Bangladesh: Innovation for Universal Health Coverage 2

Harnessing pluralism for better health in Bangladesh

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This is the second in a Series of six papers about innovation for universal health coverage in Bangladesh

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How do we explain the paradox that Bangladesh has made remarkable progress in health and human development, yet its achievements have taken place within a health system that is frequently characterised as weak, in terms of inadequate physical and human infrastructure and logistics, and low performing? We argue that the development of a highly pluralistic health system environment, defined by the participation of a multiplicity of different stakeholders and agents and by ad hoc, diffused forms of management has contributed to these outcomes by creating conditions for rapid change. We use a combination of data from official sources, research studies, case studies of specific innovations, and in-depth knowledge from our own long-term engagement with health sector issues in Bangladesh to lay out a conceptual framework for understanding pluralism and its outcomes. Although we argue that pluralism has had positive effects in terms of stimulating change and innovation, we also note its association with poor health systems governance and regulation, resulting in endemic problems such as overuse and misuse of drugs. Pluralism therefore requires active management that acknowledges and works with its polycentric nature. We identify four key areas where this management is needed: participatory governance, accountability and regulation, information systems, and capacity development. This approach challenges some mainstream frameworks for managing health systems, such as the building blocks approach of the WHO Health Systems Framework. However, as pluralism increasingly defines the nature and the challenge of 21st century health systems, the experience of Bangladesh is relevant to many countries across the world.

Introduction

The 2010 Human Development Report spotlights Bangladesh as "one of the countries that has made the greatest progress in human development indicators in recent decades".[1] Evidence showing its much better-than-expected socioeconomic development and health improvements points in many directions. Success in coverage of immunisation,[2,3] mass mobilisation for oral

Key messages

- Bangladesh has made remarkable progress in health despite a health sector that is frequently characterised as weak (in terms of physical and human infrastructure, logistics, and supplies) and low performing.
- Pluralism (the multiplicity of different stakeholders and agents engaged in health production) in health has contributed to these outcomes by enabling rapid changes in health systems in Bangladesh.
- Although not a planned strategy, pluralism has had a largely positive health effect because of a dynamic combination of forces ranging from the legacy of traditional care systems, to the enterprise of the private sector and a permissive and weakly regulated public sector.
- On the other side, pluralism has also been associated with poor health systems governance and regulation, and endemic problems such as overuse and misuse of drugs. Pluralism requires active management because a balance of positive outcomes cannot be taken for granted.
- The dynamic pluralism seen in Bangladesh challenges static and antiquated notions of policy and governance shown, for example, in the building block approach of the WHO Health Systems Framework or in the efforts to align development partners around a single country health plan.
- The rapid increase in the size and diversity of health sector stakeholders due to economic growth, technological change, and consumer expectations needs to be appropriately harnessed to support Bangladesh's rapid health transition from communicable diseases to a combination of communicable and non-communicable diseases, along with the major challenges of urbanisation.
- Participatory governance, accountability and regulation, information systems, and capacity development are identified as key areas in building a much stronger evidential and experiential knowledge base for better management of pluralism in health, not only in Bangladesh, but in every 21st century health system.

Definition of terms

- Allopathic (treatment): in Bangladesh, this term means treatment by a doctor who is trained in the Western system of medicine (also called modern medicine)—eg, with an MBBS or MD qualification—including its variants such as paramedics and medical assistants. Allopaths use synthetic drugs for treatment as opposed to herbal treatments, Ayurvedic, Unani, and other forms of remedies including homoeopathic drugs, and other physical and surgical procedures.
- Ayurvedic: traditional system of medicine originating from the Indian subcontinent.
- Faith healers: healers who use religious belief in the form of incantation, sanctified water, oil, or written verses from holy books to treat patients.
- Homoeopathy/homoeopathic: a system of therapy founded by Samuel Hahnemann that is based on the concept that disease can be treated with drugs (in minute doses) thought capable of producing the same symptoms in healthy people as the disease itself.
- Kabiraj: practitioners of traditional medicine—eg, Ayurvedic or Unani medicine.
- Totka: combination of traditional and modern medicine often used by the Kabiraj.
- Traditional healers: practitioners of traditional medicine such as Ayurvedic and Unani.
- Unani: traditional Muslim medicine originating from Greece.

rehydration therapy to combat childhood diarrhoea,[4] and tuberculosis control[5] suggest the importance of public health interventions. Decline in the total fertility rate shows a positive effect of family planning programmes.[6,7] The widespread targeting of microcredit for poor women and scale-up of efforts towards universal education have strengthened the foundations for good health, as has consistent economic growth and a steady decline in poverty.[8] These trends in both health services and broader socioeconomic development support the importance of multifactorial determinants of health improvement.[9]

These achievements have taken place within a health system that is frequently characterised as weak and low performing. Bangladesh has a massive shortage of skilled health workers (figure 1) with twice as many doctors as nurses clustered disproportionately in urban areas;[11] overcrowded, under-staffed, and insufficiently equipped health facilities;[12] and high levels of out-of-pocket and informal payments for health services and medicines that are impoverishing millions of households[13] (figure 2). Despite these endemic shortfalls in key areas of the health system, pronounced and rapid progress in the most important health measurements—eg, infant and child mortality, maternal mortality, fertility, and contraceptive prevalence—are remarkable.[7]

The Bangladesh health system thus presents a paradox confounding any simple association between health system effectiveness and human development outcomes. Other papers in this Series suggest concrete ways in which this better-than-expected performance has occurred: innovative approaches to service delivery;[15] disaster preparedness and response;[16] and mobilisation of pro-equity forces for health.[17] Complementing these important analyses, this paper examines how pluralism—the multiplicity of different stakeholders and agents engaged in health has contributed to these outcomes by enabling rapid change in the health system in Bangladesh.

