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Institutional Solutions to the Asymmetric Information Problem in Health and Development Services for the Poor☆

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Summary. — The world's poorest pay for professional services and thus are in a "market," whether the services are provided in the public or private sectors. The associated problems of unequal information are particularly acute in undergoverned countries, where state regulation is weak. We systematically review the evidence on solutions to these problems in a variety of professions. Payments by clients are more likely to have a positive effect on quality if they are made through locally-managed organizations rather than directly to individual practitioners, particularly if those organizations have an institutionalized history of other—regarding values and incorporate client participation.

Key words — institutions, path dependency, health, veterinary, education, agricultural credit

1. INTRODUCTION

In most professional services the parties to a potential transaction are unequal in the knowledge needed to make a good decision. It is a well-established principle of economics that markets which suffer from such *asymmetric information* are imperfect, with the consequences of exposing the uninformed to potential exploitation, depressing the prices that purchasers are willing to pay for a service, and discouraging many transactions that would otherwise be desirable to sellers or buyers, with the typical consequence that service quality is reduced (Akerloff, 1970).

Health markets pose a heightened version of the problems of asymmetric information. Where patients are not able to judge the quality of inputs, competition can lead to a combination of exploitative "rent-seeking" (i.e., revenue gouging) by unscrupulous providers and "a race to the bottom" (also known as a "market for lemons") in which prices are driven down at the expense of quality (Akerloff, 1970; Arrow, 1963, 1985). If purchasers could know the quality being offered, they could forego counterfeit, substandard and ineffective goods and services, while paying more for better quality ones, thereby providing stronger incentives for good performance. Good quality providers would also be advantaged by measures to overcome information asymmetries, as they would be able to better market their services (Brhlikova *et al.*, 2011; McLeod & Wilsmore, 2002). These features apply most strongly to curative medicine (where the benefits are "private" to the purchaser) and less to the "public goods" of prevention and health promotion (where the benefits are not limited to the immediate recipient and it is harder to exclude non-payers, with the consequence that governments of necessity are more involved). We therefore focus most intensively on quality and trust issues around "private" goods.

In order to overcome the market imperfection imposed by asymmetric information some kind of mechanism is needed to give consumers an accurate picture of what they are buying. Formal theorists in economics have concluded that markets in these goods have great difficulty achieving an efficient market unless providers are legally liable for their work (Dulleck & Kerschbamer, 2006; Dulleck, Kerschbamer, & Sutter, 2011). Effective enforcement of liability, together with other aspects of state regulation commonly are weak in Low and Middle Income Countries (LMICs) characterized by standards of governance at or below the global medium (which we refer to as "undergoverned") (Kaufmann, Kraay, & Mastruzzi, 2006). [1] Nonetheless many of these countries *do* find ways to overcome their information asymmetry problems. [2]

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Alternatives to the enforcement of liability might be the provision of services by a well-organized public sector, other government regulations, industry standards, monitoring by a well-known and trusted franchise (such as a church), professional norms, the impact of international donors or international non-governmental organizations (INGOs), or even "outcome-contingent" contracts (where the buyer does not pay until the outcome of the service is known).

When such mechanisms are socially embedded they are "institutions". Social scientists who study development are clear that institutions are critical to economic trajectories (North, 1990) and that optimal ones do not necessarily emerge by themselves (Conning & Udry, 2007). These institutions encompass formal and informal societal and organizational arrangements, incentives, rules, norms, and values that shape the behavior of market actors. Sometimes a mechanism, such as decentralization, has come to be socially valued for its own sake. Such valuation is what makes it an institution, and this institutionalization frequently is essential in making the mechanism effective. A better understanding of these institutions and their effectiveness in different contexts can provide important insights into how best to influence market participants to act in the public interest.

Although the health market is considered the quintessential example of asymmetric information (Arrow, 1963), it is far from the only one. Other service sectors that similarly impact the welfare of the poor in LMICs and that also are troubled by asymmetric information problems include veterinary medicine, education, agricultural credit, and the civil service.

In this article we review what is known about institutional solutions to the asymmetric information problem throughout the preceding range of professional services in poor undergoverned countries. The organizing "lens" through which we *first* report on these usually separate literatures is that of human health, but the lessons are much broader and only half the evidence we cite is specific to health. We cover a range of sectors, because we want to stress both that the literature of each makes unique contributions and that the regularities in the evidence come out powerfully only when examined comparatively.

The questions guiding our systematic search and review of the empirical literature are as follows:

- ***What institutions have been used to mediate relationships among service providers and recipients?***
- ***How are these institutions helping to assure recipients of the quality for which they believe they are paying?***
- ***What is the evidence of the effectiveness of such institutions in different LMIC contexts, particularly "undergoverned" ones?***

We are most interested in institutions that enable individual components or a service market as a whole to deliver *effective* products and services that are *accessible* to and used by the poor. The effectiveness question involves quality (both how to ensure that the services provided meet minimum standards and how to provide incentives for improvements) and trust (how to assure the purchasers of a product or service that they are getting the quality they are being promised) (Gilson, 2006). Accessibility questions concern the arrangements in place for the needs of the poorest to be met and can lead into issues about resources, insurance, and subsidy schemes. It is not feasible to address both of these broad areas in a single article, so we focus on the institutions that impact effectiveness (and therefore information asymmetry) and discuss accessibility only as they affect it.

2. INSTITUTIONS

North (1990) stipulates that institutions set the "rules of the game" for the markets within which organizations operate. Institutional sociologists use a more inclusive definition of institutions—those regularities in behavior that are valued for their own sake, i.e., have become "institutionalised" (Powell & DiMaggio, 1991). For us "institutions" encompass both—at the market level, there are "macro"/contextual "rules of the game", whereas at a more "micro" level there are formal policy instruments applied to govern the operation of specific parts of the market, and less formal values that produce and are reproduced by the ways in which particular organizations behave ((Kherallah & Kirsten, 2002), following Williamson, 1985).

Figure 1 illustrates our causal model linking institutions to professional service outcomes. A particular society will be characterized by its prevailing economic, political, and social features. Many of these "macro" attributes are not subject to change in the short-term—for example because of resource constraints, international and local distributions of power, or cultural values. Such temporarily "fixed" features set the context within which services for the poor are operating at present and constrain the "paths" along which they are likely to develop.

There is a considerable range of "micro" mechanisms which exist or might be introduced at the sectoral or organizational level that could be used to overcome the acute information asymmetry problem stemming from a "macro" context of mixed market, poverty, and weak governance—the one on which this article focuses. In order to unpack the "micro" institutions that might be used, we distinguish between (i) *competence* or capacity to meet a need, (ii) *effort* applied, and (iii) assurance of *accountability* for the outcome, *as well as* (iv) ways in which all of these are *signaled* to other parties in a prospective transaction.[3] Competence refers here to the possession of the technical skills and knowledge required to provide an effective service or intervention. Effort is the exertion of mental or physical energy—for instance to determine what is wrong with a patient and to deliver an appropriate care package. (Analytically, effort includes, but cannot be reduced to, the incentives that often induce it.) Accountability reflects the idea that "progress towards goals, commitments, or responsibilities are assessed, and those responsible for action in these areas are held to account in some public fashion" (Collins, Coates, & Szekeres, 2008) (Brinkerhoff, 2004).

Competence and effort clearly are important to positive outcomes, but potential clients will not pay for them if they do not know they exist. Thus "signalling," through the provision of an observable and credible cue is important as a way of communicating and assuring the presence of quality features that recipients may be seeking.

These "micro" governance mechanisms may gradually become valued for their own sake (i.e., become "institutionalized") if the context permits them to function well, in which case they will achieve a still stronger level of influence on provider and client behavior.

Finally, it is provider and client interactions, as shaped by the prevailing "macro" and "micro" institutions, which determine the outcomes of the professional service.

This model drives the structure of this article. After setting out our methods in the next section, in Section 4 we discuss the socio-economic background and the "macro" institutions that provide the context for service provision. The subsequent three Sections 5–7 then present the different sets of "micro" mechanisms driving provider competence, effort, and accountability, respectively. In Section 8 we return to the ways in which path dependence has shaped "micro" choices in particular countries,

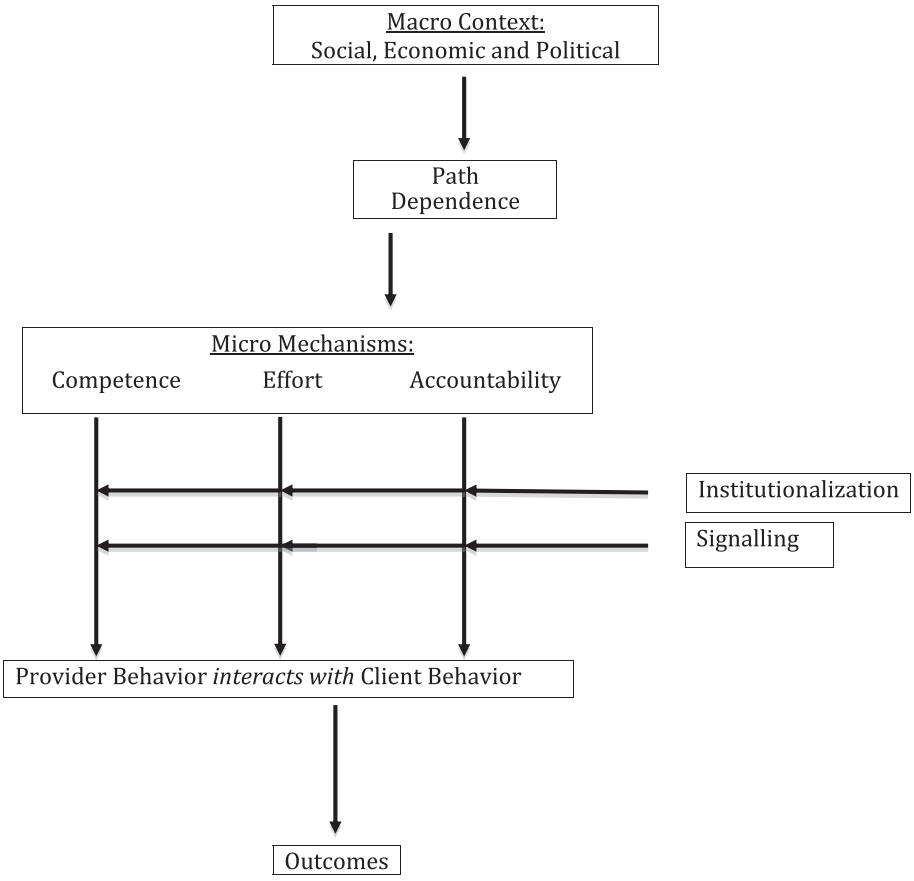

Figure 1. *Causal path from context through institutions to service outcomes.*

Table 1. *Macro institutions shaping service markets with information asymmetry*

Institution (& section of discussion)	Actor(s) initiating/upholding	Observed effect of institution	Sector	Region	Type of evidence
Governance (4a)	State	++	C, E, H, V	AL	1^***, 1**, 1 *
Markets (4b)	Econ./State	+/−	E, H, V	AL	2^***, 5**, 2*
Income/capita (4c)	Econ./State	++	H	AL	2*
Education (4c)	State	++	H	AL	2*
"Social capital" (4d)	Society	+	H	AL	1*
Inequality (4d, 7b)	Econ./Society	−−	C, E, H, O, V	AL	3^***, 2**, 1*
Patronage (4d)	Society/State	−−	C, H, V	AL	2^***, 2*

Notes: Column 1 gives the section of this article where the supporting evidence is presented and discussed, #4 the sectors that it covers, #5 the regions of the world to which the research pertains, and #6 the type of study. The codes are as follows:
Service sectors: Agriculture (A), general Civil Service (C), Education (E), Health (H), societal Organisatons (O), and Veterinary Medicine (V).
Regions: All LMICs (AL), Africa (AF), Central Asia (CA), East Asia (EA), Europe (EU), Latin America (LA), Middle East (ME), North America (NA), Oceana (OC), South Asia (SA), and South-East Asia (SE).
Study types (preceded by cited number of that type of study):
^*** Rigorous systematic reviews (including studies using experimental methods).
** Other peer reviewed literature reviews supported by multiple empirical studies.
* Single high quality pieces of research (judged by the standards of the relevant discipline).

creating variable service outcomes. The range of institutions that might shape service delivery in the weakly regulated service delivery markets of undergroverned LMICs are indicated in the Tables 1–4, which also provide a synopsis of what our literature review reveals about their relative effectiveness.

