Emerging Nations' Healthcare Coverage

Organization of Healthcare in Brazil & India

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Abstract:

This paper is a comparative study containing information about current healthcare organization and infrastructure in place in Brazil and India, and subsequently, opportunities for improvement in both countries. As the economies of both of these nations have grown significantly in the past decade, this study aims to look at some of the repercussions and/or changes that have occurred in the respective healthcare systems as well as the changes in consumer access to healthcare. Accordingly, the main topics covered are healthcare system, insurance and healthcare coverage, and statistical data on the effectiveness of systems in place.

I. Introduction

In the modern world, leaders of countries have made decisions about healthcare organization and infrastructure based on various economic, social, and political factors. These are decisions that have affected people's livelihood and ability to be productive members of society. As one of the most important sections of most citizens' and/or governments' yearly spending, healthcare is a topic that is accompanied with differing opinions in regards to which type of system best provides citizens with quality services and proper access.

Usually, healthcare debates revolve around determining which method or structure provides the best healthcare for the least cost. Economically, cost minimization is the key component. Socially and politically, however, quality of healthcare and proper access are key components. Accordingly, the balance that a country finds between these factors in forming a healthcare system determines the scope and magnitude of that country's healthcare system and subsequent effectiveness. Essentially, a healthcare system can be organized in many different forms. Similarities may exist from country to country. However, as an aggregate, most healthcare systems individually differ from one another to effectively and efficiently provide access and minimize costs for all its citizens.

In the past decade, two of the fastest growing economies in the world are Brazil and India. Typically categorized as part of the four emerging BRIC countries, Brazil and India have seen regular economic growth rates upwards of 4% and 8% (The World Bank, 2004-2010). This average growth rate identifies the trend of foreign economies playing more important roles internationally in various economic sectors. In terms of healthcare, Brazil and India have seen growth in medical tourism by citizens of other countries looking for cheaper and quality healthcare services. Furthermore, the sector in each country is expected to see significant growth in the next few decades. Accordingly, it is important to understand the structure and constraints under which these two emerging economies are seeing growth in the healthcare sector. Further, it is important to understand which country offers the health system that will be most viable in the long-term. Therefore, this paper will compare the organization and infrastructure of healthcare as it applies to the citizens of Brazil and India. Then, this paper will show which system is currently more effective and which system is expected to be more effective in the long-term.

II. Literature Surveys

A significantly large amount of research has been conducted regarding the current status and prospects of healthcare in both Brazil and India. Primarily, a major area of concern for many in academia is whether or not the current systems in place properly fit the needs of citizens. The following research has attempted to provide answers to these concerns.

Literature Survey on Indian Healthcare:

In an *Emerging Market Report* on India by PriceWaterhouseCoopers, LLC (2007), India's healthcare system is described in detail. As noted in the report, "healthcare is one of India's largest sectors, in terms of revenue and employment, and the sector is expanding rapidly" (PwC, p.1). Accordingly, relevant implications of the progress of India's healthcare system are very important. In fact, the current value of the healthcare industry in India is roughly $34 billion, or 6% of GDP (p.1). According to Joanna Lan in her article, *Creation of a Sustainable Community (2009)*, this value is expected to reach over $75 billion dollars in 2012, and by 2017 the healthcare industry in India is supposed to be valued at $150 billion dollars. Concurrently, analysts see many potential problems that India could face as their healthcare industry rapidly grows.

Particularly, many of these problems are rooted in the structure of the Healthcare system currently set-up in India. According to the PriceWaterhouseCoopers report, the private sector accounts for more than 80% of total healthcare spending in India (PwC, p.1). In fact, multiple sources concur that the majority of this spending in the private sector is out-of-pocket expenditures by Indian citizens (Moneer, Gupta & Ellis, p.1). The options for healthcare coverage in India are very limited due to restrictive government policies and insufficient government spending on healthcare. Additionally, there are few insurance plans offered to citizens in the country. Statistics vary slightly in regards to how much of the Indian population currently holds health insurance. According to PriceWaterhouseCoopers, only 1% of the population in 2004-05 was covered by private health insurance and only about 11% of the population of 1.2 billion was covered by any sort of private and/or public insurance program (p.7). According to a study conducted by Randall P Ellis, Moneer Alam, and Indrani Gupta (October, 2006), the number of citizens insured in the private sector is as low as 0.2% of the population.