This paper begins by defining pluralism and why it matters. Drawing on the published and grey literature describing health system stakeholders and the tacit knowledge of health sector experts, the paper moves on to describe the nature and dynamic forces driving pluralism in Bangladesh. It then examines three health innovations that draw attention to different dimensions of pluralism in practice[18] and serve as a basis for drawing broader lessons. The final section of the paper identifies options for more effective pluralistic governance in health vis-à-vis the complex challenges. It concludes with suggestions on how Bangladesh can move from pluralism in practice to best practice in pluralism, pointing to key elements that will help with this transition.

Pluralism in health: what is it? Why does it matter?

Pluralism in health refers to the many stakeholders or agents who are present in a health system and working in different ways—eg, through the coexistence of different medical traditions.[19] Normatively, pluralism refers to an important governance function of the health system—namely, the recognition of different stakeholders and the definition of their respective roles.[20] Pluralism thus challenges a monolithic state-centric view of the health sector and embraces a polycentric[21] or mixed character,[22] whereby many non-state stakeholders define the structure and functioning of the broader health system. Pluralistic governance, therefore, falls between the two extremes of a centrally planned and a laissez-faire approach to health development. Pluralistic governance recognises that the stakeholders can work on their own, and also in various competitive and collaborative combinations.

Both within and outside of Bangladesh, there are vibrant discourses on how to manage pluralistic health systems. Nationally, discourses related to the public-private mix, informal-formal sector linkages, levels of decentralisation, and the roles of other sectors in promoting and sustaining health are the sorts of issues that fall within the pluralism envelope.[23–25] Internationally, similar discourses are seen in the context of global health development with concerns

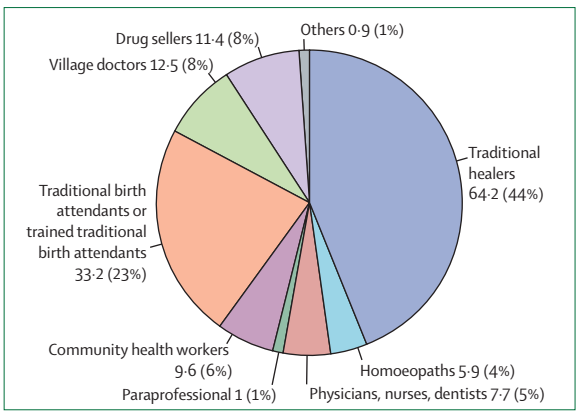

Figure 1: **Density of different types of health-care providers per 10 000 population**
Data from The state of health in Bangladesh 2007.[10]

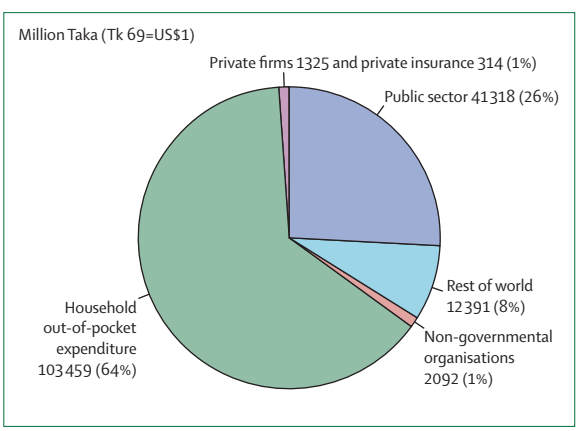

Figure 2: **Sources of financing for health expenditure in Bangladesh, 2006–07**
Data from Bangladesh National Health Accounts 1997–2007.[14]

