Decentralization of Health Care Systems as a strategy to increase access to medicines in the developing world
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In recent years, public health reform in developing and least developed nations has followed a global trend towards decentralization of services from central governments and large hospitals to local governments and district health clinics (Foley, 2008). The idea of this movement was to increase efficiency and citizen participation in health services and improve access to health care and drugs in rural populations (Akin, Hutchinson & Strumpf, 2005). This strategy has proven to have an extensive list of pros and cons and has been both successful and unsuccessful in different countries. Overall, government health policies are one of the most significant factors affecting the health of citizens whether the policy comes from the national, regional or rural village level. This report will discuss the impacts of centralized and decentralized health systems and its ideal complementary policies to execute it effectively in states in the developing world. Real case examples of countries that have implemented decentralized health policies both successfully and unsuccessfully will be analysed. Whilst decentralization has been found to be ineffective in several instances, I will argue that this is due to other reforms instituted in parallel to decentralization and that decentralized health care is the most realistic method of increasing access to medicines in the developing world right now.

Decentralization involves the transfer of health decision-making from the central governmental body, to local officials in order to tailor health care to the needs of local populations and increase access to medicines and treatments in all regions of a nation (Berman & Bossert, 2000). The health issues across a country may vary widely from region to region and even from village to village, so central health decision making for an entire country is inefficient and fails to address the health needs for many areas of a country. The urban and rural areas within a community experience extremely different lifestyles, environmental exposures and health problems between these separate populations (Peters et al., 2008). Traditionally this has lead to a neglect of the health needs of isolated rural areas with medical access available predominantly to those living in the few densely populated city centres where large hospitals are located (Peters et al., 2008). The purpose of decentralization is to expand the reach of health services beyond large cities to the diverse populations that exist outside of urban areas (Loubiere et al, 2009). These populations have unique needs from urban populations and also from each other. When the power of health decision making is provided directly to the officials of these populations and smaller facilities are built nearby, the personalized health issues of these groups may be addressed at the heart of the problem and directed to the affected individuals of those problems.

While decentralization of various forms has been instituted in many developing nations, it has not always resulted in an improvement of the health of the national population for many reasons, including: lack of local financial control, decreased funding overall, and exacerbation of the discrepancy between wealthy and poorer regions (Kahn
These issues in certain instances prevented health care access from improving; however these problems are not a direct result of decentralization but of limitations made by central governments when implementing decentralization to their health care. It is important to introduce decision-making power to local municipalities slowly to ensure preparedness and a smooth transition of health services from central to local facilities (Guanais & Macinko, 2009). Essentially decentralization did not cause the issues that limited health sector improvement in cases where it was not effective. Other policies which were introduced along with decentralization prohibited the strategy from positively reforming health access. Decentralization in these states may be made effective if policies are modified to support this system of health delivery. The divergence of health access between wealthy and poor regions from decentralization was found to be an exaggeration as the difference between the two groups is commonly pre-existing and is not actually made worse (Berman & Bossert, 2000). It is difficult to establish a health care system of any kind that does not have an access gap between people of high and low socio-economic status. Even with these potential side-effects, decentralization is correlated with improved health system performance, particularly in regions with strong local health management practices (Atkinson & Haran, 2004). Decentralization has also been found to increase the equity of resource allocation between municipalities of different incomes (Bossert et al., 2003). It has been credited for enabling record level ART access to patients in Cameroon and increasing access to health in Brazil. Different countries have had different experiences with a decentralized format of health care for a myriad of different reasons.

In Chile and Mexico, when decentralization of the health sector was implemented, municipal authorities who employed health professionals were given decision-making power with respect to health, but the central government retained economic power over the national health budget (Kahn & Willis, 2009). Decentralization of health systems in many nations is accompanied by a decrease in total government health expenditures. In China, for example, national government health spending decreased from 32% to 15% during its period of health reform (Blumenthal & Hsiao, 2005). Without financial control of the health care budget, funds could not be appropriately directed to locally developed programs and there was not enough money to fund decentralized health care. In a large number of cases (China, Chile, Mexico) where financial control was withheld from local powers, in order to fund local programs user fees had to be instated per service provided. In China and in parts of Sub-Saharan Africa user fees were in fact required by the Chinese government and the Bamako Initiative respectively (Blumenthal & Hsiao, 2005) (Kahn & Willis, 2009). As soon as people are required to pay out-of-pocket and up front to receive medical services, it becomes a financial burden and will reduce the accessibility of health care (Kahn & Willis, 2009). This is not universally the case however, since in instances in Cameroon and Senegal user fees increased the use of health services as this was correlated to an increase in the quality of treatment (Kahn & Willis, 2009). For decentralization to effectively increase access, these expenses should ideally be removed as they exclude access from the poorest groups. User fees should not be mandated by the government, especially to replace funds that were previously provided by the national government. With this structure, the goal from the central governments perspective appears to be to reduce their own investment in health and
transfer responsibility to local governments and to individuals. This is in contrast to the reason that they publicize for instituting decentralization health reform which is to increase access to health.

