

Public-Private Partnerships and Their Use to Improve Global Health

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Abstract

Globalization has brought many of the issues faced by citizens of developing countries to light, specifically limited access these people have to the things necessary for good health, specifically qualified doctors, nutritious food, clean water, and, most pertinent to the discussion later in the paper, medicines. The problems that prevent people from securing good health in the developing world are immense and undoubtedly insurmountable by one organization or even one sector, be it public, private, or civil service. While globalization brought these problems to light, it can also bring organizations from the public/governmental sector, the private/commercial sector, and civil society together. Separately, these organizations are limited in their abilities and by the characteristics of the sector they pertain to, however, united by a common goal, these organizations can not only coordinate the efforts made in their traditional roles to reach a common goal, but they can partner in new ways that will combine the strengths, resources, and expertise of the different sectors into a collaborative, highly effective, partnership. Private organizations can partner with health focused government and NGO programs to build capacity, improve effectiveness, and extend reach, but there are many different ways these partnerships can be formed, what they look like, and what they involve. This paper aims to explore some of these existing public-private partnerships, look for the best practices in these partnerships, explore the opportunity for a consulting company to offer their services in this field, and describe some of the changes that pharmaceutical companies can make to facilitate public private partnerships.

I. Introduction

Improving a population's health is a complex problem to tackle due to the nature of health. Achieving optimal health for an individual requires a holistic approach, looking at several influences on a person's life. This holistic nature of an individual's health makes achieving health for a population even more difficult as one must examine a wide variety of influences for a large number of people. For these reasons, public health issues are complex that can only be solved with multidisciplinary approaches. Private organizations can partner with health focused government and NGO programs to build capacity, improve effectiveness, and extend reach, but there are many different ways these partnerships can be formed, what they look like, and what they involve. This paper

aims to explore some of these existing public-private partnerships, look for the best practices in these partnerships, explore the opportunity for a consulting company to offer their services in this field, and describe some of the changes that pharmaceutical companies can make to facilitate public private partnerships.

II. Existing public-private partnerships:

Public-private partnerships are not a new phenomenon for the problems society faces today; in fact, public-private partnerships (PPPs) have existed in the United States for over 200 years.¹ One definition of a public-private partnership is a binding contract between a public government entity and a private organization for the exchange of goods or services in a manner that mitigates the risk and responsibilities of both parties. Risk transfer, risk sharing, and mutual benefit from the different advantages of each partner are the reasons to pursue these arrangements.²

There are numerous benefits of PPPs to the governments and the private sector organizations involved. For the government and taxpayers, improve cost-effectiveness and service delivery improve, diminish public sector risk, reduce project completion times, and better the overall use of assets. With the private sector's profit motive in mind, there are also several benefits for a company that undertakes such a partnership, including access to secure investments, certainty of a lasting contract, more opportunities for the company to reach its efficiencies, and expansion of expertise in particular field.³

The definition of a public-private partnership discussed thus far limits the broad potential that these partnerships have. The simple definition of a partnership between one

¹ The National Council for Public-Private Partnerships. 2012. <http://www.ncppp.org/ppp-basics/top-ten-facts-about-ppps/>.

² Partnerships: British Columbia. 2003. [http://www.partnershipsbcc.ca/pdf/An Introduction to P3 -June03.pdf](http://www.partnershipsbcc.ca/pdf/An%20Introduction%20to%20P3%20-%20June03.pdf)

³ Ibid.

private company and a government narrows the potential for multi-party partnerships that offer a viable solution to the complicated problems of our society. An excellent sector to see how these partnerships have the potential to achieve great things is healthcare because of its complex inputs, issues, and technical solutions. Healthcare on the international scale, specifically in developing world aid programs benefit significantly from these partnerships, as discussed below.

Globalization has brought many of the issues faced by citizens of developing countries to light, specifically the limited access these people have to the things necessary for good health, specifically qualified doctors, nutritious food, clean water, and, most pertinent to the discussion later in the paper, medicines. The problems that prevent people from securing good health in the developing world are immense and undoubtedly insurmountable by one organization or even one sector, be it public, private, or civil service. While globalization brought these problems to light, it can also bring organizations from the public/governmental sector, the private/commercial sector, and civil society together. Separately, these organizations are limited in their abilities and by the characteristics of the sector they pertain to, however, united by a common goal, these organizations can not only coordinate the efforts made in their traditional roles to reach a common goal, but they can partner in new ways that will combine the strengths, resources, and expertise of the different sectors into a collaborative, highly effective, partnership.⁴

Public-Private Partnerships (PPP's) are a strategy that gained popularity among development programs in the late 1990s and early 2000s. Essentially a public

⁴ Roy Widdus (2001). [http://www.who.int/bulletin/archives/79\(8\)713.pdf](http://www.who.int/bulletin/archives/79(8)713.pdf).

organization (usually a governmental institution) will combine forces on a program with a private agency (such as a construction company) in order to reach a shared outcome.

These partnerships are particularly useful to the public health field because of the complexity and multidisciplinary nature of health issues. Historically, the public and private sectors organizations have worked independently, pursuing their own independent goals, on the public health projects. Undoubtedly, each organization involved in these projects has its own set of skills and advantages that it contributes to the project.

However, according to a policy paper put out by the World Health Organization in 2001, when public-private partnerships were first gaining popularity, participants usually failed to reconcile differing desired outcomes, thus creating a poorly defined partnership.⁵

These partnerships are relatively new and the majority of the research on them focuses on the benefits to the health development programs. There is little research currently on the benefits and best practices for the private sector partners.

PPPs of the past have primarily been focused on building infrastructure. However, PPPs in the healthcare field are focused on improving the health of an entire population. There are therefore a number of common drivers that are making these partnerships more urgent due to today's economic and social environment. These common drivers include a need for investment in the healthcare field where industry spending is easily outpacing inflation, budget constraints due the global recession and financial crisis, shifting the government's role from service provider to service commissioner and regulator, fast-

⁵ Roy Widdus (2001) [http://www.who.int/bulletin/archives/79\(8\)713.pdf](http://www.who.int/bulletin/archives/79(8)713.pdf). (713).

paced change and developments in medical and technological fields, differing infrastructure needs in different countries.⁶

What follows is a set of brief case studies of good and bad partnerships that involved similar arrangements. By comparing all of these case studies, this comparison will highlight the fact that many different PPP arrangements are possible, there are good and bad practices for these partnerships, and that benefits for all parties involved are attainable while simultaneously solving health problems for large populations.

Donation of medicine by pharmaceutical companies: My interest in a company's role in health improvement efforts began with a case study from an introductory international business course I took sophomore year. The case study discussed the growing AIDS epidemic and how it posed a great threat to the world as a whole and specifically to sub-Saharan Africa. The study disseminated background information on the AIDS epidemic, the pharmaceutical development of HAART, the most successful antiretroviral response to HIV/AIDS developed, and the reasoning behind pharmaceutical companies' reluctance to lower prices, give up on patents, or allow generics to be made. The study explains that extremely high research and development costs are associated with the development of a new drug and therefore patents for the protection of pharmaceutical companies' intellectual property that give them a temporary monopoly on the market and high prices are important to make up for some of these costs. It is for this reason that most pharmaceutical companies hesitate to freely give drugs away or allow cheaper versions to be made by other companies that did not bear the cost burden of

⁶ Health Research Institute. 2010.
[http://www.pwc.com/en GR/gr/publications/assets/pps-revolution-healthcare-2010.pdf](http://www.pwc.com/en_GR/gr/publications/assets/pps-revolution-healthcare-2010.pdf).

research and development. This is also why many US drug companies hesitate to export their medicines to developing countries where intellectual property laws are less strict.⁷

In the conclusion of the study, the authors expressed their feeling that “ultimately, the problem of AIDS in Africa, argued the pharmaceutical company, was a problem for governments and society. Tackling AIDS means tackling education. It meant talking about subjects (sexual behavior, gender norms) that were still taboo in many places. And it meant spending money – public money – in places where funds were scarce. None of these tasks were the responsibility of the world’s pharmaceutical firms.”⁸ Activists blame the drug companies, claiming that large-scale drug treatment is feasible in Africa, the only limiting factor is the prices of the drugs.⁹ There clearly is a large disconnect between all the major actors involved in this health epidemic. All the primary actors need to recognize other actors’ stake in the situation and need to work together to come to a compromise. Public-private partnerships are the answer to this standoff and victories for better health in the developing world can be achieved through these partnerships.

