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A Sustainable Approach to Health Systems Strengthening in Developing Countries: Lessons from the Ebola Crisis

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Acknowledgement

I will like to acknowledge the support of my wife, parents, and a special aunt of mine who did not live to read this research paper. She was not only an aunt but also a mentor who saw no limit to my ability in achieving desired goals. Unfortunately, she died because of a fragile health system in Liberia; thus this paper on health systems strengthening. Prior to pursuing a Master in Sustainable Development at SIT Graduate Institute, my wife, parents, and aunt vested a high degree of confidence in me that kept me going through the rigor of course work that resulted in this research paper. I am grateful for having such special people in my life, and I highly appreciate their belief in me. I will also like to dedicate this paper to the memory of everyone who died as a result of the Ebola virus outbreak in West Africa. May their souls rest in peace and may this paper contribute to the efforts toward achieving sustainable health systems, and eventually universal health coverage as a human right for all.

Abbreviations and Acronyms Lists

WHO……World Health Organization

USAID…….United States Agency for International Development

HSS…….Health Systems Strengthening

EVD……Ebola Virus Disease

WBG…….……World Bank Group

UN……..United Nations

UNDP…….United Nations Development Program

HDR……Human Development Report

CHS…….Commission on Human Security

ANC……Antenatal Care

MDG……Millennium Development Goals

SDG……..…...Sustainable Development Goals

Abstract

The research paper started with emphasizing the importance of health security as an issue of global concern under the UNDP theory of human security. The research then proceeded with a focus on the approaches to health systems strengthening and a reflection on lessons learned from the Ebola virus outbreak to answer the question: How do we approach health systems strengthening (HSS) to achieve sustainable impact? Scholarly articles, and literature from other authoritative sources on health systems strengthening, like the World Health Organization (WHO) and the US Agency for International Development (USAID), were reviewed to determine a clear definition of HSS, and understand past approaches that succeeded and challenges that ensued in the pursuit of HSS. The literature review also highlighted and sought to clarify the perceived ambiguity that have blurred the distinction between health systems strengthening and health systems support. The research sought to understand the successes and challenges of donor-led HSS programs, by reviewing and analyzing USAID's approach to HSS programs in five Central Asian countries. Maternal mortality data from the World Bank Group (WBG) was analyzed and used as benchmarks for assessing the Central Asian countries's rate of change in health indicators. With a streamlined definition of HSS and reference to successes and pitfalls of the practice, the research proceeded to analyze findings from lessons learned from the Ebola outbreak that overwhelmed fragile health systems in West Africa. These findings shed light on the advent of the Ebola virus, and the subsequent international response and related challenges and catalyst. Recommendations for sustainable approaches to health systems strengthening were proposed after analyzing the literature reviews, and lessons learned from the Ebola virus outbreak. The paper was concluded with a reflection on Sustainable Development.

Introduction

We find ourselves in an era when global health is an issue of global security. If global security should be achieved, then human security should be pursued. The United Nations Development Program has presented human security in the context of both freedom from want and freedom from fear, and not merely the protection of territorial boundaries from external aggression. Health security was mentioned as a component of the human security that is envisioned by the UNDP. If we must achieve global security, we must address the threats of health insecurities. The threats posed by health epidemics such as the Ebola and Zika viruses continue to be issues of global security concern in the face of international travel. Because of international trade, and other economic, social, and political reasons, travel from one part of the world to another is inevitable. These international trips, for business or pleasure, increase the potential risk for spread of a disease from one country to another. However, not all is lost, because the potential security threats posed by health epidemics can be averted if health systems around the world are capacitated to deal with these health situations when they are small outbreaks. There has been consensus on this note as evidenced by the fact that donor led health systems strengthening programs are being used to strengthen health systems in most developing countries. Health is Goal #3 amongst the Sustainable Development Goals. This indicate a lot of good will and consensus surrounding the high importance that has been attached to health.

Health epidemics usually start with one or few cases before growing into insurmountable numbers that subsequently attract global attention. If Guinea's health system were agile enough to detect, prevent or contain the first case of the Ebola virus disease, the outbreak would have been defeated during its early stage, and within the confines of Meliandou, the village in which it started, and thousands of lives would have been saved. However, this was not the case as Guinea's health system failed to detect the virus for more than three months while the virus

spread in-country, and eventually beyond the borders of neighboring Sierra Leone and Liberia. The health systems in the three most affected countries were shattered and more than 11,000 people died from the outbreak and spread of the Ebola virus disease. Meanwhile, most development practitioners have attributed the unprecedented spread of the Ebola virus to the fragile health systems of the most affected countries. Why have there been fragile or weak health systems in the most Ebola-affected countries in this age of technology and development? Some development practitioners have attributed the weak health systems of Guinea, Sierra Leone and Liberia to protracted years of civil wars, but others are of the opinion that civil wars ended about ten years before the outbreak of the Ebola crisis and in the interim, HSS programs were ongoing in these countries. If indeed, HSS programs were implemented in these countries with outcomes that failed to prevent or contain the Ebola virus outbreak, then approaches to HSS programs need to be review. This brings us to the primary question of this research: How do we approach health systems strengthening to achieve sustainable impact? In answering the primary research question, it would be worth asking another question: Could lessons learn from the Ebola crisis serve as guidance for sustainable approaches to health systems strengthening? The importance of health systems strengthening can never be overemphasized, and so is the importance of this research that seeks to determine a sustainable approach to Health Systems Strengthening.

