluation of programmes. Within a public health context, such information should ideally come from a public health surveillance process, which maintains continued watchfulness over health events in populations with regard to distribution and trends in incidence.

A surveillance process involves the *systematic* collection, *consolidation* and *evaluation* of morbidity and mortality data and its *interpretation* and *dissemination* for appropriate public health actions. Surveillance has its own *sources* and *methods* across different disease domains and provides timely information on mortality, morbidity, risk factors and their socio-economic determinants. In Pakistan, mortality surveillance is not possible in the short to medium-term as death certification is legally not required; public health surveillance, therefore, has to concentrate on morbidity and risk factor surveillance. Within this framework, surveillance of infectious and chronic diseases needs to be separately addressed.

Access to reliable data on an ongoing basis is a necessary prerequisite for effective planning, implementation and evaluation of programmes.

Infectious disease surveillance: the SARS and bird flu epidemics – with ongoing threats still looming large – highlight the importance of preparedness for an effective response system. This underscores the need to strengthen infectious disease surveillance systems in Pakistan. Several vertical infectious disease surveillance systems – as part of the respective programmes on polio, tuberculosis, malaria, HIV/AIDS and EPI – are currently operating in Pakistan with varying degrees of success. These involve acute case detection and reporting from several sources including the Health Management Information System (HMIS). The AFP/polio surveillance system in particular taps all possible sources for information through active surveillance methods and is recognized as

being effective. However, this initiative is part of WHO's global drive to eradicate polio and has received significant support from it. Other pockets of good practice also exist in various aspects of surveillance. However, by and large, systems have minimal coordination between vertical programmes and they usually do not tap into all sectors, thereby reflecting incompleteness. At the district level, there is limited capacity to analyze and interpret data and utilize it for action. In addition, these systems have limited capacity to confirm clinically diagnosed cases of reportable diseases because a functional laboratory system does not exist. This is compounded by absence of legal requirements to report notifiable diseases.

A recent assessment of Pakistan's public health surveillance system carried out jointly by the World Bank, WHO, CDC and the Ministry of Health has made a recommendation to develop a legal system that mandates the notification of priority diseases and regulates laboratory practice.[227] Relevant to the surveillance of infectious diseases, this report makes a strong recommendation for expanding the polio/AFP reporting system into a mainstream infectious disease public health surveillance system and recommends that initial efforts in the direction to integrate measles and neonatal tetanus need to be further built upon.

The SARS and bird flu epidemics – with ongoing threats still looming large – highlight the importance of preparedness for an effective response system.

Surveillance of chronic disease: surveillance of chronic diseases is inherently different from infectious disease surveillance. Complexities in the diagnosis of chronic diseases necessitates surveillance of risk factors rather than diseases – a valid approach given that the timelines involved in the risk-exposure relationship also provide a window of opportunity to institute appropriate preventive interventions. In addition, more than reliance on 'acute' parameters primarily from facility sources, there is a greater reliance on a population-based surveillance of 'risk factors' through sequential population level surveys, powered to detect changes in the level of risk factors over time. Sentinel surveillance also plays an important role in the areas of cancer and stroke, therefore meriting consideration.

The need for the establishment, maintenance and expansion, over time, of a comprehensive, integrated, systematic and sustainable population-based data collection infrastructure for surveillance of chronic diseases was recognized as part of the National Action Plan for the Prevention and Control of Non-Communicable Diseases and Health Promotion in Pakistan.[XXV] The Plan includes an integrated and common population surveillance mechanism for all NCDs with the exception of cancer. The model includes main risk factors that predict many NCDs and combines modules on injuries, mental health and stroke. In addition, the model has been adapted for programme evaluation; this will enable it to track implementation processes using appropriate indicators, facilitating an assessment of how interventions work and which components contribute most to success.[228] A baseline cross-sectional survey with a sample of sufficient size and power to detect changes in population level of the risk factors over time has already been conducted.[229] The World Bank report has recommended that this pilot should be used to expand the scope of NCD surveillance at a national level. In addition, it also recommends sustainable institutional support for mature cancer registries as a priority to facilitate continuous monitoring of cancers.

[XXV] A tripartite collaborative partnership involving the Ministry of Health, WHO and the NGO Heartfile

The need for the establishment, maintenance and expansion of a comprehensive, integrated, systematic and sustainable population-based data collection infrastructure for surveillance of chronic diseases was recognized as part of the National Action Plan for the Prevention and Control of Non-Communicable Diseases and Health Promotion in Pakistan.

Towards building a public health surveillance system: lack of comprehensive public health databases is an obstacle to effective priority-setting, targeting of programmes to various population groups, evaluation of process-related activities and long-term evaluation of preventive interventions. The adoption of practical and economical surveillance systems to bridge these gaps should be a public health priority. The recent assessment of Pakistan's public health surveillance system led by the World Bank has made a number of valid recommendations for strengthening and integrating the existing piecemeal surveillance activities into a comprehensive public health surveillance system. These include strong recommendations for the development of a national policy, a national plan of action and the creation of a *central focus* at the federal, provincial and district levels. It has been recommended that such a centrally coordinated mechanism should also focus on the development of standards and guidelines and assist with capacity-building. The recent establishment of the National Information Resource Center is an important step in this direction.

There is some potential in strengthening and upgrading conventional data sources such as those that presently exist. These sources, however, suffer several limitations. The Management Information System collects data on a monthly basis from BHUs and RHCs. However, outside specific areas such as polio eradication, little use is made of this. There are also linkage gaps between this and the Management Information Systems of individual programmes. There is a strong need to develop these linkages. In addition, there is a need to strengthen and streamline data collection from secondary and tertiary healthcare facilities and link them with HMIS. Furthermore, sample vital registration surveillance models need to be piloted for vital registrations, which are otherwise not mandated by law within the country; these can enable the gathering of data on morality rates in representative populations, from which results can be extrapolated.

At an overarching level, there is a need to shift the focus from conducting stand-alone surveys to developing comprehensive public health surveillance systems. Ideally, the PMRC National Health Survey conducted in the 1990s should have been structured, designed and powered for on-going data collection.[230] Lessons learnt from this missed opportunity should guide the restructuring of other surveys. Recommendations have been made to use the Core Welfare Indicator Questionnaire (CWIQ) and the Multi-Cluster Indicator Survey (MICS) [231] as tools to monitor key health indicators. These and other tools such as the Pakistan Integrated Household Survey (PIHS) and the Annual Household Demographic Survey[232] of the Statistics Division can give meaningful information about progress on health indicators only if structured appropriately and powered for ongoing data collection. These considerations should guide the restructuring of these tools. A properly structured surveillance system can obviate the need for stand-alone prevalence, KAP, demographic and health service usage surveys as it can embody all these elements. Furthermore, there is also a need to introduce quality assurance mechanisms into existing instruments. Population-based surveillance activities necessitate appropriate investments in infrastructure and

personnel. There is potential in capitalizing on the infrastructure of organizations such as the Pakistan Medical Research Council, which has remained underutilized in the past due to lack of resources and structural issues. However, investments will have to be made in building capacity. The use of technology can off-set some of the cost, albeit with initial investments.

There is potential in capitalizing on the infrastructure of organizations such as the Pakistan Medical Research Council, which has remained underutilized in the past due to lack of resources and structural issues.

8.2.1.ii Other epidemiological studies

Epidemiological assessments generate evidence about causality through surveillance systems – but more commonly through other studies. Setting goals for preventive initiatives necessitates the definition of the risk factor profile of a population. This raises the issue of validating epidemiological associations in the Pakistani context on the one hand, and demonstrating risk-factor causal associations in order to define targets for prevention and goals for preventive initiatives specific to the Pakistani population, on the other. Studies of causality are resource-intensive; however, they must be conducted when they are fully justified, even if extrapolation from a western context is another option.

Clinical trials: evidence for therapeutic interventions needs to be robust and must come from randomized controlled trials. Even in cases where the effectiveness of a clinical intervention has been proven in the developed countries, it may need to be tested in the local setting because of ethnic and other population dissimilarities. However, randomized controlled trials are resource intensive and the feasibility of their being conducted locally may largely be outside the scope of short to medium-term planning. Within this timeframe, therefore, appropriate regulatory safeguards must be developed and transparently implemented in order to protect consumers against unethical and hazardous interventions. Enhancing and strengthening scientifically unbiased surveillance of drugs, devices and supplies is important in this regard ↴See section on *Clinical Research.*

8.2.2 Health policy and systems research

What is health policy and systems research? Why is it critical to mainstream it into planning and development?

Health policy and systems research involves production of evidence-based applied knowledge for the specific purpose of facilitating societies to organize themselves to achieve health goals.[233] It can involve various research approaches ranging from basic to applied research; however, there is a distinct dimension to it that makes it different from other forms of research – its focus on the use of evidence by decision-makers in the health sector. This has been elaborated upon further in another section in the Gateway Paper. ↴See section on *Evidence and Policy Cycle.*

Health policy and systems research is particularly important in the event of reforms being envisaged within the health system as it enables identification, both of the causes as well as the

consequences of reforms. Recently, there have been attempts to introduce such reforms in the country; the national strategy to revamp the primary healthcare system is a case in point. However, reforms must be based on evidence and link closely with the process of generating evidence and utilizing it on an ongoing basis. This necessitates efforts at several levels: **firstly**, there is a need to build and promote a research culture and improve the capacity of the decision-makers to recognize the benefits of research and use information to strengthen policies and practices. **Secondly**, proactive measures must be taken to institutionalize research and invest in targeted capacity-building for credible research outputs. And **thirdly**, there is a need for the development of appropriate advocacy strategies and innovative ways of knowledge-sharing and mobilizing the influence of networks and key stakeholders to effectively communicate evidence.

