Improving innovative health care delivery systems that serve the poor

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Paper submitted to the IUSSP Conference

Session S211: Making health systems work for the poor: the challenges of decentralization in low-income countries

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ABSTRACT:

The general argument for the decentralization of health care is the potential for improved service quality and coverage. However, the experience of decentralization in developing countries has been confounded by subsequent decline of public health care spending. As a result the quality of care in many cases has been compromised and the poorest segments of the population left without access to publicly subsidized services. Decentralization may therefore be seen as an important factor in the dramatic expansion of private health care provision in developing countries in the past decade.

This paper presents available evidence on health seeking behavior by socio-economic status, using data from the World Bank's HNP Poverty Thematic Reports of 22 countries in Africa. We assess the evidence on using franchise networks to supplement government programs. Examples from health franchises in Africa and Asia are provided to illustrate the potential for franchise systems to leverage private providers and so increase delivery-point availability for public-benefit services. Having explored the range of systems that have been tested for working with private providers, from contracting to vouchers to behavioral change and provider education, we conclude that franchising has the greatest potential for integration into large-scale programs in Africa that will address critical illnesses of public health importance, therefore supporting the public health care system suffering from weaknesses of decentralization.

INTRODUCTION

Much of the attention concerning the provision of health care to the poor has centered on the public sector. It is taken as understood that health care is a basic service, essential in the fight against poverty, a position we share (WorldBank 1990; Castro-Leal, Dayton et al. 2000). The poor are the most vulnerable to further impoverishment if faced with high costs from illness or family death.

Health inequality has been studied using a number of wellness measures: health status, health service spending/ financing, and health service use. The evidence available from multi-country surveys show large poor-rich differences in the range of health outcomes (Gwatkin 2000a). Public spending on curative health care in Africa does not seem to be reaching most of the poor. On average, government subsidies for curative health care are imperfectly targeted at poor households and primarily benefit the wealthy (Castro-Leal, Dayton et al. 2000). Even though poverty is closely tied to rural areas, the majority of government health care facilities in Africa are located in urban areas (Hjortsberg 2002). The constraints arising from distance to care, combined with the uncertainty of receiving the necessary drugs or treatment from the public health care services, too often leaves the poor with two option: locally available private providers, or going without health care services altogether.

The public sector's inability to provide essential health care services at minimum levels of accessibility and quality makes services offered by private providers attractive by comparison. Even where public facilities exist, equivalent privately delivered services are many times perceived by the user to be of higher quality, irrespective of empirical evidence that often suggests the opposite (Brugha and Zwi 1998). In developing countries, private sector delivery of primary health care is usually poorly regulated and prices are usually scaled to the ability-to-pay of the client (Hongoro and Kumaranayake 2000; Kumaranayake, Mujinja et al. 2000; Soderlund and Tangcharoensathien 2000). As a result, when the poor seek treatment from private providers they are likely to spend a greater proportion of their income on health expenditures than would be the case if care were sourced from a government site, leading to an increased financial burden on the individual and family. This quandary is a form of market failure: the source of healthcare is often private, but by itself the private sector is not structured to assure quality or affordability.

Strategies to improve access to health care services and products in developing countries need to take into account the health seeking behavior of the various socio-economic groups so that the poor can be protected and served appropriately. Regulation and enforcement can improve private sector care in theory, but have a limited track record in areas where government presence is already weak.

The limited human resources available to governments necessitate a strategy of expanded involvement with the private sector. Evidence from National Health Accounts research, economic studies of health seeking behavior, and analysis of Demographic and Health Surveys (DHS) data suggests that an increase in government services, when and if it comes, will not be sufficient to increase diagnosis and entry into treatment to the rates set by the Millennium Development Goals (Ngalande-Banda and Walt 1995; Rosen and Conly 1999; Leonard 2000).

However, as has been documented in both developed and developing countries, the difficulties in regulation and perverse financial incentives inherent in providing fee-for-service treatment often results in highly variable quality of care. The opportunities to intervene with private providers in order to improve access and quality, assure equity of prices, and empower clients have been studied both in theory and in practice. While various interventions have had measurable effect, none have provided sufficient assurances of quality or access improvements to be adopted on a large scale. The critical determinants of greater private provider integration in public health service delivery are systems for organizing the otherwise heterogeneous set of providers who make up the private sector in most developing countries.

The general argument for the decentralization of health care is the potential for improved service quality and coverage. However, the experience of decentralization in developing countries has been confounded by subsequent decline of public health care spending. As a result the quality of care in many cases has been compromised and the poorest segments of the population left without access to publicly subsidized services. Decentralization may therefore be seen as an important factor in the dramatic expansion of private health care provision in developing countries in the past decade.

Several features of health care (e.g., the controversial nature of some services such as family planning, the importance of formal training for personnel, and the integrated nature of services make decentralization in this area more complex and potentially more difficult than in other sectors. Since decentralization in the health sector is often politically driven (Atkinson and Haran 2004), the theoretical benefits tend to get more attention than the more concrete facts of actual experiences in other countries, which is mixed (Mubyazi, Kamugisha et al. 2004). Without proper planning and acknowledgment of the lessons learned by other countries, decentralization of health care can be disappointing at best and detrimental at worst. This note raises the issues to consider if decentralization is to bring about beneficial results. Decentralization policy should include some coordination mechanism. It should enable local governments to design programs according to local preferences and also health-seeking behavior.

