

Health Transitions in Pakistan 4



Health reform in Pakistan: a call to action

Sania Nishtar*, Zulfiqar A Bhutta*, Tazeen H Jafar, Abdul Ghaffar, Tasleem Akhtar, Kaiser Bengali, Qazi Asmat Isa, Ejaz Rahim

Pakistan's enormous macroeconomic, internal, and human security challenges coexist alongside the opportunity created by a huge desire for change. With democracy taking root and a new constitutionally ushered era in state governance, *The Lancet Series* about Pakistan and health focuses on health as a nation-building and social-welfare agenda at a time of unprecedented social upheaval and economic hardships in the country. We call for a unified vision for the goal of universal and equitable health access. We provide recommendations for six objectives for policy and action. Higher political priority for health, increased investments, a combination of targeted and universal approaches, action in terms of the social determinants, institutionalisation of the right organisational network, and frameworks for accountability are crucial for the attainment of the health goals in Pakistan.

Introduction

Pakistan is a kaleidoscope of hope and despair, and obscurantism stymying progress, frequently manifest in the courageous faces of young people who want change. Despite a history with several periods of military dictatorships, the previous parliament was the first ever elected to complete its tenure; elections are scheduled in May, 2013. Pakistan still has complex challenges. The wars along Pakistan's northern borders, regional instability, problems with internal security, economic decline, and persistent energy deficits, have taken a huge toll on the country and its population. Weak governance, uncontrolled population growth, and natural disasters have also affected all dimensions of health and human development.

Yet, the Pakistani society is remarkably resilient and there are developments that bode well for the future. Pakistan's demographic resources remain untapped. The advent of judicial activism and its foray into human rights issues and public policy have led to the realisation of the right to health. A free and open media, and support for democracy have created opportunities for public debate and social change. Despite its hasty implementation, the 18th Constitutional Amendment to devolve education, health, and substantial resources to the provinces has created an opportunity to reform governance and improve accountability in many sectors including health.¹

In a rapidly changing environment, rarely have the Pakistani people had the luxury to take stock and generate the political and public support to address the closely intertwined issues of health, human security, and development. *The Lancet Series* about Pakistan and health provides an opportunity to undertake an analysis of the past and present and offer options for the future.

In this call to action, our aim is to build on the other reports in this Series²⁻⁹ to help renew Pakistan's commitment to health, with the focus on equitable and universal health access as the goal. Because of the huge challenges resulting from the differentials and inequities in Pakistan, the focus on universal health access should

cover financial support and the achievement of equity for the country's diverse population in terms of sex, ethnic origin, and socioeconomic classes. We recommend six objectives for policy and action that the federation and the provinces should focus on over the next decade.

Political ownership of health

Health has never been a political priority in Pakistan, as evident from the persistently low fiscal support. Party manifestos generally do not present specific fiscal solutions that can enhance investments in health; table 1 summarises the key features of political party manifestos that were made public before April 15, 2013. Some of the political parties have explicitly outlined their plans for the health sector in manifestos for the forthcoming election. However, with few exceptions, there has been no robust public debate about the issues and possible solutions.

Various initiatives, which had the potential to reform health, were hampered by policy vacillations and several changes in government (panel). The time is now right to have a consensus about key issues including health and education and move forward. We call on political stakeholders to convene an all-parties conference on health to achieve consensus for needed actions with multistakeholder ownership and oversight of the process. Importantly, commitment is needed on an agreed set of actions.

Increased overall public spending on health

The public sector spends 0.9% of Pakistan's gross domestic product (GDP) on health—low by any standard.² The health indicators are also poor, with rates of infant and maternal mortalities much higher than the goals set by the Millennium Development Goals (MDGs),³ and high rates of non-communicable diseases in young adults leading to loss of national productivity.⁴

Public investments by the federation and provinces should increase to at least 5% of GDP by 2025 as committed by some political parties. Even in the existing constrained setting, spending on health could be increased if resources are managed better. For example, despite obvious solutions to free up these

Lancet 2013; 381: 2291-97

Published Online

May 17, 2013

[http://dx.doi.org/10.1016/S0140-6736\(13\)60813-2](http://dx.doi.org/10.1016/S0140-6736(13)60813-2)

This is the fourth in a *Series* of four papers about health transitions in Pakistan