There are various settings for health policy and systems research; well-designed studies linking policy to performance can be conducted; demonstration projects can be set up and comparative analyses can be performed. National health accounts and healthcare costing studies can give data on costs and outputs whereas health information systems can give data relating to access and quality of care. Facility-based studies and statistics from government and professional organization sources can give data about availability of medicines, manpower, supplies, equipment and service volumes. Pharmaceutical market surveys can give data about the availability and use of drugs whereas household and other surveys can give additional evidence relating to quality of care.

Health policy and systems research is particularly important in the event of reforms being envisaged within the health sector as it enables identification of the causes and consequences of health sector reforms.

A quick recap of the policy and systems-related data sources indicates that a certain amount of information required to facilitate effective decision-making at the systems level is available to decision-makers in Pakistan. Careful assessment of evidence – both quantitative and qualitative – from existing sources can also yield information relevant to enhancing the performance of health systems. It would be critical to make use of these sources in addition to mainstreaming health policy and systems research into programmes.

Mainstreaming health policy and systems research would entail a radical change in the research orientation in Pakistan. Some of the priority areas that should be part of this agenda are summarized in elsewhere in the document ↴ See *Finale to the Gateway Paper* – Page 172. The newly established National Health Policy Unit has officially undertaken the task of working in two of these areas; as a result, a global burden of disease study and a national health accounts study will soon be initiated. This is indeed an initial positive step in the right direction.

8.2.3 Operational and applied research

Are the processes of data collection and action mutually exclusive? What role can operational research play in bridging this gap?

It is generally perceived that data collection and its application are two stand-alone processes and that the former must precede the latter – this is a misperception. The process of data collection and action are not mutually exclusive. The idea is to tap data sources on an ongoing basis in order

to provide the necessary evidence to guide the ongoing modification of programmes and actions, in tandem. The various domains of applied research inclusive of pilot-testing, feasibility studies, process evaluation, monitoring and evaluation of ongoing programmes, are all integral to the evidence and policy cycle. These facilitate evaluation of *inputs, processes* and *outputs* and enable the ongoing modification of interventions. By virtue of this, they assist in ensuring the effective implementation of policies ↴ See section on *Evidence and Policy Cycle.*

Released a year before the creation of Pakistan, the Bhore Committee Report, which can be regarded as the basis of organized planning in the health sector in Pakistan, stressed on the need for 'periodic review of the implementation of programmes to ascertain progress and to make necessary adjustments based on field experiences. The Report made it conditional to review the 1st Five-Year Plan stipulating ongoing evaluation as a mandatory step. However, programme monitoring has remained low on the list of priorities within the health sector. The PC III proforma – a planning commission tool designed to assess the progress of projects on an ongoing basis in order to furnish information about the physical and financial progress of projects underway – remains underutilized.

This trend can be attributed to lack of demand for such information and limited institutional capacity for utilization. Ensuring adequate capacity is, therefore, key to addressing this challenge – without this, commitments made to following up on the progress of projects implemented cannot be sustained. During the 8th Five-Year Plan when SAP was launched, a Health Policy Implementation Committee was formulated; this was expected to report on the progress of implementation of SAP. However, the attempt could not link-in with the policy process in a sustainable manner due to lack of institutional capacity. Process evaluation and programme monitoring must be a mandatory component of all health sector initiatives and results should be utilized to modify programmes on an ongoing basis. Benchmarking and establishment of indicators to monitor progress on targets is critical to facilitating the effective monitoring of programmes ↴ See section on *Implementation and Governance.*

A number of new initiatives offer some hope in terms of fostering greater commitment to generating and utilizing evidence in the policy process. Recent disease-domain and sector-specific policy documents such as those within the domains of MCH, HIV/AIDS, NCDs, EPI and others are not only better grounded in evidence but also structurally incorporate ongoing monitoring and evaluation. The recent establishment of the National Health Policy Unit and streamlining of surveillance activities represent positive steps in relation to fostering greater emphasis on the use of evidence for policy. It is hoped that these will assist in bridging the gap between academic researchers and policy-makers.

Feasibility studies: an important aspect relating to the planning of interventions involves conducting feasibility studies. Presently, the method for processing development projects in Pakistan is based on the Rules of Procedure of the Economic Council of 1952.[234] As part of this framework, one out of the five Planning Commission planning tools – the PC II – is based on conducting surveys and feasibility studies, especially in relation to larger projects with the intent of getting full justification for undertaking the project before resources are tied up with them. A review of records has shown that majority of the projects initiated bypass this process. The Basic Health Unit scheme is a classic example where careful attention was not paid to this particular aspect of the planning process. The scheme was launched without taking cognizance of the recurrent cost implications of constructed facilities and the capacity of the provinces to sustain RHCs and BHUs.

Pilot-testing of interventions: another critical imperative of the planning process is to test interventions in a pilot setting and use the information gathered to modify interventions before up-scaling pilots. A health sector review shows that there have been gaps at this level as well. For

example, lack of attention to on-ground testing of health-related fiscal policies has led to the initiation of non-viable drug policy interventions in the past. The unprecedented increase in prices of drugs as a result of the deregulation policy in 1993 is an example; so extraordinary was the increase in prices that a freeze had to be imposed immediately. Another example involved the first-time imposition of 15% GST on 470 drugs in 2002; this was in stark contrast with WHO recommendations, which call for a decrease in tariff on all drugs.[235] The level of sales tax imposed was higher even by standards of the developed world.[XXVI] The response, as in the case of deregulation, was one of major outcry. Consequently, in less than a month, 256 drugs were exempted from GST. However, during this time, there was considerable mayhem with shortage of drugs and people faced difficulty in accessing life-saving drugs.

In addition to the lapses in generating pilot evidence, there is also a tendency to disregard existing evidence which comes from the implementation of projects. In 2000, the NWFP government introduced institutionalized private practice through an Act of Parliament despite the fact that a pilot programme on a similar model, launched a year earlier, had generated no support from the professional community. Though the reform measure was in principle correct, it failed to incorporate lessons from the pilot experience, which could have made it acceptable to stakeholders[236,237] Pilot-testing and commitment to utilize evidence generated from pilot assessments must, therefore, be an inherent function of planning.

The various domains of applied research, inclusive of pilot-testing, feasibility studies, process evaluation and monitoring and evaluation of ongoing programmes, are all integral to the evidence and policy cycle.

8.2.4 Ethical oversight of research

Developments in research are envisaged to result in better quality of life for people; however, they may also raise several ethical and human rights issues. The establishment of a system for ethical oversight of research is now considered an integral part of research and technological developments in the biomedical field. A number of important steps have been taken in this direction. A National Bioethics Committee (NBC) has been approved and notified by the Ministry of Health in January, 2004. [238] It is important to follow up on its recommendations so as to create and mainstream an institutional mechanism for ethical oversight of research within the country. Recent efforts by the Sindh Institute of Urology and Transplantation to develop a Centre of Biomedical Ethics and Culture should be supported and mainstreamed into national planning.

[XXVI] Finland 8%; Greece 8%; Belgium 6%; Portugal 5%; Spain 4%; France 5.5%; Switzerland 2.3%

Table 29. Issues and possible solutions – research

Issues	Possible solutions
Absence of a comprehensive research policy	Develop a comprehensive policy on research
Lack of institutional and individual capacity for research and underutilized research infrastructure	Bridge gaps in technical capacity within institutions, particularly those with research as a core mandate in order to make them capable of offering technical support in various programme areas
Meager resources for research with cumbersome procedures for tapping into	Broaden the base of budgetary and extra-budgetary research funding sources and make these available to the private as well as the public sectors
Lack of academic liberties and incentives to sustain research efforts and limited job opportunities for researchers	Build appropriate incentives and rewards for fostering research and develop a conducive institutional research environment
No mandated institutional mechanism for ethical oversight of research	Mainstream and mandate an institutional mechanism for ethical oversight of research within the country
Surveillance	
No overarching policy framework	Develop a legal and policy framework for sustainable and comprehensive data collection
Absence of legal requirements to report notifiable diseases	Establish a legal system that mandates the notification of priority diseases and regulates laboratory practice*
Minimal coordination between vertical programmes and incompleteness of data collection due to gaps in tapping data from all sectors	Develop a comprehensive action plan for public health surveillance* Mitigate fragmentation of surveillance activities through the creation of a central data collection system at the federal, provincial and district levels and strengthen it for timely analysis of data and its translation into action* Tap health sector institutions and systems (PMRC, HIMS, hospitals); other institutions (eg., Statistics Division), other departments, NGOs and public health programmes involved in data collection in order to collect, consolidate and coordinate surveillance data Shift the focus from conducting surveys to comprehensive public health surveillance in relation to population-based data collection Expand the polio/AFP reporting system into a mainstream infectious disease public health surveillance system* Expand the population-based risk factor surveillance model of the National Action Plan on NCDs at a national level, drawing lessons from the pilot activity * Extend institutional support to mature cancer registries to facilitate continuous monitoring of cancers*
Limited capacity to confirm clinically diagnosed cases of reportable diseases	Support the creation of a functional laboratory system for infectious disease surveillance to the extent that a credible cost-effective analysis suggests
Limited capacity to analyze and interpret data and utilize it for action	Institutionalize surveillance and build capacity in the system with regard to these gaps

Issues	Solutions
Epidemiological research	
Unrecognized priorities for epidemiological research	Define priorities for epidemiological research in specific programme domains (this may include validating epidemiological associations and demonstrating risk-factor causal associations in the Pakistani population in order to define targets for prevention and goals for preventive initiatives, as a first step)
Health policy and systems research	
Limited evidence for reforms currently being envisaged	Institutionalize health policy and systems research Invest in capacity-building of decision-makers in order to enable them to recognize the benefits of evidence-based decision-making Identify and use research information for strengthening policies and practices Develop appropriate advocacy strategies and innovative ways of knowledge-sharing, mobilizing the influence of networks and key stakeholders to communicate evidence
Operational research	
Gaps in institutional orientation to mainstream operational and applied research	Interventions must be based on sound feasibility assessments and must be pilot tested in a demonstration setting before being implemented Process evaluation and programme monitoring should be mandated as part of project design; it should be made mandatory to modify programmes based on the results yielded Institutional capacity must be built for generating operational evidence and utilizing it for decision-making The development of indicators must pay close attention to developing indicators at a process and output level in addition to outcome indicators
Basic Research	
Limited capacity and infrastructure for basic research and undermined priorities	Determine priorities for basic research and build capacity in priority areas

* Echoing from the recommendations of the joint MoH, CDC, WHO and World Bank Report[227]

8.3 Health legislation

What are the critical issues in the area of health legislation in Pakistan? What can be the way forward in attempting to address them?