Past experience shows that achieving the benefits of decentralization depends heavily on policy design. In general, careful attention must be given to health service needs and priorities in deciding which functions and programs to transfer and which to retain under central control. Successful decentralization demands acknowledging the role of private sector and health seeking behavior of the poorest segments of the population. A more efficient mobilization of existing resources would have to involve the private sector.

In developing countries private health care providers, including pharmacies, are the most important source of medicine and medical care. Due to misunderstanding about the size and importance of private providers to clients, lack of knowledge about who makes up the private sector, and limited experience in systems that can organize and mobilize this heterogeneous group, these providers are frequently not included in public health service delivery planning.

Health franchising is an application of commercial franchising systems to socially motivated health programs (Montagu, 2002a ;Smith, 2002). At it's most basic, this means that individual franchisees operate for-profit outlets or clinics, but in accordance with clear and strictly defined clinical and quality guidelines set forth in a contractual relationship with the franchiser. As a method of organizing an unstructured private sector franchising is attractive because it incorporates into one system all of the interventions that have been shown to have some effect

individually (training, oversight, performance-based incentives, accreditation and certification, vouchers or other external payment schemes, ongoing support relationships and monitoring). Health franchising programs, also often called social franchising programs, have been used successfully for nearly ten years by clinical family planning programs in Asia and Africa, and for essential drug provision and Voluntary Counseling and Testing (VCT) for HIV programs in Africa. In India and Kenya, health franchise programs have been able to enroll private providers already operating at the panchayat or village level, providing close-to-client services on a scale that few public health programs in any part of the world can emulate. In the Philippines, franchising of safe delivery services has proven popular among both providers and clients and profitable as well.

This paper presents available evidence on health seeking behavior by socio-economic status on what strata of society benefit from publicly provided care and what strata use the private sector. We explore the range of systems that have been tested for working with private providers: from contracting to vouchers to behavior change and provider education, and conclude that health franchising has the greatest potential for large-scale programs in Africa that will address critical illnesses of public health importance. We provide evidence from health franchise delivery systems in Africa and Asia, that such a system can be a support for the public health care system suffering from weaknesses of decentralization. We demonstrate the proven effectiveness of this delivery system at increasing delivery point availability for public-benefit services and at managing quality. Finally, we argue that future planning of decentralization policy should include coordinating mechanisms with private providers. This assertion is based on the established demand for and supply of private medical services in Africa.

DATA AND METHODS

Data on health care service utilization by socio-economic status was published by the World Bank's Health Nutrition and Population Poverty Thematic reports for twenty-two countries in sub-Saharan Africa (Gwatkin 2000a). We examine service use for the treatment of two very common childhood diseases, diarrhea and acute respiratory infections. Treatment for these two

diseases can be considered good proxies for publicly free-of-charge or highly subsidized primary health care services. For each disease we assess service use by socio-economic status and type of provider – public or private for both rural and urban populations. In Gwatkin's et al. (2000) publications, socio-economic status is defined in terms of asset wealth quintiles, gathered through the DHS household questionnaire. Provider type entails only two categories, public and private. Public facilities include government hospitals, health centers or dispensaries. Private providers include private doctors, mission hospital/clinic, other private hospitals/clinics, and pharmacies.

Data from an Institute for Health Sector Development (IHSD) study is used to estimate the private provider density in urban and rural areas. The IHDS study was conducted by local experts, through secondary source analysis and direct interviews with policy makers and ministerial-level data managers in Burkina Faso, Cameroon, Ethiopia, Malawi, Mozambique, Nigeria, Rwanda, Tanzania, and Uganda. For more details on the methodology see the final report by IHSD (Jefferys 2004).

Health franchising experience in Africa is limited with little survey data available, but a number of established programs in Asia have conducted studies and produced public and internal data. Collection of public and grey-literature sources was undertaken through referrals provided in interviews with public health researchers, health franchise managers, and donors supporting franchise programs. Documents were verified and supported by face-to-face interviews with health practitioners and program managers directly involved in the direction of all referenced health franchises.

RESULTS

Service utilization by type of provider

Table 1 shows the distribution of under-five children that were ill, and the use of health services for diarrheal disease by socio-economic status in 22 sub-Saharan African countries. Children from the poorest quintile are more likely to have had a recent illness with diarrhea than the children from the richest quintile. In the 22 countries examined, the poorest families are least

likely to seek medical care when a child is ill with diarrhea. The poorest children are also those most likely to live in areas that are poorly served by public health services. Table 2 shows similar results for illness and service use for treatment of acute respiratory infections (ARI) in children according to socio-economic status.