In an effort to answer the research questions that relate to HSS, the research explored and considered guidance provided by the World Health Organization on health systems. The research also reviewed scholarly articles and provided analysis on HSS programs that have yielded positive outcomes. Lessons from the response to the Ebola crisis, and some challenges to implementing health systems strengthening were also analyzed.

Methodology

This research relied on secondary sources of data and was conducted by desk review. A desk review is defined as analyzing information already available in print, or published on the internet. Scholarly articles on Health Systems Strengthening were reviewed, analyzed, and critiqued to reach conclusions that led to recommendations on the subject matter. Background information on the Ebola crisis as provided by the World Health Organization and other reputable sources such as the Center for Disease Control were also considered in this research. The following databases were used to research scholarly articles for the literature review: Searches included the following key terms: health, health systems strengthening, Ebola and human security. In reviewing scholarly articles, the abstract was first perused to determine the need to read the full article. Information was used from all parts of an article, and referenced.

Research Limitations

The limitations in conducting this research are associated with the research method of desk review using secondary data. The value of secondary data is limited to what has already been produced thus limiting the researcher's ability to verify information gathered during the desk review. Secondary data may also be out of date or the sample used to collect the data must have been small. Some secondary data may be generalized or vague thus affecting its accuracy. The quality of data may be compromised or skewed given the original researchers biases.

Personal Bias

I may have had some personal biases in conducted this research because I am a Liberian who experienced the Ebola crisis and saw first hand the threats of a fragile health systems. However, In my opinion my research and analysis as objective as possible.

Literature Review

Health Insecurity as a Threat to Human Security

The extent to which health insecurity poses a threat to human security is unimaginable but without the facts one cannot reach said conclusion. What is human security. The 1994 United Nations Development Program's (UNDP) Human Development Report (HDR) under the stewardship of Mahbub ul Haq, suggested the need to shift the referent of security, from security of the state to security of the individual in accordance with its theory of human security. "There have always been two major components of human security: freedom from fear and freedom from want (UN, 1994, p. 24)." These components have influenced the approaches of pursuing human security. The Commission on Human Security (CHS) in its final report of 2003, *Human Security Now*, defined human security as…,

> …to protect the vital core of human lives in ways that enhance human freedom and human fulfillment. Human security means protecting fundamental freedoms – freedoms that are the essence of life. It means protecting people from critical (severe) and pervasive (widespread) threats and situations. It means using processes that build on people's strength and aspirations. It means creating political, social, environmental, economic, military and cultural systems that together give people the building blocks of survival, livelihood and dignity (Commission on Human Security [CHS], 2003, p. 4).

According to the Commission on Human Security (CHS), health security is at the vital core of human security, especially where we consider that health is not just the absence of disease but 'a state of complete physical mental and social wellbeing' (CHS, 2003, p. 96). An unhealthy person is usually unable to adequately work and contribute to the progress of the world thus creating a burden on the economy and subsequently a threat to global security.

According to the HDR, "The concept of security has for too long been interpreted narrowly: as security of territory from external aggression, or as protection of national interest in

foreign policy or as global security from the threat of a nuclear holocaust. It has been related more to nation states than people (United Nations [UN], 1994, p. 22)." The proposed paradigm shift meant the concept of pursuing global security had to change from an exclusive stress on territorial security through the protection of national borders, to a much greater stress on people's security; thus changing the focus of human security from security through armaments to security through sustainable human development (United Nations [UN], 1994, p. 24). In redefining the basic concept of security, the HDR provided the following insights: human security is relevant to people everywhere, and when the security of people is attacked in any corner of the world, all nations are likely to get involve. Therefore, it is less costly and more humane to meet these threats upstream rather than downstream, early rather than late (UN, 1994, p. 3). These new insights on security support the notion of the world being a global village because of interconnectivity through travel and technology. Since a security crisis erupting in one part of the world, would draw the attention and support of many other countries, why not prevent the crisis by preemptively supporting sustainable development programs. In the Foreword of the HDR, the then UN Administrator, Speth J. G. said,

> Behind the blaring headlines of the world major conflicts, and emergencies, there lies a silent crisis - a crisis of underdevelopment, of global poverty, of ever-mounting population pressures, of thoughtless environmental degradation. This is not a crisis that will respond to emergency relief. Or to fitful policy intervention. It requires a long quiet process of sustainable human development (UNDP, 1994, p. iv).

This statement summarizes the problem and proposes a new agenda for human development that would remove the threats associated with social inequalities, and serve as a catalyst to human security that could lead to global security. In essence, the indicators of global security would fare better if development prevented social ills or human insecurities from undermining people's freedom from want and their freedom from fear.

"The list of threats to human security is long but most can be considered under seven main categories: Economic Security, Food Security, Health Security, Environmental Security, Personal Security, Community Security and Political Security (UNDP, 1994, p. 24)." Because this research focuses on HSS, we shall consider an example of health insecurity from the Human Development Report of 1994. "In both developing and industrious countries, the threats to health insecurity are usually greater for the poorest, people in rural areas, and particularly children." "While poor people in general have health insecurity, the situation for women is particularly difficult. One of the most serious hazard they face is child birth: more than three million women die each year from causes related to child birth (UNDP, 1994, p. 28)." Of course, since the publication of this report in 1994, the trend in maternal mortality deaths has changed. "Globally, the maternal mortality ratio (MMR; number of maternal deaths per 100,000 live births) fell by approximately 44% over the past 25 years; this falls short of the MDG target 5A which called for a reduction for at least 75% in MMR (World Health Organization [WHO], 2015, p. 15)." Even though progress has been made, maternal mortality continues to be a threat to human security as countries with weak health systems are still experiencing loss of life during childbirths. In countries with fragile health systems, women could be living in fear during pregnancy, and before they give birth. Health insecurity being one of those threats of human insecurity could be addressed by adopting sustainable approaches to HSS program implementations. "Financial constraints of clients and health facilities have been identified as impacting health services uptake and male participation. A Ugandan study reported that some health providers charge extra beyond the ANC fees to bridge their own financial gap… (Ditekemena et al., 2012, p. 4)" In some countries, women face challenges on all fronts; ddue to personal financial constraints and extra charges imposed by health providers.

