

Title: Making Health Markets Work Better for Poor People: the Case of Informal Providers

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Making health markets work better for poor people: the case of informal providers

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There has been a dramatic spread of market relationships in many low- and middle-income countries. This spread has been much faster than the development of the institutional arrangements to influence the performance of health service providers. In many countries poor people obtain a large proportion of their outpatient medical care and drugs from informal providers working outside a regulatory framework, with deleterious consequences in terms of the safety and efficacy of treatment and its cost. Interventions that focus only on improving the knowledge of these providers have had limited impact. There is a considerable amount of experience in other sectors with interventions for improving the performance of markets that poor people use. This paper applies lessons from this experience to the issue of informal providers, drawing on the findings of studies in Bangladesh and Nigeria. These studies analyse the markets for informal health care services in terms of the sources of health-related knowledge for the providers, the livelihood strategies of these providers and the institutional arrangements within which they build and maintain their reputation. The paper concludes that there is a need to build a systematic understanding of these markets to support collaboration between key actors in building institutional arrangements that provide incentives for better performance.

Keywords Informal providers, health markets, regulation, accountability

KEY MESSAGES

- In many countries, poor people secure a substantial proportion of their outpatient medical care from informal providers working outside a formal regulatory framework. There are problems with the efficacy, safety and cost of these services.
- The health sector can learn from the experience of other sectors in improving the performance of markets that mostly serve the needs of the poor.
- Effective interventions need to take into account the sources of knowledge and drugs for these providers, the livelihood strategies of providers and the institutional arrangements within which these providers establish and maintain their reputation within their community.

Introduction

Over recent decades, there has been a dramatic spread of market relationships in the health sector of many low- and middle-income countries (Mackintosh and Koivusalo 2005).

Out-of-pocket payments typically account for a substantial proportion of total health expenditure, and a very large proportion of health care transactions in both public and private sectors include some form of cash payment (WHO 2007).

Indeed, the categorization of services as 'public' and 'private' often seems simplistic. Many countries have pluralistic health systems in which providers of health-related goods and services vary widely, in terms of their practice settings, type of knowledge and associated training, extent of public subsidy and relationship with the legal system (Bloom and Standing 2001).

The spread of markets has been much faster in many countries than the creation of effective regulatory arrangements to influence their performance (Bloom *et al.* 2009). Many providers, including a substantial proportion of public employees, operate with limited regard for any legal or regulatory framework. The extent to which regulations are enforced is typically constrained by limited resources, inadequate understanding by regulators of their role and a lack of incentives to take action, especially against those whom they may regard as fellow health workers (Ensor and Weinzierl 2006). In many cases the health system is highly segmented, with the better off benefiting from institutions such as health insurance and relatively effective regulatory frameworks, while the poor rely largely on informal markets.

Informal practitioners provide a large proportion of outpatient health care in India and Bangladesh (Chowdhury *et al.* 2008; Kanjilal *et al.* 2008), and are widespread across Africa, where traditional healers and pharmacy vendors have long been known to provide much of the outpatient care (Oshiname and Brieger 1992). The term 'informal' includes a great variety of providers who routinely or occasionally undertake activities for which they do not possess the required medical certification, as assessed by health authorities and/or legislation covering the provision of health services. This includes practitioners from a variety of healing traditions as well as those based on professionalized biomedicine. This paper focuses mostly on the latter. Some of their activities may be clearly illegal, for example selling prescription drugs without a required license, while the status of other activities is hazy in terms of existing regulatory frameworks. A recent review of the anthropological literature on informal providers by Cross and Macgregor (2010) emphasizes the position of these providers on the boundaries of legitimacy in terms of their relationship to formal and informal institutions.

The spread of health-related markets has enabled many poor people to gain access to previously unavailable drugs and medical services, but it has also left them at substantial risk from costly, poor quality, inappropriate and sometimes potentially dangerous medical care. New approaches are needed to improve the performance of these markets, particularly in meeting the needs of the poor. This cannot be achieved by simply importing regulatory frameworks and approaches from the advanced market economies. Strategies are needed to build institutions adapted to very different contexts. This paper aims to stimulate debate about the design and implementation of such strategies. It applies an analytical framework for analysing markets and potential interventions to the findings of studies in Bangladesh and Nigeria (Oladepo *et al.* 2007; Bhuiya 2009).

