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Outcomes and Explanations for Global Health Initiative Funding Trends in Relation to Maternal Health and Child Malnourishment in India

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Introduction

Globalization has brought dramatic changes to the way the world views health. Increased interdependency and interaction between nations has exemplified how quickly emerging diseases can spread across the globe, affecting world trade and diplomacy as much as the health of vulnerable populations. "Global health" as a term has only recently evolved to encompass more than just the linear relationships of international health issues, moving beyond social and development agendas and into the realms of foreign policy and security (1). As globalization has essentially dissolved many distinctions between domestic and foreign health issues, the study and response to health crises has transformed to extend beyond national boundaries and past an exclusive focus on traditional methodologies and perspectives (2).

What has developed in response to this newly globalized world of health issues is a fragmented network of institutions, initiatives, funds, and organizations to tackle diseases on an international scale. Generally, these have taken on the name of "Global Health Initiatives" (GHIs), most of which have been established after the year 2000 and will be defined more clearly later on. Since the creation of many of these GHIs and the shift international donors and governments have taken towards assisting public health in developing countries, there has been much debate over the effectiveness of these funding methods (3). Most international funding for health aid is for service delivery for specific diseases, and usually diseases that pose a great short-term threat to countries, such as HIV/AIDs (4).

There is a host of positive outcomes from these types of funding initiatives, sometimes referred to as "mass campaigns", as they can bring attention, funding, and services to disease prevention very quickly (5). However, there has been argument for quite some time that international funding for health is not focusing enough on strengthening health systems overall, but rather targeting single-purpose issues (6). In addition, there is also a large body of evidence supporting the argument that GHI style funding has created a wide array of negative outcomes for the populations they are trying to serve (7).

In most cases, it is clear that the underlying cultural and social determinants of health in developing countries are neglected by GHIs and governments, leading to little investment in long-term changes (8). There are several theories, explanations, and accounts of convincing evidence as to why this

is and has been the case for over fifty years. Especially in the last few decades, the international political system and the global economy undoubtedly play a major role in deciding where and to which health issues donor funds are invested (9). Unsurprisingly, the true needs of the populations receiving this "care" are often not acknowledged or met, and some developing nations are still left in crippling conditions without a stronger healthcare system (10). For example, rates of malnourishment among children and women in India remain at extremely high rates, despite their booming economic growth. There are a multitude of contributing factors at play in this particular case, but the research available generally seems to point toward a two-fold dilemma: the asymmetrical approach the international community has taken toward global health funding coupled with the domestic intersections between gender discrimination and poorly targeted spending programs, resulting in the stagnating rates of child and maternal malnourishment in India.

This paper aims to shed light on how and why international health funding trends can create debilitating outcomes for developing nations. It also explores the reasons why this trend exists in the context of international relations. First, the history surrounding the evolution of GHIs will be examined, along with a discussion of the extensive variables that are involved in global health research. Additionally, the financing trends will be assessed, along with an overview of the positive and negative effects of those trends. And lastly, the explanations and theories surrounding the trends and effects of GHI funding will be discussed and examined further in the case for malnourishment in India.

The Rise of GHIs

The era of neoliberal globalization in the late 1980s, gaining speed in the 1990s, gave rise to the weakening position of the state in international affairs and the growing position of other international actors (11). The state's position shifted in the political hierarchy vis-a-vis other actors for various reasons, such as more establishments of decentralized partnerships with non-governmental organizations (NGOs), increased power of finance and trade agencies, and the elevated authority of international organizations. International authority disaggregated, resulting in powerful businesses, institutions, NGOs, and multinational companies involved and very influential in international debates and decisions (12). This change in agency had heavy implications for debates and decisions on issues of international health. Globalization essentially gave way for "the new global health architecture" where new voices, other than states, were at the table (13).

The World Health Organization (WHO), established in 1948 as a specialized agency of the United Nations, retained the clear authority up until the late 1980s- early 1990s on directing and coordinating issues of international public health (14). However, the new architecture shifted this authority, or divided it, among public-private partnerships, private foundations, and NGOs involved in healthcare (15). These partnerships, foundations, and organizations have now come to be known under the term "Global Health Initiatives" (GHIs) because they are characterized by the WHO as having a general set of common features including, "a focus on specific diseases or selected interventions, commodities, or services; relevance to several countries; ability to generate substantial funding; inputs linked to performance; and their direct investment in countries, including partnerships with NGOs and civil society" (16). A few of the major GHIs are The Global Fund to Fight HIV/AIDS, Malaria, and Tuberculosis (Global Fund), The US President's Emergency Plan for AIDS Relief (PEPFAR), The Global Alliance for Vaccines and Immunizations (GAVI), the World Bank Multi-Country AIDS Program (MAP), and the Bill & Melinda Gates Foundation (BMGF). The US Agency for International Development (USAID) and the UNAIDS program have also been included in the overall GHI grouping because of their similar funding and delivery techniques.

Most GHIs started popping up after the year 2000, largely in response to the United Nations establishment of the Millennium Development Goals (MDGs) (17). The MDGs essentially arose in response to how the HIV/AIDS epidemic grew as a consequence of, and then further damaged, already weak and overstretched health systems in the developing world. These weak healthcare systems struggled in large part due to the 1980s economic crises, debt repayment, poor governance, civil unrest, and structural adjustment policies that ended up, in many cases, cutting funds for public health spending in the name of improving fragile economies. The globalization of labor markets also incited health workers to leave their native developing countries for jobs abroad, further weakening their healthcare systems (18). Following the period of international financial structural adjustment policies, global health was viewed more as a new global market, largely by the World Bank, rather than a global right for all people (19).

A new voluntary funding approach for these GHIs emerged, whereas funding from governments to the WHO is both mandatory and voluntary (20). The WHO began to receive less funding from developed nations as these governments started to funnel more money into GHIs, primarily the Global Fund (21). For example, as of 2006 the United States, which is the largest donor country for health aid, donates on average three times more to the Global Fund than to the WHO. In 2010 alone, the US donated $387 million to the WHO and $1,050 million to the Global Fund (22).