Definition and Background of Health Systems Strengthening

Definition of HSS.

The World Health Organization defines Health Systems Strengthening as the process of identifying and implementing the changes in policy and practice in a country's health system, so that the country can respond better to its health and health system challenges. HSS is any array of initiatives and strategies that improve one or more of the functions of the health system and that leads to better health through improvements in access, coverage, quality, or efficiency (World Health Organization [WHO], n.d.).

Background of Health Systems Strengthening

Health Systems Strengthening has been a buzz terminology for a long time, and practitioners have come to agree on its potential for solving global health problems. Development practitioners continue to employ the practice, through different approaches depending on a particular organization's perspectives of global health initiatives. As a result of these various approaches, and outcomes of HSS, questions are being raised about the extent to which HSS activities actually strengthen health systems. De Savigny & Adam maintain that, "Despite strong global consensus on the need to strengthen health systems, there is no established framework for doing so in developing countries, and no formula to apply, or package of interventions to implement. Many health systems simply lack the capacity to measure or understand their own weaknesses and constraints, which leaves policymakers without scientifically sound ideas of what they can or should actually strengthen (Savigny & Adam, 2009, p. 19)." De Savigny & Adam, 2009 attribute this challenge not "to any inherent flaw in the intervention itself but rather to the often unpredictable behavior of the system around it." De Savigny & Adam are therefore recommending "systems thinking" as a solution for addressing the flaws of HSS as they stated,

"Every intervention, from the simplest to the most complex, has an effect on the overall system, and the overall system has an effect on every intervention (Savigny & Adam, 2009, p. 19)."
"System thinking is an approach to problem solving that views 'problems' as part of a wider dynamic system. System thinking involves much more than a reaction to present outcomes or events. It demands a deeper understanding of the linkages, relationships, interactions and behaviors among the elements that characterize the entire system (De Savigny & Adam, 2009, p. 33)."

Approaches to Health Systems Strengthening

Development organizations such as the World Health Organization (WHO) and the United States agency for International Development continue to play a lead role in charting the course for HSS, yet the challenges of fragile health systems persist. "Health systems strengthening has been at the core of the US Agency for International Development's (USAID's) mission in health for the last 20 years (United States Agency for International Development [USAID], 2015, p. 5)." Various development actors have contributed to HSS from different perspectives thus (Chee, Pielemeier, & Connor, 2012) have raised concerns about what constitute health systems strengthening. According to Chee, Pielemeier, & Connor, 2012, "Interpretation of health systems strengthening (HSS) has varied widely however, with much of the focus to-date on alleviating input constraints, whereas less attention has been given to other performance drivers. It is important to distinguish activities that support the health system, from ones that strengthen the health system (Chee, Pielemeier, & Connor, 2012, p. 85)." Chee et al maintain that many refer to the WHO's 2007 framework for describing the function of a health system, when trying to define HSS, and considering that the framework consists of six building blocks, any program making contribution in one block in any fashion can be said to be doing

health systems strengthening (Chee et al., 2012, p. 86). Though such effort constitute contributions to health systems, Chee et al states that it "ignores that the WHO's 2007 definition of HSS also calls for improving interactions between the building blocks and for sustainable improvements 'across health services and health outcomes'." According to (Chee et al., 2012, p. 86) Activities such as distributing free condoms or topping up salaries for targeted staffs for a limited period are short term and narrowly focused and may improve health system's functionality for only a short time. "In contrast strengthening the health system is accomplished by more comprehensive changes to policies and regulations, organizational structures and relationships, organizational structures and relationships across the health system building block that motivates changes in behavior and/or allow more effective use of resources to improve multiple health services (Chee et al., 2012, p. 86)."

Samb et al posited that a number of international bodies have been setup to guide aid for global health. These bodies oversee specific health initiatives and therefore are more focused on those initiatives thus driving global effort toward specific initiatives in which they are interested. Samb et al also mentioned that weak structures and processes such as bureaucratic budgeting or auditing undermine national governance on health. "Health systems designs that devolve decision-making power locally is a key factor in promoting effective decentralization of health care. Evidence shows that appropriate decentralization of management and democratization of health through the active participation of the community and of service users has a positive effect on access to and uptake of health services, especially for the poor rural population (Samb et al., 2010, p. 1788)."

World Health Organization's Approach to HSS

Determining the approach to HSS programs in a particular country is the responsibility of the host government as it is the responsibility of donors, or implementing partners, and thought leaders in global health. The WHO as a leader on global health has taken the lead to provide some guidance on approaches to health systems strengthening. In providing this guidance, the WHO has described health systems as comprising of six building blocks. "The building blocks are service delivery; health workforce; information; medical products, vaccines and technologies; finance; and leadership and governance (stewardship) (World Health Organization [WHO], 2007, p. v). The WHO (WHO, 2007, p. vi) describes each building block as follows:

- *Service delivery:* Good health services are those which deliver effective, safe, quality personal and, and non-personal health interventions to those that need them, when and where needed, with minimum waste of resources.