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	Characteristics	Estimated number of health workers	Training facilities	Clinical facilities	Expenditure (% of total health expenditure)
Government					
National	Highly centralised Policy and regulation Country-wide preventive and curative services	~20 000 doctors, ~15 000 nurses, ~10 000 paramedics*, 54 595 community health workers†	23 medical colleges, 13 nursing degree colleges, 8 public health	124 secondary and tertiary hospitals with 41 655 beds, 459 Upazila (subdistrict) level and below hospitals with 18 340 beds; 11 816 community clinics	26%
Local	Responsible for urban health services Restricted delivery capacity	NA	Nil	Refer to public hospitals Outsource clinical provision to NGOs	NA
Private sector					
Formal	High-end secondary to tertiary care Diagnostic centres Loosely regulated Rapid growth	~40 000 doctors, ~5000 nurses	54 medical colleges, 17 nursing degree colleges, 11 public health institutes, rapid new entrants	2966 registered hospitals and clinics, 53 448 beds, 5122 diagnostic centres	~1% private firms, 64% household
Informal	Village doctors are first contact for most Bangladeshis, especially the poor Allopathic and alternative care (faith-healing, Ayurvedic, Unani, homoeopathy) Largely unregulated	50 000 traditional medicine practitioners, ~90 000 homoeopathic practitioners, >170 000 drug-shop attendants, >185 000 village doctors	12 Unani diploma colleges, 8 Ayurvedic diploma colleges, 41 homoeopathic diploma colleges, 1 degree college of Ayurvedic and Unani, 1 degree college of homoeopathy	~70 000 unlicensed drug shops, 64 000 licensed drug shops, 1 100-bed hospital for Ayurvedic and Unani and 1 for homoeopathy in Dhaka	Pharmaceuctical expenditure (major share of total health expenditure)
NGO (private, non-profit)	Health NGOs and development NGOs with health programmes Mostly primary care to the poor Large scale and rapid action Most work independently Contracted by local government to provide urban primary health care	~5000 paramedics, >105 000 community health workers‡	Non-accredited training of paramedics and community health workers	Focused on specific diseases (eg, diabetes), services (eg, obstetric care), or ultra-poor population (eg, Gonoshasthaya Kendra People's Health Center); ~1000 public health centre clinics or delivery centres	~1%
Donors	Both bilateral and multilateral Finance health sector and programmes with addition of GAVI and GFATM global funding in last decade Policy influence Technical assistance provision and sourcing	Provides and sources technical assistance	Support to "in-service" or short-course training primarily, little support of pre-service training	Support to infrastructure development	8%

Data from Bangladesh Health Watch;[9] Health Bulletin 2012;[29] Bangladesh National Health Accounts 1999–2007;[14] BRAC annual report, 2012.[30] NA=data not available. NGO=non-governmental organisation. GAVI= Global Alliance for Vaccine Initiative. GFATM=Global Fund for AIDS, Tuberculosis and Malaria. *Medical assistants and family welfare visitors. †Health assistants, family-welfare assistants, and community health-care providers combined. ‡BRAC health workers (n=105 000) and other NGO community health workers.

Table 1: **Organisational pluralism in the health sector of Bangladesh**

for the effect of global financing instruments on the health system[26] and the efforts of development partners to align and harmonise their activities around those of national governments.[27] In many respects, Bangladesh shows all of these pluralistic realities.

But why do these diverse manifestations of pluralism in health matter? First, the evidence of such heterogeneity in the health sector helps to guard against unrealistic notions of a single agent or monopolistic model of health development. The idea of an all-encompassing, exclusively allopathic public sector exercising a command and control model of health development has by no means disappeared in many settings including in Bangladesh. Second, over time, the number and diversity of health stakeholders in society are increasing, because of both the market growth of services and commodities and the emergence of information and communication technologies. These technologies ease greater engagement of diverse stakeholders in health, especially patients.[28] Third, recognition is growing that this diversity represents an enormous asset for innovation if properly governed, and a major stumbling block if left entirely on its own.

Health pluralism in Bangladesh: nature and dynamics

Bangladesh's pluralistic health system results from both historical and contemporary factors that have converged with time. Table 1 shows the key characteristics of the four different stakeholders that define organisational plurality. First is the existence of a government sector with a mandate to not only set policy and regulate, but also to provide comprehensive health services. Although doing well on some public health priorities such as immunisation and family planning,[31] the Bangladesh health system has several bureaucratic constraints. These constraints include over-centralised decision making processes, rapidly changing policies as governments come into and leave power, and a budgetary process that places the donor

community in a very strong position of influence. Second is the emergence of both a fast growing private sector that aims to maximise profit through high-end services for the rich, and a huge informal economy of front-line providers retailing services among the poor (panel 1). As can be seen from table 1, almost two-thirds of total health expenditure is household expenditure in the private (formal and informal) sectors. Third is the vibrant and large non-government organisation (NGO) sector that focuses resources on the health needs of the poor, often as part of a broad array of development interventions.[33] Fourth is the donor community that exercises disproportionate influences in determining policy and programmatic priorities, orchestrates technical assistance, and directs delivery strategies—eg, urban primary health care.

The diversity in institutional stakeholders is also apparent in the mix and distribution of formal and informal health-care providers across the country (table 2). Formally trained allopathic health workers cluster in urban areas showing the centralised structure of public provision and their dual roles in many high-end private health-care facilities or individual private practice. By contrast, the high density of traditional and community health workers in rural areas shows both the legacy of village-based care systems, the growth of informal markets, and the inadequate numbers and incentives for more formally trained workers largely in the state system to serve in those communities.