The Global Fund and other major GHIs have kept the primary focus of their efforts on diseases and health issues of most interest to the international community, and largely the wealthy international community. International donors have been giving money to health issues gaining the most press and attention and usually opt for very direct, or "vertical", service delivery methods (23). These methods of funding and intervention have sparked recent curiosity, research, and debate among scholars, doctors, healthcare workers and just about everyone involved in health systems over whether or not these "vertical" approaches are the most effective. These major GHIs have massive sums of money that are all going toward immediate and important health issues. Yet, for many developing countries some of these targeted issues continue to resurface and extreme levels of poverty and health disparity still exist (24). This dilemma begs numerous questions; to where and to whom are these funds going? How are they being used? How effective are these methods? Why are the funds being granted or allotted in this way? The next several sections explore these questions further, before providing a more in depth look at a specific case of maternal health and child malnourishment in India.

Variables

Before beginning further discussion on the effects of GHIs, it is necessary to acknowledge the countless variables involved. Health systems are very complex and there are endless factors that contribute to and affect health systems differently from community to community, state to state. There are social, cultural, economic, geographical, political, etc. determinants of health that vary depending on every disease, issue, or aspect of healthcare delivery in every area of the world. It is very difficult to generalize findings for global health studies for this reason. For example, there are certain approaches to funding and care that work well for a disease in one country, but terribly for that same disease in another (25). Thus, arguments for ruling out a method of care or funding completely are rather difficult to substantiate. It is also important to remember that the largest GHIs have only been around for a little over ten years, making it difficult to show considerable effects just yet. In addition, most of these GHIs did not establish arrangements for prospective assessment of their effects on countries, and the scientific community has been slow to formulate research methods for these complex interactions (26).

Compounding these problems is the fact that even the most comprehensive and thorough research studies on healthcare and health systems admit to weak and inconclusive findings in the data or trends. This is due to several reasons, a few being the lack of a commonly agreed upon analytical framework, absence of empirical evidence, and the ambiguity associated with what exactly defines a positive or negative outcome of a health intervention or funding mechanism (27). For example, it is often difficult to link a single health intervention to the increasing rate of healthy people/decreasing rate of people with a particular disease. There could be a handful of other contributing factors at play that are underlying reasons for why an intervention is "working", such as improved economic status, housing, nutrition, a healthier work environment, etc. Almost every source examined for this paper mentioned these barriers and variables, and called for more robust studies to be done. There is unquestionably a shortage of epidemiologists and researchers, both native and foreign, working in developing countries (28). Thus, it is important to acknowledge that the nature of the data on health in the developing world may not always be entirely accurate.

The same can be said for GHIs and governments of the developed world, who have not always

provided the most transparent data concerning their financial movements (29). Overall, little attention has been given to analysis of global health financing, and systematically tracking money flows for health initiatives has proven difficult across the board (30). For example, some GHIs and donors make detailed breakdowns of which organizations receive their funding publicly available, while others do not. There are often large information gaps between the rhetoric of transparency and actual accountability (31). Countless other factors exist that make it extremely difficult to follow money flows, including the very basic notion of what exactly counts as "health dollars", or money towards health-related issues (32).

It is important to keep all these things in mind when moving forward into the paper. Not every factor, variable, reference, or data account that I researched is included in this paper, nor did every variable present itself in the research I covered. However, I did cover a substantial amount and wide variety of reputable sources that I feel confident in drawing certain trends from. I cannot safely make sweeping generalizations about the findings; the hard data just does not exist yet. But I can confidently point to the explanations and trends I believe are most compelling based on the evidence and research I have done.

Financing

In order to evaluate trends of GHI funding, I have read through research studies on the nature of GHIs and international funding for health, along with numerous reports and data provided by the WHO, the Global Fund, Partners in Health, and the BMGF. Many of the research studies and reports I examined were by collaborative groups of epidemiologists, economists, health professionals, paid researchers, and a variety of academics. These groups took the painstaking process of gathering, analyzing, and compiling the credible health and finance data available. By examining numerous of these reports and studies, I was able to get a good sense of some overall findings in international financing trends toward global health issues.

Of the reports I examined, the most comprehensive one that serves as a foundation for this specific research focus is the WHO Maximizing Positive Synergies Collaborative Group's initial study on GHI effects in 2009 titled, "An assessment of the interactions between global health initiatives and country health systems". This study looks at the overall relationship between GHIs and country health systems by examining five key points of interaction that contribute to the success or failure of the delivery of health services. These five key points are governance, finance, health workforce, health information systems, and supply management systems (33). The WHO acknowledges that a country's health system is not just an assessment of its health service delivery, but "all organizations, people, and actions whose primary intent is to promote, restore, or maintain health" (34). However, because GHIs are primarily concerned with the effort to "finance the delivery of specific types of services for priority health problems that arise in many low-income countries", it is best to look for how those efforts interact with the WHO defined key functions of a health system for the ultimate purpose of health service delivery. This approach serves as a solid framework for which to compare and analyze other findings.

Overall, this report along with several others by the WHO generally conclude that GHIs need to turn their focus more toward strengthening health systems rather than single-purpose interventions (35). It has been unanimously agreed upon that although funding for many single-purpose interventions has brought significant positive outcomes for global health issues, they are not without their negative ramifications due to a lack of supplemental funding to strengthen the health systems.

Since the early 1990s, funds for health and development assistance have dramatically increased, setting unprecedented records. From 1990-2007 alone, funding quadrupled globally from $5.6 billion to $21.8 billion (36). Particularly following 2001, the US Government became the largest donor of public health assistance (37). Reports that track the financing of GHIs and health related government spending from major developed countries reveal that a vast majority of funds go to single-purpose "mass campaigns" for service delivery (38). Single-purpose interventions, or "mass campaigns", are generally large-scale operations where money is funneled for a service that prevents or treats a specific disease (39). This can manifest in a variety of ways. For example, funding can go solely to providing a vaccine or immunization, mosquito bed nets for protection against Malaria, or antiretroviral drugs (ARVs) for HIV/AIDS (40).