- *Health Workforce:* A well-performing health workforce is one that works in ways that are responsive, fair and efficient to achieve the best health outcomes possible given available resources and circumstances (i.e. there are sufficient staffs, fairly distributed; they are competent responsive and productive).

- *Health Information:* A well-functioning health information system is one that ensures the production, analysis, dissemination and use of reliable and timely information on health determinants, health system performance and health status.
- *Medical Products, Vaccines, and Technology:* A well-functioning health system ensures equitable access to essential medical products, vaccines and technologies of assured quality, safety, efficacy and cost-effectiveness, and their scientifically, sound and cost-effective use.

- *Health Financing:* A good health financing system raises adequate funds for health, in ways that ensure people can use needed services and are protected from financial catastrophe or impoverishment associated with having to pay for them. It provides incentives for providers and users to be efficient.

- *Leadership and Governance:* Leadership and governance involve ensuring strategic policy frameworks exist and are combined with effective oversight, coalition building, regulation, attention to system design and accountability.

These building blocks promote three purposes: first, they define desirable attributes, like what a particular block of a health system should have the capacity to do. Secondly, they provide a medium for defining the World Health Organization's priorities, and thirdly, by setting forth the health systems agenda, they offer ways for identifying gaps in WHO's support (WHO, 2007, p. v). Looking at health systems through the lens of these building blocks is a great first step or approach for designing HSS programs. However, the WHO has raised caution.

> Nevertheless, it is clear that, in too many instances, WHO's support can be fragmented between advice focusing on particular health conditions (that may not always take systems or service delivery issues into account) and advice on particular aspects of health systems provided in isolation. While there are good examples of how both streams of activity can work together, the challenge is to develop a more systematic and sustained approach that responds better to the Member States (WHO, 2007, p. vi).

Even though WHO has provided the blocks as a guide for understanding health systems, it has caution practitioners to use an approach that focuses on the needs of the host country because each country has unique circumstances.

Lessons from the Ebola Crisis

Ebola Virus Disease

There is evidence to show that the Ebola virus surfaced in several other countries before the largest outbreak in West Africa. According to a chronological list published by the Center for Disease Control, the Ebola virus was first discovered in Zaire (now Democratic Republic of Congo) in 1976, after which it also surfaced in South Sudan and several other countries before making the largest appearance in Guinea, Sierra Leone and Liberia. According to the Center for Disease Control, "The natural reservoir host of Ebola virus remains unknown. However, on the basis of evidence and the nature of similar viruses, researchers believe that the virus is animal-borne, and that bats are the most likely reservoir (Center for Disease Control [CDC], n.d.)."

According to the (CDC, n.d.), "The Center for Disease Control published a list of five identified Ebola virus species, four of which are known to cause disease in humans. The species are: Ebola virus (Zaire ebolavirus); Sudan virus (Sudan ebolavirus); Tai Forest virus (Tai Forest ebolavirus, formerly Cote d'Ivoire ebolavirus) and Bundibugyo virus (Bundibugyo ebolavirus). The fifth, Reston virus, (Reston ebolavirus), has caused disease in nonhuman primates but not in humans. The EVD is transmitted through contact with an infected person. According to the (CDC, n.d.),

> People get Ebola through direct contact (through broken skin or mucous membrane in, for example, the eye, nose or mouth) with
> - Blood or body fluids (including but not limited to urine, saliva, sweat, feces, vomit, breast milk and semen) of a person who is sick or has died from Ebola
> - Objects (like needles and syringes) that have been contaminated with body fluids from a person who is sick with Ebola or the body of a person who has died from Ebola
> - Infected fruit bats or primates (apes and monkeys) and
> - Possibly from contact with semen from a man who has recovered from Ebola (for example by having oral, vaginal or anal sex)

The incubation period of the Ebola virus disease in humans is 21 days, after which an infected person will be considered a survivor, if not deceased as a result of the virus.

West Africa Ebola Outbreak

The largest outbreak of the Ebola virus disease occurred in West Africa in December 2013. "Retrospective studies conducted by WHO staff and Guinean health officials identified the index case in West Africa's Ebola epidemic as an 18-month-old boy who lived in Meliandou, Guinea. The boy developed an illness characterized by fever, black stools, and vomiting on 26 December 2013 and died two days later (World Health Organization [WHO], 2015)." Thereafter the virus continued to spread silently throughout Guinea because health officials were unequipped to diagnose the disease. "The first alert was raised in Guinea on 24 January 2014 when the head of the Meliandou health post informed district health officials of five cases of

severe diarrhea with a rapidly fatal outcome (WHO, 2015)." On March 14, 2014, the Guinean Ministry of Health issued an official alert of an unidentified disease but health authorities never identified the outbreak as Ebola until 21 March 2014. "On 21 March, the Institute Pasteur in Lyon, France, a WHO collaborating center confirmed that the causative agent was a filovirus, narrowing the diagnosis down to either Ebola virus disease or Marburg hemorrhagic fever (WHO, 2015). "For a long time, the country had only two treatment centers, in Conakry and Gueckedou, both run by MSF (WHO, 2015)." The World Health Organization declared Ebola as an international public health emergency on August 9, 2015. By this time, the virus had spread beyond Guinea, Sierra Leone, and Liberia, and entered Nigeria via international air travel on July 20, 2014.