3. METHODS

We used a systematic literature search to identify evidence addressing the research questions outlined above. Our primary search objective was to identify peer-appraised *review* papers. The search terms and engines employed are detailed in the Appendix and were used to identify research on LMICs [4] concerned with institutions in general, and institutions in the fields of curative health, agriculture (especially credit), education, general government, and veterinary services.

In several ways, however, this article is not a "systematic review" in the strictest sense (Waddington & White, 2012). If we were to have tried to evaluate *all* published articles that relate to our questions across multiple sectors we would have faced an impossibly large number. We thus did a systematic search

Table 2. *Micro institutions shaping service markets with information asymmetry: Competence*

Institution (& section of discussion)	Actor(s) initiating/upholding	Observed effect of institution	Sector	Region	Type of evidence
Pro/Professional qualifications (5a) anti/(5b, 6)	State	Mixed	H, V A, E, H	AF, SA AF, SA	4* 3^**, 1*
Professional accreditation (5b)	State	+	E, H	AL, AF	1^**, 2**, 1*
Regulation of malpractice	State (5c)	Weak	E, H	AL, AF, SA	1**^,3**, 4*
	Priv. firms (5c)	+	H	AL	1**
	Peers (6diii)	Weak	H, V	AL, AF, SA	1^**, 1**, 1*
Use of para-professionals (5d)	State	+/Weak	H, A	AL, LA	1^**, 2*
	Private	+/−	E, V	AL, AF, SA	2^**, 2**
	NGOs	++	H, V	AF	2*
Visible ongoing training and supervision (5e)	Service providers	++	A, H, V	AL, AF	3^**, 2**, 7*

See notes at Table 1.

Table 3. *Micro institutions shaping service markets with information asymmetry: Effort*

Institution (& section of discussion)	Actor(s) initiating/upholding	Observed effect of institution	Sector	Region	Type of evidence
Incentives to reward effort—hiring, promotions, good postings, salaries, bonuses, renewable accreditation	State (6ai)	Weak	A, E, H	AL, AF, SA	2^**, 1**, 1*
	Donors (6aii)	Strong/mixed	H	AL	2*
	Value-based NGOs (6dvii)	Strong	H, V	AF, SA	4*
Direct payments in general (5b)	Users	++	H, V	AL, AF, SA, SE	5**, 4*
Direct payments to individuals (6ci,ii)	Users	+/−	H, V	AL,NA	4^**, 2**
Direct payments to individuals contingent on outcome (6cii)	Users	++	H, V	AF, EA	1**, 3*
Direct payments to organizations (6d)	Users	++	C, E, H	AL, AF, EA	5^**, 1**, 2**
Social franchising (6e)	Users	Unclear	H	AL	4^**, 1**
Contracting—Access (6e)	Donors, State	++	H, V	AL, EU, AF	2^**, 1**, 1*
Contracting—Quality	Donors (6e)	Mixed	E, H	AF, SA	2^**, 2**, 1*
	Value-based NGOs (6dvii)	++	H, V	AF, SA	4*

See notes at Table 1.

Table 4. *Micro institutions shaping service markets with information asymmetry: Accountability*

Institution (& section of discussion)	Actor(s) initiating/upholding	Observed effect of institution	Sector	Region	Type of evidence
Devolution (7ai)	State, society	−	A, C, E, H, V	AL, AF	3^**, 5**, 3*
Deconcentration with participation (7aii)	State, society	++	E, H	AL, AF, LA, SE	6^**, 2**, 3*
Participation under equality (7b)	Providers, society	++	E, H, O	AL, AF	1^**, 4**, 1*
Participation under inequality (7ai, 7b)	Providers, society	−−			
Published performance information (7c)	Providers, society	+	H	AL, CA	2^**, 1*
Path dependent solutions (8)	State, society	++	H	AF, EA, LA, SA	4**, 8*

See notes at Table 1.

for post-1999 *peer-reviewed journal surveys* of high-quality empirical studies on institutions and management mechanisms in each area. Of course, some of these surveys were as recent as 2012 and all of them covered research done well before 2000, so the dates of empirical studies effectively are unbounded.

In addition, we accepted the methodological standards applied by peers in the sectors and social science disciplines in which the surveys were published. At no time have we excluded from our discussion any of the findings of these surveys or studies cited by them. Unlike the standard "systematic review", however, we have supplemented the findings uncovered by our surveys with other individual studies of which we were aware when they would help to frame or extend or fill gaps in survey findings. This was particularly important given the range of sectors and disciplines on which we were drawing, for the scope of surveys varies between them and in many there is a bias against research reported in books. These additional materials were never used to contradict the empirical findings presented in the surveys, however, and are clearly identified in our references.

Because we have been particularly inclusive with regard to evidence, we have made a special effort to be transparent about its character. In this article, evidence which takes the form of a rigorous systematic review (including studies using

experimental methods) is annotated with ^**; evidence from a peer reviewed literature review supported by several empirical studies is denoted with **; and evidence which derives from a single high quality piece of research (judged by the standards of the relevant discipline) is annotated with *. Articles with less substantial evidence bear no annotation and those that advance a probable but weakly evidenced hypothesis are annotated with a †. In addition in the summary tables we show the service sector and the region from which the evidence is drawn.

Finally, we have used the concepts of the New Institutional Economics to frame our analysis. This body of theory is behavioral and inter-disciplinary, drawing heavily on organizational sociology as well as comparative political science and economic history (Williamson, 1990). [5] The NIE framework is highly compatible with the materials we found and we were able to use it without excluding or discounting any of the empirical results. At the same time the NIE facilitated teasing out some of the subtleties in the findings and making them accessible to those concerned with the design and management of service professions.

4. GOVERNANCE, MARKETS, AND CONTEXT

(a) *The governance context*

Services are affected by the quality of the state's governance institutions, which regulate them and hold them accountable. A great many LMICs suffer in this regard, leading us to focus in this article on what we refer to as "undergoverned" states, reflecting particularly problems with corruption and ineffective public services (Kaufmann *et al*., 2006)*. Operationally, this has two important consequences. First, we are considering LMIC settings in which the state *in practice* does not provide *free* basic services to the poor or does so to only a limited extent. This aspect of the context is fundamental to the information asymmetry problem, for it means that the "principal" ordering services from the organizational "agent" is the recipient (client), not the government (Pratt & Zeckhauser, 1985). In such a setting the ideal state would create an institutional context within which *other parties* are able to buy and sell services of known quality. Second, our focus on countries where governance institutions are not strong means that state regulation of the formal and informal markets that have grown up to provide services is weak and sometimes dysfunctional. Consequently, weak governance and poor regulation generally are associated with lower health outcomes (Matsubayashi, Peters, & Rahman, 2009)^** (Balabanova *et al*., 2011)** (Knowles & Owen, 2010)*.

(b) *Markets*

Because most poor people live in the generally undergoverned states of South Asia, China, and Africa, our review focuses on the features and imperfections of a "market", rather than of the "private" or "public" sectors. In many LMICs formal and informal patient–provider financial transactions are pervasive in the public as well as the private sectors. A number of countries have established effective government-run health systems that are not reliant on market relations, but these are not the places where most of the "poorest of the poor" live. Generally, someone who needs medical treatment undergoverned LMICs will have to pay someone for it. For example, in India less than 25% of rural health services are publicly provided (and even they usually involve informal payments) (Banerjee & Duflo, 2006; Berlan & Shiffman, 2011)^**. Likewise the non-state sector provides the overwhelming majority of curative services in Bangladesh (Balabanova *et al*., 2011)**. In the same way, animal health services in tropical Africa moved from overwhelmingly free government provision before 1980 to almost universally compensated services by 1990 (Leonard, 2000b)**. [6] In undergoverned states the distinction between "public" and "private" is more one of ownership and supervision, not of whether money is being exchanged. A market is present in *both* the "public" and "private" health sectors (Bloom, Standing, & Joshi, 2009; Ferrinho, Lerberghe, Fronteira, Hipolito, & Biscaia, 2004)** (Ahuja *et al*., 2000; Jan *et al*., 2005)* and it is more useful to look at variations in the *market* than in the formal, nominal attributes of the providers. This is fundamental. Most often it is the context and mechanisms that are determining performance, not the "owner".

(c) *The economic and educational macro-institutional context*

The effectiveness of development services is deeply shaped by their economic and social context as well—not only the difficulty of the problems they must solve but also the human and material resources they are able to apply to them and the societal ("macro") institutions within which they are held to account. For example human health in poor countries usually rises with per capita income and then evens out at industrialized country levels. Similarly it improves with a population's education, which increases the capacity of service employees, the ability of the public to access and use benefits well, *and* creates the skills with which citizens can hold providers accountable. Further, within the market the ability of people to engage in mutually beneficial exchanges depends on the informal institutions of society that enable people to cooperate with and trust one another (Evans, 2009; Knowles & Owen, 2010)*. The context of LMICs is that in addition to low per capita incomes, average levels of education usually are lower (even if they have improved significantly over recent years).

(d) *The social context*

Informal institutions of social capital (trust) can substitute for weak formal ones and there is greater variability among poor countries in this regard than there is with regard to governance (Knowles & Owen, 2010)*. Societal inequalities in assets or social status and local governance structures dominated by patronage also inhibit the ability of governments to provide effective development services to the poor (Berlan & Shiffman, 2011; Molyneux, Atela, Angwenyi, & Goodman, 2012)^** (Evans, 2009; Leonard & Marshall, 1982; Leonard & *et al*., 2010)*

(e) *Contextual "givens" and path dependency*

None of the aspects of the macro-institutional context of service delivery are easily changed in the near term. General civil service reform, for example, is politically very difficult to achieve and significant change occurs only episodically (Batley, 2004; Bebbington & McCourt, 2007; Heredia & Schneider, 2002; March & Olsen, 1984; Silbermann, 1993)** (World Bank, 2008)*. Save in special moments of historical opportunity these macro institutions are givens, a part of the context. Thus those committed to effective delivery of development services must find context-specific ways to work with the institutions they have, making the structure and micro-institutional nature of services highly path dependent (Bloom,

Champion, Lucas, Peters, & Standing, 2008; Bloom *et al.*, 2009; Grindle & Thomas, 1991; Leonard, 2010)**.

5. THE MICRO-INSTITUTIONS OF POLICY INTERVENTION: COMPETENCE

(a) *Professional qualifications*

In undergoverned LMICs the quality of health care offered to poor and even middle-income patients is very often seriously deficient (Das, Hammer, & Leonard, 2008)** and this problem has been documented in the other, professional service sectors as well (Leonard, 1977)*. This problem often is traceable to lack of knowledge. For example, teachers cannot transmit information they do not have and health practitioners cannot diagnose diseases or perform procedures of which they have no understanding. Thus the institutions that provide professional qualifications, train to refresh and upgrade knowledge, and regularly supervise practice are all critical components of the quality of a service. In this regard it is unsurprising that in rural Tanzania the quality of care offered by a clinic was associated with the presence of an MD (Mliga, 2000)*, and MDs in Delhi demonstrate superior *competence* to those with lesser qualifications in both the public and private sectors (Das & Hammer, 2007)*. Cameroonian villagers who feared they had a serious ailment bypassed cheap clinics to reach much more expensive ones known for their special competence (Leonard, 2009)* and Ugandan dairy producers who would not pay the higher fees of a fully qualified veterinarian for routine care were willing to do so when surgery was required (Koma, 2000)*. As we will see below, however, the management necessary to turn higher competence into more effective service is not always provided. (For example, Das *et al.*, 2012* found only small differences in clinical quality between the trained and untrained in rural India.)