There are however some examples of PPPs with pharmaceutical companies that turn out well. The Onchocerciasis Control Program (OCP) demonstrates the “the power of collaboration across countries and agencies, the importance of long-term funding from the donor community, and the benefits of public-private partnership to bring pharmaceutical innovation into large-scale use in developing countries.”¹⁰

Onchocerciasis, also known as river blindness, is a horrible disease that affected 42 million people at the time of this program’s institution, 99% of whom were located in

⁷ Spar and Bartlett. 2005. Harvard Business School Case Study.

⁸ Ibid. Page 13

⁹ Ibid.

¹⁰ Seymour and Kinder. 2004. http://www.cgdev.org/doc/millions/MS_case_7.pdf. page 2.

sub-Saharan Africa. Efforts for a control program first began in the 1950s and 1960s, but no donors could commit their resources to the 20-year, \$120 million program. In 1974, after a visit by the World Bank president, Robert McNamara, a collaborative program between the WHO, the World Bank, the UN Development Program, and the Food and Agriculture Organization funded by a myriad of countries, multilateral institutions, and private foundations. This program achieved great success by controlling the primary vector of the disease (blackflies) and virtually halted the spread of the disease in 11 west African countries. However, the disease still rampaged in 19 other African countries not covered under OCP because the aerial larvicide spraying used in the first 11 countries was not feasible. However, all of that changed in 1978 when an antiparasitic medicine for animals developed at Merck was found to kill 95% of the worms responsible for the disease when taken by humans, which virtually eliminated the symptoms of onchocerciasis. The only problem, as discussed in the case above, was that population most in need of the drug was the least able to pay for it. Even at the discounted price of \$1.50 per dose, infected African people could not pay for the life-saving drugs they desperately needed. In 1987, with a partnership commitment and urging of the Carter Center, Merck made the historic announcement that it would donate Mectizan “to anyone who needed it, for as long as it was needed”¹¹ Since the launch of the Mectizan Donation Program in 1988, Merck has provided more than 472 million treatments.¹² This case study is an example of a good partnership, where pharmaceutical companies, international organizations, governments, and NGOs were able to all work together to successfully battle and effectively eliminate the threat of a treatable disease. While the

¹¹ Seymour and Kinder. 2004 http://www.cgdev.org/doc/millions/MS_case_7.pdf, page 4.

¹² Ibid.

case thoroughly lays out the backstory and the lessons to learn from the development of the partnership, it lacks the business perspective and ignores the enormous cost that the Mectizan Development Program came at for Merck. It also does not touch on the benefits that Merck reaped from such a socially responsible undertaking.

The President's Emergency Plan for AIDS Relief (PEPFAR): Public-Private Partnerships (PPP's) are a major strategy component of the President's Emergency Plan for AIDS Relief (PEPFAR), enacted by President Bush in 2003. The creators of the bill knew that PPPs are essential for the implementation of successful and sustainable HIV/AIDS programs. There is even a specific provision of the bill that commits "assistance from the United States private sector to prevent and reduce HIV/AIDS in Sub-Saharan Africa."¹³ Another important provision is the "sense of Congress that the sustainment and promotion of public-private partnerships should be a priority element of the strategy [...] to combat the HIV/AIDS pandemic and other global health crises."¹⁴ PEPFAR defines public-private partnerships as collaborative endeavors that combine public sector resources with private sector resources. These partnerships ensure stability of program resources and facilitate scale-up of interventions.¹⁵

The African Comprehensive HIV/AIDS Partnership (ACHAP) is an example of one such partnership that was instrumental in the implementation of anti-retroviral in Botswana in 2001. ACHAP is a partnership between Merck (a prominent pharmaceutical company), the Bill and Melinda Gates Foundation (a charitable foundation that focuses on global health issues), and the Botswana government. The ACHAP was successful due

¹³ 108th Congress of the United States. (2003) page 36.

¹⁴ Ibid.

¹⁵ United States President's Emergency Plan for AIDS Relief. (2011). Public-Private Partnerships. Retrieved from <http://www.pepfar.gov/ppp/index.htm>.

to five elements: a focus on one disease in one country, a comprehensive approach to support (prevention, care, and treatment), the government's dual role as a partner and a grantee, the involvement of program sponsors in the design and implementation, and a commitment to build the government's institutional capacity. Strengths include financial support provided by ACHAP, streamlining of operations, access to global managerial networks. However in 2002, six months after its start, the program began to experience some issues. The primary issues was with capacity when more patients were enrolled in the anti-retroviral program than were receiving treatment, a trend that is expected to continue as more patients are tested and more positive results are seen from the ARV treatment. Because the ACHAP program was hastily thrown together as an emergency response and was one of the first public-private partnerships, it lacks many of the elements that have proven successful by other partnerships. Some of these elements include treatment models based on existing country infrastructure, low-level resources, and a diverse group of health personnel.¹⁶

PEPFAR is often praised for its ability to initiate productive collaborations among many organizations to achieve program success. In a panel discussion sponsored by the Brookings-CSIS-Center for U.S. Global Engagement, Steve Hansch, a Senior Associate at the Georgetown University Institute for the Study of International Migration, claimed that the United States has been a leader in international aid for a long time, but is “punching below our weight class” because “we have fractured our humanitarian aid apparatus between a variety of offices and a variety of agencies. So Health and Human Services, Department of Treasury, USDA, USAID, Department of State all have a hand

¹⁶ Ramiah, Ilavenil and Michael Reich. (2005).
<http://content.healthaffairs.org/content/24/2/545.full>.

in humanitarian aid”.¹⁷ Many reports from the mid-2000s on cite multilateralism as being a newer, more effective way to carry out international development aid and often reference PEPFAR as being one of the first examples of this effective strategy.

Multilateral partnerships, especially those that involve businesses, make PEPFAR more efficient by harnessing expertise of various organizations and leveraging resources, the most sustainable coming from private sector businesses.

Prior to the Bush Administration, the US government was prohibited from funding program and organizations with a religious affiliation. This provision was established in order to maintain the doctrine of separation of church and state. However, through a series of executive orders, President Bush removed many of the limitations on government funding for religious programs, allowing for much of the PEPFAR funding to go to organizations with religious affiliations. A survey of USAID contracts found a 9.4% increase in funding for faith-based groups from FY2001 to FY2005.¹⁸ This aspect of PEPFAR brings up controversial issues associated with the use and governmental support of faith-based organizations. Although religious organization and programs often espouse more conservative policies and faith-based organizations and programs may be effective at dealing with HIV/AIDS and its associated issues but religion and morals are too personal (and thus too controversial) for government to be directly funding. There is an interesting movement using faith as a way to communicate with a population about health issues. How does this relate to PPPs? Need to further explore how government agencies and companies will work with these organizations as they become a growing part of the actors included in public-private partnerships.

¹⁷ Brookings Institute. (2006). Page 17.

¹⁸ Evertz, Scott H. (2010). <http://www.americanprogress.org/wp-content/uploads/issues/2010/01/pdf/pepfar.pdf>.