Many papers and journal articles argue that the government of India needs to spend more money in the healthcare industry in order to increase access and ease the burden of out-of-pocket

expenses that the majority of the population currently bears. In the National Health Policy of 2002, found in Ministry of Health of India records, "The public health investment in the country has been comparatively low, and as a percentage of GDP has declined from 1.3% in 1990 to 0.9% in 1999" (p.6). Although these numbers are slightly older figures, the government has continued to show its reluctance in spending on healthcare in the past decade. It was not until 2005 that the Indian government decided to raise its spending levels on healthcare to accommodate increasing demand and lacking infrastructure. The government committed "to raise public spending on health from 0.9% of India's gross domestic product (GDP) to 2-3% of GDP" (Sapathy and Venkatesh, p.30). This spending has increased in recent years, but it is still nearly not enough to accommodate the health and welfare of all citizens. As mentioned in the 2006 journal article by Randall P Ellis, Moneer Alam, and Indrani Gupta, a solution offered up by many of a government-run healthcare system in India is not a feasible or cost-effective one (p.3). Therefore, they believe that improvement in the healthcare system must be made through the private sector via the current and potentially new insurance possibilities. The article cites an important theme across recent Indian healthcare literature that explains how "it is desirable and appropriate for the public sector to increase its effort to subsidize, finance or provide primary health care services, and to seek other revenue sources for doing so" (Moneer, Gupta & Ellis, p.3). Effectively, the solution offered by Ellis, Alam and Gupta is to invest more public capital into the infrastructure of the healthcare industry, but to stay away from a fully government-run healthcare system.

Along with understanding the system, the primary question that some of these studies ask is whether or not people in India have access to healthcare in both urban and rural settings. Effectively, the question then emerges is if a government-run system is the wrong way to proceed with the healthcare industry in India, then what else can be done? Major factors in answering this question that have recently emerged are the actions of the National Rural Health Mission (NRHM). As mentioned in S.K. Sapathy and S. Venkatesh's 2006 paper on India's healthcare infrastructure, "the national rural health mission is an ambitious strategy of the government. It aims to restructure the delivery mechanisms for health towards providing universal access to equitable, affordable and quality healthcare that is accountable and responsive to the people's needs". Essentially, this body of the Indian Central government is devoted to providing healthcare access to citizens in rural areas. Still, according to the article by Sapathy and Venkatesh, "the public system in India suffers from shortage, imbalances, misdistribution, poor work environments, low productivity of personnel to urban areas or overseas" (p.30). Effectively, these problems have lead to poor results in terms of access to healthcare for not only the rural population, but also for the urban population.

Because of this situation, the private sector plays a large role in the Indian healthcare system. Nearly 70% of all physical hospitals in India are in the private sector (PwC, p.6). The central government does not spend nearly as much as other countries around the world do on healthcare (Gupta, p.383). According to the constitutional structure, "public health is the responsibility of the States. In this framework, it has been the expectation that the principal contribution for the funding of public health services will be from the resources of the States, with some supplementary input from Central resources" (Ellis, Moneer & Alam, p.5). Yet, the Ministry of Health believes that "the fiscal resources of the State Governments are known to be very inelastic" (p.5).

India is one of the largest economies in the world, yet she is quickly falling behind in regards to the healthcare and insurance industries. Although India's healthcare industry is expected to significantly expand in the next decade, growth in the insurance industry is not as assured. Many citizens in India have not believed in insurances systems, particularly health insurance. The report indicates that many people are still reluctant to purchase health insurance, and they are likely to take their chances with the healthcare costs once they fall ill. Yet, as the article states, there is still significant room for growth in the insurance industry in India that currently only includes less than 5% of the population. In fact, only 2% of the population currently has health insurance. The article cites many different insurance providers in India that offer health insurance and life & health insurance combinations. However, these policies and companies issuing policies come with their own set of problems. According to the report, common negative factors include inferior service when insurance providers own facilities, rejection and unwarranted reimbursement delays, service limitations, and inadequate coverage and medical information (Gupta, p.383). Although these insurance companies and government options are currently being reformed to market to a broader base of consumers, the report estimates that many people will still remain without health insurance in the near future.