Understanding health-related markets

The advanced market economies have created complex institutional arrangements to facilitate co-operation between state,

market and civil society actors in translating scientific medical knowledge into widely accessible goods and expert services (Bloom *et al.* 2008). Debates about health system organization, based on a combination of economic theory and historical evidence, have led to a widely held consensus on why markets, in themselves, do not produce efficient or equitable health systems. This consensus characterizes the health sector in terms of a number of well-understood 'market failures' (Bennett *et al.* 1997). A variety of formal and informal arrangements have arisen to compensate for these failures. For example, a range of non-market institutions, such as professional self-regulation and internalized codes of ethics, public provision of services, government regulation and tort law, have developed to prevent possessors of expert knowledge from abusing their power. Markets also have a capacity for self-regulation since market share is often protected by demonstrated adherence to rules and standards. In many countries, providers will also be subject to oversight by a range of community or patient-based organizations and the print and electronic media.

North (1990) stresses the importance of agreed and enforced rules, and associated expectations and behavioural norms, in facilitating the effective performance of markets. The absence of well-functioning institutions which underwrite and enforce these is a feature of major failures of both states and markets in many low- and middle-income countries (Chang 2007). It is often precisely the same factors that contribute to both types of failure which can be seen as jointly responsible for a range of current problems in the health sector, including counterfeit drugs, inappropriate use of anti-microbial and anti-viral agents and widespread problems with the quality and cost of care. Analyses of 'government failure' in many low- and middle-income countries note that government employees, including health workers, do not behave like 'Weberian bureaucrats', who are paid a salary and provided with good career prospects in exchange for acting in the interest of the population. Performance is influenced more by financial incentives and political and patronage relationships. In many instances there is a fine line between market-like behaviour that has accrued a degree of legitimacy and behaviour that is socially understood to be corrupt (Lewis 2006; Vian 2008). For example, some informal payments to service providers may be regarded as 'fair', in a context of very low public sector pay, while other payments may be viewed as exploitative. There is an equally difficult-to-define line between the use of regulatory powers for the public good, for the protection of specific stakeholders from competition and for the provision of opportunities for rent-seeking by regulators. Interventions that do not take this reality into account can have unintended consequences (Pritchett and Woolcock 2004).

Institutional arrangements perform a range of functions in health systems. One of the most important is the empowerment of patients with respect to providers, for example by reducing information asymmetries (Arrow 1963) whereby the additional knowledge possessed by a provider often places them in a position of considerable advantage in any discussion of appropriate treatments. The overall aim is 'the creation of conditions for trust in the competence and ethics of providers' (Gilson 2003). In the absence of such confidence, users may be forced to risk substandard treatment, invest a lot of time and/or

resources in seeking a competent provider, or forego the potential benefits of health care. It is also necessary to establish institutional arrangements that persuade providers that they will benefit from a reputation for skill and ethical behaviour in terms of income, future career prospects, social status and influence.

One way to understand the role of such mutually reinforcing institutional arrangements is in terms of fostering 'social contracts' between actors, such as health workers, their clients and people responsible for financing and/or regulating health services (Bloom *et al.* 2008). These contracts embody the expectations necessary for the establishment and maintenance of trust-based relationships and reflect broader understandings of social reciprocity in a given population. In relation to health care, they enable people to purchase drugs without worrying about their safety and efficacy, and consult possessors of medical knowledge with confidence in their expertise and ethics. They also make possible the establishment of insurance schemes to which people contribute money in the expectation they will have support should they eventually fall ill.

In the advanced market economies, regulatory systems for health-related markets tend to be based on collaboration between the state and other stakeholders. For example, drug regulatory systems were typically established in close consultation with the pharmaceutical industry and reflect a balance between public and stakeholder interests (Abraham 1995).