III. Discussion of existing partnerships structures

Now I will discuss the different possible structures for public-private partnerships to further highlight the point that there are many different ways to structure partnerships so that they can work well for the private and public partners. The Geneva-based Initiative on Public-Private Partnerships for Health created an initial inventory of over 70 collaborative relationships, mostly at the international level. These ventures involve a diversity of arrangements, varying with regard to participants, legal status, governance, management, policy-setting prerogatives, participants, contributions, and operational roles. Figure 1 outlines some of the current partnerships in existence. All these partnerships vary slightly; the specifics of the partnerships depend heavily upon the partners involved, the health issue being tackled, the in-country situation, and the knowledge base and resources provided by each partner.

Figure 1: Categorization of public-private partnerships based on the purpose they serve¹⁹

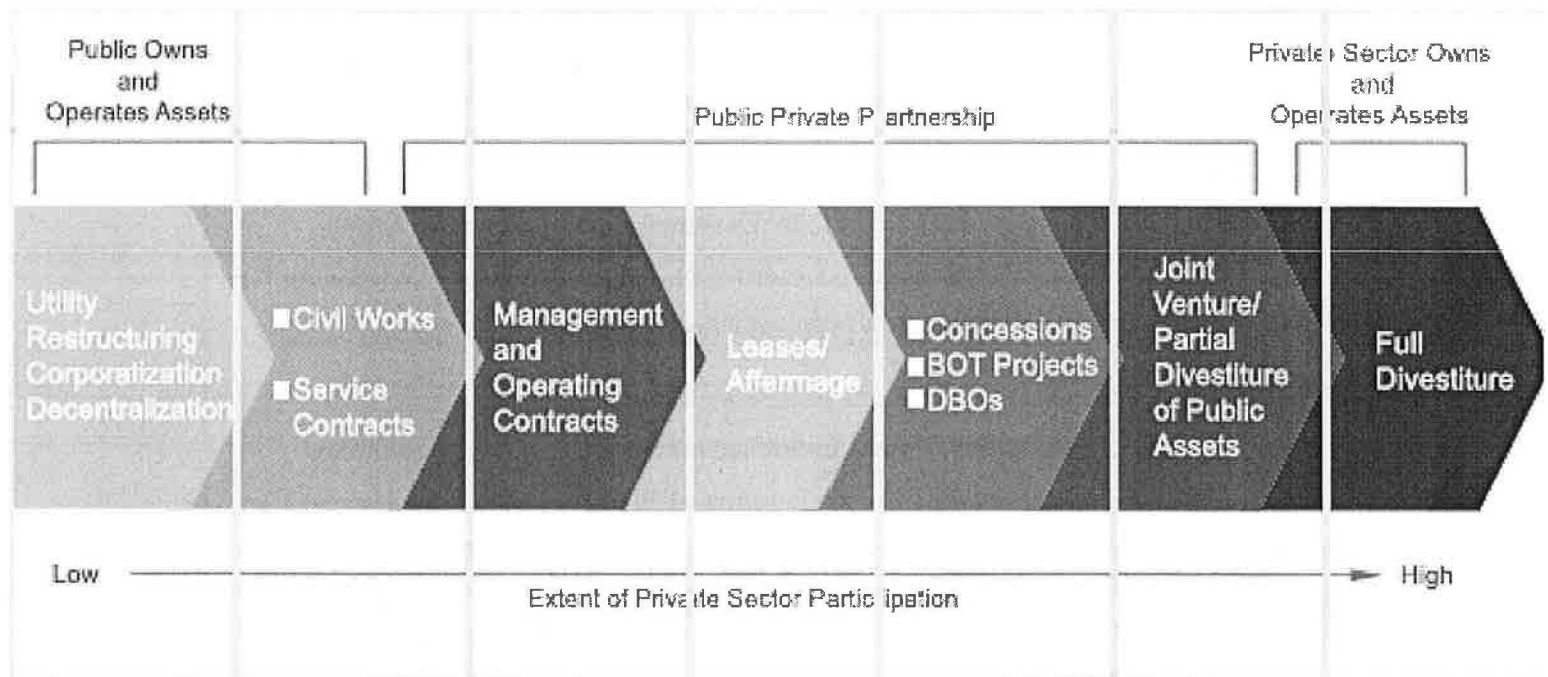
Purpose	Partnership
Product development	GATBDD, IAVI, MMV and MVI.
Improving access to healthcare products	CF, MDP, Accelerated Access Initiative (AAI) [48], Global Alliance to Eliminate Leprosy (GAEL) [49], Global Alliance to Eliminate Lymphatic Filariasis (GAELF) [50] and the Global Polio Eradication Initiative (GPEI) [51].
Global coordination mechanisms	GAVI, RPS, Stop TB, Global Alliance for Improved Nutrition (GAIN) [52], and the Micronutrient Initiative (MI) [53].

¹⁹ Sania Nishtar (2004):
<http://www.ncbi.nlm.nih.gov/pmc/articles/PMC514532/pdf/1478-4505-2-5.pdf>.

Purpose	Partnership
Strengthening health services	Alliance for Health Policy and Systems Research (AHPSR) [54], Multilateral Initiative on Malaria (MIM) [55], African Comprehensive HIV/AIDS Partnerships (ACHAP) [56].
Public advocacy and education	Alliance for Microbicide Development (AMD) [57], African Malaria Partnership (AMP) [58], Global Business Coalition on HIV and AIDS (GBC) [59] and Corporate Council on Africa (CCA) [60].
Regulation and quality assurance	The International Conference on Harmonization of Technical Requirements for Registration of Pharmaceuticals for Human Use (ICH) [61], Pharmaceutical Security Institute (PSI) [62] and the Anti-Counterfeit Drug Initiatives [63]

The World Bank has an entire sub-organization devoted to the study and improvement of PPPs for infrastructure improvement. This organization, the PPP in Infrastructure Resource Center, delineates several types of PPP, each with varying degrees of private sector involvement (Figure 2).

Figure 2: Types of Public-Private Partnership Agreements²⁰



While the PPP in Infrastructure Resource Center discusses these partnerships in the context of infrastructure improvement, several of these partnerships are particularly applicable to the healthcare field, specifically on the international development scale.

They are:

- Management and Operating Contracts – In these arrangements, the warding organization gives authority to the contractor to oversee a range of activities. These activities can be specific (such as managing IT improvements) or span all the way through to management of the entire operation. These contracts are typically short term, only lasting two to five years.²¹

²⁰ Types of Public-Private Partnership Agreements. 2012. <http://ppp.worldbank.org/public-private-partnership/agreements>.

²¹Ibid.

- Leases and Affermages – This partnership occurs when private companies are responsible for the management and operation of the project, but not the financing.²² These arrangements are much more common with things the government has been deemed responsible for, such as the provision of utilities. However, this arrangement is less common in the healthcare field, where a partnerships with a private company almost always brings along some sort of financial involvement.
- Concessions, BOT Projects, and DBOs – Concessions occur when the operator (private company) is given the long-term right to use the utility assets from the project and is responsible for the project's operation and investment while the ownership remains with the authority. Build, operate, transfer (BOT) projects involves the development of a discrete asset (rather than a network). A design, build, operate project is one in which the public sector owns and finances a project that a private sector company designs, builds, and operates.²³
- Joint Venture or Partial Divesture of Public Assets – A joint venture differs from other partnership arrangements previously discussed because share of the assets or project are divided between the public partner and the private partner. A management agreement is usually worked out to determine the partitioning of the shares and the responsibilities.²⁴ These types of partnerships are not typically seen in health care related fields, however, that is not to say that they will never exist. There currently are few joint venture type partnerships because health issues and

²² Types of Public-Private Partnership Agreements. 2012.

