Health Systems Strengthening: 2015 and Beyond

Why MSH strengthens health systems

"When health is absent, wisdom cannot reveal itself, art cannot become manifest, strength cannot be exerted, wealth is useless, and reason is powerless."

Herophilus, 335-280 BC

Good health, a "state of complete physical, mental, and social wellbeing and not merely the absence of disease or infirmity,"[1] is the foundation for human self-realization. Much of our health is the responsibility of families and individuals but without the support of a well-functioning health system, we are all left vulnerable to illness and death from preventable and treatable conditions. Only by caring for our wellbeing through proper nutrition, exercise, and through seeking high-quality health care when ill, can we strive to assure that we and our loved ones achieve our highest potential.

Health systems consist of all the people, organizations, and resources that act together to promote, restore, or maintain health.[2] The currently accepted model identifies six building blocks or pillars that operate together to meet the health care needs of the people being served: governance; information; human resources; finances; pharmaceuticals, vaccines and other technologies; and service delivery.

What is a strong health system?

The strongest health systems provide universal health coverage: all people can access health care when they need it without being impoverished by the costs. Services are distributed equitably so that people in even the most remote areas can reach them and services meet the needs of all residents, including women, youth, and minorities. A strong health system is embedded inextricably within the communities that it serves, and with them is able to learn, adapt, and adjust to changing circumstances, including crises, while continuing to ensure that all of the following six pillars work in concert:

1. **Governance structures** develop, implement, and monitor the basic legal framework required for effective operation of both public and private health services and protection of patients' health and rights. Effective governance ensures that standards of care and targets for coverage are set, monitored and maintained and that services are cost effective.
2. **Information** is collected from service delivery points to inform local and national level decision-making regarding key public health interests, such vaccination coverage, drug availability, and health worker performance.
3. **Human resources** are sufficient in number and effectively trained, deployed, supervised, and supported. Providers are licensed and motivated and incentivized to deliver the highest quality of care possible to targeted populations so that opportunities for care are not lost.
4. **Finances** for health services are generated, pooled, allocated, and managed to ensure equitable access to care at all income levels. Strong health systems use resources appropriately and wisely to incentivize better performance of health workers and health institutions.
5. **Pharmaceuticals**, diagnostic tests, vaccines, and other key supplies and commodities are procured and delivered to points of service to ensure consistent supply at all times in a condition that maximizes their effectiveness and affordability.
6. **The delivery of preventive and curative health services** is coordinated to provide a full continuum of care. Clients are treated with dignity and respect and access to services that prevent or treat the most common causes of illness is ensured.

It is clear how one weak pillar in this very complex system could negatively affect all the others. If a health system has well-trained human resources, but constant stock outs of medicines, it cannot deliver effective care. If services are of a high quality, but clients cannot afford them, they will not receive them when in need. If all services are free, but facilities are understaffed and providers are not skilled, people will continue to die from preventable causes. If the quality of care is good, but no system exists to alert authorities to respond to disease outbreaks, the country, its neighbors, and the world are left vulnerable to deadly epidemics. Stronger health systems are essential for us all.

What are the problems?

For almost three decades, international development assistance for health has focused mainly on specific diseases or aspects of health care, such as HIV, TB, malaria, family planning, and immunization programs. These programs provided important and significant injections of funding, commodities, new technologies, and technical assistance, and their sharp focus enabled rapid gains in performance. However, they were largely implemented in situations with weak infrastructure and poor public management, undermining their chances of long-term success and even weakening the very health systems they were expected to support. These vertical programs have all made impressive gains: since 1990, maternal and child mortality have decreased by almost half; the number of people on regular and routine treatment for AIDS has increased from 400,000 in 2003 to 9.7 million in 2012. These programs are reaching the limits of their effectiveness, however, and it is systemic weaknesses within each of the six pillars of most health systems that present the greatest barriers to continued progress. Better health, prosperity, and security for the most vulnerable will not be possible using the methods of the 1990s and 2000s. Building stronger and better functioning health systems that are locally owned and managed is imperative and will permit these remarkable gains to continue without bankrupting the economies that support them.