Legislation is an expression of political will and communicates a government's policy. It is a proven and effective tool for achieving health goals and is one of the key areas in the top-down approach to disease prevention, control and health promotion. Laws and regulations need to be part of most health system approaches; therefore, there is a need to engage legislators and seek their direct assistance in fostering the development of an enabling legislative and regulatory environment – one that is supportive of and contributes to impacting health outcomes in line with national priorities. Ideally, public health laws should be facilitative rather than coercive. However, since they are an important tool to protect public health, they must also be responsive to situations where limitations in individual liberty are necessary as, for example, in the case of legislation against smoking in public places.

The British legislature, under its various arms – Government of India Act 1880, 1919 and 1935 – led to the development of modern-day public health and service delivery mechanisms existing presently in Pakistan. Some of these laws remain valid until today and form the matrix of new law-making activities. Health is a provincial subject in relation to service delivery under the 1973 Constitution of Pakistan. However, with regard to legislation, both the provinces as well as the federal government are mandated to play a part and the Constitution clearly defines the roles of the federal government and the provinces in this connection. The Parliament has the powers to formulate laws with respect to any matter stipulated in the Federal Legislative List.[239] Pertaining to the health sector, these include national planning, economic coordination and the creation of institutional mechanisms to foster research and professional training. Laws enacted by the Parliament are binding on the provinces. However, under the Concurrent Legislative List, subjects have been stipulated by the Constitution on which both the provinces and the federal government can legislate. These relate to drugs, opium, poisons, environmental pollution, mental illnesses, labour welfare, professional matters in medicine, curriculum development, capacity-building, *Zakat*, statistics and health insurance. Once a policy decision is taken to formulate laws, they are then drafted by the Federal Ministry of Law, Justice and Parliamentary Affairs and subsequently presented to the Parliament for passage. In the absence of a sitting parliament or when it is not in session, the President has the authority to issue Ordinances. All the laws of Pakistan, including the rules and regulations, are supposedly publicly available via official (Gazette of Pakistan) and commercial publications. Laws enacted from 1836-1988 are reported in the voluminous Pakistan Code; however, those beyond 1988 await publication.[240]

Ideally, public health laws should be facilitative rather than coercive. However, since they are an important tool to protect public health, they must also be responsive to situations where limitations in individual liberty are necessary as, for example, in the case of legislation against smoking in public places.

It is generally perceived that if existing laws are enforced in their true spirit, dramatic changes in health outcomes could be achieved. However, *poor implementation* of existing laws is the greatest weakness in relation to health legislation. This is reflective of overarching social and economic issues within the country and the weak rights of health consumers. These gaps can be bridged with sustained efforts aimed at empowering people and mainstreaming their voice into the decision-making and accountability processes.

A concerted effort has been initialized by Pakistan's Health Policy Forum to comprehensively review health legislation in Pakistan. As a first step in this direction, efforts are being made to access printed copies of Acts and Ordinances and a preliminary inventory of health-related laws has been developed; categorized under health systems functions, this inventory has been included here. ↴See Table 30. An inventory of all the rules and regulations enacted under these laws is currently being compiled. Once completed, this effort is envisaged to provide a detailed up-to-date inventory of health-related laws and their gaps and proposed solutions. This section of the Gateway Paper will draw attention to selected health and health-related laws in order to highlight examples where weaknesses exist in current laws, where laws need to be updated in the light of contemporary considerations, and areas where laws need to be enacted.

Certain weaknesses have been identified in many existing laws. The Drug Act 1976 in particular is known to be weak in the areas of quality assurance and control and policies issued subsequent to its enforcement have made it ambiguous with regard to the issue of pricing. In recent years, a number of legislative actions have also been taken to advance public health goals; notable amongst these are the respective Acts relating to Smoking, [241] Blood Transfusion,[242] Mental Health, [243] and Nutrition and Breast Feeding.[244] Though these are broad-based steps, their process of implementation has outlined some gaps that need to be proactively bridged. The partial ban on advertising imposed as part of the Anti-Smoking Ordinance 2002, which creates ambiguities thus making its implementation vague and exploitable, is a case in point. Gaps in some of the health-related laws can be attributable to constraints outside the health sector's domain. The weakness in the Seat Belt Law is interlinked with design specifications of cars and is, therefore, largely outside the scope of the health sector.

Many existing laws need to be updated in the light of contemporary considerations. Occupational health is one of the grey areas within the health system in Pakistan. The existing Drug Act 1976 needs to be updated, given that it is out-of-date in relation to contemporary advertising trends and liberalization of trade under WTO. Existing laws which impact health status but are outside the health sector also need to be updated. A case in point is the Motor Vehicle Ordinance (MVO) of 1965 and its limitations, which have implications for road safety and injury prevention. Furthermore, it must also be ensured that the rules of enacted laws are developed and that their implementing mechanisms are in place. Highway laws are of particular relevance to road safety and accident prevention. Although the National Highway Safety Ordinance (NHSO) 2000[245] has been promulgated since September 2000, neither have its rules been formulated to guide its enforcement nor have the provincial Ordinances been upgraded. Careful attention needs to be paid to these aspects. Legislation also needs to be introduced on a priority basis in certain health domains. The private sector accounts for 70% of healthcare provision. However, there is no comprehensive legislative framework to regulate the private sector. Other important domains such as organ transplantation and injection safety were unaddressed until recently – it has been reported that the organ transplantation bill will be tabled soon in the National Assembly. In addition to these, attention must also be paid to developing legal frameworks for other priority areas such as public health surveillance (notification of priority diseases and regulation of laboratory practice), health promotion, safety standards for household usables and legislation to subject tobacco to stringent regulations such as those governing pharmaceutical products. In addition, a broad-based dialogue must be initiated to envisage overarching legislation, which will

expand the participation of the health sector beyond the realm of the healthcare system to the health system ↴ See *Prelude to the Gateway Paper*.

The most critical aspect in relation to health legislation relates to the implementation of existing laws. The Pakistan Environmental Protection Act (PEPA) was passed and enacted in 1997 after a long delay.[246] This led to the revision of the National Environmental Quality Standards (NEQs) and the development of the National Environmental Action Plan (NEAP), which was approved in 2001. Subsequently, a support programme (NEAP-SP) was initiated by UNDP. Despite this elaborate chronology of events that paved the way for a seemingly sound environment for occupational health, neither have NEQS been enforced in industrial settings, nor have any attempts been made to upgrade standards in this regard. Gaps in implementation are also generically evident in many areas.

Several factors act as impediments to effective implementation of legislation. These are deeply rooted in a complex interplay of social, economic and political causes. Though these are outside the scope of the present discussion, it must be clearly recognized that progress in addressing them is key to overcoming implementation challenges.

A concerted effort has been initialized by Pakistan's Health Policy Forum to comprehensively review health legislation in Pakistan with a view to highlighting examples where weaknesses exist in current laws, where laws need to be updated in the light of contemporary considerations and areas where laws need to be enacted.

Table 30. An inventory of health laws and health-related laws in Pakistan[XXVII]

Consumer protection	
	The Cotton Ginning and Pressing Factories Act, 1925 The Factories Act, 1934 The Opium Act, 1957 The West Pakistan Foodstuffs (Control) Act, 1958 The West Pakistan Juvenile Smoking Ordinance, 1959 The Pakistan Standards Institution Ordinance, 1961 The Allopathic System (Prevention of Misuse) Ordinance, 1962 The Animal Slaughter Control Act, 1963 The Bus Stands and Traffic Control Ordinance, 1963 The Motor Vehicle Ordinance, 1965 The Cantonments Pure Food Act, 1966 The Pakistan Hotels and Restaurants Act, 1976 The Cigarettes (Printing of Warning) Ordinance, 1979 The Islamabad Consumer Protection Act, 1995 The Pakistan Standards Quality Control Authority Act, 1996 The NWFP Consumer Protection Act, 1997 The Pakistan Environmental Protection Act, 1997 The National Highway Safety Ordinance, 2000 The Punjab Prohibition of Dangerous Kite Flying Ordinance, 2001 The Punjab Transfusion of Safe Blood (Amendment) Ordinance, 2001 The Prohibition of Smoking Ordinance, 2002 The Protection of Breastfeeding and Child Nutrition Ordinance, 2002 The Punjab Consumer Protection Act, 2005 The Fatal Accidents Act,1855 (Repealed) The Opium Act, 1925 (Repealed) The Tobacco Vend Act, 1958. (Repealed) The Milk Boards Ordinance, 1963 (Repealed)
Human resource	
	The Medical College Ordinance, 1961 The Medical Diplomas Act, 1966 The Pakistan College of Physicians and Surgeons Ordinance, 1962 The Pakistan Medical and Dental Council Ordinance, 1962 The Unani, Ayurvedic and Homeopathic Practitioners Act, 1965 The Pakistan Nursing Council Act, 1973 The University of Health Sciences Ordinance, 2002 The Punjab Medical and Health Institutions Act, 2003
Health promotion	
	The Town Improvement Act, 1922 The Public Health (Emergency Provisions) Ordinance, 1944 The West Pakistan Foodstuff Control Act, 1958 The West Pakistan Pure Food Ordinance, 1960 The Punjab Livestock Dairy and Poultry Development Board Act, 1974 The National Institute of Health Ordinance, 1980 The Protection of Breastfeeding and Child Nutrition Ordinance, 2002 *The Public Health Act, 1848 (Repealed)* *The Public Health Act, 1875 (Repealed)* *The Public Health Act, 1944 (Repealed)* *The Seed and Fruit Plants Ordinance, 1965 (Repealed)* *The West Pakistan Establishment and Improvement of Parks, Historical Places Ordinance, 1968 (Repealed)*