Table one and Table 2 about here

Figure 1 A and B illustrates that in the majority of the Sub- Saharan African countries for which DHS data is available, of those seen medically, the use of public services by the rich is not significantly different than the poor. On average, of those children seen medically, the majority of the poorest quintile sought care from private providers for both diarrhea disease (Fig1A) and acute respiratory infection (Fig.1B). The DHS surveys from which this data are taken are nationally representative samples and therefore reported source of care (i.e. public or private) is inferred to results from the combined effects from both availability of services and choice of provider. The use of private services is not significantly different among socio-economic groups, the differences are mainly between those receiving and those not receiving services, with a higher proportion of the poor not receiving medical services.

Figure one about here

Of the 21 countries presented in Table 2, only three (Namibia, Zambia, and Tanzania) show 50% or more of the poorest children receiving treatment for ARI from the public health care sector. In the remaining countries private providers are treating the majority of children in the poor income quintile. To further explore the private sector role in service provision to poor people, we looked at individual countries and present two country cases in Figures 2 and 3 as examples. We present Namibia as an example of the three outliers (Figure 4).

With the exception of the three country outliers mentioned above, we can group the remaining countries into two groups illustrated here with Mozambique (Figure 2) and Uganda (Figure 3). In Figure 2 we can infer that in Mozambique, of those ill with diarrhea, the percentage of children seen in the private sector does not significantly differ across socio-economic groups. Among the ill, the comparison between use of private services by the poor (18.8%) and the rich (21.9%) is not statistically significant (p-value=0.782). The largest difference between rich and poor are in receiving any treatment at all, with richest more likely to receive care. Mozambique

is an example of a country where the rich make more use of the public services than the poor (45.8% vs. 6.4% respectively; p-value<0.0001).

Figure two about here

Figure 2 shows the use of services for acute respiratory diseases in Uganda. This figure exemplifies another group of countries where most of those who seek medical care at any socioeconomic level do so through the private sector. Moreover, of those ill, the difference in use of private services between the poor (37.9%) and the rich (48%) is not statistically significant (p-value=0.063). In Uganda, the public sector use for respiratory infections represents only a small fraction across all socio-economic groups, nevertheless, the poor makes significantly (p-value=<0.0001) less use of the public services (10.6%) than the rich (23.8%).

Figure there about here

As mentioned before, Namibia is one the 3 outliers where the majority of those seen medically for diarrheal disease, do so through the public sector (Figure 4), comparison across socio-economic groups is not statically significant (p-values >0.05). Nevertheless, the use of private sector for childhood diseases, although much lower than the public sector use, does not significantly differ across socio-economic groups (comparison of proportions with p-values >0.05). The private sector equally reaches poor and rich.

Figure four about here

Private sector distribution in Sub Saharan Africa

The size of the independent private sector in sub-Saharan Africa varies enormously among countries. Table 3 shows the private provider share in clinical services by level of provider in selected countries. On average, a higher proportion of doctors than any other profession (apart from pharmacists) operate as independent private providers, however in some countries mid-level providers, nurses and clinical officers, represent a sizable part of the private workforce. Higher level providers such as Doctors (general practitioners) are mostly concentrated in urban centers (Table 4). The largest numbers of nurses operating privately are in Cameroon, Malawi, Nigeria, Tanzania and Uganda, reflecting 12%, 10%, 25%, 8% and 13% of the total number of

nurses operating in the country respectively. Tanzania also has the largest number of private clinical officers operating in the country, although this represents only 12% of the total.

In all of the countries reviewed, staff employed in the public and NGO sectors also tend to undertake work in the private sector, although the proportion estimated to be doing this varied from 5% to 90% between countries. In some of the countries there are no specific laws or regulations either authorizing or prohibiting dual practice, although in many it is informally recognized, as long as it occurs after hours.

Health Franchising

We have demonstrated that the poor are receiving care in large numbers from private providers. Governments in Sub Saharan Africa increasingly regard private public partnerships as a necessary step to expand access to basic health care services (Lambo and Sambo 2003; Sekwat 2003). As a result, their exists a need for systems that can organize existing private providers to assure that they make available diagnostics and treatment for priority public health illnesses such as HIV/AIDS, Tuberculosis (TB), and Malaria. The components of availability must include provider competence, diagnostic capacity, existing and assured supply of treatment medications, and pricing or payment exemptions that assure the affordability of these services.

A number of interventions with private providers have shown a capacity to affect some of these issues. Voucher systems have increased the affordability of specific healthcare treatments, but are prohibitively expensive to manage through large numbers of service delivery points (Gorter, Sandiford et al. 2003; Mushi, Schellenberg et al. 2003). Post-graduate education for private providers has shown improvements in quality of clinical care, but benefits declined over time without systems for continued regular engagement with providers (Choudhry and Mubasher 1997; Ibrahim and Isani 1997; Luby, Zaidi et al. 2002). Regulation can be effective, but has a poor track record of continued enforcement in Africa (Hongoro and Kumaranayake 2000; Kumaranayake, Mujinja et al. 2000). Accreditation and certification systems have worked well for hospitals in wealthy and middle income countries, but have few successes in poor developing countries (Shaw, 2001). There are no accreditation and certification programs with proven impacts on private solo practitioners. Public-Private partnerships, where governments take the

initiative to contact and encourage referrals from private providers such as pulmonary specialists, sometimes including supply to the private provider of free treatment medication, have demonstrated successes for tuberculosis control but integration with other diseases has not yet been attempted in the documented initiatives (Lonnroth, Uplekar et al. 2004).