Globally, India is far behind in terms of the insurance market. According to the report, "the global life insurance market stands at $1,521.2 billion while non-life insurance market is placed at $922.4 billion" (Gupta, p.384). While the United States accounts for about a third of this amount, India falls far behind at a mere 0.4% share of the market. Currently, the Indian government and the Indian private sector are trying many new plans and initiatives to get the insurance industry in India going. There are multiple government plans that are offered to a select group of people as well as private industry options. The market is there, but it just needs to be tapped. Currently, India's savings per capita rate is 25 percent. However, less than 5% is spent on insurance in India. Analysts are hoping that the private industry will be the catalyst to create a larger market for the insurance industry in India. The government of India in 2005 pledged to get the healthcare insurance industry going as they plan to spend nearly 2% of their GDP on

healthcare, or 22% of their overall spending. The increased spending will be for current programs in preventive healthcare, creating better quality healthcare in India, and offering better government options and/or subsidies for insurance.

Literature Survey on Brazilian Healthcare:

Brazil is a country that has a much different healthcare system than other BRIC countries. Particularly, the system can be broken down into two tiers. As noted in the article by Denisard Alves and Christopher Timmins on Brazil's Two-Tiered System, "those with sufficient means have access to a private system of healthcare that provides quality treatment on demand, while the remainder of the country relies on an overburdened system of public clinics and hospitals" (Alves and Timmins, p.3). A big issue with this healthcare infrastructure is the growing concern of future projections that the public healthcare system will be even more burdened as time goes on. This ongoing problem in the healthcare system is of greater concern when one considers that, similar to many other countries, the public system consists of questionable quality healthcare, little funding, and long wait times. One can only imagine what the future will be like as money runs out and the lines get longer.

Additionally, another major area of concern for the Brazilian government is the fact that much of their population is aging. The article mentions that currently the population of citizens older than 60 years is only 6.7%. However, this number is expected to grow to 16.9% by 2030. Consequently, as the population gets older, the public healthcare system that is already at maximum capacity will reasonably be overburdened as the years go on. The following charts outline the expected population trend in Brazil:

Figure 1.1

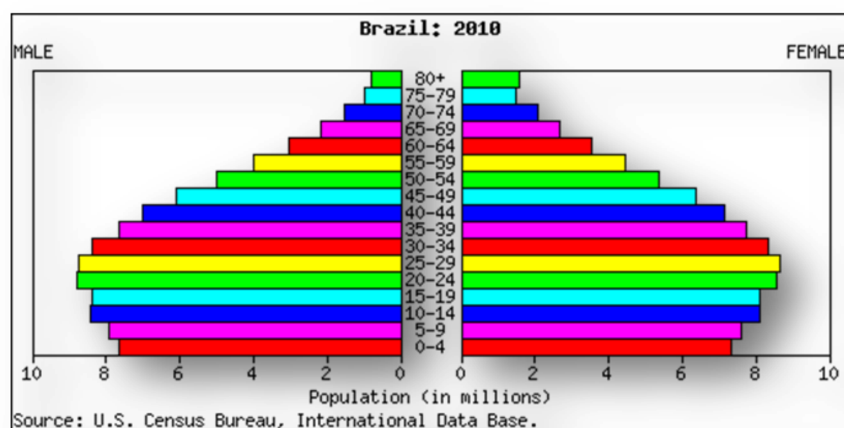


Chart obtained from www.nationmaster.com

Figure 1.2

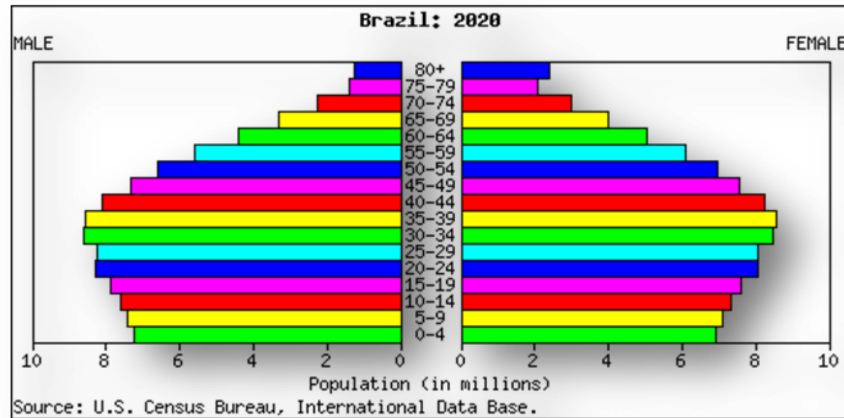


Chart obtained from www.nationmaster.com

An important concern is that "growing demand due to the increasing size of the poor, elderly population, as well as the increasing cost of treatment for a limited supply of public health services, will mean that the poorest segments of Brazilian society will begin to lose access to healthcare" (p.5). Essentially, there is expected to be a systematic denial of healthcare to the lower class in Brazilian society (p.6). This completely counters the Brazilian healthcare system's "belief that individuals and households should, at the most basic level, be protected by the public sector" (p.7).