Why did the virus spread at such an alarming rate? According to the WHO Ebola Team published article, "Certain characteristics of the affected population may have led to the rapid geography dissemination of the infection. The population of Guinea, Liberia, and Sierra Leone, are highly interconnected with much cross-border traffic at the epicenter and relatively easy connections by roads between rural towns and villages and between densely populated national capitals (WHO Ebola Response Team [WHO], 2014)." The facts in the aforementioned quote are quite reasonable but this wasn't the case in Nigeria, a country that have similar characteristics. "In Nigeria, the number of cases has been so limited, despite the introduction of infection into large cities of Lagos (approximately 20 million people) and Port Harcourt (>1 million people). The critical determinant of epidemic size appears to be the speed of implementation of rigorous control measures (WHO, 2014)." In addressing the cause and speed at which the virus spread, the WHO Ebola Response Team in their publication also look to experience. "Previous experience with EVD outbreaks, though they have been limited in size,

and geographic spread, suggest that transmission can be interrupted, and case incidence reduced within 2 to 3 weeks after the introduction of control measures (WHO, 2014)." The Ebola Response Team also reported that, "Because Ebola is spread mainly through contact with body fluids with symptomatic patients, transmission can be stopped by a combination of early diagnosis, contact tracing, patient isolation and care, infection control and safe burial (WHO, 2014)."

According to Chertow et al, "The central purpose of Ebola treatment units has historically been to isolate persons early in the course of disease – often soon after fever onset – in order to break the chain of disease transmission in the community. However, all efforts must be made to optimize the level of medical care provided within these facilities. Resistance by these infected persons to voluntary admission will persist unless the treatment facilities are seen as a place to go for treatment and recovery and not as a place to die isolated from loved ones and the community (Chertow et al., 2014).

International Response to the Ebola Outbreak

The spread of the Ebola virus attracted international attention and response after the virus spilled beyond the borders of other countries, including Liberia, Sierra Leone, Nigeria and the United States.

In response to the crisis, the World Health Organization drafted the Ebola Virus Response Plan that was primarily built on the premise that no one organization could fight the virus alone. The goals of the strategy for accelerated response were to;

1) Stop transmission of Ebola in the affected countries through scaling up effective, evidence-based outbreak control measures; and 2) Prevent the spread of Ebola to the neighboring countries

through strengthening epidemic preparedness and response measures (World Health Organization [WHO], 2014, p. 4). The WHO indicated in the response plan that the aforementioned strategies were built on the following three major pillars:

1. Immediate outbreak response interventions, including assessment; reduction of the spread of the disease and effective measures to interrupt transmission of Ebola virus disease
2. Enhancing coordination and collaboration, including:
   a) Building on local, regional and national coordination;
   b)Whole of society response (including potential legislative action, involvement of the military, as appropriate; public order maintenance);
   c) Proactive preparedness promotion in neighboring countries including through social mobilization and training
3. Scaling-up of human and financial resource mobilization, including:
   a) Communication and public engagement (e.g. sharing responsibility for preparedness and response; communication for the general public; sharing of data and information)
   b) b) Linking health and social care responses.

The Ebola virus was contained in other parts of the world in which it spread, and subsequently in West Africa where it struck the most. Meanwhile the WHO continues to keep the spotlight on fighting the virus. "In mid-August 2014, the WHO response moved into a new phase aimed at quickly taking the steps needed to safely add experimental vaccines and therapies to the meager arsenal of response tools (World Health Organization [WHO], 2015)."

Success of Health Systems Strengthening in Central Asia

The US Government through USAID has continuously funded health systems strengthening programs in developing countries including some in Central Asia. Through a joint technical assistance program for five Central Asian countries, USAID cooperated with other multilateral and bilateral donors such as the World Bank, World Health Organization, United Nations agencies and the development arms of the German, Swiss, and British governments (United States Agency for International Development [USAID], 2015, p. 10). This cooperation

called for a joint strategy development and planning of all technical assistance to the health sector of these Central Asian countries (USAID, 2015, p. 6). "It has been 20 years since USAID first came to Central Asia to help the newly independent countries strengthen their health systems. At the time, Kazakhstan, the Kyrgyz Republic, Tajikistan, Turkmenistan, and Uzbekistan faced a daunting task: coping with the realities of a post-Soviet world in which Moscow's financial and administrative support abruptly ended (USAID, 2015, p. 6)."

USAID, through implementing partners like Abt Associates, began working with local partners in the five central Asian countries to strengthen the capacity of providers and establish family medicine as the bedrock of the health care system. Health care systems in the region faced numerous challenges ranging from poor service delivery to poor health financing systems leading to a plunge in health workers salaries. Government funding was directed towards large hospitals because these hospitals always had in-patients occupying beds. "For example, pregnant women were routinely hospitalized for observation, and many procedures treated on an out-patient basis in the West required long hospital stay in Central Asia (USAID, 2015, p. 27)." With the intervention of USAID HSS programs, health financing systems were restructured, and moved away from hospitals and financial support redirected to primary health care, where care is less costly and more efficient as there were no beds to hospitalized people for minor illnesses. Serious cases were referred to hospitals. Over the years from 1994 to 2015, USAID's intervention was considered a success. "The institutions, processes, and the citizens of Central Asia have evolved…For example maternal and infant mortality rate, often considered a barometer of a nation's health have decreased dramatically (USAID, 2015, p. 6)."

Challenges of Implementing Health Systems Strengthening

Health Systems Strengthening has its challenges just like other development programs. According to PEPFAR, "Health systems are strongest where governments have leadership and technical skills to address health system weaknesses. While a network of public and private partners deliver services, governments play the lead role in overseeing health systems among multiple actors at national, district, and community levels (The United States President's Emergency Plan for Aids Relief [PEPFAR], n.d.). Another challenge in implementing HSS is identifying impact. According to PEPFAR, "it is difficult to determine exactly which health systems parameters are most closely associated with positive health outcomes, which interventions are most effective at improving health system performance, and which measures most effectively track progress (PEPFAR, n.d.) Setting appropriate targets, developing sound indicators and monitoring change can be particularly challenging."