Two assessments of financial tracking in particular, one created by Oxford University and granted by the BMGF, the other by Harvard University and University of Washington, reveal the most useful data and analysis. These reports both found that a very small portion of funding from large donors, particularly the World Bank, the Global Fund, and the US Government-PEPFAR, go towards investing in general health-sector support and strengthening for developing countries (41). As of 2008, these three donors together issued more than 98 percent of their funds to service delivery (immediate preventative measure or treatment, such as vaccines, mosquito nets, ARVs, etc.) (42). This is not to say that these donors and GHIs are not discussing the importance of and investing large sums of money in health systems, but compared to the amounts invested in service delivery, it is very minimal (43). These reports indicate that each donor and GHI is unique in its areas of focus, and some place higher priority than others on funding healthcare infrastructure development as well as the health issues that stem from poor healthcare infrastructure, such as malnourishment, maternal health, primary care, etc. (44). However, between all donated health aid collectively there is unequal funding for direct health service delivery over health systems strengthening (45).

The services required for treatment and prevention of HIV/AIDS, malaria, and tuberculosis account for most of the international development assistance, HIV/AIDS in particular (46). Although these three diseases are given the most funding, it is important to note that funding for other heath issues has also generally increased since the 1990s-early 2000s, and resources established for those issues have not been reallocated for HIV/AIDS, malaria, and tuberculosis (47). However, the proportional differences in funding for these three diseases over health concerns such as tropical diseases, communicable and parasitic infections, maternal health care, and child nutrition seem to suggest that there is a considerable amount of neglect (48). This notion is also reinforced by the fact that there has been call for more investment in primary care and diseases that are pervasive in developing countries for over fifty years, yet circumstances have not significantly changed (49).
To further explain the argument for more investment in these "neglected diseases" and overall health systems, it is necessary to explain the common outcomes and effects of recent funding trends by GHIs and international donors.
By examining a handful of studies and examples of where, to whom, and to what the funding goes to, the reasons why these trends are in need of a shift become clear.

Effects of GHI Funding: Positives and Negatives

The bulk of the studies and reports I examined not only discuss the changes in international health financing from a little over a decade ago, but also why these changes are problematic. The majority of the studies are primary source research accounts, case reports, and both cross-sectional and longitudinal studies that help to extrapolate broader findings. The overwhelming majority suggests a general agreement that there are both positive and negative outcomes from international health aid.

How funding is provided, the amount of funding donated, the interactions with domestic budget allocations, the aid effectiveness, and out-of-pocket payments from the population or service users are just a handful of the major factors that affect performance of health aid and health systems (50). There is evidence of an initial concern that many of the large GHIs and international donors do not align their efforts with countries' national interests (51). It appears that each donor and GHI choose their own health aid priorities without explicitly incorporating domestic needs and demands by governments and citizens of benefitting countries (52). There is little account of country "ownership", where a country will exercise their own effective leadership to coordinate aid delivery strategies (53). Although some GHIs have stated mechanisms to help incorporate domestic ownership throughout the process of their donations or grants, it is very unclear how much priority these mechanisms take and little is known about their follow-through (54).
Developing countries often stress the need for most donated funds to go toward a particular area of focus in their national strategic development plans, and in practice a majority of donor funds go alternatively to service delivery for a specific disease (55). For example, Cambodia's national health priorities in 2003-2005 stressed a need for resources to go to primary health care, but over 60% of donor funding was allocated for HIV/AIDS and other infectious diseases

(56). This is reported to happen frequently, one reason being that donor funding tends to have restrictions on what the funds can go towards. In addition, governments and health ministries receiving donor funds often have limited awareness of these restrictions and what certain funds are allowed for, creating confusion between local and national healthcare providers (57).

Because GHIs and international donors primarily set their own priorities of spending, regulation, and implementation, they often create uncoordinated parallel funding structures (58). The Global Fund, GAVI, and the World Bank MAP alone all have different mechanisms for health system engagement with other countries, and because coordination is rare between these GHIs, there ends up being multiple funding streams and applications for the same services (59). The poor alignment of these engagement mechanisms creates a weakened supply management system for services in many developing countries (60). For example, there are several studies following the distribution of medications in a few African countries that show the downfalls of a lack of coordination among multiple GHIs. The effects include commodities being under-stocked or over-stocked in regions, poor storage management due to lack of space/infrastructure, waste of products through expiry, and a shortage of human resources to manage and deliver the drugs and commodities (61). The supply management systems often undermine the already existing supply and delivery systems the country has in place. Instead of strengthening the existing systems, the GHIs weaken them with too many of their own systems and their own labor force. If no supplemental investment exists in the governance of health systems, the delivery and distribution of donated resources to local communities will undoubtedly suffer (62).

An example of this can be seen in Angola between 2002 and 2007, where there was expressed concern with the ability to cope with the complexity of the countless funding structures. The Ministry of Health reported that, "MAP (World Bank) channeled funds through the Ministry of Planning rather than the Ministry of Health, the usual channel, and the Global Fund donated through the United Nations Development Programme, UNDP. PEPFAR, on the other hand, chose to channel its funds outside the public sector, mainly through international (often US-based) NGOs," (63).

The WHO Commission on Social Determinants of Health in 2008 defined the problem well by saying, "there is... a danger that large new funding lines, running parallel to national budgeting, continue to distort national priorities for allocation of expenditure and action... While Global Health Initiatives have brought enormous new levels of funding to health-care systems within low and middle-income countries, there is a concern that their vertically managed programs have the potential to undermine the population health orientation of health-care systems and as a result exacerbate health inequity" (64). The commission also raised concerns about the growing dependence that some developing countries were showing toward external funding (65). There is reason to suggest some countries, mainly in Sub-Saharan Africa, have lowered their domestic health funding due to the increase in external resources for health (66). In addition, health ministries in Kenya, Tanzania, and Uganda to name a few, have reported that around 40-60% of their budgets come from external donors (67).