Although there is a significant portion of the population that has health insurance in Brazil, this coverage is not enough to cover many of the costs of healthcare. Furthermore, a major problem is that the demand for healthcare is high; however, there is not enough in the infrastructure to meet this demand. The article mentions that

> "Public health figures show the persistence of endemic diseases, leading to an annual mortality rate of 0.6 percent (i.e, approximately 1 million people). The UN estimates that the Unified Health System provided for 12.6 million hospitalizations in about 2,000 public and private hospitals in 1995, and 1.2 billion consultations in out-patient clinics.

> Similarly, there are some 507,000 hospital beds in Brazil (about 1 per 300 members of the population), of which about one third are in public establishments" (p.7).

The lack of necessary healthcare infrastructure causes major concern over whether or not Brazil will be able to meet the increasing demand of healthcare for its citizens in the future. Nearly 50% of the population of Brazil relies on this public system that is short of supplies, medical professionals, and the necessary infrastructure.

The government-run healthcare system in Brazil is known as the SUS (Sistema Único de Saude). The SUS is a "decentralized system that provides healthcare by districts down to the municipal level" (p.7). The Federal government supplies funding to municipal governments who then allocate resources to hospitals and clinics based on their discretion. The SUS was started in 1988 upon the adoption of the new Brazilian constitution and was intended to be a fully-funded public healthcare system ("What is SUS"). There are many critics of this healthcare system as many contend that Brazil spends too little on healthcare. The article cites that Brazil only spends "about 4.2 percent of GNP each year, a low figure relative to some of Brazil's neighbors and countries like India" (p.9). Additionally, per capita spending on healthcare is only at $80, whereas this figure is much higher in other developing and developed countries of similar nature.

A potential for growth in the healthcare industry, however, is the insurance industry. The article by Alves and Timmins mentions that "private healthcare in Brazil has grown rapidly, with about 26 percent of Brazilians covered by such plans. The plans vary a great deal in terms of price and quality but usually exclude expensive, catastrophic conditions, leaving them to be covered by the public system" (p.8). Therefore, there is growth in this industry, but the burden still remains on the government.

This burden is proved in the government's guarantee for healthcare in its constitution. As mentioned in the legal study titled *The Right to Health in Brazil*, "the right to health is guaranteed, under the terms of article 6 of the Brazilian Constitution as a social right" (p.2). From the Constitutional Act itself, "Health is the right of all and the duty of the State, granted by means of social and economic policies that aim at reducing the risk of disease and of other maladies, and at providing universal and equal access to the actions and services that promote health, protection, and recovery" (p.2). However, this burden placed on the government by the national constitution is primarily for the municipal and state governments as they are responsible for paying for healthcare benefits of their constituencies ("Health Situation", PAHO).

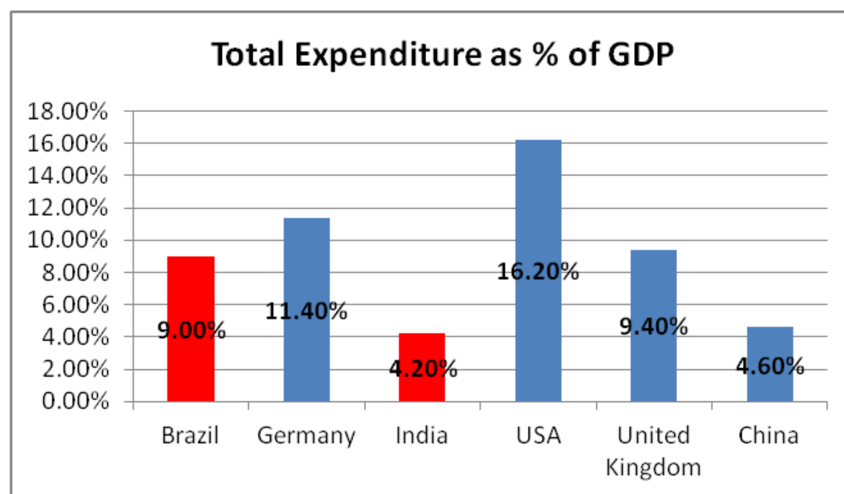
This burden placed on the state, and particularly municipal governments, has not resulted in the best quality of healthcare. The problem with Brazil's healthcare system is not that there is no legal access to healthcare since everybody is covered under the constitution, but rather the problem is of implied access because not everybody can afford to wait in long lines or travel distances to get medical treatment (Albuquerque, Palmieri, Peirera, and Cassemiro, p.24).