Health franchising is an attractive innovation for integrating private provider into public health programs because it combines critical aspects of all of the initiatives above. Health franchising is based on contractual agreements with medical providers, in which the providers sell services (often subsidized to lower cost to the end user) and receive member-specific benefits: the right to use the franchise brand; training; access to certain drugs; business loans; prestige from name-association; advertising; etc. Thanks to these benefits, the experience from many examples is that franchisee's usually enjoy a profitable business and increased clientele, and that client satisfaction is higher in franchised clinics than in equivalent non-franchised clinics (Stephenson, Tsui et al. 2004).

Client satisfaction is a result of the contract: for the franchisee, membership benefits are conditional upon the delivery of quality care. Quality regulations – for example, on clinic cleanliness, patient interaction, and application of appropriate clinical protocols - are monitored by the franchiser through client exit interviews, drug sale tracking, and in some cases trained actors posing as clients ('mystery clients'). If the franchisee doesn't follow the regulations set forth in the initial contract, the franchise is revoked. So long as the value of the opportunity is greater than the value of breaking the rules and there is a credible threat of enforcement, franchisees follow the rules and self regulate, lowering the overall cost of monitoring. This self-regulation makes this particular system of service expansion and quality improvement cost-effective in way that is only possible because the provider goals (selling medicine and treating patients) are aligned with the franchise goals (assuring availability and appropriate care).

Health franchising is not a system appropriate to all diseases, and the specific model of franchising varies depending on how critical it is to maintain quality assurance and provider compliance with standards. But unlike other systems for involving private provider in the pursuit of public health goals, franchising can promise and deliver quality of care and it has been

proven to work at a large scale. The experiences of the Greenstar program in Pakistan, Janani in India, CFW shops in Kenya, Well Family Midwife Clinics in the Philippines, NewStart in Zimbabwe and many others have demonstrated the potential for a franchise model to greatly increase service availability through the mobilization of existing private healthcare human resources[i].

Health franchising has been used successfully to improve health services in vastly different societies. In India, a health franchise has improved the sexual health of inter-city truckers through education, contraceptives and sexually transmitted infection (STI) diagnosis and treatment near highway rest stops (Smith 2002). In Nicaragua, Marie Stopes International, a British non-profit organization specializing in reproductive health, runs a similar health franchise for sexual health services. The Well-Family Midwife Clinic franchise in the Philippines provides save deliveries through over 100 outlets.

In sub-Saharan Africa the franchise system has proven successful as well: in Ethiopia the Biruh Tesfa (Ray of Hope) program increased contraceptive use by 30% among the 10 million people covered by its 92 clinics (Stephenson, Tsui et al. 2004). In Zimbabwe, New Start franchised HIV testing and counseling that has increased monthly visits from 230 in 1999 to 4,000 in 2003 (PSI 2004). In Kenya, the Sustainable Healthcare Enterprise Foundation's Child and Family Welfare Shops (SHEF/CFW) program provides affordable generic drugs through franchised community health workers. SHEF/CFW generates income from 80% of its franchisees, despite serving low-income customers in rural areas (SHEF 2004). Survey data from India, Pakistan, Nepal, and elsewhere shows that clients respond positively to franchise brands, and that the volume of branded services provided by franchisees is higher than that provided by equivalent non-franchised private providers. Quality measures are difficult to gauge in the private sector, but one study from Nepal [ii] found that counseling provided to mystery clients was more complete and more objective from franchise member than non-franchise members. A multi-country survey of franchises found that patient-to-staff ratios were significantly lower in franchises sites compared to non-franchised sites across a number of franchise programs in Africa and Asia (Sulzbach 2002). The existing evidence remains limited, but indicates that franchising of private providers improves both accessibility and quality of services.

DISCUSSION

Evidence from DHS data confirms earlier analysis (eg: Castro-Leal et al. 2000) that public sector services disproportionately serve the wealthy in developing countries. Our analysis further clarifies the role of the private sector in filling the gap left by the absent public sector in serving the poor. For treatment of childhood diseases, the use of private health care does not differ significantly by socio-economic group. In most countries the choice of the poor is usually between using private services or not using services at all.

The significance of the private sector for the poor is generally illustrated through DHS data on childhood illnesses. A recent review of interventions to work with private sector for child health concludes that, the experience with private sector offers considerable promise for child health (Waters, Hatt et al. 2003).

The importance of private providers is especially great today in light of the current challenges of AIDS and TB. In Africa, many poor people seek care for tuberculosis and sexually transmitted diseases from private providers because of the stigma these diseases carry (Berman 2000; Brugha 2003).

Extrapolating from the context of need and current health delivery systems in Africa we have concluded that it is critical for African governments to actively engage existing private providers as a means of rapidly expanding service availability to low-income populations. Based on the experience of programs around the world, we believe that a system to group and improve the quality of existing private providers would be both viable and beneficial to the poor in a number of countries.