*Joint first authors

Heartfile, Islamabad, Pakistan

(S Nishtar PhD); Government of

Pakistan, Islamabad, Pakistan

(S Nishtar); Division of Women

and Child Health, Aga Khan

University, Karachi, Pakistan

(Prof Z A Bhutta PhD,

Prof T H Jafar MPH); Alliance for

Health Policy and Systems

Research, Geneva, Switzerland

(A Ghaffar PhD); Peshawar,

Pakistan (T Akhtar FRCP);

Karachi, Pakistan

(K Bengali PhD); Pakistan

Poverty Alleviation Fund,

Islamabad, Pakistan

(Q A Isa PhD); and Islamabad,

Pakistan (E Rahim MA)

Correspondence to:

Dr Sania Nishtar, Heartfile,

1 Park Road, Chak Shahzad,

Islamabad 44000, Pakistan

sania@heartfile.org

or

Prof Zulfiqar A Bhutta, Centre of

Excellence in Women and Child

Health, Aga Khan University,

Stadium Road, Karachi 74 800,

Pakistan

zulfiqar.bhutta@aku.edu

Key messages

- At a tumultuous time in Pakistan's history, the synergy between the forthcoming 2013 parliamentary elections and societal demand for change can help to put health on the nation-building agenda.
- In addition to being a future vision, equitable, universal health access can be the much needed indicator of domestic policy and goal for Pakistan's health system.
- Devolution of health to the provinces by the 18th Constitutional Amendment offers unique opportunities for action and accountability, but requires sound planning, resourcing, organisational reform, and oversight at federal and provincial levels.
- Many institutional arrangements are still in flux while a democratic transition is underway. The disarray of the local government system adds another level of complexity. In this setting, we propose an institutional and organisational framework for health. Additionally, the following steps are deemed necessary to reform health over the next parliamentary term.
 - Steps needed at the federal level outside the health sector:
 - Overcoming Pakistan's financing emergency (to increase money for health).
 - Stakeholders' consensus on a direction for the health sector through an all-parties conference.
 - Interprovincial equity-promoting innovations in the National Finance Commission Award (to increase money for health).
 - Adequate resourcing and autonomy of health institutions.
 - Increase in excise duty on cheaply sold cigarettes and channelling of revenue towards initiatives for prevention of non-communicable diseases (to increase money for health).
 - Introduction of nutrition and maternal, newborn, and child health in the national income support programme.
 - Steps needed at the federal level in the health sector:
 - A national health policy that conforms with the mandate in the 18th Constitutional Amendment.
 - Establishment of a health division under the Ministry of Inter-Provincial Coordination.
 - Reorganisation of the reporting relations of agencies.
- Creation of a federal health information hub linked to the health division.
- Transparent governance and adequate resourcing of regulatory, research, and capacity building institutions.
- Policy for human resources in health that complies with the 18th Constitutional Amendment (agenda shared by the federation and provinces).
- Steps needed at the provincial level outside the health sector:
 - Accountability and performance-promoting culture in the local government.
 - Earmarking of a service tax for welfare and health (to increase money for health).
 - Establishment of compulsory health insurance schemes for formally employed individuals (to increase money for health).
 - Improvements in financial access to health equity funds for individuals who are poor (to increase money for health).
 - Innovations in the existing social protection programmes to risk protect the poorest individuals from health shocks (to increase money for health).
 - Investment in public health diagnostic capabilities.
- Steps needed at the provincial level in the health sector:
 - Provincial policies for strategies to achieve universal health access.
 - Adequate and sustainable support for provincial health reform and policy units, and public health schools.
 - Policy for human resources in health that complies with the 18th Constitutional Amendment (agenda shared by the federation and provinces).
 - Improved resourcing and management of public service delivery facilities.
 - Introduction of programmes for population planning, non-communicable diseases, and integration of communicable disease control into primary health care.
 - Incorporation of population-wide high blood pressure screening in the work plan for lady health workers.
 - Targeted links with the private sector for specific objectives, such as emergency transport systems.
 - Capacity building to harness private sector outreach.

resources, a significant proportion of the budget is invested in failing public sector enterprises. The direct and indirect administrative costs for office bearers and government departments are huge, and promotion of austerity would increase resources for health.