The pluralistic character of the health system stems from a range of forces in addition to the inadequacies in reach and responsiveness of state provision of services. One such force was the spirit of the new nation after the liberation war, which assisted the emergence of NGOs dedicated to improving the wellbeing of the worst off and most disadvantaged (panel 1). Because of the size and scope, the NGO sector is a credible investment alternative or complement to the state sector for donors interested in securing a pro-poor health system.[34–36]

Alongside these publicly motivated private sector agents are a large and growing set of stakeholders driven by informal and formal health market forces. Each village in Bangladesh has "village doctors", and in the village and subdistrict markets, drug vendors (often combined in the same person) at unregistered drug retail outlets (table 1). Together with other informal providers, these are the main source of health care available to poor people, especially in rural areas (figure 1). Both drug vendors and village doctors stock and retail domestically produced modern drugs, the sales of which account for about 70% of out-of-pocket health expenditure.[37]

Added to this is the rapid emergence of for-profit diagnostic clinics and hospitals catering for patients with higher socioeconomic status.[38] These facilities are often staffed with public sector health personnel, showing their dual job-holding character.[39] This duality, driven by market forces, extends to public sector facilities where informal payments by patients for free services add up to about 80% of what is spent more formally on fees in private sector facilities.[40] This leads to hybrid organisational structures (figure 3) where there is substantial crossover between public and private elements,[41] with associated governance challenges.

How then has pluralism contributed to the aggregate picture of better-than-expected results in health? Although there is no formal policy or strategy to manage pluralism, we draw on some success cases, which provide insights on how pluralism has made a difference.

Panel 1: BRAC

Founded by Sir Fazle Hasan Abed in February, 1972, BRAC (formerly an acronym for Bangladesh Rural Advancement Committee) began as a small relief and rehabilitation organisation to cater to the immediate needs of the returning refugees from India after the end of the war of liberation. With time, the organisation developed into a large scale, comprehensive development non-governmental organisation (NGO) "to empower people and communities in situations of poverty, illiteracy, disease and social injustice". Poverty is seen by BRAC from a holistic perspective and conceptualised not only as an absence of income or employment, but also as an absence of access to education, health, and power-structure of the society to fight exploitation. BRAC delivers customised services to the different strata of the poor at scale, supplementing and complementing government efforts. This is done through village-based poor women's groups to channel credit and other development inputs, and by raising awareness of the participants on various social and human rights issues (eg, dowry, early marriage, and violence against women) and how to tackle these. Programmes focus on skill-development for income-earning, and provide access to essential health care through trained women health volunteers to mitigate the income-erosion effect of illnesses, and education services for children who are drop-outs or have never been to school because of poverty. Through these and other innovative interventions, BRAC supports the creation of an "enabling environment" in which the poor can participate in their own development and improve the quality of their lives. In its development work, BRAC adopts a strategy of "learning-by-doing" and recognises that there is no "fix-all" blueprint for development. In view of the extent of the problems in Bangladesh, BRAC believes that "small is beautiful, but large is necessary". Established in 1975, independent of BRAC programmes, BRAC's Research and Evaluation Division has played a crucial part in institutionalising learnings from the field, designing BRAC's development initiatives, assessing progress, and documenting achievements. The division has acted as the "eyes and ears" of BRAC and allowed it to learn from its mistakes and share its successes with NGOs, academics, and development practitioners around the world. BRAC now operates in more than 65 000 villages (of 84 000 villages in Bangladesh), while its microcredit and microfinance-based development programme is reaching around 110 million people. With over 44 000 full-time staff, more than 100 000 community health workers, and more than 38 000 non-formal school teachers, BRAC is now one of the largest NGOs in the world. In 2012, it spent US$583 million, of which only 28% was from donor contributions. The rest was generated from its own enterprises; the profits of which are used to cross-subsidise BRAC development programmes. Several effect assessment studies undertaken by BRAC and other researchers showed the significant and positive contribution of these programmes in improving the health and wellbeing of participating households. Acknowledged as an effective and powerful poverty alleviating model, BRAC International is now applying the experience and lessons from Bangladesh to other countries of Asia (Afghanistan, Pakistan, Sri Lanka, Philippines) and Africa (Tanzania, Uganda, south Sudan, Sierra Leone, Liberia). Analysing Bangladesh's surprising development in recent times, *The Economist* termed the underlying role of BRAC and NGOs as "the real magic of Bangladesh".

Data from BRAC annual report, 2012;[30] The Economist[32]

For more on **BRAC** see http://www.brac.net/

For more on **BRAC's Research and Evaluation Division** see http://www.bracresearch.org

	Qualified allopathic providers			Semiqualified allopathic providers*			Traditional birth attendants (trained and untrained)	Unqualified allopathic providers		Traditional healers		Homoeopaths	
	Doctors	Nurses	Dentists	Para-professionals	Community health workers			Village doctors	Drugstore vendors	Kabiraj (Ayurvedic, Unani)	Faith healers	Qualified	Non-qualified
					Gov	Non-gov							
National	5·4	2·1	0·3	1·0	3·2	6·4	33·2	12·5	11·4	32·7	31·5	3·4	2·5
Rural	1·1	0·8	0·08	0·8	3·6	7·3	42·2	13·8	10·8	42·1	40·5	2·5	2·9
Urban	18·2	5·8	0·8	1·6	2·0	3·9	6·0	8·8	13·2	4·4	4·2	6·1	0·9
Male	4·5	0·2	0·2	0·3	1·2	0·2	0·0	12·0	11·0	23·4	22·2	3·2	2·3
Female	0·8	1·8	0·03	0·7	2·0	6·2	33·2	0·4	0·4	9·3	9·3	0·3	0·1

There are also 1·7 providers per 10 000 population including circumcision practitioners, ear cleaners, and tooth extractors. Data from Bangladesh Health Watch.[9] *Received varying length of training from formal institutions either governmental or non-governmental organisation. Gov=governmental. Non-gov=non-governmental.