The challenges to improving quality and coverage of priority disease care through private providers in Africa are large. Health franchising provides an attractive addition to the tools available for leveraging existing human resources because it offers a system to standardize outputs from a heterogeneous group of medical practitioners. Franchising incorporates structured post-graduate training, guidelines dissemination, and quality management methods,

supported by contractual obligations linked to performance. These are all built upon a promise of sufficient benefit to providers that they will have a desire to comply with standards, and sufficient benefits to patients that they will by preference select franchised providers when selecting providers on the basis of quality.

Health franchising has the potential to increase human resources directed towards priority disease care in Africa because it works with existing private practitioners currently outside of public health programming and almost surely not providing quality priority disease care for the poor due to restricted drug supplies or lack of ability and support. Health franchising has the benefit of potentially rapid effects, increasing service delivery points without adding new providers, but by changing the incentives for existing providers and so changing the services and quality of services they offer. As private practitioners are almost always outside of government subsidized programs for training and support, the inclusion of these providers in public health campaigns is likely to provide a net gain for national programs.

For HIV/AIDS, TB, and malaria, the best providers to target for health franchise enrollment are likely to be clinical officers and nurses rather than medical doctors, as doctors have much higher incomes, higher workloads, and operate mainly in urban areas serving generally well-off populations.

As the governments in Africa are increasingly challenged by the demands of treating AIDs, worsening physician to patient ratios, and pressure from the World Bank and other donors to expand the reach of public-private partnerships there is a need for new ideas to involve the hitherto ignored human resources available in the private sector. There are few models to turn to that can effectively motivate private providers to support public health goals. Health franchising has a track record of successes and provides a possible solution to this urgent and challenging issue.

Tables and Figures:

Table 1: Percent ill and use of health services for treatment of diarrheal disease by socio-economic group from selected African countries.

(population 0-5 years old ill 2 weeks preceding the survey)

Country	Treatment of Diarrhea														
	% ill					% seen medically of those ill					% seen in Public Facility of those seen medically				
Name	poorest	2nd Q	mid	4th Q	richest	poorest	2nd Q	mid	4th Q	richest	poorest	2nd Q	mid	4th Q	richest
Benin	28.4	30.4	25.5	24.8	18.4	24.4	20.3	23.0	23.2	42.0	20.1	17.7	19.7	16.7	26.1
Burkina	22.3	18.3	20.5	21.5	17.9	89.3	84.8	87.5	87.7	74.5	9.5	14.6	11.9	11.4	22.7
Cameroon	21.9	20.6	18.4	15.0	12.8	85.0	82.2	78.9	79.4	74.9	12.7	13.8	15.7	16.2	17.9
C. Afr. Rep.	28.1	22.5	19.5	23.5	18.7	23.8	22.4	34.0	33.3	40.7	20.1	20.0	33.2	27.4	29.3
Chad	18.9	21.4	21.7	24.2	21.4	8.7	18.6	14.8	21.3	32.6	3.7	7.3	5.4	10.0	25.9
Comorros	24.9	25.4	21.5	19.7	23.4	22.6	23.3	30.2	42.9	43.2	17.7	18.3	20.9	35.7	21.6
Cote D'Ivoire	21.2	20.4	18.8	24.6	24.1	14.0	19.2	19.0	29.4	37.6	11.9	17.9	17.4	27.2	35.5
Ghana	21.6	22.9	21.5	18.9	14.2	17.0	20.2	24.2	30.4	34.0	13.6	13.5	15.4	21.5	28.0
Kenya	19.4	18.7	17.8	15.4	13.1	41.4	50.2	37.1	45.9	48.5	26.3	29.6	24.8	30.5	23.4
Madagascar	29.2	21.8	26.1	31.3	26.2	38.9	35.4	31.9	40.7	55.7	27.0	21.2	23.7	31.8	24.2
Malawi	23.7	20.7	23.4	19.3	21.0	46.7	40.1	48.5	49.4	61.6	36.1	28.1	34.1	33.8	41.6
Mali	29.0	26.8	27.8	25.7	16.2	7.6	15.2	12.0	14.0	22.0	4.2	11.4	10.2	13.3	19.8
Mozambique	20.9	26.5	19.4	20.7	18.4	25.2	28.1	35.3	34.8	54.3	25.2	28.1	29.4	34.3	52.9
Namibia	27.0	27.5	22.9	15.2	10.6	66.4	68.8	73.4	63.5	66.1	65.9	68.8	73.4	62.5	61.4
Niger	36.9	37.0	41.1	41.5	32.4	13.0	14.0	11.8	18.3	35.3	12.5	12.3	11.5	16.8	33.2
Nigeria	19.9	20.5	19.9	16.7	10.8	20.5	24.5	24.2	31.1	42.8	19.7	22.5	19.0	30.2	32.5
Senegal	15.3	17.1	14.4	14.7	13.7	29.4	30.9	37.2	35.7	33.7	26.3	27.6	33.3	27.5	26.5
Tanzania	13.7	11.7	14.8	15.4	12.3	44.3	60.6	56.0	59.0	66.1	39.2	47.8	50.1	53.4	52.1
Togo	32.6	32.6	31.0	35.5	21.4	16.4	15.5	20.4	16.8	30.2	15.5	12.6	18.5	32.2	23.5
Uganda	29.9	22.0	22.7	24.9	17.0	52.0	51.2	50.9	60.7	64.9	25.7	24.8	18.6	21.1	19.9
Zambia	24.5	23.9	22.1	26.8	19.4	42.0	43.7	42.0	47.7	44.3	41.8	42.9	42.0	45.2	31.8
Zimbabwe	28.9	23.5	25.0	21.0	17.3	26.4	27.3	32.1	31.4	34.8	25.3	20.0	26.3	27.6	19.0

