From Inefficiency to Integration: Realigning Global Health

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Healthy and empowered people make productive citizens. They create, innovate and contribute to the overall vibrancy of this world and are a vital energy source for growth. Unfortunately, the opposite is also true. Unhealthy and disenfranchised people put an economic drain on society. Their personal dreams are stunted, their family is disadvantaged, and the nation suffers the burden of intellectual drain, physical disability and financial loss. The effects of this dynamic often go beyond one's own borders and underscore the importance of focusing on global health.

Global health has been described as the goal of improving health for all people in all nations by promoting wellness and eliminating avoidable disease, disability and death.[1] Over the last fifty years, we have come a long way in terms of health care around the world. Through extensive research and development, we have managed to control deadly diseases such as cholera, bubonic plague, leprosy, smallpox and polio. Overall life expectancy has increased along with basic quality of life. Despite these advances, however, global inequities in health still exist within and across countries. For example, a girl born in Sierra Leone can expect to live only half the lifetime (42 years) of a girl born in Japan (86 years), and the chance of a child dying before age five in Angola is 90 times higher than in Finland or Iceland.[2] There is a set of low-income countries representing roughly 10 percent of the world's population, where both GDP and life expectancy have stagnated.[3] As much as 66 percent of the population in these countries is in Africa.[4]

Given our increasingly interconnected global system, poor health in one part of the world will eventually knock at your front door – whether it is through the spread of infectious disease such as H1N1 flu or by the economic impact on global GDP. Global health, then, is really about equity and sustainability. In order to realign global health and cure current inequities, we need to approach it in a comprehensive, multisectoral manner - moving from inefficiency to integration, with a special focus on supporting low- and middle-income countries.

The Economics of Global Health

Although we spend upwards of $5 trillion on health care worldwide[5], disparities in health and economic status are growing around the world - and there is increasing awareness of the link between the two. According to the World Health Organization's Commission on the Social Determinants of Health, in every country around the world the very best off had better health than people a few rungs below them on the socioeconomic ladder. More highly educated people tend to make more healthful lifestyle choices and, as they also tend to be richer, have greater access to health care. Those on the bottom are faced with more stressors and environmental hazards, and the fewest resources available to help them cope.[6]

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It's a two-way street. Just as economic status drives access to adequate health care services, health status affects earning potential. From an individual standpoint, poor health diminishes productivity, decreases wages, and threatens job security. At the same time, it increases direct medical costs for treatment and indirect costs associated with pain and suffering. Unless there is an adequate formal insurance program (and even if there is one in some cases), spending on health often crowds out financial resources that could be invested in education and health of children in the household, reducing earning potential for the future generation.[7] Health costs can be catastrophic. Over 100 million people fall into poverty because they have to pay for health care often out-of-pocket.[8] It's a vicious cycle. From a society standpoint, the individual's poor health reduces the labor supply and/or productive capacity, reduces general consumption and saving, and increases direct medical costs and insurance reimbursements, if applicable. Therefore, poor health reduces current and future income for the individual, the individual's family, for the country and ultimately impacts global GDP.[7] From this perspective it becomes clear that investing in health is a necessary condition for economic development. In other words, health is directly tied to the wealth of individuals and nations.

With this said, increased wealth is not always the main driver for improved health outcomes. For example, the poorest 20 percent of Vietnam has higher survival rates than the richest 20 percent of India.[9] Instead, technological innovation and the diffusion and adoption of knowledge have been the main drivers for improved and prolonged lives in even the most impoverished settings.[10,11,12] Simple interventions can be cost-effective and save lives if they are deployed where needed.

A Critical Point

We're at a critical point. In addition to the rise of strong industrial and trade interests which often undermine the promotion of healthy behavior, we have created **a fragmented, vertical global health system**. In the developed world, this means a focus on specialties and tertiary care. In developing countries, systems have been increasingly structured around specific diseases and interventions based on immediate needs. When my uncle, Dr. Joseph C. Kennedy, co-founded Africare almost 40 years ago, the focus was first on building wells for safe drinking water and to grow food, then child and maternal health, then malaria and tuberculosis (TB).

When the HIV/AIDS epidemic hit, it forced a very focused and necessary mobilization within the global health community against this disease. The globally-recognized Millennium Development Goals (MDGs), which focus on reducing poverty and improving social outcomes, reflect this progression in the three of the eight goals which pertain directly to health - Goal 4: Reduce child mortality; Goal 5: Improve maternal health; and Goal 6: Combat HIV/AIDS, malaria, and other diseases.[13] While progress has been made, the health-related MDG targets have not been met to date.