Table 2: **Distribution, sex, and number of various formal and informal health-care providers per 10 000 population in Bangladesh in 2007**

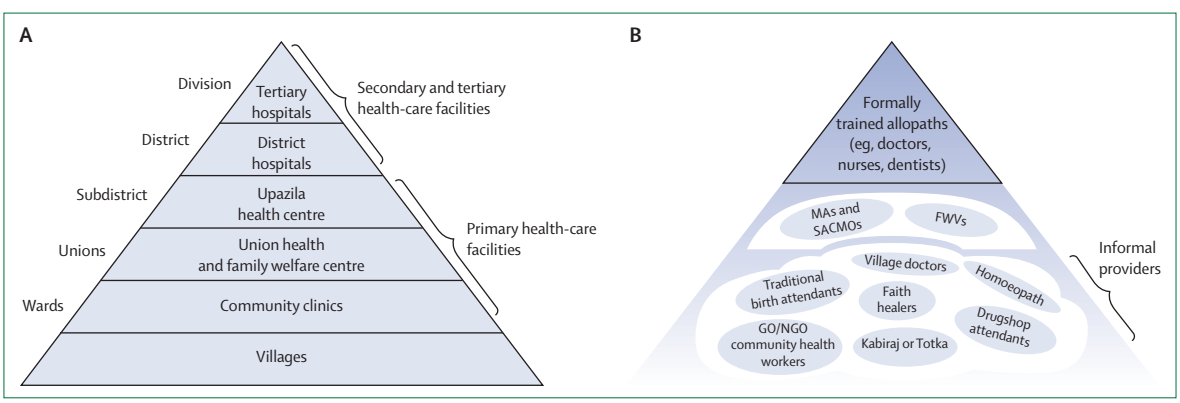

Figure 3: **Hierarchical public sector provision of services (A) and de-facto provision of services (B) in Bangladesh**
MA=medical assistant; SACMO=subassistant community medical officer (3 years training at a Government Medical Assistant Training School). FWV=family welfare visitor (1·5 years training at a government or private facility on midwifery and clinical contraception management). GO=governmental organisation. NGO=non-governmental organisation.

Examining the experience of pluralism: illustrative cases

To show how pluralism has been associated with rapid health change in Bangladesh, three well known successes are selected: access to essential drugs; scale-up of treatment for tuberculosis; and improved access to primary health care among the urban poor. For each case, the description focuses on the range of stakeholders and the respective roles and conditions governing their engagement—from a wholly open or laissez-faire mode of action to a more closed or clearly stipulated set of collaborative arrangements. This is followed by a crucial analysis of each that aims to identify how the pluralistic context might have enhanced or hindered these achievements.

Access to essential drugs

One of Bangladesh's most important achievements has been to move from a dependence on foreign-made, expensive drugs to a vibrant national production capacity for essential drugs at an affordable price.[42] The National Drug Policy (NDP) adopted in 1982 helped to achieve this by allowing local pharmaceutical companies to buy raw materials from international competitive markets.[43] The subsequent surge in manufacturing capacity is evident in the near exponential growth in yearly drug sales to US$1·25 billion in 2011; a more than 100-fold growth in 30 years (figure 4). As a result, Bangladesh became the first low-income country to develop an indigenous pharmaceutical industry,[45] which has grown to account for a market share of more than 75% of total drug sales compared with 25% before the NDP. The more than 70 000 unregistered drug retailers (and village doctors), who are the first contact with the health system for most Bangladeshis, have played an important part in expanding the domestic market.[46] At present, Bangladesh exports generic drugs to around 70 countries of Asia, Africa, Latin America, and Europe.[42]

In achieving this result, three primary stakeholders were instrumental—government policy and services, the drug manufacturing sector, and the unqualified allopathic health-care providers (table 1). The NDP served to create favourable market conditions for the rapid emergence of generic drug manufacturing in Bangladesh. Likewise, the increased supply of cheap

drugs enhanced market conditions for increasing sales of drugs by unqualified providers. The level and extent of actions of the drug manufacturers and unqualified providers were led mainly by market forces, being neither planned nor tightly regulated. The net effect was a very rapid expansion in both the supply and distribution of low cost good quality essential drugs that has arguably contributed to better health outcomes such as the very low levels of post-partum sepsis[47] or the virtual disappearance of rheumatic heart disease.[48] However, this achievement has not been without its drawbacks.