Health is one of the most corrupt sectors in Pakistan; therefore, plugging corruption-related leaks could have a huge benefit for health funding. Provinces now have additional recognition for fiscal support under the National Finance Commission, but the money needs to be allocated equitably for universal and targeted inter-

ventions. Pakistan has the lowest tax-to-GDP ratio among the developing countries; therefore, the widening of the tax net is imperative. The provincial mandate to levy a service tax can additionally be used for generating resources for health and development.

After the 18th Constitutional Amendment, the federal government has the role of bridging inequities between federating units. The National Finance Commission Award for innovations in Pakistan's traditional fiscal formula, which determines provincial allocations by the federal government, can enable the federation to

expedite provincial investments in priority social sectors. External development assistance, most of which is now given to provinces, should not displace domestic funding, as in the past.

Earmarking of revenue for health should be simultaneous with policy approaches to increase pooling at the provincial level. Establishment of a compulsory health insurance scheme for formally employed individuals and improving access to health equity funds for people who are poor and those in the informal sector have been explained elsewhere in this Series.²

Universal and targeted health access

Provinces should accept universal health access as an overall indicator of domestic policy. Action to expedite progress in terms of the MDGs and reduction in the burden of major non-communicable diseases, the likely health sector goals after 2015 (the current MDGs will come to term by the end of 2015), should be the focus of the programme for universal health access (table 2).

A three-stage approach is recommended. First, services that can enable targeted access can be employed fairly

quickly to address financial barriers to seeking health care. The existing income support programme can be leveraged for nutrition and maternal, newborn, and child health (MNCH) and innovations in social protection can help safeguard the poorest individuals from health shocks.²³ Targeted links with the private sector can improve specific service dimensions—eg, emergency transport systems, which are largely in the private sector. Similarly, links with the non-profit sector can enable targeted nutrition interventions in schools, as tested in the past. Additionally, targeted approaches can be adopted in outreach programmes. The quality and outreach of lady health workers can be improved by optimisation of their role and integration of key interventions relevant to their role in primary care and family planning, and provision of services such as screening and prevention of non-communicable diseases. For too long, this cadre of community health workers has borne the brunt of primary care in rural populations with few links with the formal health sector in the districts. Now we need to strengthen the quality and distribution of trained mid-level workers and physicians in districts.

For the **Pakistan Tehreek-e-Insaf's** policies see <http://insaf.pk/Policies/Health/tabid/318/Default.aspx>

For the **Pakistan Muslim League-Nawaz** manifesto see <http://www.pmln.org/pmln-manifesto-englishurdu/>

For the **Pakistan People's Party** manifestos see <http://www.ppp.org.pk/pppchange/manifestos.html>

For the **Mutahida Quami Movement** see <http://www.election2013.pk/election/detail/27>

For the **Jamaat-e-Islami** manifesto see <http://www.forum.jamaat.org/forum/jamaat-e-islami-pakistan/elections-2013/208-electoral-manifesto>

	Pakistan Tehreek-e-Insaf	Pakistan Muslim League-Nawaz	Pakistan People's Party	Mutahida Quami Movement	Jamaat-e-Islami
Overall vision for health and key policy	Health as an emergency	National Health services across Pakistan	Health for all	Health for all	..
Health expenditure increase by 2018	2.6% of GDP	2% of GDP	5% of the consolidated government spending	4% of GDP	Increase committed, percentage not specified
Measures to increase money for health	Not specified	Not specified	Not specified	Not specified	Not specified
Other quantifiable goals and targets during term	100% improvement in the existing public sector coverage	100% vaccination of children; 50% reduction of maternal and infant mortality rates; 10% reduction in population growth; and 100 mobile health units	Reduction in population growth rate from 2% to 1.6%; poliomyelitis eradication by 2015
Approach to health financing	Health equity fund emulating a model by a non-governmental organisation; support for private sectors in insurance; a social security opt-out option for private employers	National insurance scheme funded and managed by provincial governments	Waseela-e-Sehat, a health insurance scheme for individuals identified by a nationwide poverty survey as being poor	Health insurance for all individuals, with elderly people being a priority	Islamic insurance (takaful)
Health governance	Federal health division; district health boards; elected village councils; hospital autonomy policy	District health authority with an autonomous board; hospital autonomy policy	Strengthening provincial ministries of health; focus on transparency in resource use
Service delivery	Dentists in all rural health centres; upgrading of accident and emergency in these centres near major roads; investments in management information systems; partnerships with private sector; focus on communicable and non-communicable diseases, maternal, neonate, and child health, and school health	Strengthening basic health units through private sector partnerships; mobile health units; and efficient medicolegal services	Upgrading of subdistrict and district hospitals; mobile preventive teams; focus on communicable diseases and programmes for lady health workers, maternal, neonatal, and child health, and Expanded Programme on Immunization	..	Free emergency treatment and free treatment of outpatients in evenings in public hospitals
Human resources for health	Health management, and paramedics	..	Paramedics; degree course in nursing
Medicines	Food and drug testing laboratories; support for the Drug Regulatory Authority	Tighter price regulation; curbing spurious medicines; support for the Drug Regulatory Authority	Scaling down list of essential medicines list; tighter price control; support for Drug Regulatory Authority	..	Generic medicines policy and tax-exempt imported medicines