Some argue that the balance has favoured powerful stakeholders, but most agree that some form of collaborative arrangement was necessary. Many governments have tried to create similar structures without the direct involvement of industry actors so that large international companies have taken little responsibility for the use of their products in these countries. The result has often been weakly regulated health markets, both nationally and internationally. One encouraging response has been the recent emergence in some low-income countries of regulatory partnerships ('co-production') between government and other actors (Joshi and Moore 2004). One example is the growing willingness of pharmaceutical companies to participate in efforts to stop the trade in counterfeit products (Pfizer 2004). Although these regulatory arrangements are subject to the influence of narrow interests, they also reflect the recognition by these actors that they have a shared interest in the creation of a trusted and effective health system.

A recent body of work focuses on how markets in countries with less-developed formal institutions can be made to work better for poor people (DFID and SDC 2008; Elliot *et al.* 2008). It emphasizes the crucial role that markets play in mediating relationships between providers and users of goods and services, and argues that it is important to understand them as complex *systems* which can perform well or badly. Figure 1 illustrates the multiple and interrelated institutions which influence market function. At the centre are the exchanges

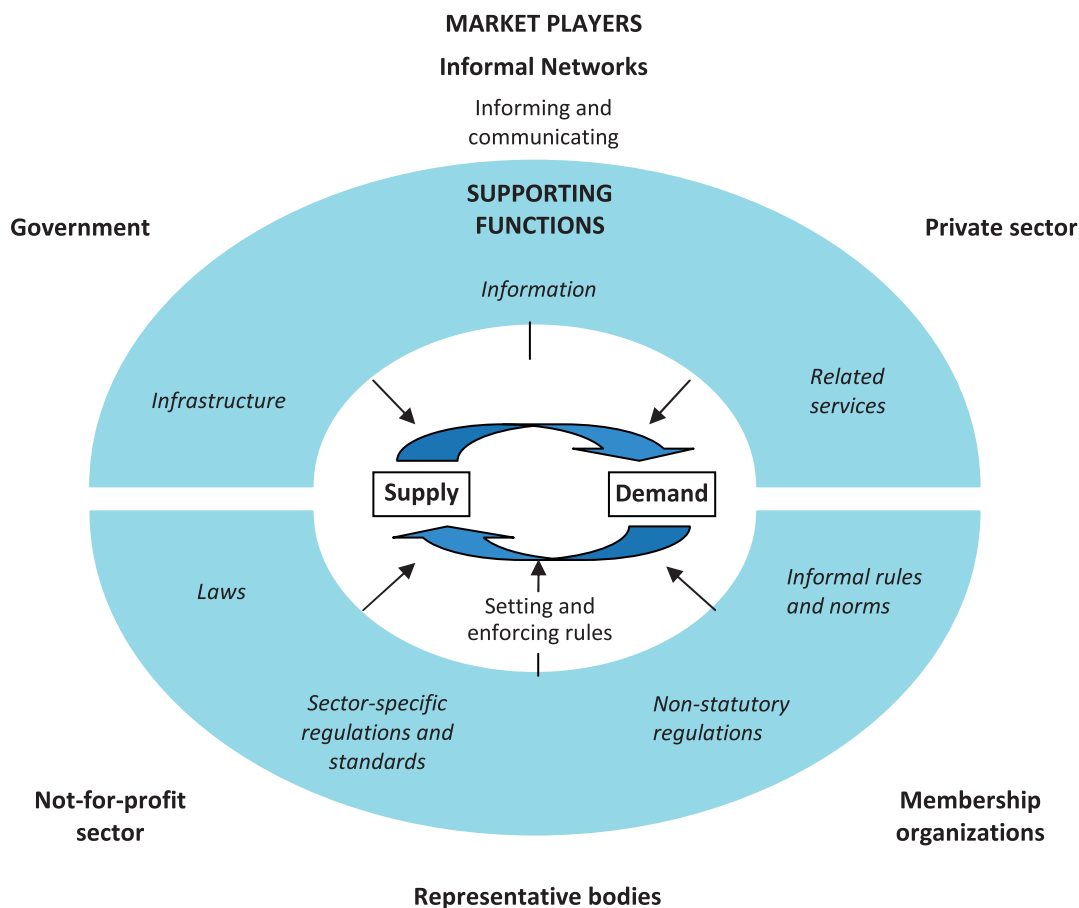


Figure 1 Conceptualizing market systems. *Source:* Adapted from Elliot *et al.* (2008: Figure 3)