III. Comparative Study

Both Brazil and India currently have rapidly emerging economies – a growth that has implications on the future viability and sustainability of both countries. As a component of this growth, the structure and composition of respective healthcare industries in either country is an important factor to consider for both future viability and sustainability. Primarily, the goal for both countries is to understand what the best possible methodology is to provide healthcare services and coverage to all Brazilian citizens in Brazil and all Indian citizens in India.

Both Brazil and India have complex systems currently in place that are neither completely free-market nor completely government-run. Brazil's constitution and the SUS health system guarantees healthcare for all Brazilian citizens. This is effectively a government-run healthcare system. However, there are many private, free-market components to this system that have risen due to limited access to healthcare under the government-run SUS. On the other hand, the Indian government has pledged a much smaller role in healthcare coverage for its citizens. Relatively speaking, the Indian government spends comparatively less on healthcare than other emerging nations and even undeveloped nations. Figure 1.3 outlines total spending on healthcare as a percentage of GDP of major countries:

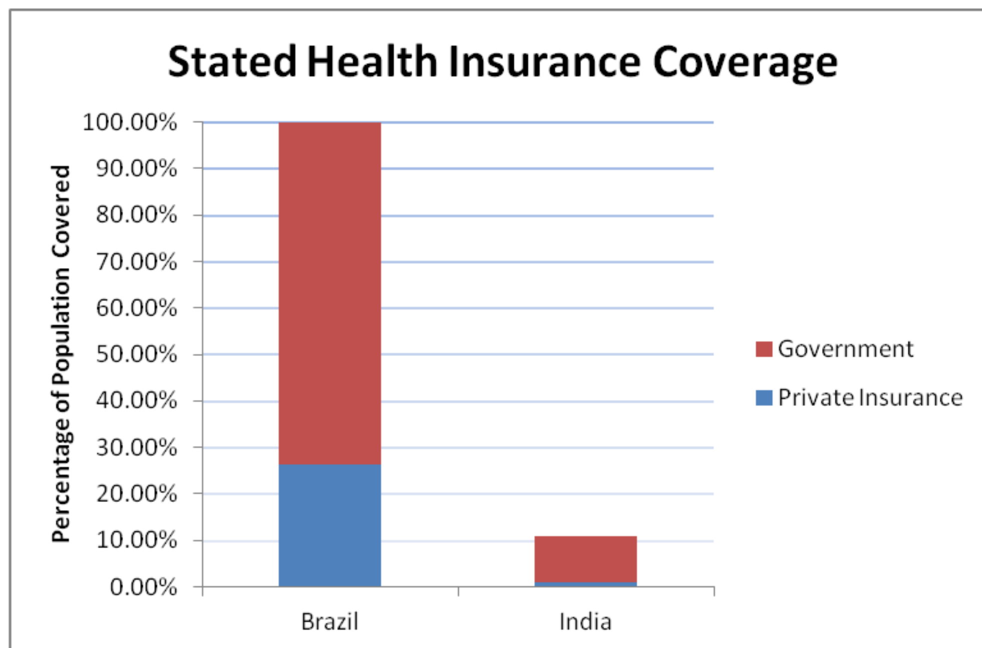
Figure 1.3



Source: World Health Organization, 2009 data.

Compared to other nations around the world, India is ranked 69th in healthcare spending as a percentage of Gross Domestic Product only spending 4.2% of its GDP in 2008 (Kaiser Family Foundation). The Indian healthcare system caters more to the private sector, which accounted for nearly 80% of all healthcare related spending in 2007 (PwC, p.1). Below, Figure 1.1 compares the healthcare coverage details in both Brazil and India:

Figure 1.4



*Source: Kaiser Family Foundation, Data for 2008

Comparing both of these graphs shows that India is far behind in terms of healthcare coverage. Most of India’s population today does not hold any type of healthcare coverage and will most likely have to rely on savings or take out a loan in the case of a healthcare emergency. In fact, for those who are poorer in India, even this is not an option. I believe that this is a relevant issue when considering India’s healthcare system because nearly 10.5% of the Indian population lives on less than $1.25 per day. Compare this to Brazil’s 1.1% that lives on less than $1.25 per day,

and one can see that India has a much more pressing issue in terms of healthcare coverage. Outlined in Table 1.1 on the next page is a more detailed comparison of Brazil and India that breaks down important health statistics and spending rates for both countries.