[XXVII] Government of India Acts, which were applicable after Pakistan's inception are also included in this list

Service delivery	
	The Public Health Ordinance, 1944 The West Pakistan Vaccination Ordinance, 1958 The Allopathic System Ordinance, 1962 The Unani, Ayurvedic and Homeopathic Practitioners Act, 1965 The Pakistan Institute of Medical Sciences Ordinance, 1965 The National Institute of Cardiovascular Diseases Ordinance, 1979 The National Institute of Health Ordinance, 1980 The Punjab Health Foundation Act, 1992 The Mental Health Ordinance, 2001 The Punjab Medical and Health Institutions Act, 2003 *The Public Health Act, 1848 (Repealed)* *The Public Health Act, 1875 (Repealed)* *The Government of India Act, 1935 (Repealed)* *The Vaccination Act, 1880 (Repealed)* *The Government of India Act, 1880 (Repealed)* *The Government of India Act, 1919 (Repealed)* *The Vaccination Act, 1925 (Repealed)* *The Vaccination Act, 1929 (Repealed)*
Drugs	
	The Sale of Goods Act, 1930 The Dangerous Drug Act, 1940 The Pharmacy Act, 1967 The Drug Act, 1976 *The Drug Act, 1940 (Repealed)*
Health financing	
	The Employees Social Security Ordinance, 1965 The Punjab Health Foundation Act, 1992 The Local Government Ordinance, 2001 *The Insurance Act, 1938 (Repealed)*
Private institutions	
	The Societies Registration Act, 1860. The Charitable Endowments Act, 1890 The Cooperative Societies Act, 1925 The Voluntary Social Welfare Agencies Ordinance, 1961 The Companies Ordinance, 1984 The Punjab Health Foundation Act, 1992 *The Charitable Funds Act, 1953 (Repealed)* *The Mussalman Wakf Act, 1923 (Repealed)* *The Mussalman Wakf Act, 1913 (Repealed)* *The Mussalman Wakf Act, 1930 (Repealed)* *The Religious Societies Act, 1880 (Repealed)* *The Religious Societies Act, 1882 (Repealed)*

8.4 Health beyond the health sector

Is health status influenced by interventions only within the health sector?

It is widely recognized that factors which determine health status range much broader than those that are within its realm and that modern healthcare has less of an impact on population health outcomes than economic status, education, housing, nutrition and sanitation and some other factors. Notwithstanding, successive health policies within the country have erred on the side of being medically-oriented rather than focusing on the broader determinants of health. It is time now to move beyond the understanding of health as a purely technical issue and integrate relevant economic, developmental, political and trade, environment and national security-related concerns into health systems planning. In other words, there is need for *a paradigm change from a healthcare policy to a health policy* ↴ See *Prelude to the Gateway Paper.* Such an orientation must regard health as a sector with an inter-sectoral scope in a broad national and international policy context capable of providing guidance on measures that need to be taken outside of it to improve health outcomes. This broad vision for health has been discussed in the Gateway Paper in three categories with noteworthy overlaps – the social determinants of health, the conventional inter-sectoral scope of health and the contemporary inter-sectoral scope of health. Actions within the ambit of these is vital to the health system and must receive due attention. The following table inventorizes stakeholders within this scope, with whom the Ministry of Health and the departments of must engage in its capacity as the *stewards of health.*

Table 31. The inter-sectoral scope of health – an overview

Sector	Envisaged role
Ministry of Health/departments of health	Mandated to deal with health
Ministries of Planning and Finance	Mainstream health reforms into planning and provide budgetary support for their financial outlay
Central Board of Revenue	Introduce price controls on tobacco and tariffs on drugs and supplies which favour access to affordable drugs
Ministry of Agriculture	Develop conducive policies on food and tobacco
Ministry of Industries	Develop conducive policies on occupational health and safety, food and drugs
Ministry of Trade	Safeguard public health interest in the post-WTO liberalization of trade scenario and develop conducive policies on drugs and devices
Ministry of Education	Integrate health promotion into educational institutions
Social protection organizations	Extend support to offset risks to the poor in accessing care
Political parties	Utilize political resources within the political system to influence political decisions in favour of health
Development partners	Play a supportive and participatory role
Consumer groups, communities and people	Play a supportive and participatory role
NGOs and the corporate sector	Contribute within nationally agreed frameworks ↴ See sections on *NGOs and Public-Private Partnerships*
Industries affected by health policies (e.g., insurance)	Support and streamline their response

Factors that determine health status range much broader than those that are within its realm

8.4.1 Social determinants

What is the relationship of social determinants of health to health status?

Health is affected by social position and the underlying inequality in a society; there is an established correlation between social inequality and health inequality.[247] The health of nations is affected by *absolute deprivation* associated with low economic development such as lack of clean water, adequate nutrition, housing and education and general sanitary conditions; *relative deprivation* or inequitable distribution of income and *broader social inequalities* such as income and gender inequalities. Most health inequalities in socio-economic and gender groups that we observe are inequities and are, therefore, avoidable. These influences are often referred to by people working in the health sector as the social determinants of health. Recently, it has been shown that much of the global burden of disease and health inequalities are caused by these social determinants. Countries such as Sweden have viewed their own health inequalities as unacceptable and initiated policy measures to mitigate them; the WHO Macro-economic Commission on Health is also aimed at promoting this concept within countries. [248]

In Pakistan, the relatively high levels of Maternal Mortality Rate, Infant Mortality Rate and Under-5 Mortality Rate; low nutritional status and disparities in immunization rates are deeply intertwined with the social status of women in the society. Women are constrained in seeking healthcare for themselves and their children on account of low mobility and restrictions imposed in the name of religion or culture.[249,250] This has also been evidenced by studies of children at high-risk of death from diarrhoeal disease and pneumonia conducted in Karachi, which suggest lack of maternal autonomy as a key factor.[251] Health status is also strongly influenced by educational status, particularly of women; it is well-established that increasing the education level of mothers can be one of the most effective public health interventions for reducing child mortality.

The centrality of health in the development agenda has been recognized by various overarching policy documents of the Government of Pakistan, including the Poverty Reduction Strategy Paper, recognizing that level of education and economic and social security have a direct bearing on health and that lack of resources, discrimination, stigmatization, human rights violations, gender inequalities, inequities and lack of social justice are deeply intertwined with the health status of populations. However, ironically, technologically advanced medical care tends to take the spotlight away from these broader considerations, which are part of the Health for All movement and the Alma Ata Declaration, to which Pakistan is a signatory.

The social determinants of health are closely linked to levels of poverty. Recent efforts in this area – the establishment of a legal, policy and fiscal framework for institutionalizing the delivery of targeted anti-poverty interventions in Pakistan through grants, microfinance banks and targeted subsidies – are encouraging and offer hope for improving outcomes. Understandably, the priority interventions within this framework target the worst-off; however, addressing the social determinants would require action beyond elimination of poverty as data on social determinants have shown that anti-poverty policies have their limitations in reducing unjust health disparities. It is critical to take this into consideration while integrating health outcomes into social and development-related policies.

Approaches to health within Pakistan must, therefore, be based on multi-sectoral action. The definition of objectives and targets within the health sector must also factor societal or social measures as these can be used to garner support from across the sectors. However, these need to be set within a more explicit policy framework in order to foster inter-sectoral action. Relevant ministries need to own this approach and participate in a manner that is mutually supportive of common goals ↴See Table 31. Support for this should come from the highest ministerial level in each instance and should ideally reflect support of the Cabinet as well. A mechanism must be developed for the participation of relevant educational institutions, NGOs and leadership foci.

Increasing the education level of mothers can be one of the most effective public health interventions for reducing child mortality.

8.4.2 Conventional inter-sectoral scope of health

Why is it critical to foster inter-sectoral linkages within the scope of work of the health sector?

Much of the scope of the public health work is conventionally placed outside the medical care service. Public health interventions that focus on the provision of clean water, solid waste disposal, food security, occupational health and safety, safer working and general environments and secure neighbourhoods inherently warrant inter-sectoral collaboration.