between providers and consumers of the relevant goods and services. These exchanges are governed by the interplay of formal and informal rules, whose establishment and enforcement involves actors who are, in turn, influenced by a variety of factors. Supporting functions provide an environment within which the performance of market players may be enhanced or constrained. This environment also includes multiple actors and organizations, legal regulations and the norms and values of suppliers and users of goods and services. Given these interactions between the different elements of a market system, Elliot *et al.* (2008) argue that interventions that focus too narrowly on specific aspects, for example strengthening the management of a given organization or changing particular macro-economic policies, are likely to fail. Reforms need to bridge micro, meso and macro levels in building institutions that contribute to improved market performance.

The relationships in the above model also reflect and, to some extent, reinforce relationships of power. For example, in many countries the organized medical profession strongly opposes measures to improve the performance of non-professional providers used mostly by the poor (Dussault 2008). Large pharmaceutical companies often oppose measures that threaten their markets. Markets are frequently segmented, with actors that serve different social groups following different rules and behavioural norms. Institutional arrangements are always negotiated in relation to these realities. Strategies to alter the performance of market systems must be based on an assessment of the political and social context and identification of significant power relationships between actors (Bloom 2001).

A market systems analysis of informal providers

Reviews of interventions to influence private providers (a term employed more generally to cover a wide range of providers not directly employed by the state) have acknowledged both the importance of informal providers as a source of health-related goods and services for the poor, and the special challenges governments face in attempting to improve their performance (Mills *et al.* 2002; Waters *et al.* 2003; Peters *et al.* 2004). A recent review by Shah *et al.* (2010) of the evidence on the impact of interventions to improve the performance of informal providers identified 70 studies that met their criteria for inclusion. Although training of informal providers was the most common intervention, in line with the arguments of Elliott *et al.* (2008) and Cross and McGregor (2010), such interventions were relatively ineffective on their own, and worked best when combined with strategies that altered institutional relationships and the incentives informal providers face. The more successful examples tended to require the measurement and disclosure of performance. A review by Goodman *et al.* (2007) of the malaria treatment purchased from medicine sellers in sub-Saharan Africa similarly concluded that effective strategies for improving their performance combined training with measures to modify incentives.

This section applies a market system analysis to informal providers as a demonstration of how this might offer alternative entry points for improving their performance and/or reducing harm from their operation. It focuses on recent

empirical studies of village doctors ('quacks') in Bangladesh and the supply of anti-malarial treatment by patent medicine vendors (PMVs) in Nigeria. The data on Bangladesh are derived from a 2007 study in Chakaria sub-district, on the southeastern coast of the Bay of Bengal. It included visits to every village to produce an inventory, categorization and map of all providers, structured interviews with the 328 informal village doctors practicing in the sub-district (Iqbal *et al.* 2009), a questionnaire survey of a random sample of 1000 households on their health seeking behaviour (Mahmood *et al.* 2010), exit interviews of 236 randomly chosen patients seeking care from 50 randomly chosen village doctors (Iqbal *et al.* 2009) and a study of the role of representatives of drug wholesalers as a source of information to drug sellers (Rahman *et al.* 2009). The data on Nigeria are derived from physical inspection of the premises of 106 drug shops; interviews with 110 PMVs and 113 households selected through a multi-stage random process in six urban and six rural local government areas in Oyo, Kaduna and Enugu States; and interviews with 54 community leaders and 55 officers of PMV associations from these areas (Oladebo *et al.* 2007).

Both studies documented the high proportion of households who obtain treatment from an informal provider. In Chakaria, 65% of people who visited a health care provider during the 2 weeks prior to the survey consulted a village doctor as a first contact (Mahmood *et al.* 2010). In Nigeria, 39% of people reported that they obtained treatment for their last episode of malaria from a PMV and another 25% took medicine they had previously obtained from a shop (Oladebo *et al.* 2007).