<http://ppp.worldbank.org/public-private-partnership/agreements>.

²³ Ibid.

²⁴ Ibid.

programs are not something that anybody wants to own or hopes will last for a long time into the future.

As the field grows and partnerships mature and become more sophisticated and complex, I believe that all of the partnerships arrangements listed in the above figure will be in use to meet the different demands of whatever issue or asset the partners are tackling and whatever needs each of the partners has.

IV. Discussion of best practices

As shown with the several case studies summarized previously, public private partnerships can be handled in a number of different ways that can have vastly different effects on the partners and outcomes. There are obviously some bad ways and some good practices for these partnerships, several of which have been identified by various scholarly studies.

Good PPP practices begin with the recognition of a need and consideration for different partnership options. The World Bank has identified some of the best practices for a government to identify and select a PPP. Some of these practices include:

- Identify the business need – First governments must identify what they are lacking that the private sector could provide. This could be anything from a lack of capacity to a lack of funding to low operating efficiency.²⁵
- Appraise options – Next, the governmental organization should examine the different partnership options available to it and determine which one will best fit

²⁵ PPP in Infrastructure Resource Center. 2012 <http://ppp.worldbank.org/public-private-partnership/overview/evaluation>.

its needs and cover what the government lacks the best.²⁶ There are many different options for the partnership arrangement, as discussed previously.

- Identify institutional machinery necessary for reform – whatever reform or problem the government hopes the private sector can fix will also need some changes on the part of the government. The government should examine the legal environment, the management and outcome evaluation of the PPP, transparency, ethics, and the allocation of government support.²⁷

All of these practices force the government actor to consider its problem, different options for a partnership, and what it wants from the private sector actor. By figuring all of this out prior to the partnership, the arrangement will improve for all actors and resolution of the problem can be reached more efficiently.

After the consideration of a partnership and the selection of a partner organization, there are several best practices for the actual collaboration effort. According to a theme paper published by the World Health Organization, PPP's work best "where traditional ways of working independently have a limited impact on a problem; the specific desired goals can be agreed by potential collaborators; there is relevant complementary expertise in both sectors; the long-term interests of each sector are fulfilled (i.e. there are benefits to all parties); and the contributions of expertise and resources are reasonably balanced."²⁸

A paper on the PPPs within the government of British Columbia also outlines some of the specific characteristics necessary for an effective PPP to occur. Proceeding

²⁶ PPP in Infrastructure Resource Center. 2012 <http://ppp.worldbank.org/public-private-partnership/overview/evaluation>.

²⁷ Ibid.

²⁸ Roy Widdus (2001): [http://www.who.int/bulletin/archives/79\(8\)713.pdf](http://www.who.int/bulletin/archives/79(8)713.pdf). page 718.

with a PPP may be most appropriate when: “there is a significant opportunity for private sector innovation in design, construction, service delivery, or use of an asset; clearly definable and measurable output specifications can be established suitable for payment on a services delivered basis; an opportunity exists for the private sector partner to generate nongovernment streams of revenue, to help offset public sector costs; some risks can be transferred to the private sector; projects of a similar nature have been successfully developed using a similar method; and the private sector has sufficient PPP capacity (expertise and availability) to successfully deliver project objectives.”²⁹

The Health Research Institute of PricewaterhouseCoopers also published a study entitled “Build and Beyond: The (R)evolution of Healthcare PPPs” with a section on how PPP players determine success. In this report, PricewaterhouseCoopers quotes Keiko Uemura of Yao Municipal Hospital, a PPP in Osaka, Japan saying “we have learnt that respect towards the other party is important. Unlike the outsourcer-outsourcee relationship of the past, the public and private sectors should establish a 50-50 relationship for exchanging opinions”³⁰ This difference between outsourcer-outsourcee relationship and a partnership relationship is key for success. It is the primary difference between outsourcing or contracting and these public-private partnerships: both parties recognize the other’s expertise and value their contribution, instead of one party simply telling the other what it wants done.

V. Opportunity for PPPs Consulting Services

²⁹ Partnerships: British Columbia. 2003. [http://www.partnershipsbcc.ca/pdf/An Introduction to P3 -June03.pdf](http://www.partnershipsbcc.ca/pdf/An%20Introduction%20to%20P3%20-%20June03.pdf). page ???

³⁰ Health Research Institute. 2010. [http://www.pwc.com/en GR/gr/publications/assets/pps-revolution-healthcare-2010.pdf](http://www.pwc.com/en_GR/gr/publications/assets/pps-revolution-healthcare-2010.pdf). page 17.

Industry analysis: Consulting services is a \$300 billion industry with a broad scope of specific focuses;³¹ for example, there are several different NAICS divisions under the consulting industry designation, including environmental and scientific consulting, human resources consulting, management consulting, and accounting and financial consulting. Major consulting companies include Accenture, Bain, Booz Allen, Deloitte Consulting, and IBM Global Services (all based in the US), as well as PA Consulting Group (UK), Roland Berger (Germany), and Tata Strategic Management (India).³² There is such a diverse offering of specific services because a unique expertise and understanding of the particular industry is absolutely necessary.

There is a great opportunity in the consulting industry to gain advantage over other consulting services. According to the Hoover's Consulting Services Industry Index, "The US industry is fragmented: the top 50 companies account for less than 30 percent of industry revenue."³³ The report goes on to outline industry trends, including consolidation through the acquisition of small firms by larger firms, expansion of services offered by companies, and expansion to include international work. The report also lists healthcare consulting as an industry opportunity.³⁴ All of these trends and opportunities fit perfectly with the expansion of consulting services to include international development health programs.

³¹ Hoover's. (2013).

<http://subscriber.hoovers.com.proxyau.wrlc.org/H/industry360/description.html?industryId=1071>.

³² Andrew Krabeepetcharat. (2013).

<http://clients1.ibisworld.com.proxyau.wrlc.org/reports/us/industry/default.aspx?entid=1428>

³³ Hoover's. (2013).

<http://subscriber.hoovers.com.proxyau.wrlc.org/H/industry360/description.html?industryId=1071>. Page 1

³⁴ Ibid.

One way for a consulting company to be more competitive in the future is to exploit the significant advantage to being multidisciplinary in this industry. According to IBISWORLD, “this industry is confronted with increased competition from firms in allied industries (e.g. management consultants, accountants, engineering consultants and more), which can offer clients a broader range of services and can often leverage strategic alliances with potential clients. These larger multi-disciplined consulting firms are better placed to assist the client in implementing recommendations over the long term.”³⁵

IBISWorld has a more specific report on the Economic and Scientific Consulting Industry. Firstly, in order to succeed in the scientific consulting industry, the company must have access to a niche market. IBISWorld reports “consultancies that are able to develop a dominant position in a narrow niche market significantly improve the prospects of long-term success.”³⁶ Additionally, current competition within the industry is high and will only increase in the future, “though price is an important determinant in securing contracts, a consultant's standing within the scientific community and past performance often outweigh price considerations.”³⁷ This IBIS report also found that this specific part of the consulting industry was also highly fragmented no one-company holds more than 5% of the market share.

There is a clear need for guidance on the formation of public private partnerships. There are several groups created by international institutions to help navigate some of the difficulties of PPPs. As mentioned earlier the PPP in Infrastructure Research Center is an

³⁵ Andrew Krabeepetcharat. (2013).

<http://clients1.ibisworld.com.proxyau.wrlc.org/reports/us/industry/default.aspx?entid=1428>

³⁶ Ibid.

³⁷ Andrew Krabeepetcharat. (2013).