The large burden of infectious disease in Pakistan is known to be closely related to the lack of sanitation facilities and safe sources of potable water.[252] Water-borne diseases constitute nearly 12.5% of the disease burden in Pakistan; notwithstanding, recent studies have shown that six out of every 10 households across the country have no access to government water supply and almost half have no government sewage at all.[253] Studies have also shown that piped water supplied to households in major cities carries heavy load of pathogenic bacteria and is unfit for human consumption; diseases resulting from drinking contaminated water have led to the loss of many precious lives in recent months.[254] The introduction of safe water as one of the priority interventions as part of the *Khushaal* Pakistan Programme is, therefore, an important public health initiative. However, it would be critical to the success of this initiative to promote sustainable strategies and to uphold evidence in decision-making and implementation of policies ↴See section on *Evidence and Policy Cycle.* Useful lessons can be learnt from locally-feasible sustainable technologies in the area of water that have not been promoted for large-scale commercial use to date.[255] Furthermore, there is also a need to pay close attention to evidence which points to the existence of related public health approaches. For example, it has been shown that fly control and simple measures such as hand-washing can have an impact on diarrhea incidence similar to that of interventions currently recommended by WHO.[256,257] It is imperative to take such evidence into account while decision-making. Furthermore, the recent emergence of cases of hemorrhagic fever in Karachi raise broader concerns about sanitation and peculiarities of the vector's breeding grounds; these considerations – with implications for public health messaging and sanitation measures – must receive due attention as a priority.

Within its 'conventional inter-sectoral scope', health cross-cuts with many other sectors. Occupational and domestic settings and transport sectors are relevant to injury prevention. As a public health intervention, tobacco control issues are deeply intertwined with agriculture (crop substitution and agro-industrial diversification), taxation (dependence on revenues generated from tobacco), illicit trade (smuggling contrabands and counterfeiting) and advertising. Nutrition and physical activity tie in the role of the agriculture and commercial sectors; in addition, many other

groups within the ambit of food fortification and the education sector within the context of supplementary/compensatory feeding are of importance. Within the context of the latter, useful lessons can be learnt from the process of implementation of the *Tawana* Pakistan programme.[258] Similarly, environmental pollution and its antecedent factors cross-cut with many sectors other than health.

In order to address health inequalities, broad-based health promoting interventions, actions directed towards the social determinants of health, healthy public policy, the creation of supportive environments and strengthening community actions and locally-tailored public health interventions must be at the heart of health systems reforms.

8.4.3.i Population and health

Pakistan is the sixth most populous country in the world, with its current population estimated at 153.45 million.[259] Though the Population Growth Rate has declined from over 3% in the 1960s and 1970s to the present level of 1.9% per annum; this is still an unacceptably high rate of growth compared to other developing countries, given that 2.9 million people are added to the country's population each year. In absolute numbers, almost 111 million persons have been added to the population during the last 44 years (1961-2005). This is compounded by the steadily increasing movement of the population to urban areas; in 1951, six million people lived in the urban areas of Pakistan whereas presently, one-third of the population lives in cities. Massive urbanization imposes competing demands on the available health infrastructure. The high levels of poverty are an indication that the process of urbanization has added a new dimension to the economic and social challenges of the country. These factors are likely to be complicated further in view of the potential population growth for several decades as Pakistan's large adolescent population enters the reproductive phase. Currently, it is estimated that about half of the population in Pakistan is under the age of 20 years and three out of four households have one or more young people aged between 10-24 years.

Population indicators and projections are directly related to other development outcomes such as GDP, human development indices and other social indicators – inter-relationships that have been elaborated in the ICPD Programme of Action in 1994 to which Pakistan is a signatory. Health outcomes are no different and the increasing population puts infrastructure and delivery constraints on health systems. One of the key challenges that the population programme in Pakistan faces is the high ratio of unmet need for family planning (33%); this has not come down despite the recent rise in Contraceptive Prevalence Rate and fertility transition, indicating serious issues at the service delivery and quality of services levels. This demands a multi- sectoral systematic approach for ensuring universal access to quality services, dovetailing these with health service delivery mechanisms.

The Population Summit recently organized by the Ministry of Population aimed at re-energizing the population issue as a cross-cutting inter-sectoral programme was successful in attracting attention at the highest level of policy-making. The announcement of establishing the National Commission on Population is now considered a window of opportunity to revitalize the population programme and mobilize other policy support for it.

Population is a cross-cutting issue that impacts all aspects of health –delivery, access and outcomes; however, the overlapping issues high on the government's agenda relate to promoting reproductive health. The Population Policy and the Population Sector Perspective Plan 2012 have synergies with several health sector strategies.[260] These programmes can benefit from collaborative linkages because of common envisaged outcomes and complementarity in the processes necessary to reach them. Such linkages have been promoted in some areas in the past.

The structuring of a common reporting line – the Executive District Officer, Health – for population and health field officers at the district level, is an example. However, there is a need for strategic and operational integration at several levels, particularly in relation to community outreach activities. As a preliminary step in this direction, a broad-based dialogue should be initialized to deliberate on issues with a view to operationally linking population and health.

The Population Policy and the Population Sector Perspective Plan 2012 have synergies with several health sector strategies. These programmes can benefit from collaborative linkages because of common envisaged outcomes and complementarity in the processes necessary to reach them.

8.4.4 Contemporary inter-sectoral scope of health

Do health interventions need to be redefined in view of contemporary considerations?

Health status is known to be affected – both positively and negatively – by the performance of many other factors in addition to the ones alluded to in the above section. These include macro-environmental changes, agriculture and industrial policies, natural disasters, humanitarian crises as a result of conflict and acts of terrorism, global and national decisions as diverse as trade agreements, development of new communication technologies, migration, changes in international cooperation and novel models of governance and financing. Within this context, the contemporary inter-sectoral scope of health has been collectively discussed under three broad headings; these include Health Crisis Management, WTO Agreement and Health and Information Communication Technology.

8.4.4.i Health Crisis Management System

Health has a preeminent role in achieving global, national and individual security and vice versa. Mass damage by biological weaponry is a possible threat to health and civil infrastructure with serious public health implications. Recent natural disasters such as the October 8 earthquake and the tsunami and the humanitarian crises, which exist in different parts of the world as a result of conflict and acts of terrorism killing millions, have raised public health issues of great significance. Crises – natural or manmade – are marked by increased level of death and suffering and put health systems through complex and unique emergencies. The rescue and relief operations after the October 8 earthquake have yielded many lessons, which can be of use in the structuring of a Health Crisis Management System in Pakistan. The need to develop such a system has also been reiterated by the post-quake assessments of the World Bank, United Nations and the One-month post-quake assessment of the O8 Health Information System.[261, 262] The latter recommended that such a system should be developed within an overarching disaster management framework and its scope of work should be charted through the development of a National Health Disaster Preparedness Plan in collaboration with other stakeholders. Health policies should, therefore, incorporate disaster planning within their realm, with a focus on preparedness, response and recovery. Specific actions that prepare for the impact of crises on health systems can substantially reduce the extent of damage.

Preparedness and response of health systems should focus on making sure the availability of priority services, guaranteeing the management of mass casualties, evacuation of injured, enabling quarantine procedures, capacity-building for search and rescue operations and ensuring the ability to establish disease monitoring and control systems as soon as crises sets in. It is also important to pay attention to voluntary/involuntary staff, their support and training, and the provision of essential supplies and equipment. To achieve these objectives, protocols need to be developed for different phases of the relief operation and guidelines have to be established for mapping human resource and infrastructure, inventorizing demands, developing contingency plans and the setting in place of procedures for seeking assistance. The planning process, though vital for minimizing loss and rehabilitating systems, fails to achieve its objectives if it is not communicated well to health systems and the public. Public drills, information brochures or response-units in hospitals, all help to minimize loss in the event of a calamity. However, the greatest challenge within this context is to promote these to the extent that a credible cost effective analysis shows.

Crisis management is also relevant to the recent SARS and Avian flu epidemics, which have cut health across the global economy and allied sectors, taking health concerns to a completely new level. Policies must foster collective responsibility to act effectively on global pandemics and enable the development of new mechanisms and systems for health governance in the wake of these considerations. Enhanced surveillance, in addition to protecting against emerging pathogens, can also protect global public health in relation to food-borne illnesses and spread of environmental contaminants. As a first step in this direction, a national assessment of preparedness should be conducted for such epidemics so as to guide the development of appropriate evidence-guided strategies to mitigate these concerns.

The rescue and relief operations after the October 8 earthquake have yielded many lessons, which can be of use in the structuring of a Health Crisis Management System in Pakistan.

8.4.4.ii WTO Agreement and health

Liberalization of international trade under World Trade Organization (WTO) agreements can be detrimental to public health outcomes if its implications and possible mitigates are not mainstreamed into planning. The key aspects of the WTO Agreement affecting health and health policies include the Agreements on Trade Related Intellectual Property Rights (TRIPS), Sanitary and Phytosanitary Measures (SPS), Technical Barriers to Trade (TBT) and General Agreement on Trade in Services (GATS).

Trade-related aspects of Intellectual Property Rights: Pakistan is a member of the World Trade Organization and signatory to the Agreement on TRIPS. As part of its stipulations, the grace period to introduce the patentability of products (under article 6.4 in the transitional arrangement) expired on January 1, 2005. In view of this, Pakistan promulgated the Patents Ordinance 2000 well ahead of the time of enforcement in order to comply with the requirements of TRIPS. This law fully complies with the stipulations of TRIPS.

A significant development under the TRIPS agreement, also reflected in the Patent Ordinance 2000, is the extension of the term of patent to 20 years from the date of application. Strong patent protection – both in terms of product and process patenting and in terms of the tenure of patents – poses a three-fold problem. **Firstly**, the combination of strong patenting for an increased

duration of time strengthens the monopoly of MNCs on medicines; stronger monopoly may mean higher prices for longer periods of time with consequent implications for access. **Secondly**, stronger monopoly of MNCs narrows the opportunity for local manufacturers who compete for market share of generics that are already in their maturity phase. In the post-WTO era, therefore, the research and development base of the local industry is critical. This gap needs to be bridged through the injection of public resources. Local research and development capacity can also be enhanced through the promised technology transfer to local manufacturers; despite the clear articulation of this in TRIPS, there is hardly any evidence of this to date. In addition, the potential within regional collaborative initiatives such as SAARC to enhance capacity in this area also needs to be explored.