These studies confirm findings in other countries of problems with the quality of the services of informal providers (Wachter *et al.* 1999; Syhakhang *et al.* 2001). In Bangladesh, a review of 89 cases from the exit survey found that 18.4% of the drugs used for treating diarrhoea, pneumonia, fever and cold were appropriate according to relevant treatment guidelines, 7.1% were harmful (for example, the over-prescription of steroids) and 74.5% were unnecessary but not dangerous (Iqbal *et al.* 2009). In Nigeria, only 9% of the sample of shops stocked the recommended first-line malaria treatment (artemisinin combination therapy), whereas 92% of shops had non-recommended sulfadoxine-pyrimethamine and 72% had chloroquine. Of greater concern was the fact that 32% of shops stocked monotherapy artesunate, which is contraindicated because of its potential to contribute to drug resistance.

In the light of these findings, the challenge was to design interventions to reduce harm and improve the treatment practices of informal providers. Exemplifying the value of taking a health market systems approach, the analysis of the intervention options in these two cases focuses on the interconnectedness of the sources of knowledge of informal providers, the financial incentives that informal providers face, and the formal and informal institutional arrangements that affect their local reputation. It shows how this interconnectedness systematically influences the performance of informal providers.

Where do informal providers get their knowledge and products?

Iqbal *et al.* (2009) found that the Bangladesh village doctors obtained their medical knowledge from several sources. Seventy-four per cent said that they had attended one or

more short courses on health care topics. However, only 5.3% had been trained as paramedics or paraprofessionals. A second source of information was practical experience as an apprentice. Half the village doctors had been a trainee in a pharmacy or an assistant to a licensed medical doctor or to a village doctor. This provided them with an opportunity to copy the prescribing practices of established health workers and perpetuate their good and bad practices.

Informal providers are part of a chain for the distribution and marketing of pharmaceuticals and their performance is influenced by the actors in this chain. A study by Rahman *et al.* (2009) found that the agents of a number of drug wholesalers visited Chakaria District regularly. All the village doctors interviewed said that these agents were their principal source of information on new drugs. These drug detail men competed for orders by giving gifts to village doctors, who bought their products. They also provided advice on how to increase sales and income. The Nigeria study found that 40% of PMVs were unaware of government advice that the new malaria treatment of choice was artemisinin combination therapy. It also found that the Nigerian public was sceptical when the government first announced that people should use a much more expensive product than the one they had been using for years (Oladepo *et al.* 2007). This contributed to continued demand for the cheaper products. The organization of pharmaceutical distribution varies between states. In the North, the PMVs buy from large wholesalers, but in Oyo State they mostly use open markets. The study did not explore the kinds of information and advice these different types of wholesalers provided, nor the incentives they provided to the PMVs. One problem with Nigeria's pharmaceutical sector is the high proportion of sub-standard products. Despite big efforts by that country's Food and Drug Administration to find and destroy counterfeit drugs, the PMVs reported that this was a major concern. They relied mostly on alerts from pharmaceutical companies and the mass media to avoid purchasing counterfeit drugs.

In both countries, the informal providers said they wanted training on how to treat common problems, but the government did not provide this kind of training. The recent experience of a medical advice centre run by a major telephone company in Bangladesh illustrates their wish for this kind of information. This centre provided advice over the telephone by qualified doctors. An internal survey by the call centre provider found that its users included a significant number of village doctors (Zakir 2010).

Bangladesh and Nigeria have dynamic print and broadcast media and a growing advertising industry, which produces content for these media. Many of the products the informal providers and drug sellers supply are publicized through these channels. This is an important source of information for both users and sellers. This raises important issues about whether government should regulate advertising of these products and whether it should publicize advice on drug treatment of common conditions.

Livelihood strategies and the incentives to sell pharmaceuticals

A number of studies have underlined the need to understand the livelihood strategies of informal providers before designing

interventions. It is helpful to view informal providers and drug sellers as people managing a small business at the fringes of the organized economy (Pinto 2004). The need to build and sustain a successful business strongly influences their behaviour. They have strong incentives to encourage their clients to buy more products. In Bangladesh, village doctors do not charge for consultations so they rely on selling drugs to make a living. They need to build a stable customer base by offering credit, being available through the day and night (unlike their counterparts in government facilities), speaking sympathetically and providing what are believed to be effective drugs. The village doctors reported that they need to comply with their clients' wishes and argued that if they tried to supply fewer steroids, for example, people would take their business elsewhere. The Nigerian PMVs also responded to their clients' preferences, supplying low cost anti-malarial drugs despite government warnings that an increasing proportion of malaria parasites were resistant to them. This underlines the need to combine measures to inform providers about dangerous and ineffective treatments with measures aimed at informing and influencing their clients.