Source: Data compiled from individual country reports by Gwatkin et al. (2000). Socio-Economic Differences in Health, Nutrition, and Population. Health Nutrition and Population Poverty Thematic Group of the World Bank.

Table 2: Percent ill and use of health services for treatment of acute respiratory infections by socio-economic group from selected African countries.

(population 0-5 years old ill 2 weeks preceding the survey)

Country	Treatment of Acute Respiratory Infection														
	% ill					% seen medically of those ill					% seen in Public Facility of those seen meedically				
Name	poorest	2nd Q	mid	4th Q	richest	poorest	2nd Q	mid	4th Q	richest	poorest	2nd Q	mid	4th Q	richest
Benin	17.1	18.8	15.0	12.3	14.2	23.8	27.3	28.4	31.4	62.4	18.5	24.3	24.2	20.5	24.2
Burkina	10.2	12.3	11.2	10.6	11.1	15.7	12.0	17.1	18.9	34.3	13.0	12.0	15.6	18.1	31.1
Cameroon	7.7	12.3	6.2	8.2	8.4	19.2	39.9	48.7	56.5	51.3	3.2	21.9	38.3	25.0	33.8
C. Afr. Rep.	27.0	29.2	28.1	29.0	27.6	30.1	29.1	45.3	46.6	56.1	26.8	21.5	41.0	37.4	49.9
Chad	10.0	12.4	14.0	13.7	13.7	4.5	15.5	19.0	18.6	35.5	0.5	7.2	6.6	12.4	26.5
Comorros	26.1	23.7	20.0	20.2	19.6	41.5	64.3	62.5	44.2	58.1	33.8	44.6	45.0	32.6	38.7
Cote D'Ivoire	11.5	15.2	10.6	13.8	19.1	15.4	33.2	36.5	43.6	63.6	14.2	30.2	30.6	42.9	61.3
Ghana	13.0	12.1	9.9	6.9	8.2	22.6	38.2	59.5	48.3	58.6	13.2	27.3	42.9	41.4	44.8
Kenya	23.1	21.0	19.4	20.6	15.2	54.9	53.6	51.6	55.1	78.5	37.9	30.6	34.0	35.9	40.3
Madagascar	27.3	25.6	25.0	21.4	16.0	35.1	33.5	32.1	36.9	59.3	26.4	25.4	25.7	32.3	36.8
Malawi	16.8	14.4	13.8	13.6	13.3	49.2	54.7	53.4	49.0	65.1	31.2	39.0	32.7	39.4	43.0
Mali	15.4	16.6	15.0	15.3	13.9	15.5	14.0	16.8	23.9	44.3	13.0	11.2	12.4	22.5	41.0
Mozambique	11.7	11.2	10.4	10.2	16.0	17.3	31.9	45.8	56.5	46.1	16.9	30.8	45.8	54.8	45.9
Namibia	26.2	22.9	19.2	11.0	11.1	63.4	68.7	65.7	68.1	74.4	63.0	68.7	65.7	68.1	61.0
Niger	13.3	14.7	15.7	13.7	13.3	20.5	14.6	15.2	29.1	58.0	17.6	14.1	15.2	27.2	55.6
Nigeria	6.7	8.9	5.8	6.3	5.1	32.6	33.2	34.6	40.1	51.6	32.6	31.8	34.6	38.6	43.1
Tanzania	11.6	12.9	14.2	13.9	12.3	61.8	65.0	74.8	69.7	77.0	52.4	60.8	65.7	58.9	66.3
Togo	21.9	19.6	19.5	21.4	18.1	18.0	18.3	22.9	36.3	48.2	18.0	18.3	19.9	28.2	32.2
Uganda	32.0	28.8	27.2	28.1	18.6	48.9	58.1	64.3	69.3	74.9	22.0	21.6	24.3	24.0	26.7
Zambia	12.9	13.0	11.3	15.5	10.3	62.9	65.3	73.8	74.1	81.4	57.9	56.3	65.4	70.1	48.1
Zimbabwe	34.9	28.4	25.0	20.3	16.0	44.2	47.4	54.7	64.5	62.1	38.0	38.8	44.2	56.4	41.8

Source: Data compiled from individual country reports by Gwatkin et al. (2000). Socio-Economic Differences in Health, Nutrition, and Population. Health Nutrition and Population Poverty Thematic Group of the World Bank.

Table 3: Private provider share in clinical services by level of provider in selected Africa countries.