Thirdly, TRIPS also has implications for the availability of newly discovered medicines and their affordability as companies may not perceive it profitable to sell them in Pakistan. However, within this context, it must be recognized that governments have leeway, which empowers them to take locally relevant decisions in the best interest of availability, affordability and accessibility of essential medicines in order to safeguard against shortages. Articles 30 and 31 of the WTO framework allow exceptions – as part of the concept of public health necessity – giving countries the prerogative to override certain provisions; compulsory licensing, and parallel import is part of this mechanism. However, this may be dependent on the prevailing policies and legislation within countries from which drugs may have to be imported; the impact of these on provisions in WTO within Pakistan's context is not clear yet. There is, therefore, a need to develop a baseline position and initiate research in Pakistan-specific public health impacts of WTO Agreements and trade impacts of health plans.

Preliminary work in this direction has began in June 2005 with the convening of a national meeting by the Ministry of Health for revision of the National Drug Policy (NDP) in view of the implications of WTO and responsibility has been dedicated within the Ministry of Health. However, the follow-up work must be initialized in partnership with the WTO Wing of the Ministry of Communications and trade policy formulation in order to ensure that international negotiations take cognizance of the public health checklist.[263]

Building the research base of the local industry in the post-WTO era is critical. This gap can be bridged by the injection of public resources.

GATS and trade in health-related services: the General Agreement on Trade in Services (GATS) is the WTO agreement under which member countries can agree to make services trade more open to other countries. The essential aim is to further liberalize services that have traditionally been under the public domain. While the provision of these services by private providers has its merits – increased efficiency – the main concerns with GATS have been along the lines of *concentrated* ownership by large multinational corporations. Despite the provision that does not restrict the right of Government of Pakistan to regulate to achieve its policy goals and the right to take on new trade obligations that are in the best interest of the country, there are concerns about some rules that affect the ability of the government to hold companies providing these services, accountable.

Critics say that it is the duty of the government to provide water, health services and education to the population and this vital function should not be left to the market. Within this context, GATS creates challenges within the health sector. Preventive services have never been high on the list of private providers and this function is likely to be left to the public sector as curative services are mainstreamed on free market principles under GATS. Even if provisions are made for safety nets that cater to the needs of the poor or if huge risk sharing pools are formed – via social insurance

as suggested in the Gateway Paper – a critical question still remains to be addressed: *does the country have mechanisms in place such as health delivery and insurance laws that protect citizens and regulate multinational health systems and insurers?* The answer is clearly evident and points to the conclusion that without appropriate safeguards, health cannot be left to the free market as it will tremendously affect the poor and marginalized population. There is, therefore, a clear need to explore the effects of GATS on the health sector; appropriate evidence should be able to guide the government in developing a clear stance and policy direction before such liberalization can take effect.

Preventive services have never been high on the list of private providers and this function is likely to be left to the public sector as curative services are mainstreamed on free market principles under GATS.

8.4.4.iii Information Communication Technology

Within health's contemporary inter-sectoral scope, it is imperative to capitalize on technology to the extent feasible with due attention to cost-effectiveness and equity considerations. It is now possible to leverage the strength of information technology within the country as Pakistan boasts a relatively new and well-developed telecommunications infrastructure and has a pool of information technology professionals. The information technology boom and the speed and access to information for better interconnectedness can significantly enhance capacity-building, teaching and disease surveillance efforts. Internet portals can serve as cost-effective medium for in-service training of health professionals – a concept being actively promoted in the Gateway Paper. The recent focus on a technology-assisted health information archival by the Ministry of Health and the signing of a project in collaboration with JICA for the development of a management information system, which will link information from all the districts of Pakistan, is a positive step, given that it will leverage on technology to enhance disease surveillance efforts.

The absence of a well-organized health system in Pakistan creates a unique situation where technology can fill many gaps.

Health systems also invariably rely a great deal on health technologies; the absence of a well organized health system in Pakistan creates a unique situation where technology can fill many gaps. However, the inhibitory cost of technology has barred people form utilizing the full diagnostic and therapeutic potential that modern technology holds. Evidence shows that technology can escalate costs and that there are risks of over-utilization, especially in the private sector. Health policies must, therefore, be clear on incentives and disincentives for preventing under-use, over-use and misuse of medical technology, which must be promoted in general. It is also important to formally assess the feasibility of integrating telemedicine into service delivery in various settings and to assess the extent to which telehealth services can provide equitable and sustainable quality services in the remote areas. Pilot projects such as the one set up by the Baltistan Health and Education Foundation, with the technical assistance of Comsats, can generate useful evidence in this regard.[264]

Table 32. Health has an inter-sectoral scope – why and how

- *The scope of public health warrants inter-sectoral collaboration* – water, sanitation, occupational settings, neighbourhoods, etc.
- *Social and development status* deeply impact health status – low level of education, lack of economic and social security, discrimination, stigmatization, human rights violations, gender inequalities, in-equities and lack of social justice are detrimental to health status
- *A healthy life course* during childhood and adolescence and in the environmental, work and home settings is critical to the health and well being of people
- *Environmental changes* such as global warming and changing ecosystems may have implications for spread of disease and its control
- *Mass damage by biological weaponry* is a possible threat to civil infrastructure with serious public health implications
- *Natural disasters* raise public health issues of great significance
- *Humanitarian crises* as a result of conflict and acts of terrorism are known to impact health status of those affected
- *Liberalization of international trade* under WTO can be detrimental to public health outcomes if the public health process is not mainstreamed into planning
- *Global pandemics* such as the recent SARS and Avian flu epidemics have cut health across the global economy and allied sectors, taking health concerns to a completely different level
- *Changes in international cooperation* such as novel PPPs and novel models of governance and financing are changing the way health may be resourced in different countries

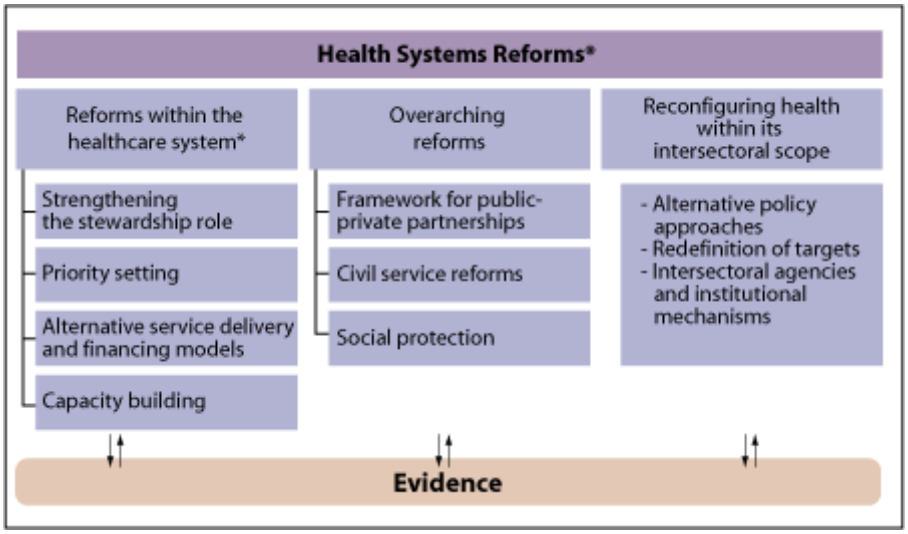
Finale to the Gateway Paper

9. Finale to the Gateway Paper

Conceived as an opening for a dialogue on health systems reforms in Pakistan, the Gateway Paper, in its Finale, synthesizes recommendations from each health systems domain discussed within the Paper and presents a *viewpoint on the proposed direction for evidence-based health systems reforms in Pakistan.* Ambitious yet achievable, if the right steps are instituted in time, the reforms being proposed are beyond *adhoc* solutions. These need to be set within a long-term vision and necessitate a paradigm shift with major structural reorganization within the health system by institutions with a long-term mandate.

The proposed reforms point in the direction of four areas namely, reforms within the health sector, overarching measures, reconfiguration of health within an inter-sectoral scope and generating evidence for reforms. These are discussed hereunder.

Figure 18. The proposed directions of health systems reforms



See page 2: health systems vis-à-vis healthcare system

9.1 Reforms within the health sector

9.1.1 Strengthening the stewardship function

The proposed reforms call for harnessing the strengths of stakeholders within the healthcare system in addition to broadening its scope to other sectors within the health system. Given that this will involve partnerships with private sector healthcare providers; the setting of norms and standards; assurance of quality and access and the creation of inter-sectoral agencies and mechanisms for improving health outcomes, strong stewardship is necessary in order to give direction and oversee functioning. Strengthening the core public function of the stewardship role of the Ministry of Health and the departments of health – who perform this function on the government's behalf is, therefore, critical to the success of the reforms being proposed. However, this must proceed in tandem with efforts to institutionalize evidence-based decision-making. This

two-pronged approach will enhance the ability of the *stewards of health* to regulate the behaviour of stakeholders within the health system. However, as opposed to a coercive style of regulation and unnecessary policing, the emphasis should be on setting of standards through evidence-based participatory decision-making, an unbiased approach to ensuring compliance with these standards and assurance through strengthening peer organizations. No stakeholder, other than the government, has the mandate to produce fundamental changes at the health systems level. However, strong leadership and a clear direction for and commitment to sustainable evidence-based solutions is necessary to achieve these objectives. The Ministry of Health and the departments of health must commit to enhancing their capacity and thus their role in these areas. In addition, institutional mechanisms such as policy and reform units, which can assist in these functions, need to be mainstreamed and strengthened at the federal and provincial levels.