The increased role of civil society is another noteworthy discussion, particularly GHI funded NGOs in developing countries as new actors of health care delivery. GHIs have been quick to fund the emergence of now hundreds of NGOs for health and humanitarian aid (68). Although there are propitious outcomes from the rise of some strong, influential NGOs, there are also negative outcomes for domestic capacity building, or the overall strengthening of human and societal resources. For example, NGOs are now added to the mix of agencies, GHIs, and recipient governments who are competing for donor funds (69). It is arguable that the new competitive nature of healthcare financing draws attention away from health systems strengthening. NGOs and GHIs also tend to miss the mark when it comes to providing free commodities and services by using their own workforce. Instead of helping the domestic economy and workforce, NGOs and GHIs often provide services that run domestic business out and neglect the capable native workforce (70).

Now even though GHIs can have damaging effects, they have still made substantial positive strides forward. GHIs and the NGOs they fund have proven to increase involvement of civil society in partnership with government programs, advocate for better governance, bring much needed vaccines and immunizations to marginalized groups, lower the cost of ARVs for HIV/AIDS, and bring attention to global diseases and health that has never been seen before (71). GHIs have contributed to the tackling of diseases previously thought to be "untreatable", prompted more scholarly work and research on global health, and supported advancement in academic medicine, science, and innovative technologies (72). It is clear that when epidemics hit countries, there is a need for immediate mobilization of resources to address the disease. This is when GHIs are most efficient, using vertical delivery strategies to get needed services to the suffering populations fast. GHIs have, in a large part, been responsible for major reductions in the spread of epidemic diseases, especially HIV/AIDS, SARS, and Ebola (73).

The points and examples discussed above are some of the major outcomes of GHI funding. There are undoubtedly more examples of beneficial and detrimental outcomes and factors to consider. However, the overall point is that GHI funding is only addressing half of the problem. The international community largely discounts the underlying determinants of health disparities. Without attention, the diseases GHIs are targeting have the potential to resurface, and the diseases they are neglecting will continue to eat away at the fabric of developing nations (74). Education, health information systems, community health worker training and retention, cultural stigma, maternal and primary health care, sanitation, regulatory frameworks, and gender equality are just some examples of the neglected areas of focus from the international community (75). Investing in these equates to investing in the long-term sustainability of a health system that can hopefully one day handle domestic health problems on its own. The goal is never to endlessly fund developing countries, something many NGOs and donor agencies seem to forget when their livelihoods depend, in part, on people remaining sick and oppressed (76). In order to see funds for health aid decrease and positive results increase, a more sustainable financing trend is needed.

Explanations and Theories

So why do GHIs and the international community fund healthcare this way? Why is attention given to short-term service delivery for threatening epidemic diseases and not for long-term health systems investment? There are a few possible explanations and theories to help answer this question. However, what is interesting to note first is that the plea for more funding to health systems strengthening, or more "horizontal" approaches, is not a new plea, but one that has existed for over fifty years. Yet, there seems to be little incentive for the international community to balance out their funding methods.

For at least the lifetime of the WHO, since 1948, there has been debate over "vertical" and "horizontal" programs for healthcare. The Director General of the WHO stated in the Annual Report for 1951 that, "more authorities are becoming aware that many campaigns for the eradication of diseases will have only temporary effects if they are not followed by the establishment of permanent health services in those areas, to deal with day-to-day work in the control and prevention of disease and the promotion of health" (77). In 1965, C.L. Gonzalez provided one of the first comprehensive studies on this debate that was published as a Public Health Paper by the WHO. He argued that horizontal approaches and mass campaigns, or vertical approaches to tackling a disease, should not be mutually exclusive, but be implemented simultaneously (78). His findings and suggestions have been replicated time and again over the next fifty years yet little has been done for long-term health systems strengthening to help maintain the achievements of the vertical approaches (79).

There have been a couple clear changes in the nature of the debate over the past fifty years. One of them surfaced in the 1980s when trends in services for general health turned to focus on, "a limited set or package of cost-effective interventions" (80). Macroeconomics became a more central focus of heath intervention programs, with more stress put on the economic benefits of disease control. Thus, vertical approaches of disease "eradication" were prioritized for their cost-effectiveness, as this was also more attractive to donors (81). Short-term vertical programs promise more economic benefits of disease eradication with a time-limited commitment (82). Horizontal approaches, or the investment in general health services, require considerable financial, logistical, and organizational support because of the complex nature of the system. Investing in the countless areas that contribute to an

improved health sector appears less attractive and risky to donors, and is also difficult to implement in an already weak health system (83). However, this view is also a result of programs being designed with poor and inadequate descriptions of cost implications. Many vertical programs chosen 20 years ago had little evidence of relative costs for different strategies of health interventions; the epidemiological data was not strong enough. Looking in retrospect, many horizontal programs that could have been integrated were not actually that much more expensive than their vertical counterparts (84).

Global markets and macroeconomics undeniably play a role in healthcare funding decisions from international donors. This explanation takes a more Marxist approach, where dependency theory and the world economy are argued to be the ultimate reasons for why there is health disparity. Dependency theory, in short, is the idea that resources flow from a "periphery" of poor, underdeveloped states to a "core" of wealthy, developed states. The poor, underdeveloped states remain weak and at a disadvantage as they continue to modernize, with developed states unfairly integrating them into the global economy. However, you do not need to be a dependency theorist to point out the major critiques surrounding the way global markets view demand for health services and commodities (85). Paul Farmer, physician and American anthropologist, expresses long-standing qualms with the inequities of global healthcare and the relationship with markets. He frequently states that, "above all, we fail to bring new deliverables to people who need them most because demand is constructed largely around the notion of markets. There are too few equity plans to link demand to burden of disease. When treatments are easily administered, convenient, and likely to result in cure or excellent clinical response, there will be great demand for them," (86). The problem for Farmer is that there has not been enough investment in "robust delivery platforms" for developing countries to meet the demand of new therapeutic agents (87). Without these delivery mechanisms, international donors do not legitimize the demand.

For dependency theorists, the problem of needing better delivery systems stems from the way the developed world has constructed the global economy. With resources from their spheres of influence, the developed world was able to build strong health systems and eradicate the diseases within their borders that are sadly still afflicting the developing world. The vast health disparity we see today originates from the global north's exploitation of resources in developing countries, crippling those economies and consequentially their health systems and abilities to fight off diseases. Therefore, dependency theorists will argue to invest in the growth of economies, and better health outcomes for developing countries will be seen as a result. Although this claim holds considerable merit, there are convincing counterarguments to this theory.