Building and maintaining a reputation within the local institutional environment

The studies in Bangladesh and Nigeria revealed that a high proportion of informal providers had been in business for a long time. They had to maintain a good reputation to compete with newcomers. The interviews with community members in Bangladesh, for example, revealed the high regard with which these practitioners are held as often well-respected members of their communities (Sharmin *et al.* 2009). Discussions with community representatives in Nigeria revealed similar perceptions.

The behaviour of informal providers is strongly influenced by the institutional context within which they are embedded. They have established a niche because neither government health facilities nor private providers have adequately met the population's needs. The health regulatory system neither recognizes their legitimacy nor oversees their performance. For example, the Nigerian government made little effort to inform the PMVs about a change in its guidelines for the treatment of malaria (Oladepo *et al.* 2007). On the contrary, national health development strategies have tended to ignore the existence of these unorganized markets for health services. In some cases, the formal health system actively seeks to diminish their role by, for example, identifying them as 'quacks' and 'thugs', who take advantage of people. Although there is no doubt that the population needs protection against opportunistic behaviour, this labelling of all informal providers can also be seen as boundary protection by licensed professionals and as unhelpful in the realities of the environments where there is a chronic scarcity of qualified providers. For example, the Bangladesh village doctors preferred to refer patients to private doctors, because government doctors tended to criticize them to their patients.

On the other hand, the informal providers of health services and drugs have an identity as small businesses in both Bangladesh and Nigeria. They are required to obtain business licenses and are subject to routine inspections. They also face

harassment by local licensing officials. The Nigerian PMVs have been organized in trade associations for several decades (Oladepo *et al.* 2007). This follows a common pattern for a number of trades in West Africa (Joshi and Moore 2004). The National Association of Patent Medicine Dealers was established in 1951 and incorporated in 1962. These associations are organized in a tiered structure, which parallels the levels of government. They can punish members who supply fake or expired drugs or sell in unlicensed zones with fines, exclusion from social events or even expulsion. Many associations purchase drugs in bulk for their members to reduce the cost and protect against counterfeit products. They also protect their members against actions by local government or other actors that prejudice its members' ability to earn a living. Interviews with association officers revealed that they were very interested in providing clinical knowledge to their members, working with them to establish standards of treatment and testing drugs to ensure they were not counterfeit. Bangladesh does not have a history of this kind of trade association. However, the village doctors said they were interested in establishing a local association.

Bangladesh elects its local government officials. These officials are not responsible for monitoring the performance of informal providers (Sharmin *et al.* 2009). However, interviews with them found they considered this to be an important issue and were interested in making them more accountable. In Nigeria, the traditional governance structures are important at community level. As in Bangladesh, the community leaders are not responsible for overseeing the performance of PMVs. They expressed a willingness to work with PMVs to reduce the risk of sub-standard drugs by using a low-cost testing kit.

Intervening in informal health markets; experience from Bangladesh and Nigeria

The studies in Bangladesh and Nigeria were carried out by national research institutions with the twin aims of generating knowledge and building partnerships for improving the performance of the relevant market system. These studies show that markets for health-related goods and services have become strongly entrenched in Bangladesh and Nigeria, and are now an important source of medical care for the poor. Interventions to improve their performance need to be based on an understanding of how they operate.