9.1.2 Priority-setting

The second area of reforms *within the health sector* involves priority-setting. The Ministry of Health and the departments of health:

must *determine:*

- locally-suited priority-setting criteria through broad-based consensus in order to set priorities in areas outlined below. In addition to conventional priority-setting criteria – burden of disease, the potential of preventability and control and cost-effectiveness – other locally-relevant priority-setting criteria must also be taken into consideration; these include the extent to which interventions are locally feasible, the extent to which they address the social determinants of health and the extent to which they can contribute to capacity-building and health systems strengthening and build on the strengths of partnerships;

and define:

- priorities for the use of public funds and resources; and
- priority services to be provided by the State.

Health-related public goods, interventions with visible positive externalities such as disease prevention and control, health promoting interventions, actions directed towards social determinants of health, healthy public policy, the creation of supportive environments, integration of disease control and general healthcare delivery, which is presently segregated and strengthening community actions must be given due consideration in priority-setting as opposed to the stand-alone curative models of healthcare, which consume a large proportion of public budgets. Mechanisms to institutionalize and safeguard these priorities must be a *priority* in its own right.

Resources for priority services should be enhanced. In addition, issues with fund mobilization and utilization should be addressed and misuse and pilferage, strictly dealt with. Addressing institutional impediments to the implementation of priority programmes should also be a priority. These should center on institutionalizing good governance, introducing management reforms, bridging gaps in consensus and coordination at the federal-provincial-district interface and building appropriate capacity. The potential of all categories of healthcare providers should be harnessed for the delivery of priority services.

9.1.3 Reconfiguring mechanisms of service delivery and modes of financing

The third area of reforms *within the health sector* relates to restructuring alternative service delivery and financing models; these must be based on evidence relevant to each setting. Alternative service delivery models can be relevant to basic healthcare settings as well as hospitals and may or may not involve the private sector's role. A number of options are available for restructuring basic health facilities; these include contracting out services with or without community co-management arrangements, maximizing efficiency in the same system or transferring management to lower levels of government – an option complementary to the administrative arrangements within decentralization. In the case of hospitals, alternative service delivery arrangements most often involve decentralizing hospital managements to autonomous boards, coupled with the introduction of cost-sharing at the level of financing and better management.

The currently pursued alternative service delivery models at the basic healthcare level, as in the case of the recent *revamping of basic health care facilities*,[75] and the various hospital reform measures in different parts of the country – though moving in the right direction in principle – need to pay attention to:

- **Participatory consensus** and support of stakeholders
- An **enabling legal and policy environment** for: *contractual arrangements* as in the case of basic health facilities and *hospital autonomy* as it relates to the autonomy of management, staffing, personnel, procurements, budgeting and financing. This will also necessitate the creation of a national policy on *cost-sharing* and guidelines and procedures on accounting and utilization of resources.
- The creation of social health insurance within the framework of a broad-based **social protection strategy**, which scopes beyond the formally employed sector, establishing a widely-inclusive safety net for the poor. This will entail the creation of a dedicated policy and legal framework, an institutional mechanism, a sustainable pool of fund with per-capita cost sharing by the government and contributions from other sources and procedures in waiver and exemption systems in facilities where cost-sharing has been introduced. Alternative service delivery models recommended in the Gateway Paper are known to contribute to efficiency; however, there is a risk that these may lead to decreased quality and access to care for the poor and vulnerable if equity is not factored into planning and structuring.
- An enabling legal and policy environment for the development of **public-private partnerships** to harness the potential of the private sector in service delivery as outlined below.
- A **high-level institutional mechanism** sited within the health system, albeit with broad controls to oversee large individual components of restructuring.
- **Redefinition of the role** of the Ministry of Health and the departments of health with respect to autonomized hospitals and contracted out facilities in order to strengthen the former as regulator of services and the latter, as provider of services. There is also a need to develop mechanisms for accrediting healthcare facilities.

In addition to the above-mentioned, attention should also be focused on the following in the case of basic healthcare facilities:

- The establishment of **norms and standards and procedural clarity** in contractual arrangements and tools such as guidelines on administrative matters, sample contracts and terms for price negotiations.
- **Clarity in the government's role** in relation to the delivery of preventive services in contracted out basic healthcare facilities. Safeguards must be developed against preventive and promotive services being jeopardized in such arrangements, given that these serve as community level hubs for the delivery of services.
- Promoting **community co-management and co-ownership.**

Service delivery to the formally employed sector should be enhanced by broadening the base of the employees social security institutions and the creation of such mechanisms where they are non-existent.

9.1.4 Capacity and effective deployment of human resource

Building optimal capacity and effectively deploying human resource is critical to health systems functions and outcomes. It is, therefore, necessary to pay careful attention to undergraduate, postgraduate and in-service training and post-training absorption to ensure that human resources are effectively deployed. In-service training of doctors and health administrators needs to be institutionalized and the existing structures for in-service training of non-physician healthcare providers need to be strengthened. A locally-suited *Continuing Medical Education Programme* needs to be established; this should closely dovetail with a parallel and synchronous *behavioural change communication intervention* in order to impact the behaviours of all actors in the health systems. Opportunities for capitalizing on the information communication technology boom for enhancing training opportunities must be explored. With regard to the existing staff, the development of economic opportunities and incentives, credentialing, the establishment of a conducive and rewarding working environment and measures to redress imbalances – particularly with regard to gender imbalances and those that relate to ancillary services – should be a priority.

9.2 Overarching measures

As outlined above, the success of health systems reforms are critically dependent on a number of other in-tandem measures. These include the development of frameworks for public-private partnerships, a social protection strategy and civil service reforms.

9.2.1 Frameworks for public-private partnerships

The resources of the private sector must be effectively harnessed in order to impact health outcomes. Within this context, public-private partnerships are interface arrangements that bring together organizations with the mandate to offer public good on the one hand, and those that could facilitate this goal though the provision of resources, technical expertise or outreach, on the other. However, a necessary prerequisite to fostering public-private partnerships is the establishment of an institutional mechanism and a policy and legal framework on the one hand, and ethics, norms and procedural details for combined systems of governance with careful attention to transparency, sustainability and accountability, on the other. In addition, the State should build its own capacity to legitimately regulate the private sector in a manner which is fair,

participatory and conducive. The current scope of work in the area of legislation for public-private partnerships needs to be broadened in view of these overarching considerations.[183]

9.2.2 Social protection

A social protection strategy involves the development of safety nets. What makes social protection an overarching concern is the enhanced role of the private sector in some of the service delivery models, such as in the case of contracting arrangements; in addition, the introduction of cost-sharing and user fees in facility settings raises issues of access and affordability for the poor. This risk can be offset if conscious safeguards are built. Waiver and exemption mechanisms can provide subsidies to treat poor patients and safety nets dovetailed with these can compensate facilities for the costs incurred in treating poor patients.

Access issues in such models can also be mitigated through the development of social health insurance as one component of a comprehensive social protection strategy for the poor – a strategy, which scopes beyond the formally employed sector. However, there are several design and implementation challenges in structuring a social protection system and a health insurance model outside the formally employed sector given that this necessitates overarching policy and legislative commitments. The setting up of social health insurance would also necessitate the development of a legal and policy framework, establishment of a dedicated institutional mechanism and the creation of a large and sustainable pool of funds with per-capita cost sharing by the government; *Zakat* funds and philanthropic grants can also be channeled into such a fund. In addition approaches to compulsory membership need to be developed and the extent of coverage to be provided via these arrangements needs to be determined. The work initialized by the Planning Commission in partnership with multilateral and bilateral agencies and work currently underway by ADB in the area of health insurance needs to be further built upon in this connection.[56]

9.2.3 Civil service reforms

Civil service reforms must be the cornerstone of health systems reforms if sustainable solutions to currently existing issues are envisaged. These must focus on good governance, accountability, breakdown of institutional corruption and the factoring in of performance-based incentives. Such reforms should pay close attention to decentralization of decision-making, delegation of managerial powers and institutionalizing managerial audit in addition to building safeguards against political and external interference. There is also a need to institutionalize personnel management reforms, which go beyond personnel actions and set standards for performance. In tandem, there is a need for management reforms, which develop mechanisms to utilize personnel efficiently. The scope of the existing civil service reforms, such as those presently underway, needs to be broadened.[35]

9.3 The inter-sectoral scope of health

It is widely recognized that factors which determine health status range much broader than those that are within its realm and that modern healthcare has less of an impact on population health outcomes than economic status, education, housing, nutrition and sanitation and some other factors. It is imperative that alternative policy approaches be developed for health within an inter-sectoral scope. This necessitates a redefinition of objectives and targets within the health sector in order to garner support from across the sectors. However, these need to be set within a more explicit policy framework in order to foster inter-sectoral action. Relevant ministries and

organizations need to own this approach and participate in a manner, which is mutually supportive of common goals. Support for this should come from the highest ministerial level in each instance and should also reflect the support of the Cabinet. This will involve the creation of inter-sectoral agencies that concentrate on prevention and health promotion at multiple levels - legislative, ministerial and others as necessary; development of dedicated provincial agencies that implement such programmes and overarching policy and legislation for health promotion.