Preventable Mortality

Despite past gains, in 2012, 7 million children still died before their fifth birthday. The majority of children (70 percent) die in their first year of life and 60 percent of infants die in the first month, almost all from preventable or curable causes such as pneumonia, diarrhea, and malaria. In 2010, 287,000 women died as a direct result of pregnancy or childbirth, the vast majority in developing countries. Access to family planning and contraception can avoid a large number of unplanned births, while better maternal care and effective preterm care by trained health care providers can prevent or treat most causes of maternal and infant mortality. Access to these services is still not as prevalent as it should be in South Asia and sub-Saharan Africa.[3]

In 2012, 35 million people were still living with HIV & AIDS and 2.3 million were newly infected. The recent targets set by UNAIDS propose that, by 2020, 90 percent of people with HIV will know their status and 90 percent, or 28.6 million, will receive sustained antiretroviral therapy.[4] This will require almost tripling the number of people on treatment in five years.

The incidence of and mortality due to tuberculosis (TB) is declining, and it is possible that the millennium target of halting the spread of TB could be achieved in 2015. Still, there were 8.7 million new cases of TB in 2012; detection and treatment must continue to improve and prevent the spread of multidrug resistance.

Malaria cases reached 200 million in 2012, with 600,000 deaths, and good progress has been made toward improving prevention and treatment,[3] by increased use of indoor residual spraying, insecticide-treated nets,

and improved access to artemisinin-based combination therapy for treatment. Malaria, however, remains the fourth most common cause of death in sub-Saharan Africa.

Non-communicable and emerging infectious diseases

Health systems have grappled with these problems—HIV, TB, maternal and child mortality—for decades. There is growing concern however, that novel infectious diseases and non-communicable diseases (NCDs) could further stress weak health systems and threaten the global economy and security. The recent failure to control local Ebola outbreaks in West Africa required the mobilization of up to $6 billion by the United States and other donors to control the epidemic. Emerging international consensus suggests that investments in strengthening health systems could have prevented this disastrous epidemic. In 2011 NCDs, especially cardiovascular diseases, cancers, chronic respiratory diseases, and diabetes, were responsible for over 60 percent of deaths worldwide. NCDs undermine economic growth, reduce economic productivity, and increase health care costs. Estimates show that by 2030, NCDs will result in a loss of economic output of $47 trillion, enough to eradicate poverty among the 2.5 billion people who have lived on less than $2.5 per day for the past 50 years.[5] To safeguard international security and the global economy, health systems must integrate processes to address these growing concerns in a way that minimizes risk and cost and maximizes patients' health and productivity.

Reduced Economic Growth

Investments in population health lead to economic growth, prosperity, and increases in trade and social development,[6,7,8] greater stability and security,[9] improved life expectancy, reduced impoverishment, and improved quality of life for billions of people worldwide, especially women and children. When weak health systems in low and middle-income countries (LMICs) are unable to improve the health of their populations or control epidemics, they place the entire world at risk.

Costs and Sustainability of Global Development Efforts

Worldwide, changes in demographic trends and morbidity and mortality patterns, coupled with unfettered growth and demand for increasingly specialized health services, could result in health expenditures outstripping governments' abilities to meet residents' health care needs.[10] The situation is worse in LMICs, where needs are greatest, and new approaches to the provision of integrated health services are required that will not bankrupt both developed and emerging economies.

With many LMICs not having achieved their Millennium Development Goals, and the poorest still not able to access basic health services as they should, it is widely accepted that in the absence of adequate resources, post-2015 development goals will be difficult to achieve. The effectiveness of aid has to increase, and developing nations will have to make greater contributions to the sustainability of their own development efforts. In the health sector therefore, universal health coverage needs to be achieved by improved mobilization and pooling of local resources, improved coverage of services, increases in service quality and cost effectiveness, and greater measures of social protection.

The strengthening of health systems in low and middle income countries is central to the global effort to promote economic and social development through universal health coverage, reduce mortality, and improve health and sustainability of health care over the next 15 to 25 years.

What have we learned?

Stronger health systems deliver better services, but health systems are exceptionally complex and frequently resistant to change. Strengthening them takes time, often a long time, and is never a straight trajectory. Advancing in fits and starts, with multiple small incremental and iterative changes, each of the six health system building blocks must progress in parallel with the others while remaining focused above all upon serving the communities within which the health system is situated. In particularly weak health systems, vertical programs can be necessary to meet immediate needs, however, integrated development is preferable and will lead to greater health gains when implemented within more robust health systems. But there is no one-size fits all; each system should be evaluated within its specific context. However, as countries move along the continuum from relief to development to economic growth and greater prosperity, greater integration of health systems is likely to lead to greater health gains.