GDP=gross domestic product.

Table 1: Key features of specific health-related commitments in 2013 manifestos for some of the main political parties

Second, public sector health infrastructure should be improved because it would enhance universal access. Improvement in the infrastructure can be enabled by the reform of primary health care and hospitals.² An agenda for integration is crucial for the reform of primary health care. Reform could be achieved through the integration of existing vertical communicable disease programmes into one programme after their devolution from the federal to the provincial governments, and the incorporation of programmes for non-communicable diseases into primary care programmes,

and the merger of family planning with primary health care to bridge the existing gap in population health.

Third, methods for private sector engagement and service purchasing should be identified. Provincial governments should enhance their capacities to engage with the private sector before embarking on programmes for achieving universal health care as their contribution to affordable quality health care is crucial.

Panel: Examples of programmes in Pakistan that have been hampered by policy vacillations

- Tawana Pakistan Project¹⁰
- Women's Health Project¹¹
- Family Health Project¹²
- Social Action Programme¹³
- National Action Plan for Prevention and Control of Non-Communicable Diseases in Pakistan^{14,15}
- District Health Authorities Initiative¹⁶
- District Health Government Initiative¹⁶
- People's Primary Health Care Initiative¹⁷
- Access to Justice Project¹⁸
- National Commission for Government Reforms¹⁹
- Automation of the Central Board of Revenue²⁰
- Improvement to Financial Reporting and Auditing Project²¹
- Tax Administration Reform Program²²

Health organisations and policy

The 18th Constitutional Amendment mandates federal, national, and interprovincial functions or roles in health in legislative lists; the other mandates are for provincial functions. Institutions exist at the federal level to serve the mandated functions, but they have not been meeting these functions since the abolition of Pakistan's Ministry of Health after the 18th Constitutional Amendment. Without detracting from the devolution of health to the provinces, we recommend the creation of a federal institutional system to support the provincial departments of health. Creation of a central coordinating structure for health is necessary because many of the problems arising soon after the 18th Constitutional Amendment were a manifestation of the absence of this structure.²⁴ The focus at the federal level should be on coordination, technical support, and discharging of responsibility for federal roles rather than exercising bureaucratic and financial controls over provinces, which was the case before the 18th Constitutional Amendment when the Ministry of Health was responsible for provincial health.²⁵ A national policy commensurate with federal functions needs to be established so that it enables the development of a unified national vision for health in view of the federal government's interprovincial equity promoting role.

We propose the creation of a health division in the federal government to link with appropriate ministries and divisions for the requisite provincial convening and coordination and global interaction (figure). The health division could also serve as the point of coordination with other federal level divisions and ministries, which have the health mandate.

Provinces, which now have the main responsibility for personalised medical care and public health, should develop sustainable institutions with the capacity to plan and oversee reform. International experience shows that the success of reform is determined by appropriate in-country technical capability.²⁶ After the 18th Constitutional Amendment, provinces have three units with overlapping roles—secretariat, directorate, and provincial health reform. Importantly, duplication should be avoided and policy making should be separated from regulation, oversight, and analysis. Also, in view of the scale down of the local government system, safeguards should be developed against recentralisation of power, an adverse outcome of the amendment.