(b) *Professional accreditation*

Certification of qualifications at the point of *entry* to a profession is one of the few areas in which effective regulation in LMICs is common and institutionalized (Patouillard, Goodman, Hanson, & Mills, 2007)^** (Ensor & Weinzierl, 2007)** (Kumaranayake, Lake, Mujinja, Hongoro, & Mpembeni, 2000)*. This is broadly true across the professions—for physicians, veterinarians, teachers, *etc*—particularly when they are employed in government-supported settings (Rose, 2006)**. In many countries, however, differences in qualifications are signaled to the public more by the organizational setting in which practice is taking place and less well for differences between the individuals within them—a point to which we will return later.

(c) *Regulation of practice/malpractice*

In the undergoverned LMICs on which we are focusing, the regulation of competence and effectiveness in day-to-day *practice* generally is weak or non-existent (Rose, 2006)**. Hence, the strength of a state's formal institutions is closely related to the health status of its population (Knowles & Owen, 2010)*. For example, corruption is negatively correlated with health indicators and is a serious concern in the procurement of pharmaceuticals (Kohler & Baghdadi-Sabeti, 2011)**. Regulatory weaknesses are more likely in undergoverned states and are an important part of the institutional context within which their health and development services operate. In many countries most rural private pharmacies have no staff with any kind of professional qualification on the premises, despite formal regulations requiring their presence (Bloom *et al.*, 2009)** (Bett, Machila, Gathura, McDermottd, & Eisler, 2004; Ensor & Weinzierl, 2007)*. Use of the law to control medical malpractice in India is judged ineffective (Peters & Muraleedharan, 2008)* although it is more evident in China.

(d) *Paraprofessionals*

The rural poor and especially those who live in remote areas have particular difficulty obtaining services because the better educated providers are reluctant to live there and when they do so are frequently absent from their posts (Banerjee & Duflo, 2006)^**. Professionals also often are culturally distant from the rural poor, which detracts further from their motivation to serve them well. Even veterinarians, who are much more attracted to rural life than teachers or physicians, are reluctant to live with pastoralists. As a result, the posting to remote areas of fee-charging staff with only basic but expert-provided external training can lead to substantial improvements in service delivery, because they may be culturally better attuned with their clients than highly qualified professionals and provide them with better real access to assistance for relatively simple but serious and endemic problems. Such was the logic underlying the "bare-foot doctors" initiative of China's Cultural Revolution and the community health workers proposed in WHO's Alma Ata Declaration of 1978. Initially many of these workers were community-supported rather than fee charging, but over time they have evolved toward the latter. The reduction in livestock mortality rates of African pastoralists through the deployment of fee-charging Community Animal Health Workers with limited training is particularly clear (Catley *et al.*, 2004; Peeling & Holden, 2004)**. Similar success with community (human) health workers has been reported for a range of tasks in LMICs (Chopra, Munro, Lavis, Vist, & Bennett, 2008)^** (Tendler, 1997)*.

The problem with the use of minimally trained service staff is not with the staff themselves, for they can be highly effective at preventive and simple curative human and veterinary medicine as well as at agricultural extension. Private schools whose staff lack teaching certificates also often out-perform government ones whose teachers have better formal qualifications, even when serving the poor (Patrinos, Barrera-Osorio, & Guáqueta, 2009)^** (Rose, 2006)**. Nor is the problem that they or their organizations are charging for their services and that they therefore are in the market. The issue instead is that the training they receive must be well done and they must continue to receive effective support, supervision, and updating throughout their service lives. In other words they must be backed by institutionalized "organizational intelligence" (Goodman *et al.*, 2007; Patrinos *et al.*, 2009; Peters, El-Saharty, Siadat, Janovsky, & Vujicic, 2009; Shah, Brieger, & Peters, 2010)^** (Catley *et al.*, 2004; Peeling & Holden, 2004)** (Leonard, 1977; Ly, 2000)*. If these staff succeed in being absorbed into the regular civil service—as frequently is their ambition—and their management is neglected, their effectiveness can drop significantly (Leonard, 1977, 1991)*. On the other hand, when they remain in the private voluntary sector and are subject to strong management—as often has been the case with missions in Africa—they can outperform government facilities with better trained staff (Ly, 2000; Mliga, 2000)*. However if they drift away from the organizations that trained them and become wholly autonomous, as has occurred in many countries, they can become no better than untutored drug sellers, cut off from professional support and supervision

and with documented problems with safety, effectiveness of treatment, and costs (Basu *et al.*, 2012)^** (Bloom *et al.*, 2008)**.

(e) *Visible training and supervision*

When strong management is visible to the consuming public it reduces information asymmetry by "signalling" the quality of the work actually done by the minimally-qualified staff and thereby increases clients' willingness to pay for more of the service they provide. Thus in Senegal pastoralists were willing to buy more preventive animal health measures from the Community Animal Health Workers of a Lutheran mission that provided strong support and supervision than they were from a similar government service in a neighboring area (Ly, 2000)*. Similarly, a study in Cameroun demonstrated that even the poor were willing to pay more for quality medical service when they believed they had a condition that justified it (Leonard, 2000a, 2009)*. In a variety of professions there is a demonstrated willingness to pay for more of the services provided by well-supported and supervised, minimally-qualified providers, when the quality they are offering is relevant to the purchaser's needs (Tooley & Dixon, 2006)** (Koma, 2000)*.

6. MICRO-INSTITUTIONS: EFFORT

Quality of service provision depends on effort as well as raw competence. In LMICs there often is a substantial gap between what a practitioner is capable of doing and knows s/he *should* do in treating a patient and what s/he *does in practice*. This gap between routine performance and what is done under the eyes of a supervisor or researcher is known as the "Hawthorne effect" and has been clearly demonstrated among medical clinicians in Tanzania (Leonard & Masatu, 2006; Leonard, Masatu, & Vialou, 2007)*. Absenteeism of professional staff also is documented for health facilities in India and for schools there and in East Africa (Banerjee & Duflo, 2006)^** (Tooley & Dixon, 2006)**. Even when professions are well regulated, the effect on performance of education, professional qualifications, and training is complex and not automatic. For example, more highly educated agricultural extension agents in Kenya were found to have less, not more, practical information than those with lower qualifications (Leonard, 1977)*. Similarly the impact of supplemental training on medical quality has been found to be very modest (even if positive) when not accompanied by other measures. Motivation to *use* what is learned is essential (Patouillard *et al.*, 2007; Peters *et al.*, 2009; Shah *et al.*, 2010)^**.

(a) *Organizational incentives*

The effects of the incentives under which service staff work can be quite significant—positively and negatively (Banerjee & Duflo, 2006; Lagarde, Powell-Jackson, & Blaauw, 2010)^** (Peeling & Holden, 2004)** (Basinga *et al.*, 2011; Leonard, 1987; Leonard *et al.*, 2007; Mliga, 2000)*. Where incentives are too strong, health providers may supply too many interventions or drugs, to the point where these have no additional benefit or are even harmful (Berlan & Shiffman, 2011; Eldridge & Palmer, 2009)^**. So achieving the correct balance between incentives that increase effort and those that induce "overtreatment" is a challenge.

Where might the appropriate incentives come from?

(i) *Undergoverned states* manage their resources in ways that provide only weak incentives. In other words, hirings, promotions, good postings, and even praise, *etc*, are made in such a way as to reward effort on the organization's mission only to a modest degree, if at all (Banerjee & Duflo, 2006, 2010)^** (Rose, 2006)** (Leonard, 1977)*. This weak incentive effect is at odds with the considerable sums governments expend for health, education, and animal disease prevention and control.

(ii) *Donors*, acting through NGOs and other contractors, also provide substantial resources but these often are managed in a way that produces more incentive effects than poor governments achieve (Loevinsohn & Harding, 2005)*. The direct effects of donor interventions tend to be positive but there can be indirect negative consequences as well on the services that are not targeted (Cohn *et al.*, 2010)^**.

(b) *User payments*

(i) *User payments*

Alternatively, the recipients of the services themselves might provide inducements which, even if they only supplement the much more substantial investments of governments and donors, nonetheless provide incentives for quality efforts that matter to and are visible to them as consumers. Fees are not inducements unless they add to the budget of the recipient organization, of course. If they are transmitted into the national budget or substitute for it they are not inducements or incentives—and that is the way most fees in *government* facilities actually have been used (Das *et al.*, 2008)** (Leonard, 1987, 2009; Mliga, 2000)*. On the other hand, informal fees paid directly to service workers can exert greater power over their behavior (Lewis, 2007)**, but are not easy to monitor.

(ii) *Feasibility of user payments by the poor*

User payments raise the further question of whether the poor have sufficient resources to have an incentive effect. It is a basic principle of economics that demand curves downward in response to price and consumers will switch to cheaper outlets for the same products or reduce consumption when prices are raised. Certainly fees can be regressive and reduce access for the poor (Berlan & Shiffman, 2011)^** (Leonard, 2000a)**. When Kenya suddenly eliminated fees for primary education there was a dramatic increase in school enrollment, making it obvious that cost had led many poor to forgo this service for their children. The impact can be even greater for services for which the benefit may not be obvious (such as preventive measures) or services that are very expensive relative to incomes, including hospital care for a serious illness (Lagarde & Palmer, 2008)^**. Nonetheless, enough of the poor are willing to commit sufficient resources so as to incentivize and shape provider behavior—at least for services that impact near-term catastrophic events (such as agricultural credit and human and animal health), especially in countries in which there is not substantial landlessness (Conning & Udry, 2007)**.[7] Most health care in LMICs is being provided in fee-paying settings and even the poor are willing to pay for access to providers who charge more than the lowest price *when they are persuaded they have a health condition that merits it and that the higher-priced provider is the least expensive option that can deal with the condition effectively* (Balabanova *et al.*, 2011)** (Leonard, 2009)*. The evidence for veterinary medicine is even stronger, where modest payments can induce attention from practitioners who otherwise would ignore the poor (Leonard, 1987)*. For example, surveyed livestock holders in East Africa and the Philippines expressed a *preference* for paid Community Animal Health Workers over free government workers (Catley *et al.*, 2004; McLeod & Wilsmore, 2002; Sen & Chander, 2003)** and at least half the urban poor

are paying to go to private schools in India (Tooley & Dixon, 2006)** (Mehrotraa & Panchamukhia, 2006)*.

The issue here is not whether the poor deserve government-subsidized services; they do. A large part of the fee-for-service health care for the poor is in fact appropriately subsidized by the government, not to speak of donors.

The point instead is that in actual practice even the very poor are spending enough of their own funds on health care and other rural services to influence the ways in which their providers behave. We noted earlier that in most undergoverned LMICs even state employees in health, education, and animal health in practice are deriving income from informal payments from those they serve (Banerjee & Duflo, 2006; Berlan & Shiffman, 2011)^** (Bloom *et al*., 2009; Lewis, 2007)** (Leonard, 2000b)*. For example, government animal health workers in India take private side-payments for their services that are the same as the charges of purely private providers. Government salary may well drive down the price for all services (benefiting poorer consumers) but it also provides a "rent" to the government service provider (Sen & Chander, 2003; Vian, 2008)** (Ahuja *et al*., 2000)*.