Decentralized Health Leadership, Management and Governance

The **decentralization o**f more effective **leadership, management, and governance capacity** in conjunction with allocation of access and control over material and financial resources to lower levels of health systems has been shown to improve the responsiveness of those services to the populations served**.**

Health Information

The management of health information using electronic tools is essential to the effective functioning of health systems in developed nations, however, most LMICs still use paper-based systems to manage supply chains, clinical information, and monitoring and reporting. Experience shows that the adoption of electronic record systems does not generate immediate, short-term results. Therefore, rather than aiming at the ideal or optimum, modular, incremental approaches to digitization of health data can achieve early results and establish foundations for future more complex interventions.

Human Resource Development

Well-designed, **professional capacity building programs** can contribute to increasing health worker competency. Training, supervision, mentoring, and the use of a variety of **quality assurance and quality improvement methods** have also been shown to be effective in raising standards of care. Furthermore, it has been shown that the practice of **task-shifting**—moving service delivery tasks to lower levels of care closer to the community, including to lay or community health workers—[11]can reduce the cost of services without reducing quality. This provides opportunities for **improving coverage and quality** and reducing the cost of **known high impact interventions**. However **more evidence is needed on the relative costs and effectiveness of various approaches**.

Finances

Health budgets in most LMICs are severely constrained, where annual per capita health expenditures seldom surpass $50. While **small increments in per-capita health expenditure can produce dramatic reductions in mortality**, with declining aid budgets, more must be done with less money. This requires more cost effective deployment of available resources. The pooling of health resources into insurance schemes and the development of innovative social protection mechanisms has been shown to be able to provide for universal coverage of a basic package of primary health services that ensures the poorest members of society have access to the services they need without being driven deeper into poverty by catastrophic costs.[12] This

principle of **universal health coverage** is widely accepted as an imperative all developing nations should pursue.

There are many documented examples of countries where the progressive move toward universal health coverage has been supported by strengthening health systems and focusing on the provision of primary health care services**.** These include Afghanistan,[13] Costa Rica,[14] Ghana,[15,16] Haiti,[17] Mozambique,[18] Rwanda,[12] South Africa,[16] Tanzania,[16] Thailand,[14] and Uganda.[19] In some cases this resulted in major sub-national or national health gains at low incremental cost per capita**.**

Pharmaceuticals, vaccines, and other technologies

Pharmaceuticals, vaccines, and other technologies are absolutely essential to the provision of effective health services. The old adage "no product, no program" rings true. With the advent of the large vertically funded family planning, vaccination, HIV/AIDS, TB and malaria programs, substantial increases in commodity availability have brokered much of the reduced mortality in recent years. This must continue, but with greater local participation in covering their costs. Health systems must build on the lessons learned in scaling-up distribution of antiretroviral therapy into unified supply chains that ensure consistent availability of essential medicines at all service delivery points.

Service Delivery

There is a general and growing acknowledgement that, while effective in the short term, **vertical service delivery interventions and programs can undermine longer-term sustainability**, and weaken the very health systems they are expected **to support.**[20] There is a growing base of evidence that **integration is generally preferred**, as it reaps benefits from perspectives of clients, providers, health systems policymakers and managers. Failure to plan for the careful integration of vertical programs within general health services therefore can aggravate the very staffing and organizational constraints that made development assistance necessary in the first place. Additionally, vertical programs may lead to a lopsided distribution of and skewed access to care. This is because with very sharply focused investments, there is an uneven improvement in service quality, and as a result clients gravitate towards the services that are well resourced and publicized. Some services that should be available to all clients are not, and opportunities for referral and the provision of more effective, integrated care are lost**.** For instance, almost all pregnant women are screened for HIV but only a small proportion is screened for diabetes, which can be done using a simple and cheap test.

The private sector is a positive, powerful, and often underutilized force in health systems. Private sector (for-profit and not-for-profit) health service providers, are frequently capable of providing high quality care to large segments of the population and often more cost effectively than government run health services. Working with the private sector can raise public demand for better quality care. In addition, investments in modern information technology, leveraging the capacity and reach of cell phone and internet service providers, can provide innovative and very efficient means of collecting, processing, and disseminating the information that is required to improve health systems performance.

What remains to be done

There is now ample evidence showing that an incremental annual investment of $2-5 per capita can transform the ability of many LMICs to deliver essential primary health services. When a systems approach to the provision of a comprehensive package of health services is applied, it is possible to ensure universal coverage of primary care at a relatively low cost. Thailand has been able to provide this to its population at an annual cost of $25 per capita, sustainable by the local economy.[20] The United States and other international donors and aid agencies should support similar efforts in LMICs by investing deliberately in systems strengthening efforts to extend this approach to health care provision.