Along similar lines as Farmer and calling for a change in current investments in development and aid is Jeffrey Sachs, an American economist and world expert on economic development. He makes compelling arguments for an increased focus on economic growth for poverty reduction in his report for the WHO titled Macroeconomics and Health: Investing in Health for Economic Development. Sachs discusses the powerful linkages to improved health and longevity that result from allowing developing countries a stronger foothold into global markets, investment in poverty reduction, and long-term economic development (88). In many cases, international donors, who align more with dependency theory perhaps, allocate funds under the assumption that health problems will take care of themselves if economic growth improves. Sachs believes this to be false, saying that, "the disease burden itself will slow the economic growth that is presumed to solve the health problems; second, economic growth is indeed important, but is very far from enough. Health indicators vary widely for the same income level," (89). He also makes the case against donors who refuse to invest in strengthening health systems where government corruption exists. Although corruption is indeed a reason why some interventions do not meet the world's poor, the more basic problem is that, "the poor lack the financial resources to obtain coverage of these essential interventions, as do their governments," (90). Along with Farmer, he stresses the need for modifying health service delivery and the access the world's poorest areas have to helpful interventions.

Fluctuating donor priorities and donor funds is another reason why it is difficult for developing countries and NGOs to pin down long-term health systems funding. Fluctuations are driven by a number of factors, some having to do with global economic markets, but most related to geo-politics and national strategic considerations (91). For example, a more open political environment has often led to increases in civil-society investment from foreign donors and governments. After the fall of the Marcos regime in the Philippines in 1986, the country saw a dramatic rise of foreign investment in NGOs as democratic world leaders sought to embrace the shift in Pilipino governance (92). These considerations bring us to another clear change in the nature of vertical versus horizontal health program debates; the shifts in foreign policy and securitization.

Globalization has not only altered the landscape of international health actors, but it has also contributed to the shift in roles foreign policy and securitization play in regards to global health aid and funding decisions. The rise of liberal institutionalism as a theory for international relations, and an alternative to realism, gives an interesting context to this altered landscape. Liberal institutionalism is founded upon the idea that international institutions and organizations can aid in cooperation between states and directly impact and influence world politics. It rejects the realist view that international politics is a continuous struggle for power and security issues are always a top priority. Liberal institutionalism can offer explanations for the positive outcomes of the explosion of international health actors and donors, as well as the strong influence these actors have had on fighting global diseases. For example, the Global Fund was born from the idea that states do not have to be the only arbiters of global health issues, and international organizations may be able to facilitate aid better (93). They have shown to be a rival of the WHO, representing the shift in approaches from sovereignty and rights-based solutions to ownership and merit-based solutions (94). Although liberal institutionalism can offer an explanation for the positive coordination strategies by the international donors, it fails to offer a strong explanation for the influence of security and foreign policy on global health outcomes that I will continue to discuss next. Since the late 1980s, it has become clearer that international factors have just as much influence on deliveries of health care as local and national factors (95). When there are very different trends of the same disease in countries with similar health care structures, it begs questioning how international relations might be responsible for these effects. To explore this situation further, it is important to first discuss the evolution of health as a security issue.

Securitization of health is rooted as far back as 430 BC, as plagues and epidemics have aided in the collapse of great empires and societies (96). Thucydides's account of the fall of Athens from plague during the Peloponnesian War, the collapse of the Byzantine Roman Empire from the "plague of Justinian", or the bubonic plague of Europe in the fourteenth and fifteenth centuries are just a few examples of how disease has altered the course of human societies for centuries (97). The ability diseases and pathogens have to dismantle a society has been proven throughout history, but strategies and approaches in light of this knowledge have fluctuated and evolved to some extent.

In the era of globalization, securitizing health gained new speed. The new global network expedites the spread of disease from country to country, instilling fear in the developed world of the difficulties in preventing a disease invasion. Endemic diseases of a state along with epidemics have the ability to keep states in the troughs of poverty, unravel the fabrics of a secure society, and make states vulnerable to foreign invasion (98). HIV/AIDS sparked heightened fears of this vulnerability becoming a reality in the US, but the ultimate turning point came from the terrorist attacks of September 11th, 2001 (99). These two events in particular led the developed world to make global health issues a higher priority in discussions of national security. Funding trends and intervention programs from the international community, especially the US, have since followed priorities of foreign policy over the provision of healthcare as a human right (100).

The more "globalist" view, or view that health is a human right and should be prioritized that way, is concerned with the seemingly more prominent "statist" view where health and security are the first and foremost considerations at the state level (101). Globalists will argue that, "emphasizing securitization as a solution to health crises can potentially divert attention away from the most deadly diseases and their causes by drawing attention to only those problems that have 'headline-grabbing' quality" (102). It is fair to say that increased focused has been placed on selected infections that have potential to move from the developing to the

developed world, such as SARS, West Nile virus, Ebola, and monkey pox (103). It is therefore unlikely that securitization will be a "vehicle for promoting a focus on long-term prevention and capacity-building" because securitization inherently assumes an imminent threat or sense of emergency (104). This, in turn, has historically shown to have implications for international donor, GHI, and US Government funding and the areas they choose to focus on.

The rhetoric around global health, especially coming from the US Government in the late 1990s, started to change and encompass more aspects than simply tackling disease in developing countries. For example, the Bush Administration in 2002 began to include health as a necessity for the infrastructure of democracies, claiming health to be a "bridge for peace" (105). Since the Cold War, the US has maintained a democratization agenda for states of strategic importance, with internal instability and failed states remaining high on the agenda well into the 1990s (106). Although these are still vital concerns for US foreign policy, the "war on terror" following 9/11 and rhetoric from the Bush Administration's 2002 National Security Strategy make it clear that involvement in insecure states is much more connected to potential terrorist links within that state than it is with improving the states' health care systems (107). The fear that weak states with ungoverned regions provide possible havens for terrorist groups brings more attention to developing nations in Africa and South Asia. Using this rationale, if these nations are aided in development and governance strengthening, the fear of security threats manifesting in these areas will lessen.