The absence of effective regulatory capacity related to good manufacturing practices has resulted in substantial problems in the quality of essential drugs including counterfeit, substandard, and expired drugs.[49] Further, the Government's Directorate of Drug Administration (the regulatory authority), with its restricted human and technical resources, cannot effectively monitor the more than 70 000 unlicensed drug stores selling drugs over-the-counter.[42,46] Recent analysis of prescription practices by allopathic health-care providers at public health-care facilities points to the irrational use of drugs including polypharmacy, over-prescribing, and harmful use of common drugs, such as antibiotics and steroids, in alarming proportions.[50] The situation has further deteriorated because of aggressive marketing policies of the drug companies.[51]

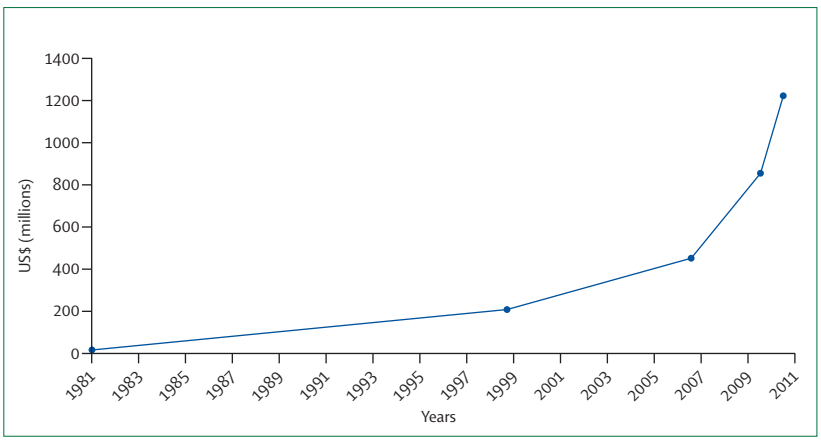

Figure 4: **Trends in total pharmaceutical sales in Bangladesh 1981–2011**
Data from Ali M.[44]

Scaling up tuberculosis treatment

By contrast to the mainly market-driven scaling up of essential drugs, the expansion of treatment for tuberculosis has followed a distinctively different path (panel 2).[15] First, was the breakthrough innovation of BRAC in the early 1990s that transformed the WHO-devised DOTS (Directly Observed Treatment, Short course) guidelines and increased tuberculosis treatment completion rates from less than 50% to more than 90%.[52] This improvement has spurred the emergence of a revitalised national tuberculosis programme, involving the public sector and a network of private NGO providers led by BRAC with donor funding as per the terms of the Global Fund to Fight AIDS, TB, and Malaria. The programme has gained prominence for its high tuberculosis case detection and treatment completion rates. However, the programme struggles with coverage of the urban poor where most individuals with tuberculosis are being treated by private drug retailers with very unsatisfactory results.[5] Additionally, child tuberculosis is emerging as a challenge because of its difficulty of detection.

Urban Primary Health Care Project (UPHCP): organisational and governance pluralism

The UPHCP is an innovative public-private-donor arrangement for delivery of primary health care to the urban poor, including the slum population.[53,54] Rapid urbanisation in Bangladesh has led to large proportions of the poor population with health outcomes worse than those of populations in poor rural settings.[55,56] Urban health care is fragmented and patchy, characterised by many, mostly independent providers that cater to the high-income segments of the population. The local government has official jurisdiction over health in city corporations but with very restricted capacity to deliver services. To address this, UPHCP was started in 1998 with the Asian Development Bank and other donor funding and has just completed its second phase.[17]

The UPHCP project has explicitly embraced pluralism in both service provision and governance. As in the national tuberculosis programme, UPHCP represents a development away from the "parallel funding" of NGO service provision by external donors to one that brings government, NGOs, and donors into a tripartite financial and governance relationship. The project is managed and implemented by the local government, rural development, and cooperatives ministry through a project management committee and project implementation unit, with representation of donors in both. Service provision for 24 "partnership areas" in city corporations is contracted out to the not-for-profit NGOs through a competitive bidding process.[54] The contracted NGOs manage 153 primary health-care centres and 24 comprehensive reproductive health centres in the partnership areas. The contracts detail a minimum package of primary care services focusing mainly on mothers and children, with effective integration of national programmes such as immunisation, tuberculosis treatment, and family planning. The beneficial effect of UPHCP has included increased access to quality services (eg, skilled attendance at birth) and essential drugs at no cost to the poor and marginalised populations, establishment of an effective referral system, and delivery of user-friendly services, especially to women and children.[56]

Despite the project's relative success in delivery, the governance aspects of the partnership have been complex and the relationship has been described as