<http://clients1.ibisworld.com.proxyau.wrlc.org/reports/us/industry/default.aspx?entid=1428>.

entire sub organization created and funded by the World Bank for the study and improvement of PPPs for infrastructure improvements. There is also the Private Sector Advisory Group (PSAG) for the UN Office For Disaster Risk Reduction. While these groups indicate steps in the right direction of creating advisory organization on the formation of these complex partnerships, they surely lack agreement on best practices and continuity of message because they are an amalgamation of advisors from different previous partner businesses.

Expansion of services into health/development sector: One major advantage of expanding consulting services to include PPPs is that a company could consult both actors. A consulting firm can advise businesses on how to initiate these partnerships and the best practices for aid partnerships; the same company would also have the opportunity to use its specific knowledge on PPPs to advise governments and international organizations on which businesses to partner with, best partnership practices, best partnership structures, etc.

Additional benefits come from the business outlook for the healthcare field. Healthcare is a robust field that will continue to grow indefinitely until people stop getting sick. IBISWorld cites the “innovative and increasingly profitable operations in genomics (the study of genomes) and pharmaceuticals” as likely sources of growth for consultants in this industry.”³⁸

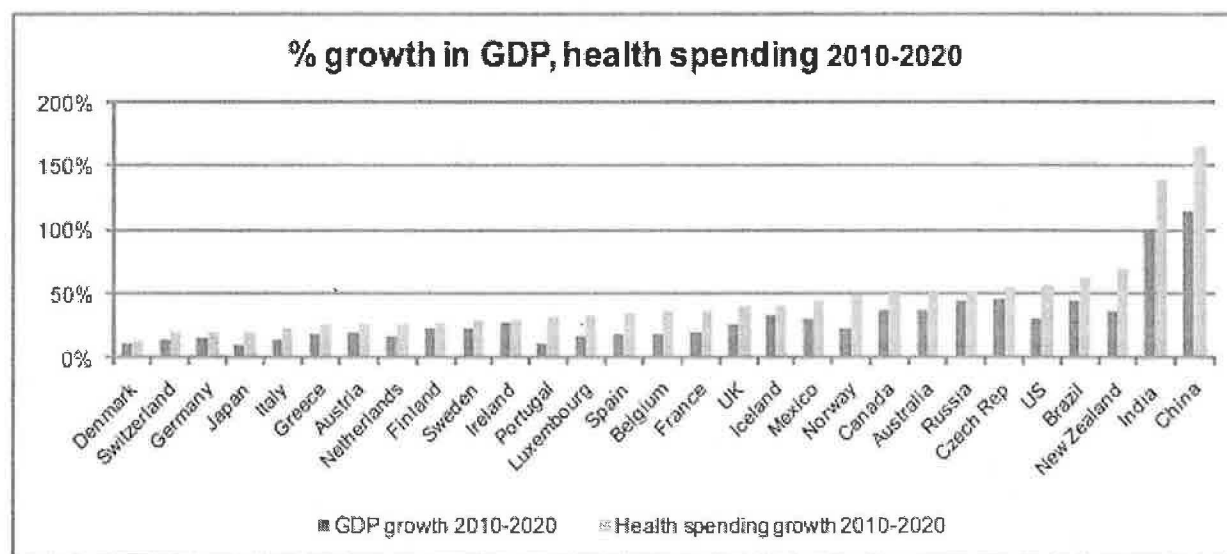
As exhibited in Figure 3 below, health spending is growing, even faster than GDP in most countries’ cases. It is also evident from this figure that health spending is growing in the developed and emerging countries, such as China, India, Brazil, Russia, and

³⁸ Andrew Krabeepetcharat. (2013).

<http://clients1.ibisworld.com.proxyau.wrlc.org/reports/us/industry/default.aspx?entid=1428>.

Mexico. There is an obvious future market in the field of health and the field is only growing with the growing economic power of emerging markets.

Figure 3: Projected Growth in Health Spending and GDP in Selected OECD and BRIC countries for 2010 and 2020.³⁹



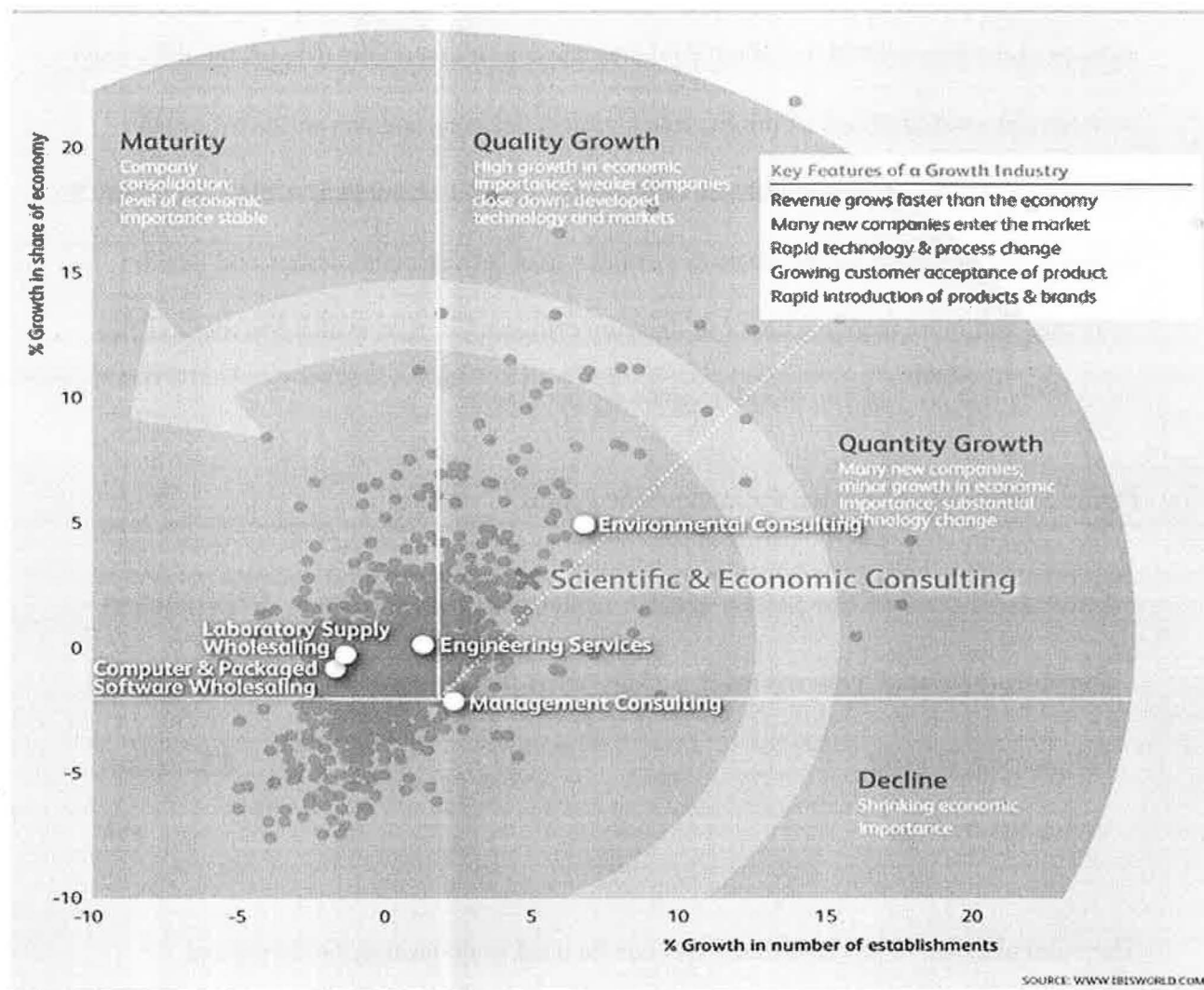
There is also positive outlook for the scientific and economic consulting industry. “The Scientific and Economic Consulting industry is expected to deliver robust growth over the coming five years. In 2013, industry revenue is expected to reach \$22.7 billion, with growth of 7.2% during the year. Over the five years to 2017, the industry is forecast to grow at an annualized rate of 8.4% to \$31.7 billion. As the economy continues to improve, revenue growth will be fueled by strong private sector demand, particularly the increases in consulting segments serving emerging scientific fields. However, gains will

³⁹ Health Research Institute. (2010). http://www.pwc.com/en_GR/gr/publications/assets/pps-revolution-healthcare-2010.pdf.

be limited by weakening demand from government, nonprofit and academic markets.”⁴⁰

This expected high growth for this industry is demonstrated in Figure 4 below.