Nonetheless the institutional form in which these privately delivered incentives are provided matters considerably.

(c) *Payments direct to individual providers*

(i) *Quantity*

When fee income goes directly to the individual provider it may do no more than stimulate *quantity* of effort, not quality. A systematic review of developed country literature on payment systems and physicians' clinical behavior found some evidence that primary care physicians provide a greater *quantity* of primary care services under government or philanthropic fee-for-service payment compared with capitation and salary (Gosden *et al*., 2000; Lagarde *et al*., 2010)^**. Public or donor financial incentives can stimulate delivery of services for which demand is insufficient, such as the delivery of immunizations or screening tests. Similarly, conditional cash transfers and other economic incentives targeting healthcare recipients can increase the use of preventive services. However, financial incentives are more likely to influence discrete individual behavior in the short run, and effects in the long run are unclear. They also can have unintended effects, like corruption and making patients wary of the motives of the provider.

(ii) *Quality*

If they stimulate only *quantity*, fees for service contribute as well to the widely observed tendency for "a race to the bottom" among most practitioners by inducing activity at the margin that is of limited or no value, rather than stimulating higher *quality* (Chaix-Couturier, Durand-Zaleski, Jolly, & Durieux, 2000; Lagarde *et al*., 2010; Oxman & Fretheim, 2008)^** (Gilson, 2006)*. [8] There are situations, such as animal health services to pastoralists, where physical accessibility is such an issue that quantity results are positive. [9]

(iii) *Contingent contracts*

Direct payments may avoid a "race to the bottom" in some settings because of their ability to write "outcome contingent contracts". In the case of midwives in Cameroun, as a delivery is known to be successful shortly after birth, the payment of an "appreciation" before leaving has a clear quality effect (Ndeso-Atanga, 2000)*. Outcome-contingent contracts are difficult for most forms of rural service, although one begins to approach their effects when there are repeat transactions between the parties over a considerable period (Leonard, 2007)*. [10]

(d) *Payments to organizations*

It would appear that incentives (in the form of jobs, salaries, bonuses, and spoken appreciation) that are mediated through organizations are more likely than payments to individuals to have a positive effect on quality but only if the values of quality and service are institutionalized in the organization (Oxman & Fretheim, 2008; Shah *et al*., 2010)^** (Tibandebage & Mackintosh, 2005)*. There are several components to this proposition:

(i) Organizations have a greater ability to signal a commitment to quality than practitioners do as individuals. Because facilities have a physical and continuous presence they are much more visible to the public and more subject to public discussion than individual practitioners within them (Leonard, 2007)*. For the same reason *facility* accreditation is somewhat more likely to be subject to review at renewal (Ensor & Weinzierl, 2007)**.

(ii) Organizations have a greater *ability* to observe and reward the performance of their staff than individual users of the service do. Because of information asymmetry individual users do not always know when they are being badly served. This is particularly the case in human and animal health. A similar, even if somewhat smaller, imprecision in user judgments about quality is also evident in education. Particularly if the organization decentralizes personnel management to the facility level, it *can* make formal or informal observations of the quality of the processes in which its employees are engaged and has a wide array of rewards and punishments it can apply relatively quickly. [11]

(iii) Monitoring of the quality of individual practitioners *could* be provided by regulation from government or professional peers, overseeing individual practices. But even in OECD countries regulation has been more effective at licensing (competence) than it has been at monitoring quality of effort and has sometimes instead been used to protect vested professional interests (Friedson, 1970)*. Regulation of effort is even weaker and has more potential to be negative in undergoverned LMICs (Patouillard *et al*., 2007)^** (Ensor & Weinzierl, 2007; Peeling & Holden, 2004)** (Kumaranayake *et al*., 2000)*.

(iv) Organizations that directly manage individual practitioners are *more likely* (but still are not assured) to provide effective oversight and associated incentives, for they are more likely than individuals to be able to signal their character and thus to benefit from extra custom and increased income through the provision of quality. Explicit incentive payments may be paid to individual practitioners but it is important that they be mediated by the group or organization in its collective interest, not made directly (Acemoglu, Kremer, & Mian, 2006; Chopra *et al*., 2008; Kremer & Holla, 2008; Oxman & Fretheim, 2008; Shah *et al*., 2010; Witter, Fretheim, Kessy, & Lindahl, 2012)^** (Bloom, 2011)*. [12]

(v) Nonetheless, the costs to an organization of establishing a reputation for institutional quality are significant. It *appears* from the preceding empirical evidence that the returns to a reputation in additional or higher paying custom are sufficient to *maintain* quality effort but *in themselves* are not enough to induce most organizations to *create* it.† Thus the organizations that have invested in the creation and maintenance of quality are more likely to have had pre-existing "other-regarding"/altruistic values. There

are settings in which such values are well institutionalized in the public sector, particularly in the better-governed countries. For example, for democratic Brazil see: (Bebbington & McCourt, 2007)*.

(vi) In the larger number of public entities in undergoverned states, however, quality values are insufficiently institutionalized or management is too inadequate to provide effective incentives to service employees, because of the presence of weak incentives to managers and the pervasiveness of patronage (Leonard & *et al*., 2010)*. For example, a randomized trial in Kenya found that primary school headmasters refused to apply donor-financed bonuses in an incentive enhancing manner (Acemoglu *et al*., 2006)^**.

(vii) In otherwise difficult environments value-led organizations are exemplified by the services of many Christian missions in parts of Africa (Leonard *et al*., 2007; Ly, 2000; Mliga, 2000)* [13] and the Bangladesh Rehabilitation Assistance Committee (BRAC) in South Asia (Standing & Chowdhury, 2008)*. The presence or absence of such value-driven organizations is a part of a country's deep institutional context, which contributes to path dependence. Countries have different institutional repertories and thus will have different tools available with which to overcome their problems with information asymmetry. But that inventory also might be changed by donors or political initiatives that make the long-term, initially-costly investments in new institutions.

(e) *Contracting*

The superior performance of values-led NGOs in undergoverned situations raises the question of whether contracting in general or, more narrowly, social franchises [14] might be a way to overcome the problems of government service organizations. In one sense most of the mission health facilities in Africa are operating under quasi-contracts, since they receive government subsidies for their services. The real question then is how easily organizations with similar performance characteristics to these missions can be created from scratch and whether they might even be private-for-profit organizations? It is clear that contracting can be used to expand *access* to service facilities in remote areas that might otherwise not be served (Lagarde & Palmer, 2009; Liu, Hotchkiss, & Bose, 2008)^** (Catley *et al*., 2004)** (Hellberg, 1990)*. The evidence for improvement in the quality of service, however, is mixed in general and for social franchises is inconclusive (Koehlmoos, Gazi, Hossain, & Rashid, 2011; Koehlmoos, Gazi, Hossain, & Zaman, 2009; Patouillard *et al*., 2007; Peters *et al*., 2009)^** (Ensor & Weinzierl, 2007; Loevinsohn & Harding, 2005)**. It appears that most of the social franchises that are not having an effect are providing only training and have no effective regulatory discipline, which then would be consistent with what is observed in other types of studies (Koehlmoos *et al*., 2011)^**. It also seems that most of the franchises on reproductive health have generated insufficient revenue for providers to want to absorb the costs of coordination and reputation building (Bloom, Standing, & Lloyd, 2008)**. More generally, contracting (including performance-based incentives) *can* achieve quality improvements, but this is highly dependent on the quality of the contract management (Liu *et al*., 2008)^** (Eichler & Levine, 2008)**.

Contracting is a key aspect of the New Public Management (NPM) and we do know that poor countries have rarely been successful in writing and enforcing the well-specified performance targets required to make such contracts work (Larbi, 1999; Manning, 2001; Schick, 1998)** (Schick, 1998)*. Unintended consequences of attaching financial incentives to performance targets are always a serious danger, whether within or between organizations (Chaix-Couturier *et al*., 2000; Lagarde & Palmer, 2009; Oxman & Fretheim, 2008; Petersen, Woodard, Urech, Daw, & Sookanan, 2006)^** (Eichler, 2006; Eichler & Levine, 2008)**. It is not likely to be possible to overcome these problems unless the contract is a relational one (and thus based on constant renegotiation and hopes of many renewals)—and even then success depends on willingness to use the flexibility that the relationship provides to enforce quality (Lönnroth, Uplekar, & Blanc, 2006)^** (Eichler & Levine, 2008; Lönnroth *et al*., 2006)** (Mackintosh, Chaudhuri, & Mujinja, 2011; Palmer & Mills, 2005; Williamson, 1985)*. [15] Donor-financed international NGOs—which often have well-institutionalized values and a reputation at stake—may well be able to write and enforce contracts with high standards (as in the social franchise model) but if the intention is then to continue these contracts through governments with poor regulatory capacity, quality probably will be hard to sustain. We hypothesize that only if external contracts demanding high standards of service and professionalism are continued long enough for those values to become institutionalized in the *local* NGOs that will receive the later governmental contracts is quality likely to survive the transition.† Of course local health and development organizations that already have institutionalized such values will not require the same lengthy and rigorous contract supervision.

(f) *Commercial self-regulation*

It is an open question as to when purely commercial interests would find a profit incentive to pursue a strong reputation for quality or even seek collectively to assure standards. In certain circumstances business associations are able to substitute for or complement the state in solving collective action problems, including setting standards for member firms. The performance of these kinds of roles is most likely to be possible when markets are competitive, encouragement is provided by government, and the association itself has a dense membership, offers firms selective benefits, and can mediate firm conflicts over interests (Doner & Schneider, 2010)*.

(g) *Generalities*

The larger conclusions to draw from the multiple studies on incentives for effort are that poor consumers *can* use their purchasing power to incentivise quality performance from service agencies *if* they receive clear signals as to which are the good providers. This power can be enhanced through conditional cash transfers to the poor for their use of specific services (Eichler & Levine, 2008)**. Generally, however, it is easier for organizations than individuals to provide the appropriate mix of monitoring, incentives, and signals. Client awareness of how well a service provider is performing is not automatic; mechanisms that are more effective at signaling good processes and outcomes are more likely to achieve this result. In almost all cases, however, it takes time for clients to learn to read and trust the signals sent by good performers and this implies the involvement of service organizations willing to invest in long-term results rather than immediate returns.

7. MICRO-INSTITUTIONS: ACCOUNTABILITY

The preceding discussion of incentives has focused largely on those that are provided by individual consumers or donors

and mediated through the market. To use Albert Hirschman's famous dichotomy, they are based on the client's "exit" [refusal to purchase] rather than "voice" [participation in governance] (Hirschman, 1970). What is the evidence about the effect of accountability to clients that is *not* mediated by the market, in other words ones that involve citizen "voice"—either local groups, decentralized governments, the regulatory processes of the state, or other aspects of the institutional context.

Accountability entails the identification of responsible actors, the presence of information, and rewards or sanctions (Brinkerhoff, 2004; Collins *et al*., 2008)*. As with other aspects of regulation and the assurance of service quality, accountability is highly dependent on social context and is likely to evolve most effectively out of the institutional history of the society.

(a) *Decentralisation*

What forms of decentralized accountability strengthen the performance of development services? To answer this question we need to look at the different dimensions of decentralization as follows:

(i) *Devolution:* In general, devolution of the governance of development services to elected community bodies or user groups has produced weak results, most especially where there are marked local inequalities or patronage (Leonard & Marshall, 1982)**. There is evidence for this proposition for general, multi-purpose local governments (Crook & Sverisson, 2003; Harriss, 2001)*, health services (Berlan & Shiffman, 2011)^** (Balabanova *et al*., 2011)**, agricultural producer cooperatives (Kherallah & Kirsten, 2002; Peterson, 1982)** (Hyden, 1973)*, veterinary services (Catley *et al*., 2004; Peeling & Holden, 2004)** and school committees in East Africa (Acemoglu *et al*., 2006; Banerjee & Duflo, 2006)^**. The places where devolved institutions have had a positive impact are those in which the communities themselves are relatively egalitarian, especially where they are instruments for the villagers to overcome their relative inequality with the *larger* society (Bardhan, 2002)**.