Development aid, and health aid especially, has become more politicized by developed countries as being central to state strengthening. There is a growing body of evidence that suggests recent health initiatives in certain countries are also initiatives for building state stability (108). For example, USAID's closer connection to the State Department and increased incorporation of short-term state security objectives in development plans has raised suspicions of becoming more of a quasi-security agency in some places (109). In Kenya specifically, USAID has offered training programs to bolster the police force and counter-terrorism units in the name of country development (110). In a 2005 report on African missions, USAID commented that, "the overarching goals of US policy in Africa seek to enhance African capacity to fight terrorism and create favorable conditions for US and African trade and business opportunities, while developing the foundation for sustained growth…" (111). USAID has been referenced to have similar objectives in other countries of strategic importance, raising concerns that the agency is blurring the boundaries between security and development. The outcomes of these initiatives have put them and the US Government under more suspicion and scrutiny when it comes to long-term development goals, which are arguably being sacrificed for short-term state security objectives (112).

There are other similar examples of the US Government, other developed nations, bilateral and multilateral donors, and private foundations switching funding and initiative priorities between countries for reasons suggesting strategic importance. In Asia, many donors following 2001 increased funding to Muslim countries, such as Indonesia, which led to declines in funding for other countries, such as India (113). Other compelling examples include international sanctions denying medical aid as well as evidence suggesting financial aid being used to keep certain corrupt leaders in power for the sake of security (114). Overall, it is clear that when it comes to international relations and questions of security, health and human rights of less developed countries remain a lower priority.

Framing health as a security issue has been a major concern in the field of global health because of its potential for negative outcomes in struggling developing countries. It is worth considering realism as an explanation to why international funding for health has neglected endemic diseases and underlying determinants of health in favor of diseases of high attention and alert to the developed world. The evidence in reports and articles surrounding these questions seems to suggest a realist theory, where developed countries, GHIs, and international donors generally allot more attention and money to diseases that pose a greater risk to the populations and economies of the global rich (115). By framing certain health issues as threats to the wellbeing and economic status of developed countries, it is not surprising to assume that those issues would take the most funding given the priorities the international community has always created for domestic economic growth and security.

To shed more light on the competing perspectives on how economic forces and the interests of the international community shape global health funding and outcomes for the developing world, it is useful to examine a particular case. In the next section, I will use child and maternal malnourishment in India to demonstrate how international funding trends play a role in the progress India has made to address a basic but endemic health problem. Applying the knowledge and explanations discussed above to this situation truly illuminates the drastic disparities in global health and the neglect from international and national funding mechanisms. Looking at this problem in the context of Marxist dependency theory, liberal institutionalism, and realism also helps to explicate why this issue exists and the complex interactions between the multiple perspectives.

The Case for Malnourishment in India

India has often been referred to as an enigma when it comes to child and maternal nutrition. With all the economic growth the country has experienced in two decades, India still has one of, if not the, worst rates of child and maternal malnourishment in the world (116). In the past two decades, India has experienced a growth rate of approximately 7%, and is now classified as a newly industrialized country in the G-20 with a continually developing economy. India's rapidly growing economy and integration into global markets has made it the "bright spot" in the global landscape, as it has surpassed growth predictions and still maintains positive future outlooks. However, despite the fact that the country has a thriving economy and the quality of living for the middle class has risen, 42% of children under the age of five are underweight (117).

Good nutrition is an extremely important foundation for overall development and health, allowing for healthy brain development and immune system resilience. Without good nutrition and essential micronutrients from infancy, children are at high risk for contracting diseases and infections even into adulthood, and cannot thrive and perform at their highest potentials (118). Micronutrient deficiencies and malnourishment take shape in many forms and can exist in countries, such as several in South Asia, where the food supply is adequate when it comes to meeting daily energy needs but severely lacking in one or more essential nutrients (119). There is no doubt that good nutrition and strong child development is essential to cultivating a healthy population, workforce, and society.

Health researchers and medical professionals who have studied child nutrition and poverty in India over the past thirty years state that conditions generally have not changed for the country's poor and malnourished children and mothers, and they do not look to be changing anytime soon (120). The New York Times has been covering healthcare and nutrition in India for several decades, and one particular article reveals that although India has moved to a "lower middle income" country from a "low income" one, activists point out that, "it continues to be a country of rampant poverty and vast inequities (121). Despite two decades of growth, over 400 million people in India live on less than $1.25 a day, and the country's malnutrition figures are among the worst in the world. India has had some success with its welfare programs, but it spends only 0.9 percent of gross domestic product on health care, among the lowest in the world, and 3 percent on education," (122).

South Asia and Sub-Saharan Africa account for the highest rates of child stunting, wasting, and malnourishment. South Asia also has the highest records of maternal undernutrition, which recent evidence strongly suggests has a correlation to child mortality (123). Statistically speaking, South Asia and particularly children of South Asia should be better off than Sub Saharan Africa according to Millennium Development Goal indicators, the International Food Policy Research Institute, and other global research reports (124). Despite being ahead of Sub Saharan Africa in other determinants of nutritional status, such as national income, democracy, food supplies, health services, and education, South Asia still remains the leader in nutritional deficiencies (125). India in particular has the worst rates, where nearly a third of its people suffer from hunger and malnutrition (126).

Amartya Sen, a prominent Indian economist, has made countless contributions to maternal and child health research, as well as studies on welfare economics of India at large, for which he won a Nobel Memorial Prize. In various studies and articles, Sen draws a link between gender inequality in India and childhood malnourishment

in one causal chain (127). In short, the chain starts with gender inequality, which then leads to maternal undernutrition. Mothers who are undernourished are more likely to give birth to babies of low weight, which is associated with a high rate of child malnutrition and later in life, adult ailments either directly or indirectly related to malnutrition (128).