First, it is important to understand where informal providers obtain health-related expert knowledge. Although these providers may find it useful to attend a training course, or receive a booklet, this is likely to be only one of a number of potential sources of information (accurate or inaccurate). Other interventions might involve drug wholesalers, the mass media, advertisers or some form of knowledge intermediary using mobile telephones or the internet. Second, it is important to assess the potential impact of an intervention on the livelihoods of informal providers. They are unlikely to follow advice that might result in reduced income or lost clients. However, they may be willing to give up dangerous practices or adopt more effective treatments if this is linked to public recognition for good quality service. This is likely to be more successful if combined with measures to inform the public about why certain drugs are dangerous or inappropriate. Third, any

intervention needs to take into account the processes through which providers establish and maintain their reputation. Potential clients need to have an easy way to identify informal providers who provide safe and ethical services. In order for an intervention to succeed, it will be necessary to involve key stakeholders, such as local health facilities, drug wholesalers, providers of health-related information, associations of informal providers and local accountability structures. One potentially important lever over the performance of informal providers would be a closer link to government health services, including an easy way to refer patients.

Given the often diverse interests of these multiple stakeholders, and a context in which many will have a deeply entrenched distrust of the motivations of other key players, the achievement of a 'negotiated settlement' that is seen as mutually beneficial (or at least unthreatening) to all sides is a major challenge. It seems unlikely that this can be achieved in the absence of a trusted intermediary, who is willing and able to act as an 'honest broker' in those negotiations. The qualifications required of such an intermediary are considerable. It must be seen by all sides as possessing both the professional status to adjudicate on questions of appropriate health care and as beyond the influence of economic, social and political pressures. In the cases described below, a research institute is playing that role. Other kinds of organization play a similar role in other cases.

The Bangladesh intervention combined three elements with the aim of reducing the supply of dangerous and unnecessary drugs. ICDDR,B, which led the intervention, produced a handbook of treatment guidelines for village doctors and organized a series of training sessions on the appropriate use of drugs. A sub-district level association, the *Shasthya Sen* (Health Soldiers), was established. The village doctors who passed a post-training evaluation were enlisted in this association and permitted to use its logo on visiting cards and signboards. Members who did not follow the 'dos and don'ts' could lose their membership. In order to make village doctors more accountable to their community, a governing committee was established with members from a variety of stakeholder groups, such as government and religious leaders, civil society organizations, representatives of patients and health experts. This committee was made responsible for creating criteria for membership and recertification of members. This local committee followed the model of the national Health Watch, which publishes regular monitoring reports.

The Nigeria intervention included the preparation of training materials on malaria treatment, the involvement of the PMV associations in organizing training for their members and overseeing adherence to certain standards (such as discontinuing the sale of monotherapy artesunate and refusing to sell out-of-date products or those without a certification from the Food and Drug Administration). These interventions are at an early stage and one can anticipate a lot of learning about how best to intervene in these health market systems.

Conclusions

These cases illustrate the need to design interventions for improving the performance of informal providers in the context of the market system within which they operate. This includes

understanding the roles of different actors and the incentives they face. The focus has been largely on the micro and meso levels. However, it is important to also recognize macro-level influences. The emergence of large informal markets reflects a history of failure by the public health services to meet the health-related needs of the poor, with the emergence of markets in response to demands for services and drugs. The unorganized nature of these markets reflects the unwillingness and inability of government to establish an appropriate regulatory framework; their future development will be strongly influenced by government action.

Serious efforts to make long-term improvements will need to include a clearer definition of the roles and responsibilities of the public sector in providing services, disseminating health-related information and participating in the co-regulation of markets for pharmaceuticals and health services. This, in turn, will be strongly influenced by the way that the interests and perspectives of stakeholders, including the poor, are reflected in policy formulation and implementation. Any recognition of a legitimate role for informal providers is likely to provoke resistance, reflecting both a concern for the safety of their clients and the interests of other stakeholders. One purpose of the kind of local interventions this paper describes is to inform debate and negotiations about the future role of these providers, the state and actors with responsibilities for regulation and/or accountability. They are only a first step in an effort to bring order to the large unorganized markets for health-related goods and services which now exist in many countries. They need to be accompanied by wide consultations with the public and a variety of actors in health market systems to build a shared vision of how the majority of the population can get access to appropriate advice and effective drugs at an affordable cost. This will have implications for the design of training programmes, the definition of the roles and responsibilities of the public sector, and the co-creation of institutional arrangements for effective primary health care services.

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Conflict of interest

None declared.

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