Discussion and Analysis

HSS for Human Security

It is important for the purpose of this research paper, to make a case for sustainable approaches to health systems strengthening by stressing the threats that health insecurity poses to global security. It may be a foregone conclusion that the relevant authorities on the subject matter have embraced health systems strengthening as the medium for tackling fragile health systems in developing countries. However, to what extent do people understand and accept that the issue of health systems strengthening is not just about running another health project in a developing country. How do people get to embrace the fact that health insecurity in one nation constitutes a

threat to human security in the world at large? This is the point, among others, that Mahbub ul Haq set out to make in writing the UNDP Human Development Report of 1994. However, something must be going wrong because the concept of human security has been in circulation within the development community, and yet there continue to be unsustainable health systems strengthening programs evidenced by the fact that some HSS programs failed to produce health systems that could withstand the Ebola virus outbreak in West Africa. Either some decision makers, both in governments and development organizations have not come to understand the threats posed by fragile health systems or they have not figured a sustainable approach to implementing HSS programs. In order to achieve sustainable impact in health systems strengthening, world leaders, decision makers and everyone must first recognize that health insecurity poses a threat to human security.

Even though the United Nations Development Program through its 1994 Human Development Report has recognized health insecurity as a threat to human security, there is much more that needs be done. The UNDP human security concept maintains that the referent for security should be placed on people and the needs of people addressed through sustainable development thus averting the human security threat and allowing people to have "freedom from want" which in the context of this paper would be health security. People should not want health security; instead, everyone should have health security. If similar importance that has been attached to state security were to be attached to people's health security, the world would have now achieved global health coverage. Speth J. G. said, "This is not a crisis that will respond to emergency relief (UNDP, 1994)." This was a call for approaches to focus on long term sustainable development programs, which include health systems strengthening programs that

would not have to be repeated, but programs that would strengthens a health system to withstand future health epidemics like the Ebola virus, with no international assistance.

The HDR mentioned that the poorest people in any nation, be it a developing or industrious nation, are the worst victims of health insecurity. This is because health care continues to be extremely expensive in many nations, with profits going to insurance companies. If HSS programs should take a holistic approach, that addresses not only infrastructure but also access. Expensive health services are inaccessible to poor people. If the world is serious about preventing global health catastrophes, then countries should enact laws that classify health as a human right. If health security were a human right, national governments would be under obligation to provide universal health coverage for their citizens thereby taking away the influence of the health insurance industry from health matters.

According to the World Health Organization, maternal mortality over the past 25 years have decreased by 44%, falling short of the MDG target of 75. (Ditekemena et al., 2012) identified financial constraints as a factor that undermines access to health services. It comes in both ways, either the patient does not have the funds to pay for adequate health services, or the health providers are underpaid and therefore charge extra money to pay themselves. Investments into sustainable HSS programs should also focus on addressing the issue of adequate pay for health workers. An holistic approach that addresses all building blocks of a health systems is likely to prevent health epidemics that could otherwise be far more expensive.

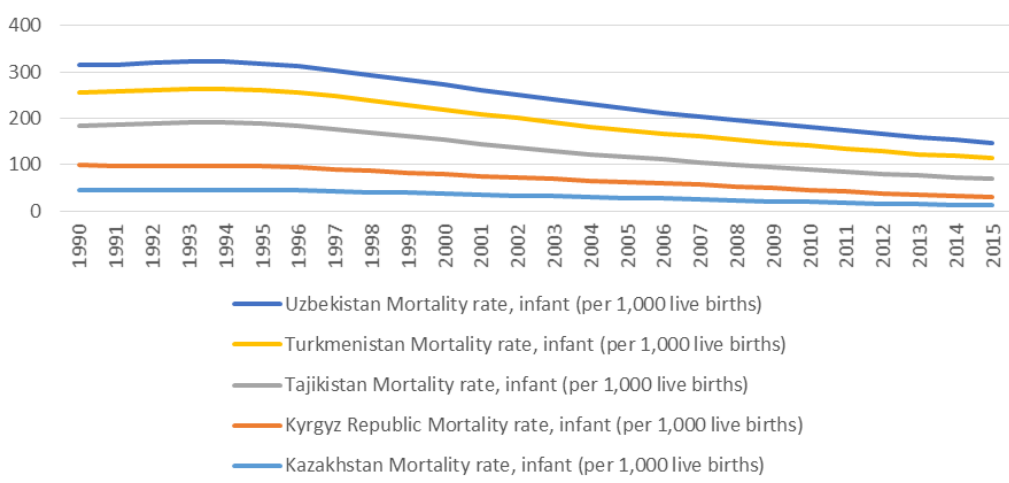
HSS and Systems Thinking

De Savigny & Adam, 2009 were very articulate in their recommendation of "systems thinking" to address the problem of health systems strengthening. Systems thinking is quite a

great tool because it takes into consideration a holistic view of the system by considering the "linkages, relationships and interactions and behaviors" of the system. In most cases, approaches to health systems strengthening are fragmented as was mentioned by (WHO, 2007). Systems thinking provides an approach that allows practitioners to bring together the fragmented tasks in health system.