	Medical Doctors (GP)	Nurses	Clinical Officers / Medical Assistants	Laboratory technicians	Pharma cists
Burkina Faso	3%	2%	9%		
Cameroon	20%	12%	-	10%	94%
Ethiopia	13%	0.3%	3%		
Malawi	21%	10%	16%		
Mozambique	15%	3%	1.5%	2%	4%
Nigeria	79%	25%	-	90%	95%
Rwanda	23%	6%	27%		68%
Tanzania	7%	8%	12%		8%
Uganda	10%	13%	8%		76%

Source: Jefferys, E. (2004).
Note: GP= general practitioner

Table 4: Proportion of independent private providers in urban areas

	Medical Doctors (GP)	Nurses	Clinical Officers / Medical Assistants	Laboratory technicians	Pharmacists
Burkina Faso	100%	87%	91%		
Cameroon	99%	80%	-	99%	100%
Ethiopia	100%	100%	100%		
Malawi	100%	80%	34%		
Mozambique	> 95%				
Nigeria	75%	30%	-	70%	95%
Rwanda					
Tanzania	> 95%				
Uganda	70%	70%	40%		90%

Source: Jefferys, E. (2004).
Note: GP= general practitioner

Figure 1: Average and 95% confidence intervals of use of public services for treatment of childhood diarrheal disease and acute respiratory infections according to socio-economic group, of those seen medically.

Note: Estimates done by authors based on data presented in tables 1 and 2

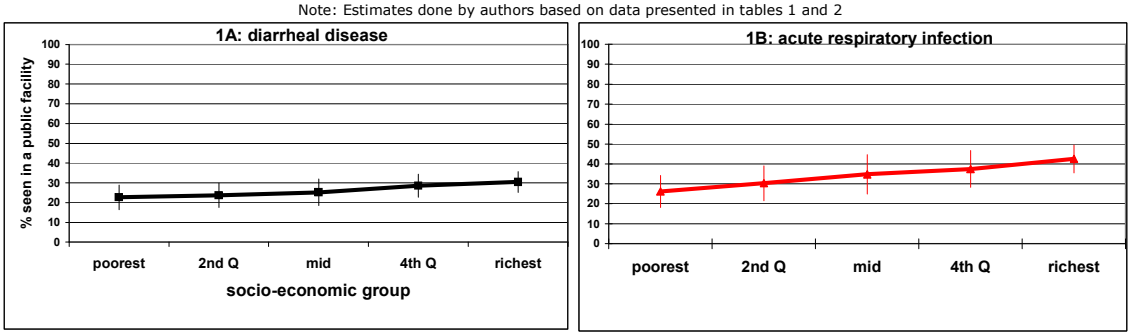
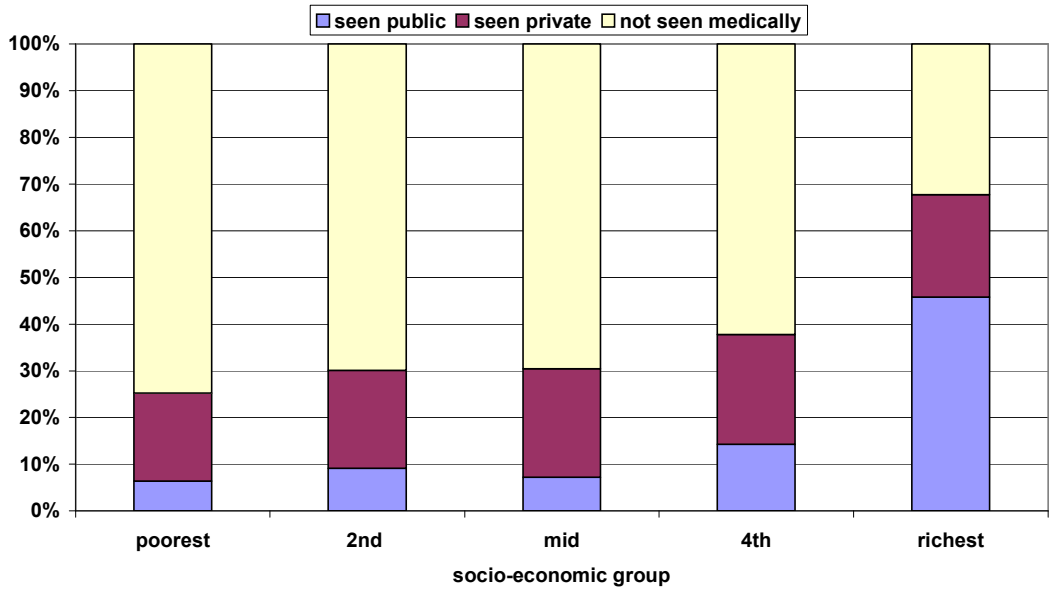
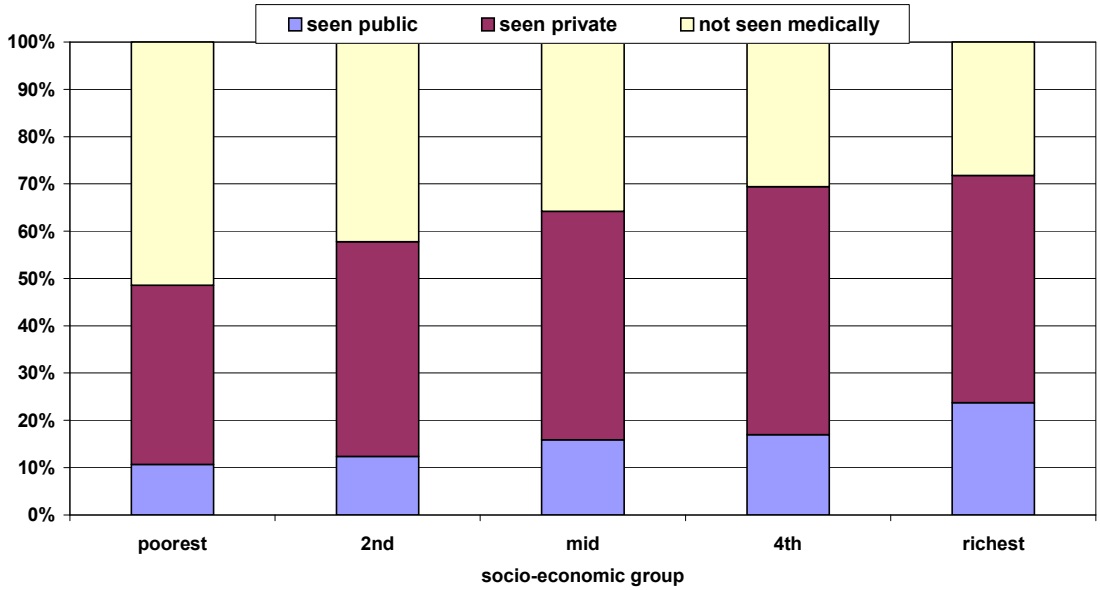