In certain areas, like sub-Saharan Africa, the primary focus has been on one of "the big three" – HIV/AIDS, malaria and TB. Though very important for the health outcomes of these diseases, this fragmented strategy has actually weakened the already bottlenecked local systems in many low- and middle-income countries. It shapes the way funds are channeled which diverts the attention of ministries of health away from the planning of primary care and the public's health. Given this "parts specialist" mentality, the individual loses continuity of care which impedes prevention screening. In addition, this often leads to parallel structures that result in duplication, inefficiencies and counterproductive competition for the already limited human resources.[14] Thirty-one African countries, for example, will face a shortfall of 800,000 health workers by 2015.[15] Sub-Saharan Africa would need to increase its health workforce by 140 percent to support attainment of the MDGs.[13] In the end, a disease-focused strategy often overburdens health ministries – they lose control of their own health priorities, lose incentive to create sustainable plans and whole populations are excluded from access to quality care.

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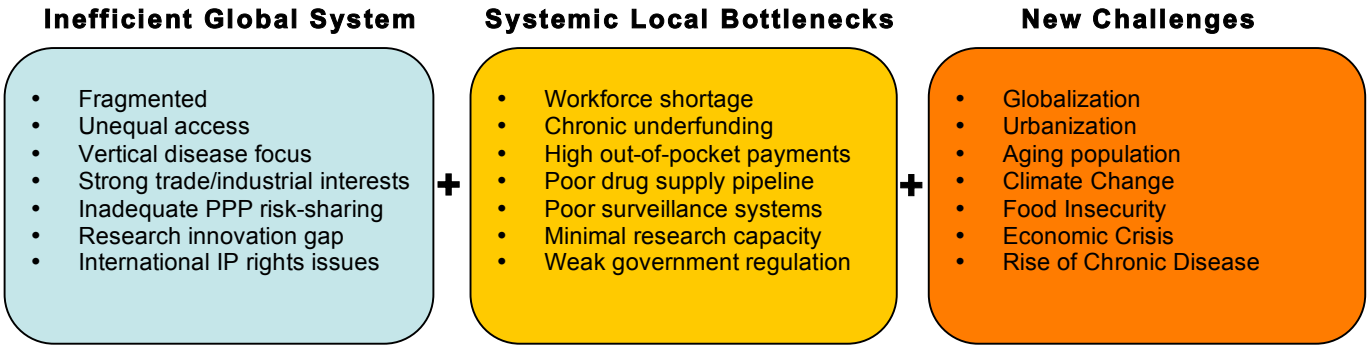
In addition to this fragmented approach, new challenges are stressing the system including continued globalization, urbanization, the aging population, climate change, food insecurity, and the economic crisis. The poor are most affected during an economic downturn because they pay a large portion of their health care costs out-of-pocket, without the benefit of social safety nets.[16] In India, for example, more than 80 percent of the country's total expenditure on health is comprised of out-of-pocket payments; in Nigeria this figure is 63 percent.[2] 2009 estimates suggest that 46 million more people will be living on less than $1.25 a day than was expected prior to the economic crisis. An extra 53 million will live on less than $2 a day. This is on top of the 130 to 155 million people already pushed into poverty in 2008 because of soaring food and fuel prices.[17]



The Globalization of Chronic Disease

Pandemics and infectious diseases are an obvious global threat. However, there is a bigger killer on the horizon which has the potential to cripple our economic system. An "extraordinary global epidemiologic transition"[1] is occurring - the rise of chronic disease around the world affecting all nations, ethnicities and age groups. Chronic non-communicable diseases - such as heart disease, stroke, diabetes, and most cancers – now account for 60 percent of all deaths worldwide. This has been called the globalization of chronic disease because the burden of chronic disease is shifting to poorer nations with 80 percent of chronic disease deaths now occurring in low- and middle-income countries.[2] Chronic diseases are no longer diseases of the rich or elderly. Working-age adults, for example, account for a high proportion of the cardiovascular disease burden in low- and middle-income countries.[12] Global deaths from chronic disease are expected to rise by 17 percent worldwide over the next ten years.[5]