Decentralization has been the scapegoat in other cases of failed health reforms internationally. In the 1980’s China underwent a major health care reform process which drastically reduced access to medicines for the population. This was perceived to be a result of decentralization, however in some respects just the opposite occurred and this “reform” was accompanied by an extreme health privatization themed movement. As mentioned previously, the national health budget expenditure decreased by 17% and user fees and taxes were used to replace the funds. This dramatically increased the discrepancy between poor rural provinces and wealthy urban provinces and reduced governmental control over redistribution of financing from wealthy to poor areas. Also, the local health authorities’ dependency on user fees and taxes caused the health care system to become effectively privatized even though the institutions were officially government owned. In an attempt to keep costs of basic care low, the government then instituted price restrictions for routine services but still allowed hospitals to profit greatly off of new and high-tech technologies and drugs. They also rewarded bonuses to physicians who brought profits into the hospitals. This caused a huge growth in the prescription of expensive drugs and the performance of new tests while basic care was neglected because it wasn’t profitable to the hospitals or the doctors. So far, none of these reforms falls into the category of decentralization (Blumenthal & Hsiao, 2005).

The “decentralization” aspect of the Chinese reform involved shutting down all of the local communes which ran under the Cooperative Medical System that had previously provided all of the medical care for peasants in rural areas. These local, nationally run health facilities were also responsible for providing insurance to peasants in the form of pooling the risks for health costs. In this reform process, the government effectively fired all of the “barefoot” doctors who worked at the communes and provided health care to peasants and got rid of the only form of health insurance that rural populations had in order to move towards pseudo-privatization of health. Local public health authorities were given control of health care and as expected the nationally provided health budget decreased. This in turn lead to user fees and taxes for families as described previously. This series of bad decisions worked to obliterate the health care system in China which by comparison was more effective before the reform (Blumenthal & Hsiao, 2005). Today they have in fact re-introduced the commune format under the New Cooperative Medical Scheme by re-establishing the community health centres with local doctors (Yip & Mahal, 2008). This technically looks more like decentralization of health care than the 1980’s reform ever did, yet decentralization received a bad reputation from this incident.

In contrast to China, both Cameroon and Brazil have successfully reformed their health care programs to be decentralized. Cameroon is the best model for decentralization of health care and has resulted in the highest rate of access to anti-retroviral therapies for HIV/AIDS patients in Western and Central Africa. The decentralized format of health care instituted by the Cameroonian government was ideal for following the World Health Organization’s recommendation for scaling up ART treatments in low-resource settings
In the 1990’s Cameroon was reorganized into a framework of 174 district hospitals under the supervision of 18 provincial and national hospitals (Loubiere et al., 2009). There are 24 Accredited Treatment Centres for ART treatment in the major hospitals which supervise 108 HIV management units at the district level (Loubiere et al., 2009). This method of decentralized delivery has enabled efficient distribution of ART treatments across Cameroon providing medical access to 58% of all eligible HIV/AIDS patients; this is one of the highest ART treatment rates in Africa. Brazil’s decentralized health care program is also a quite successful public health system, in most regions of the country, however in some poor rural areas the health services offered are less extensive relative to those offered elsewhere (Collins, Araujo & Barbosa, 2000).

The WHO recommendation for decentralization of health care with specific application to anti-retroviral therapy describes many key features of a decentralized health care system required for the system to function effectively. Most importantly, the treatment process must be standardized. The first requirement is standardized drugs and treatment plans to simplify and organize ART treatments on a large scale. This involves the use of a fixed-dose combination first-line treatment to be used as the standard treatment for patients. This standardization would likely be useful for treatments of other diseases using a decentralized approach. Standardized monitoring and treatment planning is also important to simplify treatment routines. Specific timelines for regulating when to start treatment, substituting drugs for toxicity, switching to different drugs after failure and the eventual decision to stop treatment for palliative care, must be fixed events. These stages generally rely on CD4-cell count monitoring capabilities which may not be available in all clinics; however they were generally accessible even in district facilities in Cameroon. Simplification is emphasized by the WHO as an important feature in decentralized care because often in district facilities task-switching policies exist. For this reason, decentralized health care can be most efficient and effective on the large scale when the treatment plan and individual stages are as explicit as possible. (Gilks et al., 2003)