Strengthened and decentralized leadership, management and governance

The preferential allocation of local treasury and international development resources towards the decentralization of service provision and management decision making from national to district level is essential. The direction of funding at district level for local health service providers, either public or private, that are able to deliver services of a prescribed level of quality and coverage places the responsibility for effective management at the correct level of the health system. This will permit local ownership of the means of improving the coverage and quality of life saving high impact practices targeted at the most needy. Support to **improved planning, budgeting and management of integrated district level primary care services** and their adaptation to local community needs, as well as the **development of effective targeting and incentive systems** will improve service availability, quality, access, and equity.

Community Engagement

For health systems strengthening gains to be both more significant and sustainable, greater effort must be made at the community level to engage community trustees. Those who serve mostly on a voluntary basis on health sector governing bodies can ensure that services are practical and focused on the right means of execution. They can also hold providers, payers, politicians, and managers accountable, and help to ensure that scarce domestic, community and donor resources and well and wisely used.

Health Outcomes

Support must be targeted at health outcomes, with more effective methods for information gathering and monitoring and evaluating performance. In addition, as OECD countries have strong information technology sectors, they are well positioned to leverage their experience, expertise, and a strong industry base to make an impact in global health. Therefore priority support should be provided to promote information technology as an enabler of access to quality and affordable health services in LMICs.

Health Workers

There are no health services without health workers, and it is imperative to recognize the importance of strengthening health systems by promoting further professionalization of the entire workforce. Formal and lay health workers are critical to the delivery of health services, as are those that govern, lead and manage health systems. The **high impact practices** that we know can save lives need to become part and parcel of the basic professional training of all health workers, as must the best practices of those cadres responsible for management, leadership and governance. This requires **greater levels of funding for the strengthening of local pre-service and in-service clinical, clinical support, and health management training institutions.**

Performance based financing

Performance-based financing schemes that offer incentives to providers to increase the coverage and the quality of health services are required, where appropriate, to drive further improvements in public health and economies of scale. Likewise, resources must be focused upon the development of effective combinations of **supply and demand side incentives**, both financial (extrinsic) and intrinsic (behavioral) to improve both individual workers and health systems performance.

Similar incentive mechanisms can ensure access to services for those at highest risk. Directing funding toward verifiable targets for population coverage and service quality must be combined with mechanisms for social protection ensuring equity in access. This is preferable to directing funding toward inputs such as number of people trained or commodities procured and delivered.

High Impact Practices and Service Integration

Future global health development assistance needs to be focused upon applying proven high impact practices and technologies. This means ensuring that pregnant women are screened for diabetes, hypertension and HIV, and can be referred to and access treatment on-site and that persons tested and found positive for HIV are also referred and tested on-site for TB and treated if necessary. While most major disease programs started with vertical approaches, which were "easier" to implement, continued public health gains will require a deliberate shift toward greater integration. There is a need to focus development assistance on layering-in more high impact interventions into existing programs at progressively lower levels of service delivery. However to migrate vertical systems to integrated systems, we will need stronger health systems to build upon.

Innovation

There is a pressing need to **develop innovative health delivery models that move services closer to communities** and make them more responsive to their needs. This must involve **further task shifting to lower cadres of health workers** and the **delivery of more care at the community level**, using approaches designed with and for the communities being served.

Implementation Science – Measuring Impact

Health systems are complex, and the manner in which they operate and the most effective means of improving their performance is heavily dependent upon local contexts, and needs to be better understood. For example, there is a need to review and examine the most cost effective local mix of training, supervision, mentoring, and other quality improvement methods that are used to raise health worker productivity and performance and service quality and coverage. Currently there is a very heterogeneous array of potential approaches and the effectiveness of each one in comparison to the others and in various contexts is not well understood.

Similarly, there is a critical need to support **implementation science** that will research and document successful "tipping point" initiatives and innovations that **produce significant impact in short time frames**. The deliberate funding of this type of scientific investigation will **stimulate greater cost effectiveness** in service provision and support the gradual move toward the sustainability of health services that can be scaled up nationally with local resources.

Summary remarks

MSH considers that stronger health systems are required to carry forward past gains and rise to the challenges of further reducing morbidity and mortality caused by infectious diseases and addressing the rising tide of non-communicable diseases in developing countries. Stronger health systems will result from deliberate consideration of their immense complexity, that changes in one component affect all others, and that innovations and integration—both horizontally across all six pillars of the health system and vertically at the point of service delivery—are required to realize the changes that will bring better health to more people.

Future development assistance in health must be focused on achieving and measuring greater impact by strengthening entire health systems, not just single disease programs.

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