Other key gaps at the institutional level are the absence of programmes for non-communicable diseases at

Existing institutional responsibility at the federal level

Legislative list, part 1 (federal subjects only)

Health insurance (unless undertaken by the province)	Responsibility not specified
Professional or technical training; research (shared mandate) and special studies	Pakistan Medical Research Council and the Health Services Academy have been retained at the federal level and report to the Cabinet Division
Federal public services	Responsibility of the Federal Public Services Commission and Capital Administration and Development Division
Education of foreign students	Responsibility of the Economic Affairs Division
Health information and disease security	Institutions responsible report to different federal agencies—National Regulations and Services Division; Cabinet Division; States and Frontier Region Division; Federal Bureau of Statistics; Planning and Development Division Some have been devolved to provinces Currently, health information is fragmented ²
Trade in health	Pakistan's trade policy does not factor in trade of services in health
Trademarks and patents	Dealt with through the Registrar of Trademark's Office
Regulation of drugs and medicines	The major provinces (Baluchistan, Khyber Pakhtunkhwa, Punjab, and Sindh) have conferred this mandate to the federal Drug Regulatory Authority, which reports to the National Regulations and Services Division

Legislative list, part 2

Regulation	All regulatory institutions report to the National Regulations and Services Division
Medical profession	Human resource regulatory agencies report to the National Regulations and Services Division
National planning and economic coordination	Economic Affairs Division, Planning and Development Division, and Ministry of Inter-Provincial Coordination deal with different aspects

Table 2: Health-relevant subjects enumerated in the 18th Constitutional Amendment's legislative lists

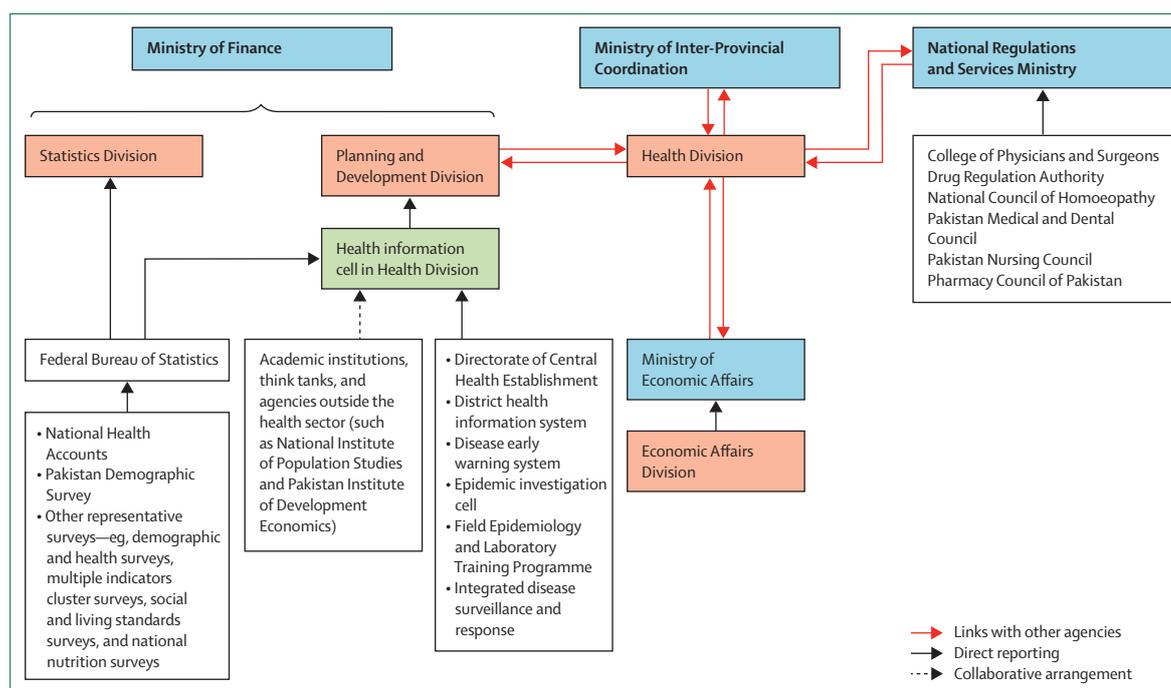


Figure: Suggested framework for the federal health sector after Pakistan's 18th Constitutional Amendment

provincial and federal levels, weaknesses in public health diagnostic capabilities, poorly functioning regulatory arrangements for medicines, human resources and medical education; and the fragmentation of health information-related institutions and the persistent health–population disconnect after the 18th Constitutional Amendment. Additionally, some institutions for research, training, and reform are deeply politicised and have inadequate resources; these issues need to be addressed. The creation of a national public health network of institutions and professionals is an essential step in the effective planning for health reform in Pakistan.