Panel 2: Making tuberculosis history

In the past quarter century, the non-governmental organisation (NGO) BRAC in partnership with other community-based NGOs, the national tuberculosis programme (NTP), and technical and donor partners have achieved one of the highest performing tuberculosis programmes in the world. Beginning in the mid-1980s, BRAC began piloting a community-based tuberculosis programme with technical assistance from the Research Institute of Tuberculosis, Japan. A key feature of the effort was to deploy community health workers (Shasthya shebika) in active case detection of people with symptoms suggestive of tuberculosis (eg, chronic cough of more than 3 weeks). The Shasthya shebikas make door-to-door visits to screen out these individuals. Individuals with chronic cough are instructed to bring a morning and evening sputum sample to a nearby mobile sputum collection and smear centre. These samples are transported to a laboratory, often at a local government health centre, where microscopy is undertaken by trained technicians. All positive sputum tests are confirmed by doctors and the diagnosis communicated by the Shasthya shebikas to the patient with recommendation to begin the 6-month four drug treatment. To overcome very low levels of treatment completion, BRAC required all patients to pay a bond of about $3 and sign an agreement before initiation of treatment. On completion of treatment, the bond mon§sey is returned. A Shasthya shebika receives $6 from BRAC when a patient completes treatment. With introduction of the bond mechanism, treatment completion rates soared to more than 90%—among the highest in the world. In late 1993, the government officially adopted the WHO DOTS (Directly Observed Treatment, Short course) for tuberculosis, and in early 1994, BRAC signed a memorandum of understanding with the NTP. The community-based DOTS programme was scaled up to all subdistricts in the country by 1998 and all metropolitan areas by 2007. In the process, the consortium of partners involved has expanded to include 42 NGOs, one of which—the Damien Foundation—specialises in teaching village doctors how to treat patients with tuberculosis. The NTP has focused on strengthening diagnostic and laboratory capacity at more than 1000 points-of-care in the country to improve diagnosis of smear positive and negative tuberculosis. Furthermore, the Foundation manages drug procurement and distribution to ensure a continuous supply of high quality, low price drugs. With the advent of the Global Fund for AIDS, TB, and Malaria (GFATM) in 2003, BRAC, together with the NTP, led a consortium of partners to successfully obtain grants in Rounds 3, 7, and 10 amounting to more than US$400 million. This has replaced previous donor financing through the SWAp (sector wide approach). Through the Country Coordinating Mechanism, it has placed more explicit and stringent conditions on delivery mechanisms (eg, the Shasthya shebika no longer receive a commission payment on the patient bond) and on performance targets. Of tuberculosis programmes by the GFATM, the Bangladesh programme has among the highest case detection and treatment completion rates, although recent reviews and assessment show that substantial work remains to improve tuberculosis control in urban slums, including the detection of child tuberculosis in general.

Data from BRAC Health Programme 2011;[5] Chowdhury and colleagues[52]

"ambivalent" at best.[54] NGOs have had to cede substantial amounts of customary independence to government implementing agencies. These agencies do not have experience of managing relationships with NGOs and do not always trust their motives and procedures. Donor requirements bring their own stringencies to the process, restricting the scope for flexibility of both parties. As a result, the tripartite arrangement is plagued by high staff turnover, very slow processing of bidding and re-bidding, and a palpable absence of dynamism and innovation.

Options for better management of pluralism

In each of the three cases described, not only is the plurality of stakeholders evident, but so also is the extent to which their actions have potentiated the speed and direction of change. Drawing on the lessons arising from these cases, this section examines four non-exclusive options for more deliberate management of pluralism: participatory governance mechanisms; effective regulation and clear accountability; standardised information systems; and building competencies.

From a policy perspective, a clear vision related to the pluralistic nature of the health system in Bangladesh is absent. Policy continues to operate with an over-inflated expectation of the role of the government as the sole provider of all services, ignoring the reality that the non-governmental health sector is out-pacing the government in terms of growth and is now greater than twice the size of the government sector.[14] Although the multilateral and donor communities have a prominent role in influencing policy formulation, there is little opportunity for other crucial stakeholders such as professional associations; private for-profit sector NGOs, civil society, or citizen's groups; and academia and research institutions to play a formal part. Without more formal inclusion, the invaluable resources of these groups might be overlooked or opportunities for alignment where efforts and interests overlap might be missed.

Despite this near total blindness to plurality at the policy level, in terms of programme and implementation there is an abundance of plural engagement as shown in the cases of essential drugs, tuberculosis treatment, and urban health. These experiences show the strengths and weaknesses of relying on market forces for the manufacture and retailing of essential drugs, and the benefits and costs of contractual agreements between local government and NGOs for urban primary health care. In view of the diversity of health challenges and the different expected roles of a combination of stakeholders, plural governance arrangements are more pragmatically addressed around specific issues. Such issues might include new strategies for establishment of effective referral systems, ensuring access to essential drugs, or tackling delivery of effective services—eg, in urban slums with clarification of roles and responsibilities among diverse stakeholders.