(ii) *Deconcentration:* The forms of decentralization that seem most effective are ones in which the local operational unit is not elected but has considerable managerial autonomy (i.e., *deconcentration*) combined with strong client participation (Berlan & Shiffman, 2011; Rassekh & Segaren, 2009)^** (Balabanova *et al*., 2011)**. Thus the health facilities in rural Tanzania that showed the highest quality were those that were responsible for their own personnel and finances (Mliga, 2000)*. And in Kenya experiments with incentives for primary school teacher performance had poor results when managed by headmasters who had no control over other aspects of personnel or finances but did work when secondary school scholarships were offered for students who did well on the national exams. The implication is that this benefit provided a strong incentive to pupils and parents who then both put pressure on teachers *and* joined with them in mutually reinforcing co-production (Acemoglu *et al*., 2006; Banerjee & Duflo, 2006)^**.

Put more generally, the strongest incentive effects are in the behavior of users both as consumers and *co-producers* of value, as mediated through professionally managed organizations (Eichler, 2006; Peters *et al*., 2009)^** (Eichler, 2006)** (Ford *et al*., 2009; Loewenson, Rusike, & Zulu, 2004)*. Thus, oversight by community organizations can improve health services quality and make providers more responsive to consumers/recipients. Berlan and Shiffman (2011)^** find that while practices that increase responsiveness toward other actors rather than consumers (e.g., central government) can decrease the quality of services, innovations that increase community participation (e.g., through community health boards and grassroots committees) and enhance consumers voice and information can actually improve service quality as perceived by consumers

(b) *Effective community participation*

However, some ways of involving communities seem to be more effective than others, and their success in improving outcomes is dependent on a variety of factors, including the "design" of the group and the context in which it interacts. Some of these factors are, for example: (i) the selection, composition, and general functioning of groups; (ii) relationships between committee members, service workers, and service managers; and (iii) the broader government context and socio-cultural norms (Molyneux *et al*., 2012)^**. Community organizations that respond to a felt local need, rather than to one imposed by external actors are more likely to have positive results. In communities "where there are sharp divisions based on ethnicity, wealth, gender, and power and where treatment seeking involves very contrasting "traditional" and "modern" health care, the applicability of community participation as envisaged through donors and governments can be called into question" (Molyneux *et al*., 2012)^**. See also Rose (2006)**.

The assessment of national NGOs as instruments of accountability is mixed. Certainly civil society is not *necessary* to poverty reduction, as there are authoritarian systems that have achieved it. Nonetheless, there are settings in which NGOs have played an important role in advocacy for the poor. For example, BRAC has impressive achievements in Bangladesh. Concerns remain, however, about whether most NGOs are not too elitist and/or donor dependent, compromising their ability to be agents of *empowerment* for the poorest (Bratton, 1989)*. The greater the degree of inequality in a society, the more elitism would be a matter for concern (Edwards & Hulme, 1996; Ibrahim & Hulme, 2010)** (Spicer *et al*., 2011)*.

(c) *Information*

Public disclosure of information, consumers' access to information, and *awarene*ss of patients' rights, all appear to be powerful mechanisms for improving provider performance and health outcomes. For example, provider performance reports and report cards have potential to enhance responsiveness to consumers, and also increase consumers' choice and ability to dialog. Although not many reviews assess the impact of report cards, there is some evidence showing that they can contribute to improved provider performance (Berlan & Shiffman, 2011; Molyneux *et al*., 2012)^** (Hansen *et al*., 2008)*. However, their effectiveness depends on design. Specifically, the form of information matters: "consumers ignore raw data and must be presented information in ways that are relevant, comprehensive, and credible" (Berlan & Shiffman, 2011)^**.

8. PATH DEPENDENCIES

At many points in our analysis we have noted that unique sets of indigenous institutions have helped particular countries overcome their asymmetric information problems. These institutions have derived from particular historical path of development of each society. Countries, such as India and

Pakistan, that have not yet discovered such facilitative institutions in their cultural heritages struggle with providing the quality of professional services their citizens seek. Christian missions in Africa, BRAC in Bangladesh, and a reformist state in northeast Brazil are well-documented examples of at least partial institutional solutions. A less obvious example of path dependent institutional success is provided by China's health care.

(a) *China*

China has a number of features that are unusual among LMICs. Econometric analysis of the institutional determinants of a country's health status identifies transition from Communism as a *negative* influence, due to disruptions in the health care system (Knowles & Owen, 2010)*. In contrast the experience of post-Mao China has shown gradual transformation and *improvement*, even if medical costs have risen rapidly. This seemingly anomalous positive result can be explained through path dependency in ways that are consistent with the conclusion that quality is enhanced if incentives are managed by values-led organizations rather than paid directly to individual practitioners.

All facilities in China are dependent on fee income to supplement government funds in order to pay adequate compensation to their better professional staff. Fee income is aggregated at the level of the medical facility, not the individual, and is used by its management to provide incentives to its professional staff (Bloom, 2011)*. Both of these two attributes are the same as observed in the better missions in Cameroun and Tanzania (Leonard, 2009; Mliga, 2000)*. In contrast user payments to *government* providers in India and Africa are frequently informal in nature, and go directly to the individual. The Chinese pattern has had a mixed effect. Hospitals rely heavily on the income they generate from patients and they have strong incentives to provide an increasingly costly style of care dependent on the sale of pharmaceuticals and use of diagnostic equipment. On the other hand, these facilities have remained in government ownership and they are under pressure to demonstrate that they contribute to government health targets (Pei & Bloom, 2011)*. For example, when the government announced a policy for reducing maternal mortality, some hospitals subsidized outreach work from their own revenues, contributing to substantial improvement in maternal health. Hospital performance is, therefore, strongly influenced by the way managers balance these competing pressures and reflect this balance in the design of salary bonus schemes.

China tolerates a considerable amount of corruption but it punishes harshly those who are charged. Indeed, there have been periodic, severely punitive anti-corruption campaigns since the early 1950s (Schurman, 1973)*. Those who violate Communist Party standards on quality in the pursuit of private gain know that they are taking a risk of severe punishment (Bloom, 2011)*. All health facilities are required to sign an ethical code and their behavior is monitored. There are also examples when a person's death in a rural medical facility suggested possible neglect or incompetence and her/his village descended on it *en masse* and demanded compensation (Bloom, 2011)*. These examples suggest an implicit, culturally embedded set of regulatory and tort institutions in China that are much stronger than those found in most other LMICs.†

(b) *Generalities*

The institutional solutions the above countries have found for overcoming the asymmetric information problem are very different from one another. They carry some features that are recognizable in the literature we have reviewed in the preceding sections and can be explained with general theory. But the specifics were made possible by the particular path of institutional development each country has traversed—paths rooted in their social histories and political economies.

We want to emphasize the use of the adjective "institutional" in the preceding paragraph. The mechanisms and societal features that were able to produce improved outcomes in each case were embedded in that country, that is, they were institutionalized by having come to be valued for their own sake and therefore had staying power and social efficacy. Too much of the literature evaluating various mechanisms for managing professional service delivery takes no account of whether they have achieved institutionalization. Indeed a single country *experimental* study design *cannot* test for the consequences of a mechanism's social embeddedness, because it cannot be manipulated randomly. This does not invalidate the evaluations of these design and policy features, for those things that work well before they have become institutionalized are most likely to survive long enough to become socially embedded and therefore still more effective. But this process does re-emphasize the importance, in making policy and implementation decisions about professional services, of taking advantage of a society's existing institutional repertoire of institutions and of working with rather than against them.

9. CONCLUSIONS

The important conclusions to draw from this review of the literature are:

(1) The quality of services offered to the poor in undergoverned LMICs is frequently seriously deficient.

(2) In undergoverned countries it is better to focus on the nature of the *markets* for health and development services rather than on the public and private *sectors*. It is common in such LMICs for informal fees to be charged in the public sector and for a very substantial proportion (if not a majority) of services to be bought in a private sector that varies widely in quality and profit motive. In these settings the so-called "public" and "private" sectors are interpenetrated and often face the same institutional issues *within* them.

(3) The poor have more knowledge about the quality of the services on which they rely than is generally recognized, but this information could be enhanced considerably through societal institutions that help them solve the information asymmetry problem they face.

(4) The likelihood of social institutions that mitigate inequalities in knowledge about the quality of services increase with GNP per capita, education, good governance, and "social capital" while they decrease with inequality and patronage.

(5) Most of the world's poor live in LMICs in which they can and *do* invest modestly in the purchase of needed services and can be seen buying from higher cost providers in the face of catastrophic events when they judge that their quality is necessary,[16]. This in no way invalidates the case for subsidies for services for the poor. Recognition of the reality of client payments, however, prompts a recognition that most LMICs do have resources in their societies that could be spent more effectively to create stronger incentives for service providers

and greater gain in health and other development outcomes *if the market imperfections caused by information asymmetry could be overcome*.

(6) Hence the priority is to develop a set of institutions in the society that enable quality in competence, effort, and accountability to be rewarded and signaled.

(7) In societies with high levels of governance, the state usually plays a central role in providing institutional solutions to the problems of information asymmetry. It is very often unrealistic and counter-productive, however, to expect government to be the principal provider of individualisable ("private") health and development goods for the poor in countries with low levels of governance and poorly developed paths for public sector improvement. Nonetheless, even in these settings most often the state will want to play a role in planning for, facilitating, and subsidizing institutional solutions by non-governmental actors and to ensure the provision of services that have important "externalities" (such as disease prevention, surveillance, and control).

(8) In undergoverned countries the most effective institutions serving the poor generally will be developed in organizations rather than by individual practitioners, as the former are more likely to be able to overcome the asymmetric information problem.

(9) In many societies the organizations that are most likely to invest in the creation as well as maintenance of quality reputations are those that have "other regarding" initial institutional values.

(10) These organizations also are likely to perform best if their local professional staff have decentralized control of their personnel and financial management (deconcentration), under the eye of client participation.

(11) As there are multiple ways to provide incentives for quality and to signal them to potential clients, those trying to stimulate higher quality should invest in the paths to these institutions that are most consistent with a society's other existing institutions.

(12) These conclusions about institutional solutions to the asymmetric information problem apply not just to health services but to those for education, veterinary medicine, agricultural credit, and probably others as well.

Different social institutions for providing and signaling incentives for quality in competence, effort, and accountability have been found to be effective in various settings. The evidence suggests that macro contextual factors such as cultural norms and values matter for service outcomes, particularly on how they determine the performance of community accountability mechanisms, on how they shape provider–recipient relationships and in the repertoire of well-performing organizations (including government) available (Berlan & Shiffman, 2011; Molyneux *et al*., 2012)^**. It is *possible* that some of them are universally more effective than others. But because such institutions tend to be a cultural attribute of a country as a whole (as missions are in Africa, for example), the evidence for judging such relative effectiveness does not exist and would be difficult to collect. More important, such institutions generally are shaped in a path dependent manner—that once moderately effective institutions are established in a society the costs of changing to another set are too high to be worth the effort (Bloom *et al*., 2009)**. Thus improvements in the quality of services offered to the poor in LMICs are most likely to be found by using, extending, and reforming the particular institutions a country already has, rather than attempting to import some allegedly universal "best practice".

NOTES

1. The World Bank provides a Governance score for all countries, which is a composite of scores on Voice and Accountability, Political Stability and Absence of Violence/Terrorism, Government Effectiveness, Regulatory Quality, Rule of Law, and Control of Corruption. We are treating countries at or below the median score as "undergoverned."