Social determinants and intersectoral action

Actions outside the health sector can affect health outcomes and performance of health systems. Pakistan should broaden the focus of its security policy, which is national security. An emphasis on human security can be achieved by elaboration of the definition of “security of a person” in article 9 of the constitution. Health is one of the seven recognised determinants of human security. Imperative for Pakistan is the security of its communities from internal strife, and ethnic and political tensions. More than 30 000 people have died in the country as a result of acts of terrorism, including at least 85 doctors and sixteen community health workers involved in the poliomyelitis eradication campaign.²⁷ Peace, law, and order are crucial for human security and health system functionality. These are also necessary to free up money and priorities for human development agendas.

Importantly, the social determinants of health need to be addressed. Per person income has a strong correlation with the achievement of health status and therefore levels of employment, poverty reduction, and pro-poor inclusive growth matter are crucial for health gains. Some recommended targeted approaches, including integration of nutrition and MNHC, are predicated to have the potential for poverty alleviation. Maternal education, and adequate nutrition, clean water, and sanitation can have profound effects on health status, and emphasise the need for action to streamline the local governments.^{3,28} Planned action to address the social determinants can be a waste of time without attention to population planning.⁵ Pakistan has to invest in direct and indirect strategies to reduce its population growth.^{29–31}

Much of the scope of public health work is usually separate from the medical care services. Some of the key recommended actions to address non-communicable diseases and injuries—including, increase in excise duty on cheap cigarettes and number of speed bumps, respectively—need action from outside the health sector. The potential benefits of technology can be tapped through intersectoral action. In Pakistan, the effect of climate change is now palpable. However, the implications of climate change for vector breeding, disease patterns, food security and human health have as yet not been fully appreciated in national planning processes.

Accountability

The performance of health systems is dependent on overall governance. Accountability is the foundation for

good governance. However, Pakistan's existing norms do not require financial, managerial, and decision-making accountability. The previous parliament was unable to legislate in terms of accountability during its 5 year term. This gap in accountability will be a major limitation after 2015, when country ownership and accountability are likely to have more importance. A robust accountability law and arrangements for implementation are priorities for health and governance. The Commission on Information and Accountability provides recommendations for the health sector. An independent national structure could be charged with the responsibility for accountability within the framework of national and international settings in health and could be nested within an appropriate institutional structure—eg, the federal and provincial planning commissions. Pakistan needs to actively consider and adopt its own tangible targets for accountability. Crucially, the new parliament must have accountability as a priority.

Conclusions

Despite the many challenges and opportunities, the 18th Constitutional Amendment has led to massive changes in Pakistan's governance system by altering federal–provincial relations. Many arrangements are still in flux while a democratic transition is underway. The disarray of the local government system adds another level of complexity. In this setting of unprecedented social upheaval, economic hardships, and drastic changes in Pakistan's institutional and organisational systems, we believe that health should be included in a nation-building agenda. More broadly, the agenda also includes a future vision of universal health access and narrowing of inequity as its goals.

Economic preconditions for universal health access are hugely challenging in view of Pakistan's financial situation and its current tax-to-GDP ratio and leave little money for much needed reforms in health and social sectors. However, Pakistan seems to be on the cusp of change that could be leveraged with the initiation of the social political culture, a democratic dispensation, and a new order of relations in its federating system. With a new parliamentary phase commencing in 2013, universal health access can become part of a broader political movement for social welfare reform at a time of unprecedented social and economic hardships in the country. International experiences also show that reform of universal health access is usually brought about by a major change—including, political transitions, cataclysmic events, disasters, and solutions to special over-riding problems. Pakistan has experience of all these. Therefore, the debate about health has to be broadened to include nation-building and social welfare, and the widespread desire for change. Such an agenda will have resonance with all the sectors involved in the development of universal health access and help in the attainment of the broader goals for development, social protection, and poverty alleviation.