9.4 Generating evidence for reforms

Health reforms must be firmly grounded in evidence, which in turn, should be utilized for appropriate modifications as the reforms get on their way to being implemented. It must be appreciated that the generation of evidence and its utilization must proceed in tandem with the reforms process – an approach which allows action accompanied by rigorous evaluation and up-gradation of programmes and policies. The individual components of the health reforms being proposed also mandate robust evaluation; this can allow the evaluation of competing concepts and can, therefore, guide the up-scaling of appropriate initiatives for broader systems-wide adoption. Only then can they enable the development of well-structured and sustainable service delivery and financing mechanisms. Table 33 outlines a list of priority areas on which health policy and systems research should focus in order to yield evidence critical to the success of the proposed reform. The proposed direction of reforms also points to the need for the creation of dedicated institutional mechanisms and the stipulation of norms and standards; these have also been outlined in Table 34. However, these will have to be modified in the light of the evidence generated.

The proposed reforms have outlined the need to strengthen systems and institutions, build capacity and foster a greater commitment to basing decisions and actions on evidence. However, health cannot be extricated from the political, economic, social and human development contexts and reforms within the healthcare system and the health system at large cannot be separated from several overarching processes. Poor regulation, gaps at the governance and management levels and lack of appropriate incentives contribute to lack of efficiency, staff absenteeism and abuse; these are compounded by lack of accountability within the system and lapses in social justice, which in turn cannot be extricated from overall macroeconomic and social development.[265] Sustainable progress at the health systems and healthcare systems levels, therefore, depends to a large extent, on the manner in which progress is made in all these areas in addition to human development, the overall rate of economic growth and improvements at a governance level. With the current trend of economic growth, it is important to pay close attention to these overarching processes as these are critical to impacting social sector indicators within the country. Health reforms can undoubtedly be an entry point for these structural changes.

Table 33. Priorities for health policy, systems and operational research to support the reforms being propose in the Gateway Paper

Research
o to define locally-suited priority-setting criteria, determine priority services for State-sponsored subsidies and redefine health sector priorities within the context of a *poverty-driven development agenda*
o to study the impact of the current policy in reducing unjust health disparities
o on the social determinants of health
o to gauge and improve the quality of healthcare services in the public and private sectors
Health financing and expenditure analysis
Research
o to determine major components of public spending on health
o to conduct a comparative review of public expenditure on health vis-à-vis the population programs
o to develop locally-suited alternative health financial models based on social insurance, community financing and cost-sharing
o to forecast public spending based on alternative models of financing
o to forecast public spending based on the *needs* of each district in the country
o to determine employer spending on insurance in the commercial sector
o to determine commercial insurance coverage
o to study utilization patterns of health insurance schemes employed by parastatals with a view to assessing the risk of moral hazard
o to expand the base of Social Security beyond current boundaries
o to assess impediments to the collection of *Zakat* funds and its role in financing healthcare for the poor
o to determine mechanisms for generating greater corporate support for health within the framework of Corporate Social Responsibility
o to determine and evaluate current formal and informal fee and cost-sharing mechanisms in public and private sector facilities
Delivery of services
Research
o to perform inequity analysis across different tiers and delivery of services
o to determine the components of the essential services package via public funding
o to assess the current level of autonomy of hospitals and its effects on cost and services delivery
o to assess the implications of hospital autonomy arrangements on access and equity
o to estimate household contributions to financing and care of the sick at home
o which gathers insight into impediments to fund utilization, disbursements, and onerous financial and management procedures
o to evaluate failed institutional private-practice-related hospital reform measures
o to assess the potential within funds from non-medical revenue programmes to contribute to hospital sustainability
o to establish mechanisms for the delivery of priority services by the State in contracted-out basic health facilities
o to assess the potential within behaviour change interventions to impact the behaviour of all actors in the health systems
o to determine mechanisms to subsidize costs to the poor and target subsidies in facility settings
o to define the role of the traditional system of medicine in pathways to care
o to perform randomized controlled trials on commonly used herbal drugs
Interface considerations in the delivery of services
Research
o to determine ways of harnessing the potential within Community Citizen Boards, Village Health Committees and other grassroots level organizations in co-ownership, co-management and co-

financing arrangements
- to analyze the infrastructure, personnel and overall recurring costs of federal programmes at the provincial level
- to address institutional impediments to implementation of programmes and develop systems of combined governance
- to institutionalize the administrative and inter-governmental fiscal framework

Private sector analysis

Research
- to explore ways of utilizing the private sector's extensive infrastructure to deliver health-related public goods
- to explore options for subsidizing care through partnerships with the private sector in order to mitigate issues relating to cost and quality trade-offs in private sector healthcare facilities
- to explore the fee structures and other provider reimbursement mechanisms prevalent in the private sector and their affect on access in low-income groups in the country
- to rationalize and build efficiency in clinical support services amongst private sector providers
- to assess the feasibility of introducing quality audits by independent organizations
- to assist with rationalizing and building efficiency in clinical support services
- to assist with the monitoring of patient safety errors
- to develop quality measurement and reporting mechanisms accessible to the general public
- to mitigate provider-driven over-consumption of health services, over-prescription and over-examination

Drugs and supplies

Research
- to develop an understanding in relation to upstream issues and markups which have implications for drug pricing
- to assess the feasibility of instituting policy measures such as a differential pricing system and generic prescribing in order to make low-priced drugs available
- to evaluate the process of registration with a view to modifying it on the basis of evidence generated
- to determine price determinants along the pharmaceutical supply chain
- to develop a baseline position to clearly articulate the Pakistan-specific public health impacts of the WTO agreements and to determine ways of taking advantage of certain prerogatives that Pakistan may have in overriding certain provisions of WTO in the interest of making drugs accessible

Human resource
- to assess the quality of undergraduate education in the public and private sectors
- to determine priority training needs in the health sector within Pakistan and for foreign scholarships

Cross-cutting areas in health
- to develop health promotion interventions in pilot settings
- to build appropriate incentives and rewards for fostering research and develop a conducive institutional research environment
- to define objectives and targets within the health sector that also factor societal or social measures and to integrate health outcomes into social and development-related policies
- to strategically and operationally link population and health
- to gather evidence from the October 8 disaster in order to develop a National Health Disaster Preparedness Plan in collaboration with other stakeholders
- to develop a baseline position and initiate research in Pakistan-specific public health impacts of WTO agreements and trade impacts on health plans
- to explore the effects of GATS on the health sector with a view to generating appropriate evidence, which should be able to guide the government in developing a clear stance and policy direction
- to develop incentives and disincentives for preventing under-use, over-use and misuse of medical technology and to assess the feasibility of integrating telemedicine into service delivery

The Burden of Disease Study and the National Health Accounts Study are on their way to being conducted by the National Health Policy Unit and are therefore, not included in this list

Table 34. Policy and legal frameworks; institutional mechanisms; norms and standards to support the reforms being propose in the Gateway Paper

Policy and legal frameworks
Policies on: o Social protection and social health insurance o Cost-sharing in healthcare facilities o Hospital autonomy o Revenue sharing in healthcare facilities o Public-private partnerships o Effective deployment of human resource o Drug pricing o Institutionalizing research o Public health surveillance o Notification of priority diseases and regulation of laboratory practice o Health promotion
Norms and standards
o Locally-suited priority-setting criteria o Priorities for the use of public funds o Priorities for state subsidy o Definition of health-related public goods and interventions with positive visible externalities o Definition of poor households o Waiver and exemption protocols in order to protect the interests of the poor in autonomized hospitals and contracted out facilities o Guidelines and procedures on accounting and utilization of revenues o Roles, composition and appointment, powers and authorities, accountabilities and specific duties of autonomous hospital boards o Procedures for providing subsidies to hospitals for offsetting costs incurred in treating poor patients o Operational frameworks for facilities to be contracting out o Selection criteria, procedures for recruitment, guidelines on awarding contracts, ethical and administrative matters, procedures and staff training on waiver and exemption system for the poor, sample contracts, terms for price negotiations for contracted out services o Guidelines on incentives for staff in internally generated revenue o Ethical principles and standards for heathcare delivery and its management o Norms, ethical principles and guidelines for public-private partnerships and operational frameworks for combined governance o Quality standards for private clinics and indicators o Minimum quality standards for the establishment of hospitals, nursing homes and clinics and specific criteria for yearly/biennial inspection of healthcare facilities and inspection protocols to ensure compliance with these standards o Standard Operating Procedures for drug selection, procurement, storage, dispensing and rational prescribing o Standard treatment guidelines on rational prescribing

Institutional mechanisms necessary to support the reforms being proposed in the Gateway Paper
o An independent, unbiased and well-represented body with appropriate analytical and technical skills to collect and interpret information with the capacity to influence decision makers should be mandated in order to mainstream evidence into policy o An independent robust mechanism to ensure the active representation of civil society and the people in decision-making o A Federal Social Security System on the lines of the provincial system o A Health Insurance Agency within the framework of a broad-based social protection strategy, which scopes beyond the formally employed sector establishing a widely inclusive safety net for the poor o High-level institutional mechanism with broad controls for handling large service delivery programs undergoing restructuring o Peer review boards for credentialing of health care providers o Accreditation Council for defining and maintaining optimal standards of management, quality, and health outcomes of services provided at private facilities o National Council for Healthcare Quality mandated to formulate minimum quality standards for facilities and standards for inspections and compliance o Independent private sector representative body that mandates standardized reimbursement fee structures o An institution for Continuing Medical Education dovetailed with the behavioral change communication intervention o Statutory, semi-autonomous Drug Regulatory Authority (DRA) with its own independent governance and enforcement mechanism to guide and oversee stricter implementation of the Drug Act o An institutional mechanism for Health Promotion o Institutional mechanism for ethical oversight of research

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