2. For example, when we began this research we were puzzled as to how in China after the end of the Cultural Revolution, when its medical services came to rely on income from private payments, the health of its population continued to improve, while other countries found privatization produced a "race to the bottom" in quality. Between 1980 and 2010 the "Under 5 Mortality Rate" in China fell 72% from 65 to 18, while India's dropped only 64% from 177 to 63 (World Bank, 1997) and <http://data.worldbank.org/indicator> for 2010.

3. This framework was originally developed by K.L. Leonard, in D.K. Leonard, ed., 2000 and in K.L. Leonard, et al., 2007. It is paralleled and validated by the framework of Capacity, Continuity, Catalysis, and Context in Balabanova, Mills, and McKee (2011).

4. We did *not* restrict our searches to "undergoverned countries", nor do we apply our discussions of empirical findings only to such countries. Our searches were directed at *all* poor countries and sometimes we even were willing to pull in results from an industrialized country where no other evidence was available on a key point. Our focus on "undergoverned countries" in the following discussions comes from the fact that most of the world's poor are located in such countries and we therefore cannot assume that the solution to their problems is good governance (i.e., a well–functioning set of state organisations). Thus we need to look at the institutions governing *market* transactions for these services, even in countries where governments are service providers.

5. The NIE has its origins both in transaction cost economics and the organization theory of political scientists Herbert Simon and James March. It is reflected in various degrees by Douglas North (economic historian), Oliver Williamson and George Akerloff (economists), and Elinor Ostrom (political scientist).

6. If one makes a distinction between health practitioners with formal qualifications and "informal" providers, government services usually are back in the majority (Basu, Andrews, Kishore, Panjabi, & Stuckler, 2012)^**. But the "informal" providers are not always inexpensive and they are competing successfully in the health market. And even "free" government primary education often involves payments for uniforms, supplies, and instructor tutoring (Tooley & Dixon, 2006)**, while government MDs in India in the morning provide free "public" referrals to their own "private" fee-paying clinics in the afternoon, making the "public"/"private" distinction opaque.

7. The extensive literature on rural credit follows Amartya Sen in noting that the poor are better able to survive and recover from modestly severe adverse events *when they have access to land*, for it gives them capital against which they can borrow (Conning & Udry, 2007)**. The latter point may be one of the factors that combine to explain the greater quality in the fee-for-service markets of China and with church providers in Africa than there is for India or Pakistan, where wide-spread landlessness makes

financial catastrophe from adverse events more prevalent (Chambers, 1983)†. Research to confirm this hypothesis for services other than rural credit is missing, however. We do have some evidence that those who charge fees discriminate positively toward the poor (i.e., charge only as much as they think they are able to pay), so that the burden on the poor of fees may not be as great as is usually feared (McLeod & Wilsmore, 2002)** (Amin, Hanson, & Mills, 2004; Leonard, 1987)*.

8. The debate about the effects of private payments on the quality of services is usually conducted as a comparison of publicly and privately owned and managed facilities. But private payments are quite common in the public sector of undergoverned countries and the private sector to which comparison is made may or may not include both the formally qualified practitioners in profit-seeking and charitable settings as well as the untrained operating informally. Health studies that use an undifferentiated definition of "private" and assume that all government services are outside the market suggest that public quality is better (Basu et al., 2012)^**. But this ignores the impact of formal qualifications on quality we acknowledged above and that some of these differences are so visible that we must assume that consumers are making conscious choices between them. Our reading of the literature is that the public v. private *ownership* debate is obscuring many other important institutional factors, such as the nature of the service "contract", the organizational setting, and social context in which the service is being delivered (Das & Hammer, 2007) (Dulleck et al., 2011)*.

9. Most private payments in LMICs for veterinary medicine are directed to individuals, which is similar to what public sector physicians are collecting in after-hours private practices in India (Leonard, 1987)*. In the animal health case we know that the increased access provided by the larger quantity of service stimulated by fees was of sufficient quality as to have identifiable positive effects on animal mortality (Catley et al., 2004; Peeling & Holden, 2004)**.

10. For instance, a study in rural China documents how local accountability networks (guanxi) put pressure on village doctors to take the needs of patients into account but have much less influence on high-level facilities. For example a doctor may have to refund the cost of drugs if they do not work (Fang, 2008)*.

11. This point is well established in organisation theory. In the language of the New Institutional Economics the organisation has the ability to offer "budget-breaking"/"non-conservative" institutions. A "conservative" institution is one, such as fees or tort settlements, where what one party pays the other gains – conserving value. Such an institution has disadvantages when the link between the provider's actions (outputs) and the outcomes experienced by the consumer are not automatic. A "conservative" set of court-enforced torts thus might lead to a malpractice suit where nothing was done wrong and no suit at all when errors were made but the patient avoided injury by chance. A "non-conservative" institution does not require a direct link between a charge or compensation for the patient and a bonus or penalty for the individual provider. Thus the employing organisation might sanction or reward the behavior of its practitioners, even when there was no feedback from the recipients. This latter type of institution permits more rigorous assessment of professional quality by the organisation itself, independent of the probabilistic element of outcomes (Leonard, 2000a)†. The classic article on this point says: "In a well-known paper, Alchian and Demsetz (1972) argue that efficiency can (and will) be restored by bringing in a principal who monitors the agents' inputs. My first point will be that the principal's role is not essentially one of monitoring. ... the principal is needed, either to enforce the penalties or to finance the bonuses. Thus, the principal's primary role is to break the budget-balancing constraint" (Holmstrom, 1982)*.

12. In the language of the New Institutional Economics, the nature of the goods being provided in many of these health and development services is such that local "hierarchies" are needed to mediate between the market and the consumer if quality is to be delivered, even to those who want it. Williamson would say the local organization thus has "asset specificity" in two regards – the selection and management of its employees, and the market value of its reputation, which it can create more easily than the individual practitioner because of long repeated transactions with consumers/clients (Williamson, 1975, 1984)*. Where there are strong information asymmetries these attributes lead to a preference in undergoverned societies for local "hierarchies" over against disaggregated "markets" as a form of economic organization (See also the last chapter in (Leonard, 2000a)*.

13. A dissent to this view is provided by (Berendes, Heywood, Oliver, & Garner, 2011)**, but the supporting table is no longer available on the web.

14. Social franchises are a contractual arrangement between a franchisee, usually a small business, and a franchisor, usually a larger organisation or business, to provide a standardized service or product according to guidelines set by the franchisor. In health, the franchisor is commonly an international NGO receiving donor financing to establish and run the network (Montagu, 2002).

15. The Balanced Score Card method of evaluating contract performance has had positive results in Afghanistan. But this was done with donor funds and American and Indian technical assistance, leaving us still with the critique applied to the NPM – that well-specified performance targets are hard to develop and enforce in conditions of weak governance (Anonymous, 2008; Hansen et al., 2008; Peters et al., 2007)*.

16. We hypothesize particularly if they have land or some other collateral asset.

REFERENCES

Acemoglu, D., Kremer, M., & Mian, A. (2006). Incentives in markets, firms and governments. *Journal of Law, Economics and Organization, 24*(2), 273–306.

Ahuja, V., George, P. S., Ray, S., McConnell, K. E., Kurup, M. P. G., Gandhi, V., *et al.* (2000). *Agricultural services and the poor: Case of livestock health and breeding services in India*. Admedabad: Indian Institute of Management.

Akerloff, G. (1970). 'The market for lemons': Quality, uncertainty and the market mechanism. *Quarterly Journal of Economics, 8*(3), 408–500.

Alchian, A. A., & Demsetz, H. (1972). Production, information costs, and economic organization. *The American Economic Review, 62*(5), 777–795.

Amin, M., Hanson, K., & Mills, A. (2004). Price discrimination in obstetric services: A case study in Bangladesh. *Health Economics, 13*, 597–604.

Anonymous (2008). *Afghanistan health sector balanced scorecard 2008*. Baltimore: Johns Hopkins University Bloomberg School of Public Health and Indian Institute of Health Management Research.

Arrow, K. J. (1963). Uncertainty and the welfare economics of medical care. *American Economic Review, 53*(1), 941–973.

Arrow, K. J. (1985). The Economics of Agency. In J. Pratt, & R. Zeckhauser (Eds.), *Principals and agents: The structure of business* (pp. 37–51). Boston: Harvard University Press.

Balabanova, D., Mills, A., & McKee, M. (Eds.) (2011). *'Good health at low cost' 25 years on: What makes a successful health system?*. London: London School of Hygiene and Tropical Medicine.

Banerjee, A., & Duflo, E. (2006). Addressing absence. *Journal of Economic Perspectives, 20*(1), 117–132.

Banerjee, A. V., & Duflo, E. (2010). Giving credit where it is due. *Journal of Economic Perspectives, 24*(3), 61–80.

Bardhan, P. (2002). Decentralization of governance and development. *Journal of Economic Perspectives, 16*(4), 185–205.

Basinga, P., Gertler, P. J., Binagwaho, A., Soucat, A. L., Sturdy, J., & Vermeersch, C. M. (2011). Effect on maternal and child health services in Rwanda of payment to primary health-care providers for performance: An impact evaluation. *Lancet, 377*(9775), 1421–1428.

Basu, S., Andrews, J., Kishore, S., Panjabi, R., & Stuckler, D. (2012). Comparative performance of private and public healthcare systems in low- and middle-income countries: A systematic review. *PLoS Medicine, 9*(6), e1001244, http://dx.doi.org/10.1371/journal.pmed.1001244.

Batley, R. (2004). The politics of service reform delivery. *Development and Change, 35*(1), 31–56.

Bebbington, A., & McCourt, W. (Eds.) (2007). *Development success: Statecraft in the south*. Basingstoke: Palgrave Macmillan.

Berendes, S., Heywood, P., Oliver, S., & Garner, P. (2011). Quality of private and public ambulatory health care in low and middle income countries: Systematic review of comparative studies. *PLoS Medicine, 8*(4), 1–10.

Berlan, D., & Shiffman, J. (2011). Holding health providers in developing countries accountable to consumers: A synthesis of relevant scholarship. *Health Policy and Planning, 25*, 1–10.

Bett, B., Machila, N., Gathura, P. B., McDermottd, J. J., & Eisler, M. C. (2004). Characterisation of shops selling veterinary medicines in a tsetse-infested area of Kenya. *Preventive Veterinary Medicine, 63*, 29–38.

Bloom, G. (2011). Building institutions for an effective health system: Lessons from China's experience with rural health reform. *Social Science and Medicine, 72*, 1302–1309.

Bloom, G., Champion, C., Lucas, H., Peters, D., & Standing, H. (2008). *Making health markets work better for poor people: Improving provider performance*. New York: Rockefeller Foundation.

Bloom, G., Standing, H., & Joshi, A. (2009). Institutional context of health services. In D. H. Peters, S. El-Saharty, B. Siadat, K. Janovsky, & M. Vujicic (Eds.), *Improving health service delivery in developing countries: From evidence to action* (pp. 203–215). Washington, DC: The World Bank.

Bloom, G., Standing, H., & Lloyd, R. (2008). Markets, information asymmetry and health care: Towards new social contracts. *Social Science and Medicine, 66*, 2076–2087.

Bratton, M. (1989). The politics of government-NGO relations in Africa. *World Development, 17*(4), 569–587.

Brhlikova, P., Harper, I., Jeffery, R., Rawal, N., Subedi, M., & Santhosh, M. (2011). Trust and the regulation of pharmaceuticals: South Asia in a globalised world. *Globalization and Health, 7*(10), 1–35.

Brinkerhoff, D. (2004). Accountability and health systems: Toward conceptual clarity and policy relevance. *Health Policy and Planning, 19*(6), 371–379.