In addition to its national relevance, universal health access will resonate with global thinking. The MDGs will come to term in 2015. Universal health access is being positioned as the health sector's key contribution to the achievement of health goals after 2015—expedition of the MDGs and reduction of the burden of major non-communicable diseases. Also, unlike the MDGs that were created for the aid system, the shift in development circles evaluating the post-2015 options is to help shape national policies with an emphasis on investment rather than aid, and country ownership in terms of resource generation and deployment to achieve social targets. Pakistan is off track in meeting the MDGs and the targets for burden of disease. A concerted focus on the achievement of equitable universal health care could help Pakistan to meet these goals within the next generation, if not earlier.³²

Pakistan therefore has to pitch the attainment of health at the right political and institutional levels. Although health has moved up in the political debate relative to previous years, it still needs to move up further. The democratic elections in May, 2013, and the parliamentary phase commencing after a change of government could be a historic landmark in Pakistan's varied history. After decades of conflict and war on various borders, there is an unprecedented desire for peace and calls for accountability. Investments in population health and human development might be the key for true national security and Pakistan's survival as a nation state.

Contributors

SN and ZAB conceived the idea for the report and wrote the final version. All authors contributed to the review and writing process. SN and ZAB are the guarantors for the report.

Conflicts of interest

We declare that we have no conflicts of interests.

Acknowledgments

SN and ZAB thank Heartfile and Aga Khan University, respectively, for their support.

References

- 1 Government of Pakistan. Full text of the 18th Amendment Bill. <http://www.infopak.gov.pk/Constitution/Full%20text%20of%2018th%20Amendment%20Bill.pdf> (accessed March 25, 2013).
- 2 Nishtar S, Boerma T, Amjad S, et al. Pakistan's health system: performance and prospects after the 18th Constitutional Amendment. *Lancet* 2013; published online May 17. [http://dx.doi.org/10.1016/S0140-6736\(13\)60019-7](http://dx.doi.org/10.1016/S0140-6736(13)60019-7).
- 3 Bhutta ZA, Hafeez A, Rizvi A, et al. Reproductive, maternal, newborn, and child health in Pakistan: challenges and opportunities. *Lancet* 2013; published online May 17. [http://dx.doi.org/10.1016/S0140-6736\(12\)61999-0](http://dx.doi.org/10.1016/S0140-6736(12)61999-0).
- 4 Jafar TH, Haaland BA, Rahman A, et al. Non-communicable diseases and injuries in Pakistan: strategic priorities. *Lancet* 2013; published online May 17. [http://dx.doi.org/10.1016/S0140-6736\(13\)60646-7](http://dx.doi.org/10.1016/S0140-6736(13)60646-7).
- 5 Sathar ZA. Family planning: a missing priority in the health sector? *Lancet* 2013; published online May 17. [http://dx.doi.org/10.1016/S0140-6736\(13\)60763-1](http://dx.doi.org/10.1016/S0140-6736(13)60763-1).
- 6 Ghaffar A, Zaidi S, Qureshi H, Hafeez A. Medical education and research in Pakistan. *Lancet* 2013; published online May 17. [http://dx.doi.org/10.1016/S0140-6736\(13\)60146-4](http://dx.doi.org/10.1016/S0140-6736(13)60146-4).
- 7 Rasmussen B, Allen S, Rasmussen ZA, Bajwa R. Learning from disasters to save lives every day in Pakistan. *Lancet* 2013; published online May 17. [http://dx.doi.org/10.1016/S0140-6736\(13\)60652-2](http://dx.doi.org/10.1016/S0140-6736(13)60652-2).