Figure 4: Scientific Consulting Industry Projected to be High Growth⁴¹



VI. Challenges to address to be effective in the health PPP industry

⁴⁰ Andrew Krabeepetcharat. (2013).

<http://clients1.ibisworld.com.proxyau.wrlc.org/reports/us/industry/default.aspx?entid=1428>.

⁴¹ Ibid.

Metrics and evaluation of PPPs: It can be difficult to measure the benefit of a PPP, especially one that occurs in the healthcare field, where good outcomes can be measured by cost saved, lives saved, or improvements to overall health, care delivery, and quality of care. The current widely used method for measurement of the infrastructure focused PPP is called Value for Money. It essentially divides the difference between the estimated cost of public sector project delivery and private sector project delivery by the public sector delivery cost. A hypothetical example is outlined in Figure 5 below. Because health issues are more complex than infrastructure issues and health outcomes and more than just cost can measure efficiencies, new evaluation methods for these PPPs that are tackling broader issues are necessary.⁴²

Figure 5: Example of a value for money calculation⁴³

Estimated cost of the public sector delivering the project	\$100 million
Expected cost of private sector delivering the project	\$95 million
Difference in cost	\$5 million
Value for money	5%

There are alternative measurements that can be used to determine the success of healthcare focused PPPs. Some measurements that have been used by other PPPs in the past are listed below.

⁴² Health Research Institute. (2010).

http://www.pwc.com/en_GR/gr/publications/assets/pps-revolution-healthcare-2010.pdf.

⁴³ Ibid.

Figure 7: Alternative success measure for PPPs⁴⁴

Patient Satisfaction	Organisational / Clinical Performance	Workforce Performance
Pain level after X amount of days following a procedure	Number of admissions, surgeries	Timely reporting
Waiting times	Provider cancellation of elective care operation for non-clinical reasons	Average of sick days of staff
Evaluation of catering	Patient safety indicators	Ratio of credentialed staff
Evaluation of cleanliness	Infection rates	Diagnostic reporting within one week of test
Evaluation of interaction with staff	Emergency readmission rates	
	Provider failure to ensure that "sufficient appointment slots"	
	Penalty for wrong-site surgery	
	Wait times	

VII. Changes for pharmaceutical companies to facilitate public private partnerships

To conclude this paper, I would like to examine the pharmaceutical industry in depth and make some recommendations, as a consulting firm might do, to improve the chances and the effectiveness of a PPP with a pharmaceutical company.

While the structure and challenges of the pharmaceutical industry were touched upon in the "Types and Examples" section previously, I want to take this opportunity to delve a little further into the global pharmaceutical industry. The global pharmaceutical

⁴⁴ Health Research Institute. (2010).

http://www.pwc.com/en_GR/gr/publications/assets/pps-revolution-healthcare-2010.pdf.

manufacturing industry generates more than \$950 billion and include major companies like Abbott, Bristol-Myers Squibb, Eli Lilly, Johnson & Johnson, and Pfizer (all based in the US); Bayer (Germany); GlaxoSmithKline (UK); Novartis and Roche Holding (Switzerland); and Sanofi (France). In the United States, approximately 1500 companies exist, an industry with \$200 billion in revenue and expected to grow a high rate in the future from technological innovations and changes to government policies. The US industry is also concentrated with 80% of the revenue coming from 50 companies.⁴⁵

As seen in the HIV/AIDS and Merck cases discussed previously, R&D investment is astronomically expensive and protection of this valuable information is essential to hold up the industry. Drug prices are high in order to recoup some of this high R&D cost. Additionally, post-development regulatory approval of the drug is extremely expensive, driving up drug prices even further. According a Harvard Business School case study on the subject, “only on in 20 trial-phase drugs was eventually approved for public use, and even successful candidates often took 10 years and 50,000 pages of documentation to win FDA approval. The total cost of this process was reported to be between \$500 million and \$880 million.”⁴⁶ It is only with a combination of 20 year monopolies granted by patents and high drug prices that pharmaceutical companies are able to recover any of these costly investments. The industry also faces consolidation in

⁴⁵ Hoover's. (2013).

<http://subscriber.hoovers.com.proxyau.wrlc.org/H/industry360/description.html?industryId=1486>.

⁴⁶ Spar and Bartlett. 2005. Harvard Business School Case Study. Page 7.

the future, as a steady stream of new products is necessary to fund the high costs of product research and development.⁴⁷

There are significant opportunities for growth in the pharmaceutical manufacturing industry abroad. The US and the EU are the biggest importers of medicines, but attention is turning to emerging economies to increase market share and profits.⁴⁸ With the growing market of the emerging BRIC countries' demand for pharmaceuticals, partnerships to bring medicines to these merging markets is an obviously lucrative place for pharmaceutical companies to be looking at.

There are two major determinants of access to high-quality pharmaceuticals. The first is availability or whether a drug that adequately addresses the disease has been developed. Availability is affected by many factors, including research, development, and marketing. Accessibility, the second determinant of access, is little more complicated, involving the correct diagnosis, prescription, and use of a drug, the effectiveness and efficiency of the distribution system, economic factors (such as funding, costs, and pricing), and consumer health knowledge and behavior. It is difficult to pinpoint one of these specific factors as causing the majority of the problems for pharmaceutical access in the developing world. Instead, situations need to be looked at independently, taking into consideration the in-country environment and the aspects unique to the drug and disease themselves.⁴⁹ What follows are some areas that pharmaceutical companies can change in order to extend further into developing world markets and facilitate partnerships.

⁴⁷ Hoover's. (2013).

<http://subscriber.hoovers.com.proxyau.wrlc.org/H/industry360/description.html?industryId=1486>.

⁴⁸ Ibid.

⁴⁹ Roy Widdus (2001): [http://www.who.int/bulletin/archives/79\(8\)713.pdf](http://www.who.int/bulletin/archives/79(8)713.pdf).

Economic Factors:

It is rare that a company can directly transplant a drug from the developed country market into the developing country market. It is especially difficult as the consumers in these markets have vastly different purchasing abilities; while most consumers in developing countries have enough discretionary income to finance whatever drugs their doctor asks them to take, many consumers in developing countries do not. Some companies that are able to sell their same products in the developed and developing world adopt a differential pricing strategy in order to maximize their global market share. This strategy entails charging different prices in different markets, depending upon market development and price sensitivity. Premium prices are charged in developed country markets where consumers, insurance companies, and governments can afford higher prices and discounted prices are charged in developing markets, where insurance markets are less developed, pharmaceutical funding is less robust, and consumers are more price sensitive.⁵⁰

According to a presentation given at the World Trade Organization on differential pricing for prescription drugs, there are three different contexts under which differential pricing is utilized. The first context for differential pricing to arise is under normal economic forces that are in play in the free market. The second is “in international trade between countries with different degrees of pricing freedom or price regulation for drugs.”⁵¹ Prices should remain relatively consistent within a country, but differential pricing will arise through parallel trade created by the emergence of free trade

⁵⁰ Roy Widdus (2001): [http://www.who.int/bulletin/archives/79\(8\)713.pdf](http://www.who.int/bulletin/archives/79(8)713.pdf)

⁵¹ Heinz Redwood. 2001. “ADVANTAGES AND RISKS OF DIFFERENTIAL PRICING FOR PRESCRIPTION DRUGS”
http://www.wto.org/english/tratop_e/trips_e/hosbjor.../14redwood_e.doc, page 1.

organizations or economic unions. Finally, the third context in which differential pricing occurs, and the context that is most pertinent to our discussion is based upon the relationship between price and affordability.