This shift is putting an even higher burden on already strained systems. Most health workers in low- and middle-income countries are not trained to diagnose chronic disease and later-stage diagnoses have more complications, such as amputation for advanced diabetes. With very limited financial and human resources, local health systems must still manage infectious disease, while trying to learn how to prevent and treat chronic diseases. India, for example, has the highest number of diabetics in the world and annual coronary deaths are expected to reach 2 million by 2010. At the same time, around 2.5 million children in India die from infections such as pneumonia, diarrhea, and malaria every year.[18] Cameroon is another example of a strange dichotomy. Approximately 23 percent of the population is undernourished while 35 percent are overweight or obese and 600,000 have diabetes. They are still dealing with a 5.1 percent prevalence of Adult HIV/AIDS. South Africa is even worse because they have such a high prevalence of Adult HIV/AIDS (18 percent).

At the same time, 56 percent of the women are overweight or obese, and 28 percent of the men smoke – two leading risk factors for the four major chronic diseases.[19] These largely lifestyle-driven diseases will kill approximately 388 million people in the next ten years and cripple health systems around the world if we do not take action.[20]

The good news is that these deaths are largely preventable. The top three risk factors for the major four chronic diseases are smoking, poor diet and lack of activity. Policy changes, corporate engagement, and known behavioral and pharmaceutical interventions can avert many premature deaths from chronic disease.[5] For example, according to the World Health Organization, in the 23 developing countries that comprise 80 percent of the global chronic disease burden, 8.5 million lives could be saved in a decade by a 15 percent dietary salt reduction through manufacturers voluntarily reducing salt content in processed foods and a sustained mass-media campaign encouraging dietary change. Implementation of four measures from the Framework Convention on Tobacco Control (increased tobacco taxes; smoke-free workplaces; convention-compliant packaging, labeling and awareness campaigns about health risks; and a comprehensive advertising, promotion, and sponsorship ban) could save a further 5.5 million lives in a decade.[21] Only 5 percent of the world's population live in countries with comprehensive tobacco advertising, promotion and sponsorship bans, despite their proven efficacy in reducing health threats.[22] The power to make a difference is in our hands.

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The Need for Integration

The traditional gap analysis compares actual performance to potential performance, asking the questions: "Where are we?" and "Where do we want to be?" The gap is in the middle between the optimized allocation of resources and the current state. If we look at global health from this perspective, *the real gap is effective and efficient implementation* and *the real potential is in integration*. Biomedical innovations are still needed. However, we have existing interventions and technology that can save lives today if we can just get them to people in need in an affordable and sustainable way.

It is time to move away from a fragmented, vertical global health structure and create an integrated systems-based approach to global health funding, research, development, education and treatment supporting a more sustainable model in low- and middle-income countries through public-private-people partnerships.

The global health community has experienced unprecedented philanthropic commitments to combat disease and resolve health care delivery problems. For example, the Bill & Melinda Gates Foundation is spending more than $3 billion a year on global health. Other foundations - such as Burroughs Wellcome Fund, the Doris Duke Charitable Foundation, the Google Foundation and the Clinton Global Initiative - have turned their attention to global health.[23] How can these funds have the highest impact in the long run particularly in resource-constrained areas? What steps can we take today to make a difference with the knowledge and tools we already have? Here are a few thoughts:

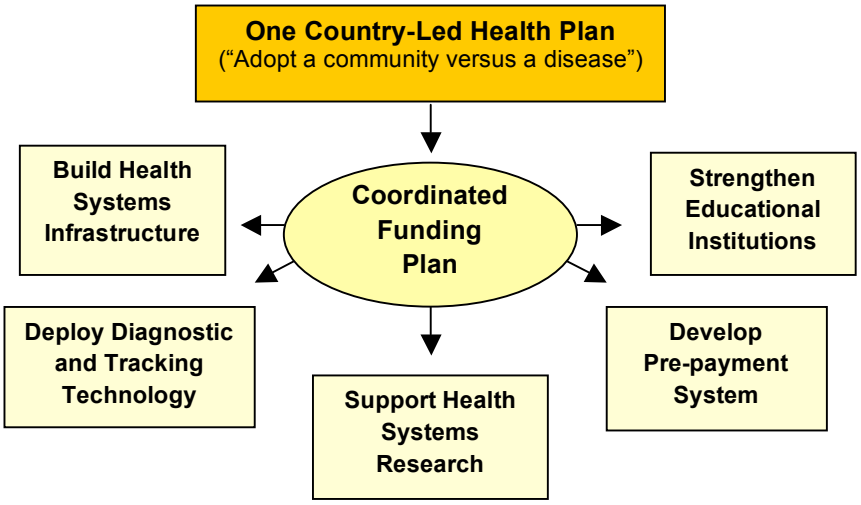
Short-Term Possibilities

- **Support the modification of MDGs to include chronic diseases**. The health-related Millennium Development Goal No. 6 needs to explicitly include chronic diseases which affect the majority of the world's population.
- **Leverage existing infrastructure and interventions for infectious disease** – like the work of Population Services International (PSI) - as an entry point for chronic disease prevention in the communities they already serve. As you screen for AIDS, check for high blood pressure. When a mother brings a child in for acute malaria, the mother can gain access to cervical cancer screening.
- **Create a community-based wellness empowerment model** training people to facilitate their own culturally-relevant peer support groups as a forum to discuss health issues. Research supports this approach.[24] The facilitators can be provided with information on how to access and direct others to health services within the community. Over time, this helps to build capacity in terms of local advocacy, as well as allies within civil society which can help give a voice to health reform. You can fix the system but the individual still needs to be empowered to take action.
- **Train community health workers as a supplemental force** to deliver prevention messages and services such as what the International Medical Corps (IMC) has done in places like Cameroon and Uganda with primary care.
- **Create a prevention & wellness empowerment kit** to provide culturally-relevant prevention messages around smoking, diet and physical activity. The kit can be a template which can be tailored to specific communities and provided to community health workers to expand their knowledge base and service capacity.

- **Expand worksite site programs.** Over 65 percent of the global population over age 15 years is part of the workforce[25], and workplace programs have been shown to be effective in improving health-related outcomes.
- **Coordinate around international awareness-building efforts,** such as World Health Day in April 2010, to educate whole populations. Mobilize existing initiatives around one global event to maximize reach and impact.

Long-Term Recommendation

- **Create a coordinated funding platform** which brings the funding community and other stakeholders together to invest in a comprehensive, capacity-building plan (e.g. adopt a community versus a disease). This multisectoral public-private-people partnership approach can support one results-focused, country-led comprehensive health system plan at a time. This approach can build in accountability for population health outcomes and track the real impact of the investment (e.g. saving lives and improving health) versus just the inputs (e.g. money spent) and outputs (e.g. number of vaccines delivered). It can be cost-effective and sustainable by focusing on the following:



a. **Build local capacity** - physical infrastructure, technology, procurement and supply systems, fiscal management, workforce development, local research capability, etc.
b. **Strengthen educational capacity** through collaborations and by directing funding and expertise to establishing schools of public health like what the Rockefeller Foundation did in 1921 in cities like London, Tokyo, Calcutta, and Sao Paulo. They spent $25 million – the equivalent of $357 million today.[26] Africa and Southeast Asia could benefit from this type of action today.
c. **Bring the lab and the field together**. Invest in health systems research evaluating programmatic efforts to improve health (e.g. Poverty Action Lab at MIT and its work with bed nets[27] or adapting smoking prevention and cessation programs to low- and middle-income settings[28]). Focus biomedical advances on high impact solutions for low- and middle-income countries (e.g. the polypill[29], or alternatives to needle-based delivery of vaccines that are not dependent on refrigeration). Support more public-private Product Development Partnerships (PDPs).[30, 31]
d. **Provide incentives for technology companies** to deploy electronic medical systems in low-income countries to strengthen the knowledge and extend the service capacity of already constrained human resources. Invest in global knowledge networks, diagnostic technologies, and long-term systems for infectious disease surveillance and recording health information such as births, deaths, and causes of deaths.
e. **Support a pooled pre-payment system and/or low-income health insurance products** by a private-public partnership as an alternative to unregulated commercial care.

These are a few thoughts to get us started. Through the leadership and strength of the World Economic Forum, we can bring together the right players to execute them. All of these recommendations support the World Health Organization's 2008 Report and strategy which proposes that primary care be the hub of the health system. They also support the final report of the expert Committee on the U.S. Commitment to Global Health issued in May 2009. The real question is: Do we want to continue to place bandaids on the wound or actually heal the system? As the 35th U.S. President John F. Kennedy said, "There are risks and costs to a program of action, but they are far less than the long-range risks and costs of comfortable inaction." Now is the time for us to re-align global health, moving from inefficiency to integration – remembering that the end goal is to improve health and save lives promoting equity and sustainability for all.

Notes:

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