Gender inequality and maternal health has been a concern in India for a very long time, where the country is responsible for nearly a quarter of global maternal deaths (129). Women in India make up "the most deprived and long neglected segment of the society, despite the constitutional guarantee for equal rights and privileges for men and women" (130). Women are victims of socio-economic, political, and cultural discrimination as a result of colonial domination and societal conditions (131). They have rights and freedoms constitutionally, yet are still fighting against structural barriers such as, "dowry, female infanticide, sex selective abortions, trafficking, sexual harassment, domestic violence, and gender, health, and education disparities" (132). Poor, rural women in India are particularly marginalized, especially when it comes to healthcare. The Indian Government as well as international donors has neglected direct investment in maternal health for decades. However, even investments in service improvement and availability are often offset by countless social and cultural obstacles such as lack of information about care, high direct and indirect costs, transportation to care facilities, impacts of status and caste, allocation of familial resources for women's health and decision making, and cultural norms favoring home births (133). Primary and comprehensive health care has been shown to be particularly beneficial for women and mothers, yet is underfunded over disease control (134).

Additionally, funding agencies tend to unintentionally create competition between maternal and infant child health and between skilled facility-based care and community care (135). Hospitals and facility-based care are commonly starved of resources in India, generating a large number of problems for women and children in particular (136). Health professionals are often underpaid and in order to manage public facilities and stay afloat financially, tend to introduce a commercial rationale to service delivery that will hopefully maximize income (137). Public-private partnerships for healthcare may have good intentions for contracting out better care, but have had limited impact on maternal health outcomes in India. There is a trend of well-funded, private hospitals popping up in more urban settings in India that are too expensive for large populations and will reject care outright. The poorly funded public hospitals that exist in more rural and suburban settings, or "peripheral" hospitals, lack the equipment and expertise to handle certain issues of maternal and primary health care, and tend to be flooded with disease control resources (138). They are also too far away from better hospitals, and the travel time it takes to access better care is the cause of many child deaths in India (139).

There is also a problem with the training of health professionals that exists not only in India but also across the entire developing world. Health professional training initiatives in developing countries have historically been focused on a small set of diseases with poor alignment to local priorities (140). Community health workers are often very capable of being trained in comprehensive primary care and possess the skills to manage a range of health issues. However, the approach remains on fast, efficient training initiatives for specific diseases rather than arming health workers with a broad scope of healthcare knowledge (141). Additionally, donor-funding restrictions often prohibit the expansion of expertise to primary care (142). There are limited resources for training health workers on issues in maternal and child health, greatly impacting the availability of care with a short supply of health workers in the first place (143).

The effects of the chain between gender discrimination and childhood malnourishment are pervasive and damaging. Not only does gender bias represent social failures and start the malnourishment chain, but it also increases the mortality rates of women and children, contributes to high fertility rates, and limits economic growth and political participation (144). In sum, the neglect and disrespect of women has widespread deleterious effects on everyone in India. Until women are considered equal and given a higher sociocultural status, Sen argues India will continually struggle to improve its major health problems (145).

It is obvious that the issue of maternal health and child nutrition in India is definitely a result of gender discrimination and poor funding within India. However, the research also suggests that neglect in investment from the international community of health donors is a contributing factor.

GHIs and international donors unsurprisingly do not have the best track record when it comes to investments in maternal and child health and nutrition (146). A report series published in the Lancet in 2008 on maternal and child undernutrition takes a comprehensive look at effective international action on the issue and the difficulties encountered so far. Primarily funded by the BMGF, the Study Group on Maternal and Child Undernutrition reveals in the series that, "the funding provided by international donors to combat undernutrition is grossly insufficient and poorly targeted, and is inappropriately dominated by food aid and supply-led technical assistance," (147). I have already discussed earlier in the paper how GHIs and international donors have focused their funding toward short-term disease control programs. In India, support for long-term health systems strengthening remains low, where in lies the problem of maternal and child malnourishment (148).

GHIs and international donors have, at best, been able to mobilize resources that support country-level initiatives for nutrition. However, there is once again the problem of uncoordinated action with multiple organizations and programs striving toward similar goals but competing for the same scarce financial and human resources (149). Humanitarian food aid and emergency food aid have been a principal outlet for nutrition funding from the international community, yet have not made significant progress towards stabilizing sustainable food availability for recipient countries (150). In addition, food aid has been seen to facilitate poorly targeted consumer food subsidies once in the recipient economy (151).

Additionally, British aid to India has been dropping dramatically in recent years. This, in part, is due to the fact that India has become a middle-income economy that is able to and has been donating aid funds to lower-income countries (152). Because India, by sheer numbers, should have the money to take care of its undernutrition issue, larger donor countries have been less willing to give aid in the past 5-10 years (153). When India decides to spend millions building one hundred new ships for its navy over the next decade, it is difficult to rationalize giving the country health aid donations (154). This relates to the domestic issues of spending and funding that, similar to international trends, have neglected health systems development and investment in child and maternal care.

India has the largest child-feeding program in the world, with a budget of $1.3 billion a year (155). However, the problem does not exist with the funds but in distribution, allocation, and overall weak health systems. The programs, particularly India's primary one called the Integrated Child Development Services program, are essentially a network of soup kitchens in urban and rural slums (156). Experts who have studied the government feeding programs agree that they are "inadequately designed" and have done next to nothing for children in the last ten years (157). India does not like to market this failure, which is an explanation for poor funding allocations internationally and domestically (158). India's focus on its positive economic growth and quality of living for its middle class has overshadowed the denial the country has shown towards its vast population still living in extreme poverty (159). India's approach and rhetoric surrounding its problem of malnourished children seems to suggest the strong belief that its booming economy is and will continue to address its endemic health problems (160). However, with more money flowing into the same bad programs, progress is not being made. This also discourages international donors to fund aid for nutrition if India is not accepting it as a dire need. Additionally, there is no evidence that has linked India's economic growth to reductions in malnutrition among children (161). A comprehensive study done in 2011 by scientists from Harvard and the University of Michigan broke down malnutrition in India by region, concluding that there is, "little correlation between a state's economic growth and how much food most children got," (162).