Aside from the actual course of treatment for HIV/AIDS, there are many broader requirements for decentralized health care recommended by WHO in order to ensure accessibility and efficacy. Many of these requirements were lacking in the policies of previously discussed countries that implemented a decentralization strategy ineffectively. Using a decentralized integrated delivery system is the first factor to maximize treatment simply by providing health services everywhere so that everyone may access them (Gilks et al., 2003). Qualified personnel to work at these outlets must be trained and supervised by regional mentors to ensure quality of care (Bossert, 1999). Task shifting is essential in clinics with limited physicians on staff so that nurses or clinical officers may provide treatments to increase the patient load (Gilks et al., 2003). The patient themselves must be given responsibility to adhere to treatment, seek help when necessary and limit transmission of diseases to others (Gilks et al., 2003). Specialists may then be consulted in special cases but not for every patient. Treatment must be free at the point of delivery as it has been consistently found that use and adherence of therapy declines when user fees are in place (Gilks et al., 2003). This problem has been found for many nations that have unsuccessfully attempted to adopt decentralization plans like China, Chile, Mexico
Studies on decentralization in Brazil show that national health planning, resource allocation and community participation programs must be implemented alongside decentralization to ensure equity (Collins, Araujo & Barbosa, 2000). Supply delivery must be as streamlined as possible and include buffer stocks of drugs in order to prevent bottlenecks in delivery (Gilson & Mills, 1995). With these factors in mind, an efficient and successful decentralized health treatment program may be implemented to address HIV/AIDS, other diseases and health care as a whole (Gilks et al., 2003).

Health reform should follow general guidelines in order to be effective as discussed at a symposium evaluating health reform in Washington in 2000 (Berman & Bossert, 2000). These rules can be applied to the establishment of decentralization within a health policy. Completely overhauling a health system is extremely hard to accomplish successfully as seen by China’s example. Incremental change towards decentralization is most efficient in the long run for introducing decentralization (Gilson & Mills, 1995). Sustainable financing methods are required for basic services in poor nations to ensure adequate health services for essential treatments in these regions steadily over time (Kristiansen & Santoso, 2006). Decreasing the national health budget, charging user fees and increasing taxation are not effective methods of attaining sustainable finance because these all result in decreased use of health services which is counterproductive. Restricted intergovernmental transfers and equity funds have been found to improve equity in decentralized health (Berman & Bossert, 2000). In Chile, a horizontal equity fund was used to redirect funds from richer to poorer areas to equalize health funding between populations (Bossert et al., 2003). Self-governance must always be improved to resolve health care system problems rather than seeking external help in order to increase self-sufficiency and reduce dependence of a nation on the assistance of others (Berman & Bossert, 2000). In the case of decentralization, this is applied by having qualified personnel staff district health clinics and utilizing their skills to create and repair health programs locally rather than have national officials or even international officials impose changes to programs based on prescriptive ideas of what successful health delivery should be (Berman & Bossert, 2000). Communication between local officials, district managers and national levels of government should be strong to ensure good policy changes are being made and also to keep staff morale high on the lower levels of administration (McIntyre & Klugman, 2003). If these approaches were used when reforming health care, it should help improve a system whether decentralization is being implemented or not, however this is not usually the case.

Decentralization appears to be most effective for treating specific and common health problems that exist nationally or even just locally. Patients with unique and unusual diseases may find difficulty getting treatment at district health clinics, and may have to seek help at larger centrally located hospitals. While this is unfortunate, it is the same scenario that all patients are in when health care is centralized and people must travel long distances to urban hospitals to treat anything and everything (Peters et al., 2008). For this reason, decentralization is a significant improvement upon centralized health care, because ideally if most or even half of patients may receive quality treatment locally, then this corresponds to most or half of patients receiving treatment at all. When
costs are high and travel is far to seek health care and when these visits may be required frequently for certain treatments, people will not seek treatment (Peters et al., 2008). Local treatment is essential to ensure access and adherence, because many people will not sacrifice work, time and money to get themselves or their family to a distant hospital (Peters et al., 2008). Also, these common ailments may vary between regions so clinics may be differently equipped to treat different conditions, increasing the capabilities of health services within a region (Franckel et al., 2008). While standardized treatment methods should exist within clinics, all clinics may be suited to treat different diseases and problems consistent to the issues affecting the population that it serves. This allows citizens to visit farther local clinics if they are better suited to treating their conditions. This sharing of resources is called the spill over effect which increases the number of services available to people, although some people think this is a bad outcome of decentralization (Akin et al, 2005). Alternatively, issues that affect multiple areas can be addressed collectively by the health officials of these areas and resources may be shared to reduce “free-riding” of municipalities off of each other (McIntyre & Klugman, 2003). Local facilities are not ideal for treating rare diseases for that population but by being equipped to treat the prominent local issues, local health may be effectively improved.