Figure 2: Distribution of diarrheal disease cases by type of provider sought according to socio-economic groups in rural Mozambique.



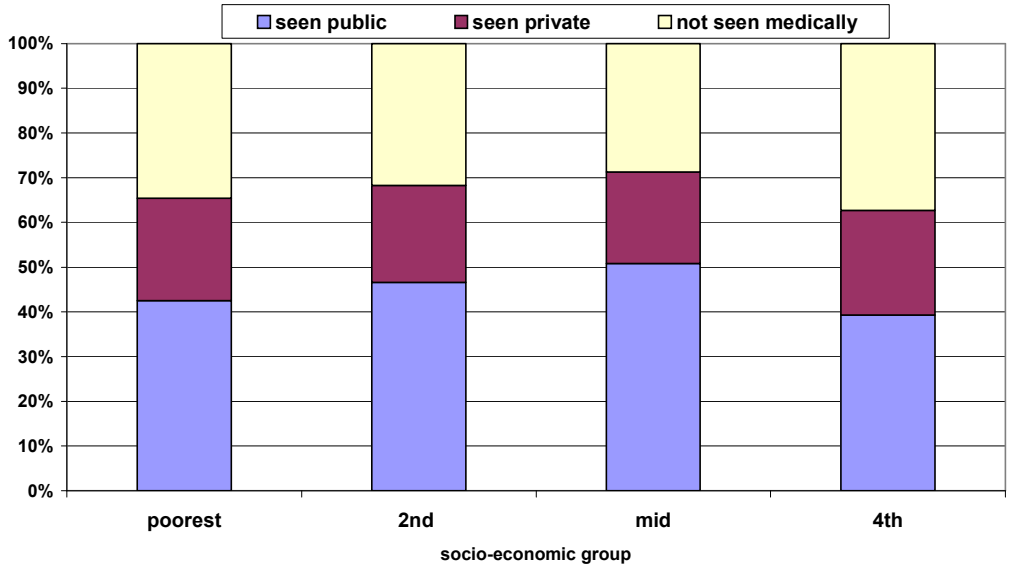
Source: Estimates done by authors from Mozambique country report by Gwatkin et al. (2000). Socio-Economic Differences in Health, Nutrition and Population. Health Nutrition and Population Poverty Thematic Group of the World Bank.

Figure 3: Distribution of acute respiratory infection cases by type of provider sought according to socio-economic groups in rural Uganda



Source: Estimates done by authors from Uganda country report by Gwatkin et al. (2000). Socio-Economic Differences in Health, Nutrition and Population. Health Nutrition and Population Poverty Thematic Group of the World Bank.

Figure 4: Distribution of diarrheal disease cases by type of provider sought according to socio-economic groups in rural Namibia



Source: Estimates done by authors from Namibia country report by Gwatkin et al. (2000). Socio-Economic Differences in Health, Nutrition and Population. Health Nutrition and Population Poverty Thematic Group of the World Bank.

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[i] For further information see : www.greenstar.org; www.janani.org; www.cfwshops.org; http://www.jsitango.com/WFMCs.htm; http://www.psi.org/resources/pubs/new_start.html

[ii] Montagu unpublished study for PSI/Nepal