Catley, A., Leyland, T., Mariner, J. G., Akabwai, D. M. O., Admassu, B., Asfaw, W., *et al.* (2004). Para-veterinary professionals and the development of quality, self-sustaining community-based services. *Office International des Epizooties: Scientific and Technical Review, 23*(1), 225–252.

Chaix-Couturier, C., Durand-Zaleski, I., Jolly, D., & Durieux, P. (2000). Effects of financial incentives on medical practice: Results from a systematic review of the literature and methodological issues. *International Journal for Quality in Health Care, 12*(2), 133–142.

Chambers, R. (1983). *Rural development: Putting the last first*. London: Longman.

Chopra, M., Munro, S., Lavis, J. N., Vist, G., & Bennett, S. (2008). Effects of policy options for human resources for health: An analysis of systematic reviews. *Lancet, 371*, 668–674.

Cohn, J., Russell, A., Baker, B., Kayongo, A., Wanjiku, E., & Davis, P. (2010). Using global health initiatives to strengthen health systems: A civil society perspective. *Global Public Health*, 1–16.

Collins, C., Coates, T. J., & Szekeres, G. (2008). Accountability in the global response to HIV: Measuring progress, driving change. *AIDS, 22*(S2), S105–S111.

Conning, J., & Udry, C. (2007). Rural financial markets in developing countries. *Handbook of Agricultural Economics, 3*(Center Discussion Paper 914), 2857–2908.

Crook, R., & Sverisson, A. S. (2003). Does decentralization contribute to poverty reduction. In P. M. Houtzager, & M. Moore (Eds.), *Changing paths: International development and the new politics of inclusion*. Ann Arbor: University of Michigan Press.

Das, J., & Hammer, J. (2007). Location, location, location: Residence, wealth, and the quality of medical care in Delhi, India. *Health Affairs, 26*(3), w338–w351.

Das, J., Hammer, J., & Leonard, K. (2008). The quality of medical advice in low-income countries. *Journal of Economic Perspectives, 22*(2), 93–114.

Das, J., Hoolla, A., Das, V., Mohana, M., Tabak, D., & Chan, B. (2012). In urban and rural India, a standardized patient study show low levels of provider training and huge quality gaps. *Health Affairs, 31*(12), 2774–2784.

Doner, R. F., & Schneider, B. R. (2010). Business associations and economic development: Why some associations contribute more than others. *Business and Politics, 2*(3), 261–288.

Dulleck, U., & Kerschbamer, R. (2006). On doctors, mechanics, and computer specialists: The economics of credence goods. *Journal of Economic Literature, 44*(March), 5–42.

Dulleck, U., Kerschbamer, R., & Sutter, M. (2011). The economics of credence goods: An experiment on the role of liability, verifiability, reputation, and competition. *The American Economic Review, 101*(2), 526–555.

Edwards, M., & Hulme, D. (1996). Too close for comfort? The impact of official aid on nongovernmental organizations. *World Development, 24*, 961–973.

Eichler, R. (2006). *Can "pay for performance" increase utilization by the poor and improve the quality of health services?*. Working Group on Performance-Based Incentives, Center for Global Development.

Eichler, R., & Levine, R. (2008). *Performance incentives in provider purchasing and contracting arrangements: Rationale and experiences*. New York: Rockefeller Foundation.

Eldridge, C., & Palmer, N. (2009). Performance-based payment: Some reflections on the discourse, evidence and unanswered questions. *Health Policy and Planning, 24*(3), 160–166.

Ensor, T., & Weinzierl, S. (2007). Regulating health care in low- and middle-income countries: Broadening the policy response to resource constrained environments. *Social Science and Medicine*, (65), 355–366.

Evans, P. (2009). Population health and development: An institutional–cultural approach to capability expansion. In P. A. Hall, & M. Lamont (Eds.), *Successful societies: How institutions and culture affect health*. New York: Cambridge University Press.

Fang, J. (2008). The Chinese health care regulatory institutions in a time of transition. *Social Science and Medicine, 66*(4), 952–962.

Ferrinho, P., Lerberghe, W. V., Fronteira, I., Hipolito, F., Biscaia, A., *et al.* (2004). Dual practice in the health sector: Review of the evidence. *Human Resources for Health, 2*(14), 1–17.

Ford, N., Wilson, D., Cawthorne, P., Kumphitak, A., Kasi-Sedapan, S., Kaetkaew, S., *et al.* (2009). Challenge and co-operation: Civil society activism for access to HIV treatment in Thailand. *Tropical Medicine and International Health, 14*(3), 258–266.

Friedson, E. (1970). *Profession of medicine: A study of the sociology of applied knowledge*. New York: Harper & Row.

Gilson, L. (2006). Trust in health care: Theoretical perspectives and research needs. *Journal of Health Organization and Management, 20*(5), 359–375.

Goodman, C., Brieger, W., Unwin, A., Mills, A., Meek, S., & Greer, G. (2007). Medicine sellers and malaria treatment in Sub-Saharan Africa: What do they do and how can their practice be improved?. *American Journal of Tropical Medicine and Hygiene, 77*(6 Suppl.), 203–218.

Gosden, T., Forland, F., Kristiansen, I. S., Sutton, M., Leese, B., Giuffrida, A., *et al.* (2000). Capitation, salary, fee-for-service and mixed systems of payment: Effects on the behaviour of primary care physicians [Review] Article ID CD002215. *Cochrane Database of Systematic Reviews, 3*.

Grindle, M. S., & Thomas, J. W. (1991). *Public choices and policy change: The political economy of reform in developing countries*. Baltimore: The Johns Hopkins University Press.

Hansen, P. M., Peters, D. H., Niayesh, H., Singh, L. P., Dwivedi, V., & Burnham, G. (2008). Measuring and managing progress in the establishment of basic health services: The Afghanistan health sector

balanced scorecard. *International Journal of Health Planning and Management, 23*, 107–117.
Harriss, J. (2001). Do political regimes matter? Poverty reduction and regime differences across India. In P. P. Houtzager, & M. Moore (Eds.), *Changing paths: International development and the new politics of inclusion* (pp. 204–232). Ann Arbor: University of Michigan Press.
Hellberg, I. (1990). The Swedish veterinary profession and the Swedish state. In R. Torstendahl, & M. Burage (Eds.), *The formation of professions: Knowledge, state and society* (pp. 174–185). London: Sage.
Heredia, B., & Schneider, B. R. (2002). The political economy of administrative reform in developing countries. In B. R. Schneider, & B. Herdia (Eds.), *Reinventing leviathan: The politics of administrative reform in developing countries* (pp. 1–29). North–South Center Press.
Hirschman, A. O. (1970). *Exit, voice, and loyalty: Responses to decline in firms, organizations, and states*. Cambridge: Harvard University Press.
Holmstrom, B. (1982). Moral hazard in teams. *The Bell Journal of Economics, 13*(2), 324–340.
Hyden, G. (1973). *Efficiency versus distribution in East African cooperatives: A study in organizational conflicts*. Nairobi: East African Literature Bureau.
Ibrahim, S., & Hulme, D. (2010). *Has civil society helped the poor? A review of the roles and contributions of civil society to poverty reduction*. Manchester: University of Manchester Brooks World Poverty Institute.
Jan, S., Bian, Y., Jumpa, M., Meng, Q., Nyazema, N., Prakongxai, P., *et al.* (2005). Dual job-holding by public sector health professionals in highly resource-constrained settings: problem or solution?. *Bulletin of World Health Organization, 83*, 771–776.
Kaufmann, D., Kraay, A., & Mastruzzi, M. (2006). *Governance matters V: Governance indicators for 1996–2005*. Washington, DC: World Bank.
Kherallah, M., & Kirsten, J. F. (2002). The new institutional economics: Applications for agricultural policy research in developing countries. *Agrekon, 41*(2), 110–133.
Knowles, S., & Owen, P. D. (2010). Which institutions are good for your health? The deep determinants of comparative cross-country health status. *Journal of Development Studies, 46*(4), 701–723.
Koehlmoos, T., Gazi, R., Hossain, S., & Rashid, M. (2011). *Social franchising evaluations: A scoping review*. London: EPPI-Centre, Social Science Research Unit, Institute of Education, University of London.
Koehlmoos, T. P., Gazi, R., Hossain, S. S., & Zaman, K. (2009). The effect of social franchising on access to and quality of health services in low- and middle-income countries [review]. *The Cochrane Library*, (2), 1–16.
Kohler, J. C., & Baghdadi-Sabeti, G. (2011). *Good governance for the pharmaceutical sector*. Geneva: World Health Organization.
Koma, L. M. P. K. (2000). Can private veterinarians survive in Uganda?. In D. K. Leonard (Ed.), *Africa's changing markets for health and veterinary services: The new institutional issues* (pp. 145–167). London: Macmillan Press.
Kremer, M., & Holla, A. (2008). Improving education in the developing world: What have we learned from randomized evaluations?. *Annual Review of Economics, 1*, 513–542.
Kumaranayake, L., Lake, S., Mujinja, P., Hongoro, C., & Mpembeni, R. (2000). How do countries regulate the health sector? Evidence from Tanzania and Zimbabwe. *Health Policy and Planning, 15*(4), 357–367.
Lagarde, M., & Palmer, N. (2008). The impact of user fees on health service utilization in low- and middle-income countries: How strong is the evidence?. *Bulletin of the World Health Organization, 86*, 839–848.
Lagarde, M., & Palmer, N. (2009). The impact of contracting out on health outcomes and use of health services in low and middle-income countries [review]. *The Cochrane Library*, (4).
Lagarde, M., Powell-Jackson, T., & Blaauw, D. (2010). *Managing incentives for health providers and patients in the move towards universal coverage*. Montreux, Switzerland: Global Symposium on Health Systems Research.
Larbi, G. (1999). *The new public management approach and crisis states*. Geneva: UN Research Institute for Social Development.
Leonard, D. K. (1977). *Reaching the peasant farmer: Organization theory and practice in Kenya*. Chicago: University of Chicago Press.
Leonard, D. K. (1987). The supply of veterinary services: Kenyan lessons. *Agricultural Administration and Extension, 26*(4), 219–236.
Leonard, D. K. (1991). *African successes: Four public managers of Kenyan rural development*. Berkeley: University of California Press.
Leonard, D. K. (2000a). *Africa's changing markets for health and veterinary services: The new institutional issues*. London: Macmillan Press Ltd..
Leonard, D. K. (2010). 'Pockets' of effective agencies in weak governance states: Where are they likely and why does it matter?. *Public Administration and Development, 30*, 91–101.
Leonard, D. K., Brass, J., Nelson, M., Ear, S., Fahey, D., Fairfield, T., *et al.* (2010). Does patronage still drive politics for the rural poor in the developing world? A comparative perspective from the livestock sector. *Development and Change, 41*(3), 475–494.
Leonard, D. K. (2000b). The new institutional economics and the restructuring of animal health services in Africa. In D. K. Leonard (Ed.), *Africa's changing markets for health and veterinary systems: The new institutional issues*. London: Macmillan.
Leonard, D. K., & Marshall, D. R. (Eds.) (1982). *Institutions of rural development for the poor: Decentralization and organizational linkages*. Berkeley: Institute of International Studies, University of California.
Leonard, K. L. (2003). African traditional healer and outcome-contingent contracts in health care. *Journal of Development Economics, 17*(1), 1–22.
Leonard, K. L. (2007). Learning in health care: Evidence of learning about clinician quality in Tanzania. *Economic Development and Cultural Change, 55*(3), 531–555.
Leonard, K. L. (2009). The cost of imperfect agency in health care: Evidence from rural Cameroun. *Journal of Development Economics, 88*, 282–291.
Leonard, K. L., & Masatu, M. C. (2006). Outpatient process quality evaluation and the Hawthorne effect. *Social Science and Medicine, 63*, 2330–2340.
Leonard, K. L., Masatu, M. C., & Vialou, A. (2007). Getting doctors to do their best: The roles of ability and motivation in health care quality. *The Journal of Human Resources, XLII*(3), 682–700.
Lewis, M. (2007). Informal payments and the financing of health care in developing and transition countries. *Health Affairs, 26*(4), 984–997.
Liu, X., Hotchkiss, D. R., & Bose, S. (2008). The effectiveness of contracting-out primary health care services in developing countries: A review of the evidence. *Health Policy and Planning, 23*, 1–13.
Loevinsohn, B., & Harding, A. (2005). Buying results? Contracting for health service delivery in developing countries. *Lancet, 366*, 676–681.
Loewenson, R., Rusike, I., & Zulu, M. (2004). *Assessing the impact of health centre committees on health system performance and health resource allocation*. Harare, Zimbabwe: Training and Research Support Centre.
Lönnroth, K., Uplekar, M., & Blanc, L. (2006). Hard gains through soft contracts: Productive engagement of private providers in tuberculosis control. *Bulletin of the World Health Organization, 84*, 876–883.
Ly, C. (2000). Management and impact of auxiliaries on pastoral production and veterinary services delivery in Senegal. In D. K. Leonard (Ed.), *Africa's changing markets for health and veterinary systems: The new institutional issues* (pp. 224–259). London: Macmillan.
Mackintosh, M., Chaudhuri, S., & Mujinja, P. G. (2011). Can NGOs regulate medicines markets? Social enterprise in wholesaling, and access to essential medicines. *Globalization and Health, 7*(4), 1–13.
Manning, N. (2001). The legacy of the new public management in developing countries. *International Review of Administrative Sciences, 67*(2), 297–312.
March, J. G., & Olsen, J. P. (1984). Organizing political life: What administrative reorganization tells us about government. *American Political Science Review, 77*, 281–297.
Matsubayashi, T., Peters, D. H., & Rahman, H. (2009). Analysis of cross-country changes in health services. In D. H. Peters, S. E-Saharty, B. Siadat, K. Janovsky, & M. Vujicic (Eds.), *Improving health service delivery in developing countries: From evidence to action* (pp. 173–202). Washington, DC: The World Bank.
McLeod, A., & Wilsmore, A. (2002). The delivery of animal health services to the poor: A review. In B. D. Perry, T. F. Randolph, J. J. McDermott, J. R. Sones, & P. K. Thornton (Eds.), *Investing in animal health research to alleviate poverty* (pp. 1–24). Nairobi: International Livestock Research Institute.
Mehrotraa, S., & Panchamukhia, P. R. (2006). Private provision of elementary education in India: Findings of a survey in eight states. *Compare: A Journal of Comparative and International Education, 36*(4), 421–442.