- 8 Kassim-Lakha S, Bennett J. Philanthropic funding for health in Pakistan. *Lancet* 2013; published online May 17. [http://dx.doi.org/10.1016/S0140-6736\(13\)60678-9](http://dx.doi.org/10.1016/S0140-6736(13)60678-9).
- 9 Sultan F, Khan A. Infectious diseases in Pakistan: a clear and present danger. *Lancet* 2013; published online May 17. [http://dx.doi.org/10.1016/S0140-6736\(13\)60248-2](http://dx.doi.org/10.1016/S0140-6736(13)60248-2).
- 10 Badruddin SH, Agha A, Peermohamed H, et al. Tawana project-school nutrition program in Pakistan—its success, bottlenecks and lessons learned. *Asia Pac J Clin Nutr* 2008; 17 (suppl 1): 357–60. <http://apjcn.nhri.org.tw/server/apjcn/volume17/vol17suppl.1/357-360W2-3.pdf> (accessed March 20, 2013).
- 11 Asian Development Bank. Validation report. Pakistan: women's health project. <http://www2.adb.org/Documents/Reports/Validation/PAK/IN257-08.pdf> (accessed March 20, 2013).
- 12 World Bank. Family health project (02). Balochistan and Punjab Department of Health, Government of Pakistan. Washington, DC: World Bank, 1999. <http://web.worldbank.org/external/projects/main?Projectid=P010414&Type=Implementation&theSitePK=40941&pagePK=64330676&menuPK=64282137&piPK=64302789> (accessed March 28, 2013).
- 13 Sofia S. Analysis of the experience of government partnerships with non-government organizations, Multi-donor support unit for SAP. Washington, DC: World Bank, 2002.
- 14 Nishtar S. National action plan for prevention and control of non-communicable diseases and health promotion in Pakistan. Islamabad, Pakistan: Heartfile, Ministry of Health, Government of Pakistan, World Health Organization, 2004. <http://heartfile.org/pdf/NAPmain.pdf> (accessed April 7, 2009).
- 15 Atun R, Jaffer S, Nishtar S, et al. Improving responsiveness of health systems to non-communicable diseases. *Lancet* 2013; 381: 690–97.
- 16 Collins CD, Omar M, Tarin E. Decentralization, healthcare and policy process in the Punjab, Pakistan in the 1990s. *Int J Health Plann Mgmt* 2002; 17: 123–46.
- 17 Loevinsohn B, Harding A. Buying results? Contracting for health service delivery in developing countries. *Lancet* 2005; 366: 676–81.
- 18 Armytage L. Pakistan's law and justice sector reform experience: some lessons. 13th Commonwealth Law Conference, Melbourne, VIC, Australia, April 14, 2003. <http://www.educatingjudges.com/Hyperlinks/PakistanADBProjectLessonsLearned.pdf> (accessed March 20, 2013).
- 19 Government of Pakistan. Report of the National Commission for Government Reforms. Reforms on reforming the government in Pakistan. Islamabad: Prime Minister's Secretariat, 2008.
- 20 Government of Pakistan. Year book, 2006–07. Islamabad: Ministry of Finance, 2008.
- 21 World bank. Improvement to financial reporting and auditing project. <http://www.worldbank.org/projects/P036015/improvementfinancial-reporting-auditing-project?lang=en> (accessed March 26, 2013).
- 22 Akhter S. Tax reform programme failed to deliver, govt admits. The News International. <http://www.thenews.com.pk/Todays-News-3-122703-Tax-reform-programme-failed-to-deliver-govt-admits> (accessed March 26, 2013).
- 23 Government of Pakistan. Benazir Income Support Program. <http://www.bisp.gov.pk/> (accessed Feb 9, 2013).
- 24 World Bank, WHO, DFID, USAID-TAUH. Devolution of the health sector following the 18th amendment to the Constitution of Pakistan: opportunities and challenges. Islamabad: World Health Organization, 2012.
- 25 Nishtar S. Choked Pipes: Reforming Pakistan's health system. Karachi: Oxford University Press, 2010.
- 26 Roberts MJ, Shao W, Berman P, Reich MR. Getting health reform right. New York: Oxford University Press, 2008.
- 27 Bhutta ZA. What must be done about the killings of Pakistani healthcare workers? *BMJ* 2013; 346: f280.
- 28 Commission on Social Determinants of Health. Closing the gap in a generation: health equity through action on the social determinants of health. Geneva, Switzerland: WHO, 2008. http://whqlibdoc.who.int/publications/2008/9789241563703_eng.pdf (accessed on Feb 9, 2013).
- 29 World Economic Forum. The global gender gap report 2012. http://www3.weforum.org/docs/WEF_GenderGap_Report_2012.pdf (accessed on Feb 9, 2013).
- 30 UNESCO. EFA Global Monitoring report. 2012: Paris, France. <http://unesdoc.unesco.org/images/0021/002180/218003e.pdf> (accessed on Feb 9, 2013).
- 31 Khan SH. Malala Yousafzai shot. <http://newsweekpakistan.com/scope/1927> (accessed on Feb 9, 2013).
- 32 Bhutta ZA. Child mortality in the Eastern Mediterranean Region: challenges and opportunities. *EMHJ* 2013; 19: 104–06.