India is often compared to China in regards to development, but it is also interesting to compare the child malnutrition rates of both countries. China, as oppose to India, was able to greatly reduce its child malnutrition rates when it became an economic powerhouse. Between 1990 and 2002, they were able to cut the rates by two-thirds, where now only 7 percent of Chinese children under five are underweight (163). There is often question as to why India has not been able to do the same, given similar trends in economic growth.

The most common answer seems to suggest a difference in governance, and the recognition that the problem is, in fact, an emergency (164). Unsurprisingly, when an issue is considered an emergency to a state, there tends to be more attention, resources, and dedication given to resolve it. This dedication was witnessed not only in China with child malnourishment, but also in Brazil and Thailand in the 1980s (165). While the governments of these countries were/are less democratic than India, and there was a certain level of heavy handedness from these governments, the fact remains that they confronted child malnourishment with great urgency (166). This is an important factor to consider when questioning why India still remains so far behind in tackling this issue that in many respects should be deemed an emergency.

What is also interesting to ruminate is the changing relationship between the geography of the global poor and economic growth. Economist Andy Sumner at the Institute of Development Studies published a study in 2010 titled, The New Bottom Billion. This study found that, "two decades ago, 93 percent of the world's poorest lived in low-income countries. Now, nearly three-quarters of them, or one billion people, live in middle-income economies," (167). Economic growth does not simply translate into poverty eradication. It is about how the growth is distributed and clearly there is a problem with the distribution.

When applying theories of international relations to this case, it appears to be a mixed and confusing blend of perhaps several different explanations. Marxist dependency theory does not offer a fully rational explanation on an international scale. The fact that India has grown so drastically in wealth and power over the last couple decades but has yet to distribute that wealth to issues of child malnourishment makes dependency theory less compelling. India is now more on the end of exploiting rather than being exploited by international actors, which is true for several other middle-income countries. Other developing nations that have enjoyed considerable economic growth and elevated status have not necessarily had the same problems aiding domestic nutritional problems. Entry into global markets and increased economic growth for developing countries does not always equate to the betterment of health. The global economy may influence decisions newly industrialized countries make, but it cannot be generalized as the cause for the health problems of the world's poor.

When it comes to using liberal institutionalism as a lens for India's case of malnourishment, there exists only an explanation for the positive outcomes. The wide array of new international health actors has definitely presented its share of benefits. For example, there have been a few strong NGO movements for women's rights and advancement in India that have formed partnerships and made impressive strides in a number of areas, including health (168). There are also movements and developments being made for women in parliament, in large part because of India's democratic republic (169). The democratic nature of India has definitely brought advancements for women and health in many ways, however it is not necessarily the solution to everything, as liberal institutionalism might have one believe. There are a fair amount of corrupt officials in India's government making budget and financial decisions that would suggest a greater desire to gain power than to alleviate its populations in poverty (170).

Liberal institutions have also shown to be uncoordinated in their efforts and detract from their recipient populations in India in unintended ways, discrediting the argument that they can perform better than the government programs. The motives behind health financing in India or any state for that matter are definitely ambiguous, and do not often suggest a rights-based approach. Because of this, it is easy to turn to realism for an explanation, which has its merits especially on the international scale. Links can be drawn between issues of national security and economic growth to decisions on healthcare funding in India, as well as countless other countries. The links have proven strong enough to incite questions about the true motives behind big GHIs and government funding agencies.

Conclusion

From the examples and studies discussed throughout the paper, as well as the case for child malnourishment in India, it is clear that a large body of evidence exists following the positive and negative outcomes of international health funding. This body has existed for quite some time now, even before globalization brought a myriad of international health actors, institutions, and organizations to the global health scene. There has been an acknowledgement for over fifty years, particularly from the WHO, that there is asymmetrical funding preferentially for vertical versus horizontal health programs. There has also been acknowledgement that this asymmetrical funding trend is not beneficial for countries in the long-term, as the underlying determinants of health are often neglected with vertical health programs. Yet, little has been done to rectify these funding trends from large GHIs and developed countries.

Strengthening health systems in the developing world is still not as much a priority as funding for short-term service delivery and mass health campaigns. Additionally, it is service delivery for diseases that pose either a greater economic payoff or a higher security risk to the developed world that take the most attention on the international funding scene. The diseases and health issues endemic to struggling nations are often ignored and continue to flourish, such as maternal and child malnourishment in India.

Although there are countless contributing factors and variables involved in health systems along with the research and data collection of health information, the body of evidence still seems to suggest a broad trend when it comes to GHI funding. It is clear that explaining this trend does not lend itself to easy generalizations about funding approaches or theories of international relations. However, a few suggestions and arguments can be made with the data that is available, acknowledging that these suggestions and arguments are rarely universally true when it comes to healthcare.

The argument I have attempted to make in this paper is certainly not a new one and in some respects can be explained by mere common sense if using a realist context. By showcasing India, it is arguable that international funding for health is greatly influenced by issues of global economics and security threats and often neglects health systems strengthening and domestic health priorities. The stagnating rates of child undernutrition and poor maternal health in India, despite its booming economy, suggest deeper structural problems, such as gender discrimination, that are not being addressed by governments or international institutions.

Similar issues exist in other developing countries, some of which continually struggle with issues neglected by GHIs and international donors. Although these countries are often flooded with support for high attention diseases such as HIV/AIDS, malaria, and tuberculosis, support for issues such as primary health care, health education, communicable infections, and nutrition is significantly lacking.

The situation I have painted for global health is rather grim, especially if viewed through a realist lens. There is reason to believe states will always place security issues of the developed world as the top priority, where anything and everything to retain power will be done, even when it comes to health and humanitarian aid. However, there is also reason to believe global health can escape the negative ramifications that come with an over-securitized view from the international community. With GHIs and international donors becoming increasingly critical and self-reflective, along with substantial critiques from researchers and scholars, there is hope funding can balance out to support health systems as much as service deliveries. It will take time to see the effects of the proposed changes in funding some GHIs have recently made. What to believe is ambiguous and depends on endless variables, yet the handful of examples of significant positive strides and improvements in global health are enough to keep the hopes of a more equitable global health system alive.

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