Mliga, G. (2000). Decentralization and the quality of health care. In D. K. Leonard (Ed.), *Africa's changing markets for health and veterinary services: The new intstitutional issues* (pp. 203–223). London: Macmillan.
Molyneux, S., Atela, M., Angwenyi, V., & Goodman, C. (2012). Community accountability at peripheral health facilities: A review of the empirical literature, and development of a conceptual framework. *Health Policy and Planning*.
Montagu, D. (2002). Franchising of health services in developing countries. *Health Policy and Planning, 17*(2), 121–130.
Ndeso-Atanga, S. (2000). Health care quality and the choice of care providers: Cameroon II. In D. K. Leonard (Ed.), *Africa's changing markets for health and veterinary services: The new institutional issues* (pp. 125–144). Houndsmills, UK: Macmillan.
North, D. (1990). *Institutions, institutional change, and economic performance*. New York: Cambridge University Press.
Oxman, A. D., & Fretheim, A. (2008). *An overview of research on the effects of results-based financing*. Oslo: Nasjonalt kunnskapssenter for helsetjenesten.
Palmer, N., & Mills, A. (2005). Contracts in the real world: Case studies from Southern Africa. *Social Science and Medicine, 60*(11), 2505–2514.
Patouillard, E., Goodman, C. A., Hanson, K. G., & Mills, A. J. (2007). Can working with the private for-profit sector improve utilization of quality health services by the poor? A systematic review of the literature. *International Journal for Equity in Health, 6*(17), 1–11.
Patrinos, H. A., Barrera-Osorio, F., & Guáqueta, J. (2009). *The role and impact of public–private partnerships in education*. Washington, DC: The World Bank.
Pawson, R., Greenhalgh, T., Harvey, G., & Walshe, K. (2005). Realist review: A new method of systematic review designed for complex policy interventions. *Journal of Health Services, Research and Policy, 10*(1 Suppl.), 21–34.
Peeling, D., & Holden, S. (2004). The effectiveness of community-based animal health workers, for the poor, for communities and for public safety. *Office International des Epizooties: Scientific and Technical Review, 23*(1), 253–276.
Pei, X., & Bloom, G. (2011). Balancing efficiency and legitimacy: Institutional changes and rural health organization in China. *Social Policy and Administration, 45*(6), 662–677.
Peters, D. H., El-Saharty, S., Siadat, B., Janovsky, K., & Vujicic, M. (Eds.) (2009). *Improving health service delivery in developing countries: From evidence to action*. Washington, DC: The World Bank.
Peters, D., & Muraleedharan, V. R. (2008). Regulating India's health services: To what end? What future?. *Social Science and Medicine, 66*(10), 2133–2144.
Peters, D. H., Noor, A. A., Singh, L. P., Kakar, F. K., Hansen, P. M., & Burnham, G. (2007). A balanced scorecard for health services in Afghanistan. *Bulletin of the World Health Organization, 85*(2).
Petersen, L. A., Woodard, L. D., Urech, T., Daw, C., & Sookanan, S. (2006). Does pay-for-performance improve the quality of health care?. *Annals of Internal Medicine, 145*, 265–272.
Peterson, S. B. (1982). Government, cooperatives, and the private sector in peasant agriculture. In D. K. Leonard, & D. R. Marshall (Eds.), *Institutions of rural development for the poor: Decentralization and organizational linkages*. Berkeley: University of California Press.
Powell, W. W., & DiMaggio, P. J. (Eds.) (1991). *The new institutionalism in organizational analysis*. Chicago: University of Chicago Press.
Pratt, J., & Zeckhauser, R. (Eds.) (1985). *Principals and agents: The structure of business*. Boston: Harvard Business School Press.
Rassekh, B., & Segaren, N. (2009). Review of community empowerment strategies for health. In D. H. Peters, S. E-Saharty, B. Siadat, K. Janovsky, & M. Vujicic (Eds.), *Improving health service delivery in developing countries: From evidence to action* (pp. 127–171). Washington, DC: The World Bank.
Rose, P. (2006). Collaborating in education for all? Experiences of government support for non-state provision of basic education in South Asia and Sub-Saharan Africa. *Public Administration and Development, 26*, 219–229.
Schick, A. (1998). Why most developing countries should not try New Zealand's reforms. *The World Bank Research Observer, 13*(1), 123–131.
Schurman, F. (1973). *Ideology and organization in communist China*. Berkeley: University of California Press.
Sen, A., & Chander, M. (2003). Privatization of veterinary services in developing countries: A review. *Tropical Animal Health and Production, 35*, 223–236.
Shah, N. M., Brieger, W. R., & Peters, D. H. (2010). Can interventions improve health services from informal private providers in low and middle-income countries? A comprehensive review of the literature. *Health Policy and Planning, 25*, 1–13.
Silbermann, B. (1993). *Cages of reason: The rise of the rational state in France, Japan, the United States, and Great Britain*. Chicago: University of Chicago Press.
Spicer, N., Harmer, A., Aleshkina, J., Bogdan, D., Chkhatarashvili, K., Murzalieva, G., *et al.* (2011). Circus monkeys or change agents? Civil society advocacy for HIV/AIDS in adverse policy environments. *Social Science & Medicine, 73*(12), 1748–1755.
Standing, H., & Chowdhury, A. M. R. (2008). Producing effective knowledge agents in a pluralistic environment: What future for community health workers?. *Social Science and Medicine, 66*(10), 2096–2107.
Tendler, J. (1997). *Good government in the tropics*. Baltimore: Johns Hopkins University Press.
Tibandebage, P., & Mackintosh, M. (2005). The market shaping of charges, trust and abuse: Health care transactions in Tanzania. *Social Science and Medicine, 61*(7), 1385–1395.
Tooley, J., & Dixon, P. (2006). 'De facto' privatisation of education and the poor: Implications of a study from sub-Saharan Africa and India. *Compare: A Journal of Comparative and International Education, 36*(4), 443–462.
Vian, T. (2008). Review of corruption in the health sector: Theory, methods and interventions. *Health Policy and Planning, 23*, 83–94.
Waddington, H., & White, H. (2012). Special issue on systematic reviews. *Journal of Development Effectiveness, 4*(3).
Williamson, O. E. (1975). *Markets and hierarchies: Analysis and antitrust implications: A study in the economics of internal organization*. New York: The Free Press.
Williamson, O. E. (1984). The economics of governance: Framework and implications. *Journal of Institutional and Theoretical Economics, 140*, 195–223.
Williamson, O. E. (1985). *The economic institutions of capitalism: Firms, markets and relational contracting*. New York: The Free Press.
Williamson, O. E. (1990). A comparison of alternative approaches to economic organization. *Journal of Institutional and Theoretical Economics, 146*, 61–71.
Witter, S., Fretheim, A., Kessy, F. L., & Lindahl, A. K. (2012). Paying for performance to improve the delivery of health interventions in low- and middle-income countries [review]. *The Cochrane Library*, (2), 1–81.
World Bank (1997). *World development report: The state in a changing world*. New York: Oxford University Press.
World Bank (2008). *Public sector reform: What works and why? An IEG evaluation of World Bank support*. Washington, DC: Independent Evaluation Office of the World Bank.

APPENDIX A. SEARCH CRITERIA

Sources

Search engines/hosts: Science Direct, MedLine, PubMed, JSTOR, and EBSCO (the selection of these hosts was guided by the aim of reaching not only health literature, but also Economics, Development Studies, and Public Administration literature).
Systematic review websites, EPOC—Cochrane Collaboration.
www: Google and Google Scholar.
Specific Journals: Lancet, World Development, Journal of Economic Perspectives, Social Science and Medicine, and Tropical animal health and production.

Search terms

Health AND Review AND—Institutions—Accountability—Legitimacy– Partnerships—Community—Regulation—Governance—Incentives—Faith based—Non-state

actors—Public Private—Market—Franchise—Decentralization—Trust—Sanctions—Medical Malpractice—Information Disclosure—Pharmaceuticals Regulation.
Finance AND Review AND: Institutions—Innovation—Informal Finance—Credit—Curb Market—Regulation—Innovations.
Education AND Review AND: Institutions—Public—Private –Regulation, Non-state, Accountability].
Information Asymmetry AND Review (AND Institutions)—Moral Hazards—Adverse selection.
Performance/Outcome/Results Based management—Pay for performance.
Civil Service Reform AND Review, public sector performance AND Review.
Veterinary Services—Animal Health—Private—Market—Review.

Methodology

Quality: We first looked for Systematic Reviews, and then prompted by the Realist Review critique (Pawson et al., 2005), we widened the criteria to include other comparative reviews that met the standards for quality of the respective social science disciplines. The strategy was to include the best evidence available (and not to fall into the statement "we know nothing", so common in systematic reviews).
Regions: Searches were limited to Developing countries—low and middle-income countries—Africa—Asia—Latin America.
Date: 2000 onwards (although the reviews covered articles from earlier periods of course).
Language: English only.