Not all actions of stakeholders in a pluralistic health system are either welcome or acceptable. Actions that are unacceptable include the problems of individual agents such as non-compliance with good manufacturing practice standards of drug manufacturing or over-prescription by allopathic providers. It also includes unfavourable or inflexible agreements between agents, such as contractual arrangements between NGOs and local governments for urban health that stifle innovative service delivery. It is also highly improbable, for example, that BRAC's innovative approach to adherence to tuberculosis treatment among the poor would have emerged had the WHO guidelines been rigidly imposed

and enforced. Regulation and accountability therefore entail not only drawing a clear line about what is right and wrong, but also include establishing the right balance between nurturing the potential of respective partners (on their own or together) and preserving and enhancing integrity and trust.[57]

Thus, from a pluralistic perspective, inclusion of all partners in the regulation and accountability framework is essential. In view of its size and strength on the front lines of health care,[58,59] the informal sector—either private-for profit or NGOs—would be a high priority, in addition to more formal institutions, and even the government itself.[38,60] Unfortunately, this area of health sector stewardship is notoriously weak. It requires dedicated efforts such as enhancement of capacity within institutions to "self-regulate"; development of strong independent regulatory agencies;[61] and nurturing of community-audits or consumer watchdogs that draw public attention to breaches of trust. Engagement of people locally to challenge what is expected succeeds as shown in Maharashtra, India, where community-based monitoring succeeded in improving village health services.[62]

A crucial input for accountability in pluralistic health systems relates to the availability of accurate information about the performance of key stakeholders. All too often this information does not exist or is inaccessible. In part, this relates to biases in the design of information instruments such as facility surveys or national health accounts that either ignore or under-count the activities of the non-state sector. It also relates to the challenges in tracking what is happening in the informal sector. Village doctors, for example, are unlikely to have prescription records of essential drugs and urban primary health-care NGOs might be providing duplicate services to patients in the community in view of the absence of common and portable patient records.

Re-designing information instruments inclusive of the non-state sector is needed for better understanding of the landscape of pluralism. With increasing numbers of e-health and mobile health initiatives,[63] the ability to link these standards to health records, reports, expenditure, and deliver service across diverse institutions is better than ever. Efforts to accelerate this process will allow real-time, evidence-based insights into the performance of specific stakeholders and the system as a whole. Investment in establishment of the standards and architecture for health information systems will ease greater insights and points of entry for more evidence-based management of pluralism.

Managing participatory or inclusive policy processes, strengthening regulation and accountability, and standardising information systems are dependent on competencies for pluralistic governance both within and across the various health agents in Bangladesh. These competencies are neither taught formally to health professionals nor are they given high priority in the context of individual job descriptions or criteria for promotion. There is, however, substantial actual practice in managing pluralism towards innovation. Examples include the scale-up of tuberculosis treatment or some of the grants of the Global Fund to Fight AIDS, Tuberculosis, and Malaria whereby multipartner consortia have come together around common aims, objectives, and one financing instrument. Drawing lessons from these efforts with respect to their implications for strengthening individual and institutional competencies can help to build the supply of "know-how" in a pluralistic health sector.

Conclusions: from pluralism in practice to best practice in pluralism

We have argued that the pluralistic nature of the health sector has been one of the drivers of the remarkable progress made in health in Bangladesh. Although not a planned strategy, a largely positive health effect has arisen due to a dynamic combination of forces ranging from the legacy of traditional care systems, enterprise of the private sector, and the permissive and weakly regulated public sector. This actual management of pluralism has not been without its shortcomings as seen in the problems of insufficient regulatory oversight of the local drug market, and the over-bearing contractual arrangements of NGOs providing urban primary health care. These concerns, along with the experience of countries such as Pakistan[64] and India[65] caution that a balance of positive outcomes cannot be taken for granted in a pluralistic health system.

Added to this are two further rationales for more active management of pluralism. First, the size and diversity of health sector stakeholders in Bangladesh will continue to expand rapidly fuelled by economic growth, technological change, and consumer expectations. Second, the nature of present and prospective health challenges—from persistent poor nutrition to non-communicable disease transitions and unpredictable emergencies related to climate change—will demand more effective competencies to manage the pluralistic landscape to achieve greater equity and security in health.

The trends are by no means specific to Bangladesh and as such the challenge of pluralism in health extends to the broader global discourse on health systems. The case of Bangladesh, where dynamic pluralism in practice has been noted, challenges static and antiquated notions of policy and governance identified, for example, in the building block approach of the WHO Health Systems Framework[20] or in the efforts to align development partners around a single country health plan.[27] The complex and chaotic nature of health systems is unlikely to be tamed by these relatively naive notions of command and control health systems governance. At the same time, a hands-off and "hope for the best" approach is not recommended. Rather, the polycentric character of health governance needs to be embraced with more deliberate and carefully assessed efforts to steer and negotiate pluralistic health systems.[66]

Building a much stronger evidential and experiential knowledge base in the crucial areas identified for better

management of pluralism, including other interventions, will help to harness pluralism for health not only in Bangladesh, but in every 21st century health system.

Contributors

All authors participated in conceptualising and designing the study. SMA reviewed the literature, drafted the manuscript, added tables and figures, sorted and updated references, and finalised the manuscript. TGE, HS, and SM contributed crucially and extensively in revising, rewriting, and finalising the manuscript. All authors read the final draft and approved it for submission.

Conflicts of interest

We declare that we have no conflicts of interest.

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