A typical example of the systems thinking approach to HSS, can be seen in a previous section of this paper, *Success of Health Systems Strengthening in Asia*. In the Asian success case, USAID collaborated with multilateral organizations like WBG, UN and other donors that represented their governments. USAID entered an agreement, with these organizations, that called for a joint technical assistance program for the five countries. In such an arrangement, there is an holistic view and therefore there can be no duplication of effort.

FIGURE-1



This must have been a great job but let us not take USAID's word for it, because they funded both the implementation and evaluation of the program. To independently verify the authenticity of the success story provided by USAID, FIGURE-1 uses data from the WBG to analyze the infant mortality rate of all five countries. According to the Center for Disease Control, "This rate is often used as an indicator to measure the health and well-being of a nation, because factors

affecting the health of entire populations can also impact the mortality rate of infants (Center for Disease Control [CDC], n.d.).

HSS and Lessons from the Ebola Crisis

There were enormous challenges associated with the Ebola response in West Africa, and there were lessons learned that could be considered in the implementation of health systems strengthening programs. The greatest challenge was the limited number of train health professionals and ill-equipped infrastructure, which resulted to fragile health systems in the most Ebola-affected countries.

The WHO Response Team attributed the wide spread of the virus to certain characteristic of people in regions of the most affected countries, and the team mentioned, "the critical determinant of epidemic size appears to be speed of rigorous control." It is worth noting here that the potential of the virus spreading was inevitable given the characteristics or the culture of the people in the region. This culture embraces handshaking, and burying the dead all of which were against the Ebola prevention protocols. In the midst of a strange virus the people continue to bury their dead. What was abnormal was that in this age of development these countries had a fragile health system that could not contain the virus within 2 to 3 weeks in accordance with the WHO experience of containing the similar outbreaks in other countries. Without train health personnel and infrastructure, the probability of containing the virus was very low. Let us take the case of Guinea. Guinea was ill equipped to diagnose the virus. The virus had been present in Guinea for about three months before specimens were finally flow to France and later diagnosed. This is a fragile health system problem and not a character problem. Even though Nigerian culture promotes shaking hands and burying the dead, they were capacitated to subdue the virus within the first few weeks. The solution is to implement sustainable health systems

strengthening programs that would strengthening health systems to prevent the next epidemic and not waiting until the epidemic strike then try to change the character of the people in a short time.

The WHO declared Ebola an international health emergency on August 9, 2014. This was late given that the virus was actually diagnosed on March 21, 2016 and by then had transcended three international borders. By August 9, 2016, health systems in the most Ebola-affected countries were overwhelmed, and crashed in the wake of the Ebola virus. If the most affected countries had resilient health systems they would have contained the virus and not have to wait for an international response and WHO's declaration. Health care workers in West Africa remained overwhelmed and challenged by the scarcity of resources that would be available in developed countries for improving the care of patients with EVD (Chertow et al., 2014)." With lack of proper resources, health practitioners began to fall victim to the virus. This created panic amongst health workers and most of them deserted their posts. MSF/ Doctors without Borders tried to contain the situation; but it was not until the arrival of other international actors like the World Health Organization, and the Center for Disease Control that calm returned to the situation.

The arrival of the international organizations was not a silver bullet that solved the problems of the outbreak because said arrivals met resistance from some local communities. Some local communities held on to their cultural and behavioral practices that were counterproductive to the set of protocols instituted by the Ebola response teams. For example, most cultures in the three most affected countries attached very high importance to burying their dead. Without consideration of this cultural practice and with good intentions, protocols were put in place to cremate Ebola infected corpses. In violation of the cremation protocol instituted

for disposing of the dead, people continued to surreptitiously bury their love ones who died as a result of Ebola infections instead of inviting the burial teams to collect the corpses for cremation.

Another good intention run amok was public health messages that fueled hopelessness and despair. Even though public health media messages were intended to inform people to take care in avoiding the virus, people interpreted these messages as meaning that Ebola was a death sentence for which hospitals had no cure. People therefore, avoided hospitals, and Ebola treatment units when ill and turned to traditional healers for cure. This also exacerbated the rate at which the virus spread.

The WHO described Nigeria's response as a, "spectacular success story" the country held the number of cases to 19 with seven deaths." For a city like Lagos (with over 20 million people) to contain the virus is indeed a success story because population density in capital cities was one factor that spread the virus in the most affected countries. In the midst of the challenges that accompany the outbreak of the virus, Nigeria succeeded in containing it during the inception phase. Therefore, if other developing countries' health systems are capacitated through sustainable HSS programs, they too will be equipped to prevent or contain future outbreaks of epidemics from spreading beyond other countries' borders.

HSS and Governance

The impact of health systems strengthening would only be sustainable if proper governance is instituted to ensure sustainability. Samba et al. critiqued health systems governance structures, and processes such as budgeting. Samb et al. also called for "democratization of health through the active participation of the community." If the issue of governance were not properly addressed, health systems strengthening programs impact would be short lived. This is because decision makers who govern the health sector are responsible for

making timely decisions to keep the systems running. If a decision maker fails to pay salaries of health workers on time, employees motivation would shrink thereby affecting quality of service delivery. In implementing health systems strengthening programs, it is also very important to get community members involved at the very start of the process as this would empower them to continuously advocate for sustainability of the HSS program's outcome even after donors have pulled out.