One of the main reasons that centralized medicine is inefficient and inaccessible is because populations are not homogenous but diverse and have different health needs as well as social norms which affect their health treatment choices. The African rural environment was studied in the Fatick region of Senegal, where 95% of the population belongs to a Sereer ethnic group, the populations live in villages, and the area has an agro-pastoral economy structure. While this region may appear to be inhabited by similar people, it was found that people from different villages did not seek health treatment in similar ways according to the village culture and history which affected people’s behaviour. Village membership gives strong traits to individual identity and this affected the disease management practices of the different village groups. Some villages were more developed, more populated and more interconnected while others were spread out and autonomous. Some villages preferred to have medicine chests in the home from which treatments were derived; some used travelling health personnel while others preferred to seek treatment from the local practice. This evidence that seemingly related populations can differ so much in their health practices and beliefs, indicates that decentralized medicine where local health officials may control and develop health practices to suit the needs and customs of the local population is essential. A centralized hospital would not likely be suited to reach out to so many different groups with unique methods of approaching medical treatment strategies. In this sense, decentralized medicine is not only more physically accessible but also more socially and culturally accessible to the most people. (Franckel et al., 2008)

Decentralized health care also indirectly increases access to medicines because it often coincides with the existence of community health insurance through risk pools. The traditional communes that operated under the Cooperative Medical System in China provided risk pooling infrastructure which is simply a voluntary health insurance program (Blumenthal & Hsiao, 2005). In Mali, insurance schemes have developed into national health policy (Khan & Willis, 2005). This financial safeguard has been used in
many developing areas on large and small scales including in Latin America and Sub-Saharan Africa (Khan & Willis, 2009). This form of insurance is voluntary for members of the community and provides coverage based on set treatments and conditions. There is generally a volunteer manager who is responsible for overseeing the operation (Caerin, Waelkins & Criel, 2005). This scheme is imperfect because its success depends on having a large enough membership that is on average in moderate health. Because the service is voluntary, healthy and wealthy families may opt out, leaving poorer and sicker families to be the exclusive members of the risk pool (Caerin et al, 2005). This would quickly fail as the majority of members would require the funds and so membership costs would be comparable to health expenses anyways. In some cases community health insurance is offered exclusively to state employees like in Burkina Faso or urban dwellers and these systems benefit members but leave excluded populations vulnerable (Khan & Willis, 2009). Community Health Insurance can successfully protect populations from high health care costs when premiums are quite low and membership is high and inclusive of all people. This financial protection is one of the provisions of decentralized health clinics which increases health care accessibility to local and rural populations.

An alternative method to increasing access to health care in remote populations that is growing in popularity is the vertical immunization strategy. This is a strategy of bringing medicine to people by scheduling National Immunization days at many locations across a country so that “everyone” may be vaccinated (Goyd, Torrez & Mercer, 2003). This is a temporary and inadequate form of decentralizing medicine and increasing access due to the costs associated with it and its effect on routine health care. Immunization campaigns were found to result in marginal increases in immunizations and cause significant detriment to regular health services in El Salvador and Ecuador (Goyd et al, 2003). To organize the campaign, health workers were recruited from their normal jobs and paid extra to participate in these events which devastated standard health access. The costs of putting on such events is exorbitantly high as over 2,285 vaccination locations with paid personnel were set up in El Salvador on three separate days (Goyd et al, 2003). The health impact was found to be negligible since the vaccinations were for the measles which are an age-sensitive vaccine and consequently effective in only certain children and measles vaccines are already available at normal health clinics (Goyd et al, 2003). The vertical vaccination strategy is generally a politically motivated move because of the significant awareness that they create, and low commitment to policy change or political action. Immunization campaigns are commonplace in the developing world today even though initially there was no evidence of their effectiveness and now the existing evidence points to their ineffectiveness (Goyd et al, 2003). Providing immunizations at local decentralized health offices is a much more effective and sustainable method to vaccinate a population (Goyd et al, 2003).

The developing world needs to continue reforming its health policies towards decentralizing health services throughout its extensive breadth of populations in order to increase health access to all people. This policy increases peoples’ physical and social access to healthcare, inevitably increasing the health of rural and urban populations. Decentralization must be accompanied with certain reforms to ensure success including: local decision-making and financial control, locating qualified personnel at all outlets,
regionally supervising clinics, standardization of drugs and treatment plans, abolishing user fees, and taking advantage of task-shifting policies. It is important when implementing decentralization that the reform is intended to improve the quality of the health care system rather than to reduce national government investment in health care or to pursue other political aims, because decentralization has been used in the past to hide ulterior motives and consequently damaged the existing health care policy in those nations. Positive outcomes that coincide with decentralization are equitable resource allocation between regions, community health insurance, high health system performance and the spill-over effect. In the big picture, decentralized medicine is the next step to increasing access to medicines in the developing world so long as it is implemented correctly.


Berman, P.A. & Bossert, T.J. (2000). A Decade of Health Sector Reform in Developing Countries: What Have We Learned? *DDM Symposium*. DPE-5991-1-A-00-1052-00