There are a number of systemic issues with the differential pricing strategy. In most situations, the majority of cost to the consumer is not incurred by pharmaceutical company, but by markups made by the distributors and retailers. Additionally, parallel imports, or the reselling of low-priced drugs in high-priced markets, have negative effects on pharmaceutical companies' sales in developed markets. Finally, the developed markets (which are charged higher prices) might use the different prices as leverage to negotiate lower prices.⁵² Finally, as the WTO and WHO point out, "One of the main obstacles that needs to be overcome in order to make such differential prices workable, is 'reflux' trade: leakage and re-importation, especially of patented drugs, back into the full-price markets of North America, Europe, and Japan."⁵³ While differential pricing is not a perfect system, it is currently one of the best solutions to increasing pharmaceuticals' market share in developing countries. Until better government pharmaceutical funding policies and higher income for consumers in developing countries is a reality, differential pricing is the best strategy. Needless to say, the high price of medicines are only one of the barriers to developing country populations achieving optimal health; there are also larger issues at play that can also be addressed by pharmaceutical companies as part of a public-private partnership.

⁵² Roy Widdus (2001): [http://www.who.int/bulletin/archives/79\(8\)713.pdf](http://www.who.int/bulletin/archives/79(8)713.pdf)

⁵³ Heinz Redwood. 2001. "Advantages and Risks of Differential Pricing for Prescription Drugs. http://www.wto.org/english/tratop_e/trips_e/hosbjor.../14redwood_e.doc. page 3.

Shift R&D efforts:

The pharmaceutical industry is a difficult industry to turn a profit in because the nature of medicines curing consumers' diseases diminishes and (hopefully) exterminates the demand for the drug. Therefore, in order to stay competitive and profitable in this industry, pharmaceutical companies are constantly looking to make new products, thus investing heavily in research and development. The largest cost to pharmaceutical companies is understandably R&D.

While much of this R&D effort is focused on developed world diseases such as cancer, cardiovascular, and musculoskeletal diseases (see Figure 8 and 9), there is a tremendous market for drug therapies in the developing world. Many multinational drug companies focus their R&D on finding a “blockbuster drug”, or a product that will generate over \$1 billion in profits per year during the patent period. “These market dynamics help explain why the research-based companies have focused their research efforts and marketing forces on disease conditions in rich-country markets—where their products could be sold at high prices, with patent protection, for large numbers of patients, and often with health insurance coverage.” This R&D model is not conducive to the pursuit of new medicines for developing world diseases. With additional pressures of slashing national health care costs through the limitation of pharmaceutical spending and the promotion of generics⁵⁴ as well as the necessity of more sophisticated and more expensive techniques for new medicines, it is wise for pharmaceutical companies to

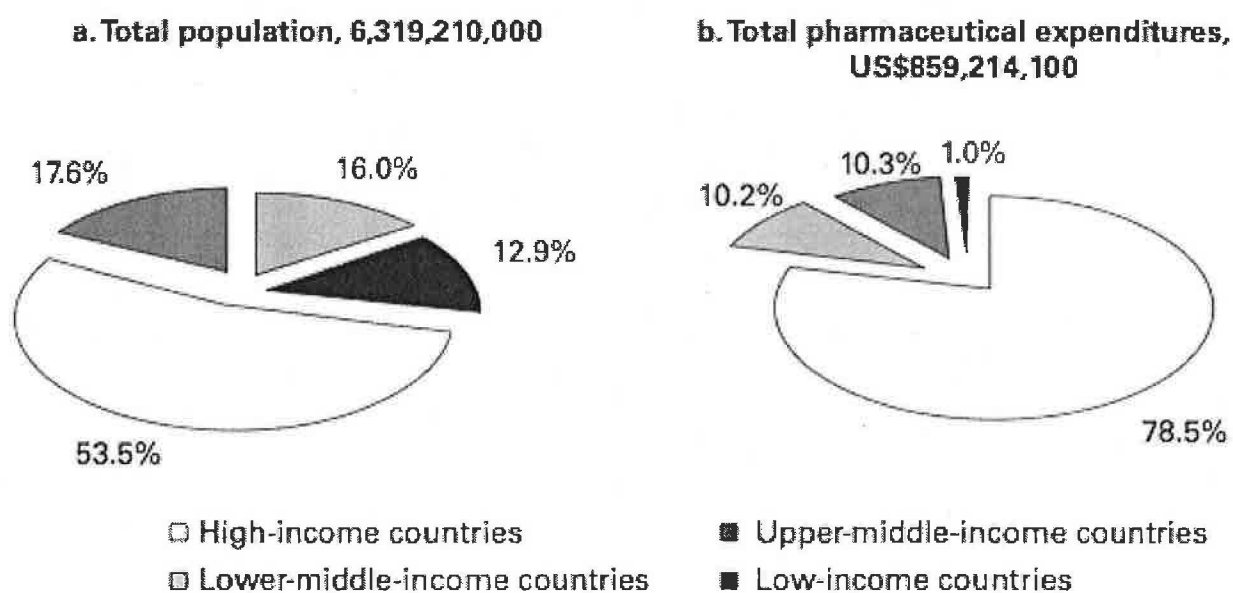
⁵⁴ Marc J. Roberts and Michael R. Reich (2011): <http://www.worldbank.org/pdf>. Page 39.

diversify their R&D efforts into other markets besides the developed world diseases if they wish to stay competitive in the future.⁵⁵

Shift R&D spending towards medicines for developing country health problems:

As seen in Figure 8 below, high-income countries have the most pharmaceutical expenditure, disproportionate to their population. What is most alarming is that low-income countries, with 12.9% of the world's population, only receive 1% of pharmaceutical expenditures. These countries also have some of the most pervasive and most easily fixable health problems in the world, creating a huge untapped market for pharmaceutical companies.

Figure 8: Distribution of Population and Total Pharmaceutical Expenditure by Country Income Level, 2005–2006⁵⁶