Recommendations

In view of the research conducted and the analysis employed, there is overwhelming consensus that health systems strengthening programs should be implemented in countries with fragile health systems. However, there continue to be different opinions on how health systems strengthening programs should be implemented. In view of the aforementioned I hereby recommend the following findings of this research:

1. That HSS programs be holistic by approaching implementation with a perspective of including all six building blocks of a health systems even if it means partnering with other implementing partners as was done by USAID in Central Asia
2. That the approaches to health systems strengthening be contextualize to suit the prevailing circumstances of a particular country and host governments be held accountable for leading and sustaining HSS programs as has been suggested by PEPFAR
3. That Systems thinking be used to understand the linkages, relationships, interactions and behaviors in a country before implementing health systems strengthening, as has been suggested by De Savigny & Adam

4. That health systems strengthening programs promote decentralization democratization in accordance with Samba et al, thus promoting the active participation of the community.

Brief Reflection on Sustainable Development

Sustainable Development is a broad terminology, that could be, applied to different aspects of life. Let us separate the two words before defining them; thereafter we shall revert to our original word and explain it.

The term sustainable, according to the Webster's dictionary means: able to be used without being completely used up or destroyed; involving methods that do not completely use up or destroy natural resources; or able to last or continue for a long time.

The term development, according to the Webster's dictionary means: the act or process of growing or causing something to grow or become larger or more advanced; the act or process of creating something over a period of time; or the state of being created or made more advanced.

Indeed, the definitions above provide guidance to definition for the terminology, *sustainable development.* We can therefore say Sustainable Development is the ability to use today's resources without depleting tomorrow's share. However, this definition is more applicable to the use of resources therefore, we as development practitioners will have to coin a definition that suits development programs which extends beyond the use of resources to solving social problems. Development programs are usually donor funded, and implemented by development practitioners. This trend of development has created a vicious circle wherein donors and practitioners implement recurring programs with the hope that situations, especially in developing countries, would change for the better. Over the years of implementing development programs, practitioners have come to the realization that project outcomes often

come to an end within the first few months of the project end date. Because of this unsustainable practice, donors and practitioners saw reasons to coin the term sustainable development. In light of this term, the practice of development is being revolutionized with most donors demanding that a sustainable plan be included with the submission of every proposal. This change from development to sustainable development has also entered the classroom with instructors requesting reflections on sustainable development as part of course work. This is a way to encourage practices that promote lasting impact after the implementation of sustainable development programs.

Conclusion

The issue of health has become a human security issue that poses threats to global security. Health insecurity goes beyond medical consequences to include economic and social wellbeing of people around the world. Because the world has become one global village, a health pandemic in one country is a potential threat to all other countries. This was evident during the outbreak of the Ebola virus that over powered health systems in West Africa, and was only brought to an end by international intervention. The key to preventing or containing such epidemics is by building strong health systems through sustainable health systems strengthening programs. Strengthening health systems should now be seen as paramount because strong health systems would reduce the likelihood of health outbreaks turning into pandemics or epidemics. When a health system is adequately strengthen, it negates the need for international response for containing a health crisis.

The act of international response to a health epidemic that has spread beyond a national border is usually more costly in terms of funding and human lives. Therefore, it is better to have

a strong health system that prevents an outbreak than an international response that contains an epidemic.

Health Systems Strengthening is the vital for unlocking the world's full potential for preventing or containing health epidemics. It is important to distinguish Health Systems Strengthening from Health Systems Support because both interventions are likely to yield different impacts. The impact of Health Systems Strengthening is long term while the impact of Health Systems Support is short term.

Approaches to Health Systems Strengthening may vary, yet the World Health Organization has provided leadership in dissecting health systems into six pillars. These pillars of health systems should serve as a guide to development practitioners during their pursuit of strengthening health systems. However, it is important to note that these six health systems pillars perform better when there is coordination between them.

Health Systems Strengthening, like any other development program, has challenges, which in most cases may be country specific. These challenges should serve as learning curves for subsequent health systems strengthening programs, while bearing in mind that each country has unique situations and circumstances that may undermine the strength a specific pillar of its health system.

The vision of strong health systems is achievable if the pillar of governance and leadership is strengthened and those who governed held accountable for producing results in the other five pillars of health systems. Once the governance and leadership pillar of health systems is strengthened, the rest of the pillars would be strengthened and once all pillars are, strengthened Universal Health Care would become a reality with minimum effort.

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Annex

Table- 1: Infant Mortality Rate Per 1000 Live Birth

Infant Mortality Rate Per 1000 Live Birth																										
Country Name	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Kazakhstan	44.7	44.5	44.7	44.9	45	44.8	44	42.7	41.1	39.4	37.5	35.7	33.9	32.1	30.3	28.6	26.8	24.8	23	21.1	19.3	17.5	16	14.6	13.5	12.6
Kyrgyz Republic	54.1	53.8	53.6	53.3	52.6	51.3	49.5	47.5	45.5	43.5	41.6	39.8	38.2	36.7	35.3	34.2	33	31.7	30.1	28.4	26.5	24.6	22.9	21.4	20.1	19
Tajikistan	85	86.9	90.1	93	94.1	93	90.4	87	83	78.8	74.3	69.7	65.3	61	57.3	54.1	51.4	49.2	47.4	46	44.7	43.3	42.1	40.9	39.7	38.5
Turkmenistan	72.5	72	71.9	71.9	71.9	71.7	71.2	70.4	69.2	67.8	66.1	64.4	62.7	61.1	59.4	57.8	56.2	54.7	53.2	51.7	50.4	48.9	47.6	46.2	45	43.7
Uzbekistan	58.8	58.5	58.4	58.1	57.8	57.3	56.8	56	55.1	54	52.7	51.4	50	48.6	47.3	45.9	44.6	43.3	42	40.8	39.6	38.4	37.2	36.1	35	33.9

Source: World Bank Group