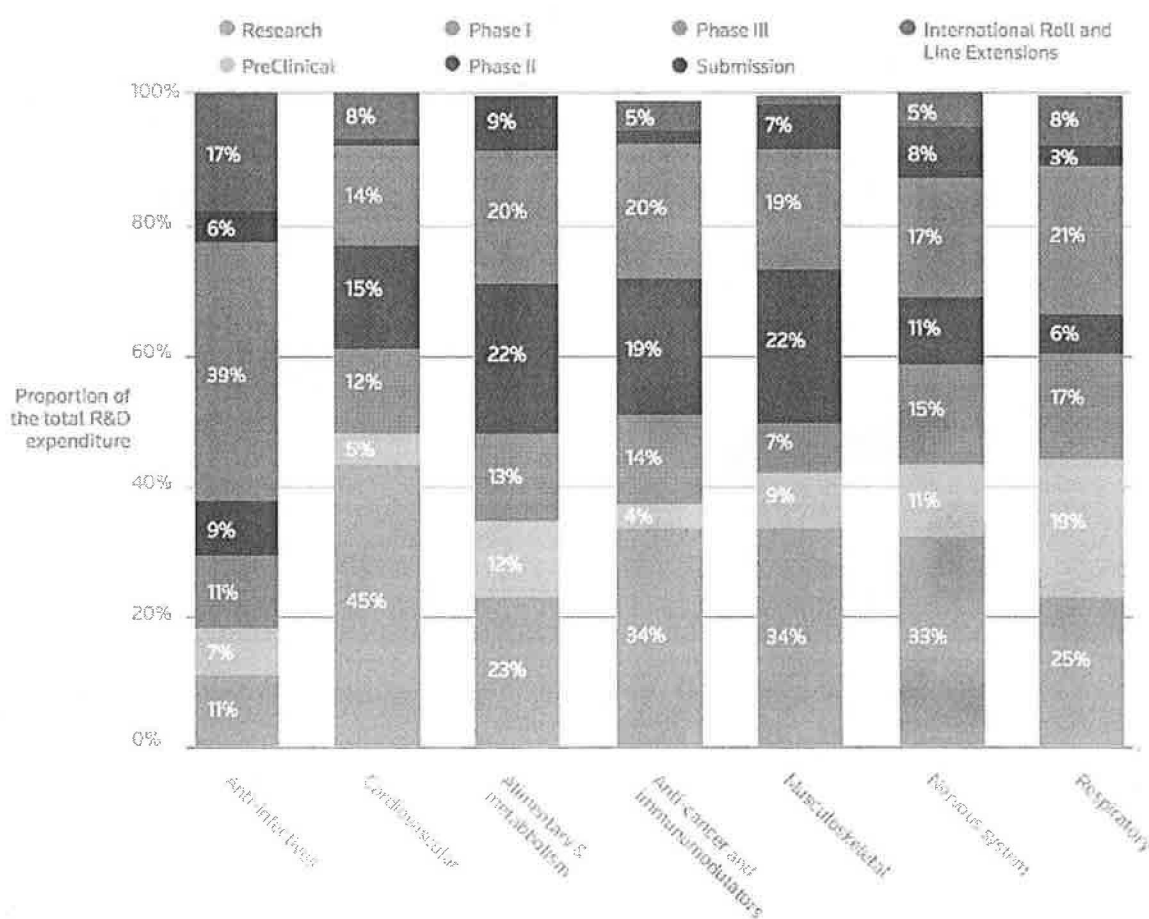


⁵⁵ Brian Greenwood, David Salisbury, and Adrian V. S. Hill (2011). doi:10.1098/rstb.2011.0076.

⁵⁶ Marc J. Roberts and Michael R. Reich (2011): <http://www.worldbank.org/pdt>.

A World Health Organization policy paper on public-private partnerships states the primary problem pharmaceutical companies have with investment in medicines for developing world health problems: “although there is considerable diversity in size, orientation, country location, and motivation among pharmaceutical companies, they consistently pay less attention to poor populations than those that are rich because of the need to provide a return to investors from the worldwide market”⁵⁷ It is difficult for these companies to justify spending millions of dollars on drugs for a consumer group that the majority of the people live on less than \$2 per day.

Figure 9: Distribution of R&D Expenditure by Therapeutic Area⁵⁸



⁵⁷ Roy Widdus (2001) [http://www.who.int/bulletin/archives/79\(8\)713.pdf](http://www.who.int/bulletin/archives/79(8)713.pdf). 715.

⁵⁸ 2012 CMR International Pharmaceutical R&D Factbook, (2012): http://cmr.thomsonreuters.com/pdf/2012-cmr-factbook-exc_cbr-en.pdf.

Figure 10: Top Ten Causes of Death by Income Group, 2004⁵⁹

High-income countries			Low-income countries		
Rank	Cause of death	% total deaths	Rank	Cause of death	% total deaths
1	Coronary heart disease	16.3	1	Lower respiratory infections	11.2
2	Stroke and other cerebrovascular diseases	9.3	2	Coronary heart disease	9.4
3	Trachea, bronchus, lung cancers	5.9	3	Diarrhoeal diseases	6.9
4	Lower respiratory infections	3.8	4	HIV/AIDS	5.7
5	Chronic obstructive pulmonary disease	3.5	5	Stroke and other cerebrovascular diseases	5.6
6	Alzheimer and other dementias	3.4	6	Chronic obstructive pulmonary disease	3.6
7	Colon and rectum cancers	3.3	7	Tuberculosis	3.5
8	Diabetes mellitus	2.8	8	Neonatal infections	3.4
9	Breast cancer	2.0	9	Malaria	3.3
10	Stomach cancer	1.8	10	Prematurity and low birth weight	3.2

By shifting R&D expenditures on infectious diseases away from the Phase III section of approval (which accounts for 39% of costs) and into the R&D and international role and line extension segments of the process, more new drugs can be developed for the people in the developing world who need them most (see Figure 8). Additionally, shifting R&D investments, by as little as 1-2% from each therapeutic area would have a huge effect on the development of drugs to fight infectious diseases ravaging the developing world today.

⁵⁹ Marc J. Roberts and Michael R. Reich (2011): <http://www.worldbank.org/pdf>.

Improvements to the delivery of medicines in the developing world environment:

There is a huge disparity between the population and pharmaceutical expenditures proportions. Most shocking is the 12.9% of the world population live in low-income countries who only receive 1% of pharmaceutical spending (see Figure 8). These differences can be attributed to a number of factors, including disparities in per capita income and per capita spending on medicines, the nature of the pharmaceutical markets (and health care) in those countries, and most importantly, access to medicines in these low-income countries.⁶⁰ Concurrently, the majority of deaths in low-income developing countries are preventable. The pharmaceutical industry has medicines for these diseases! Of the top ten causes of death for the low-income group, six-seven are preventable or treatable. The reason why so many people in the developing world still die from these diseases is they lack access to the medicines. Access is primarily affected by delivery of the drugs or logistics. Delivery involves the actual physical “ingestion” of the medicine. For example, many medicines need refrigeration which can be difficult to come by in the developing world where electricity is not guaranteed. Logistics is another aspect affecting the access of medicines. The in-country logistics cause particular problems, especially when creating supply chains to the rural regions of these developing countries. By shifting R&D efforts to drug delivery and in-country infrastructure projects, pharmaceutical companies can not only increase the potential market for their medicines but also assist the development of the country, improving its economic status and promoting the image of the company among consumers.

⁶⁰ Marc J. Roberts and Michael R. (2011): <http://www.worldbank.org/pdt> (37).

Consider investing in developing country pharmaceutical companies:

Developed country pharmaceutical companies can invest in developing countries' pharmaceutical companies. One way to do this is through mergers and acquisitions, which can be beneficial to the developed world pharmaceuticals' R&D efforts. A study conducted by two Emory university sampled companies that practiced this strategy of merging with developing country pharmaceutical companies to outsource R&D efforts. The study found that these companies often experienced significant financial gains and 71% of the companies either maintained or improved product portfolios after the acquisition.⁶¹ With such significant financial benefits for developed country pharmaceutical companies and a growing number of successful pharmaceutical companies in the developing world, this strategy is difficult to ignore as a viable way to increase profit and decrease R&D costs.

VIII. Conclusion:

This paper aims to educate readers on the viability of public-private partnerships for the resolution of international development related health issues. It accomplishes this by exploring existing public-private partnerships and enumerating the best practices in these partnerships. Through these examinations, it is apparent that more serious resources for partners seeking to effectively establish and maintain these partnerships need to be developed. In conclusion, this paper suggests and analyzes the opportunity for a consulting company to offer their services in the field of public-private partnerships for health development programs and gives some examples of the changes that pharmaceutical companies can make to facilitate public private partnerships.

⁶¹ Matthew J. Higgins and Daniel Rodriguez (2006):
https://smartech.gatech.edu/bitstream/handle/1853/10736/gt_tiger_outsourcing.pdf.

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