Table 1.1 **Comparison of Government Involvement and Financial Statistics in Healthcare Industry**

	Brazil	**India**
Type of Coverage System	Two-Tiered (Government and Private Insurance)	Predominantly Private with minimal government spending
Which part of Government pays?	Municipal and State Governments	State Governments with assistance from Central Government
Spending on Healthcare as a % of GDP	8.40%	4.20%
Dollars Spent on Healthcare	$138.82 Billion	$50.98 Billion
Health Expenditure per Capita	$875	$122
Health Expenditure as a % of total Government Spending	6.00%	4.40%
Private Expenditure on	56.00%	67.60%

Health		
Government Health Expenditure as percent of Total Health	44.00%	32.40%
Out-of-Pocket Expenditure on Health	57.10%	74.40%

*Source: Kaiser Family Foundation and World Data Bank, Data for 2008

While these numbers are similar and different in many categories, the primary question that arises in interpreting these numbers is whether or not the system is effective and whether or not the system provides healthcare access for all its citizens.

The last row of Table 1.1 shows to what extent citizens pay for healthcare out of their own pockets, implying a lack of healthcare coverage or limited access to proper healthcare coverage. In Brazil, the high percentage of out-of-pocket expenditure is surprising because the government guarantees to pay for all healthcare expenses that its citizens occur, as stated in the Brazilian Constitution in Article 6 (Albuqurque, Palmieri, Peirera, and Cassemiro, p.2). Yet, due to underfunding of the system by the SUS (Sistema Único de Saúde), there is a "lack of doctors and nurses, followed by lack of medication" (p.8). Accordingly, the system is not able to provide healthcare in a timely manner to its citizens because of a lack of infrastructure in place. This means longer lines, increased bribery and extortion by officials, and simply lower quality healthcare (p.12). In my opinion, this is a major reason that citizens dismiss much of the government-run healthcare system and look elsewhere for coverage. Brazilians who forgo the government system and choose to pay out-of-pocket or purchase health insurance are probably better off in trying to get quicker access to better health care. Additionally, another note on access that must be made is the fact that there are many rural regions in Brazil that do not have access to healthcare for multiple miles. These regions are also in some of the poorer states of Brazil and represent over half of the country's population. Therefore, even though legal access is guaranteed by the SUS, implied access to proper healthcare is a major issue in Brazil.

On the flipside, India has similar healthcare access issues due to its limited healthcare structure. In India the cost burden of healthcare is primarily on the state governments. Therefore, there are many variances in statistical data regarding which state does better or worse compared to another state. Typically, however, there are a limited number of public funds to go around in general which means that the majority of the cost burden is actually placed on Indian citizens. This has led to the rather high percentage of out-of-pocket expenditures in healthcare in India. To add to this, only 1% of the population holds some form of insurance in the country, and there is no real movement in terms of expansion of the insurance industry in India. In fact, until 2007, the Indian government imposed tariffs on those who purchased health insurance policies – effectively, a disincentive to purchase health insurance.

In rural areas, limited access to healthcare combined with no coverage means dire consequences for many Indians. According to the PwC report, "the physical infrastructure is woefully inadequate to meet today's healthcare demands, much less tomorrows" (p.5). Effectively, the Indian government does not currently have enough healthcare infrastructures in place to meet demands of the population – this includes funding, physical locations, and skilled medical professionals.

The following table compares the available medical professionals per every 10,000 people in each country.

Table 1.2 Comparison of Medical Professionals

	Brazil	**India**
Skilled Physicians	17	6
Nurses and Midwives	65	13
Community Health Workers	N/A	1
Hospital Beds	24	9

*Rates per 10,000 people

Compared to other developing countries around the world, Brazil has relatively similar numbers of medical professionals in the country. However, the serious situation is in India which has an incredibly limited number of medical professionals. A major problem that has risen and created a lack of credible medical professional is that there are not enough credible medical schools and training programs in the country to accommodate the rapid population growth that India has seen for the last few decades (Walker, p.2). In addition, many qualified medical professionals that graduate from top universities in India are emigrating to pursue opportunities in the U.K. and United States. According to Fitzhugh Mullan, "current data indicate that 59,095 Indian-educated physicians are working in the United States, the United Kingdom, Canada, and Australia. They constitute 4.9 percent of the U.S. physician workforce and 10.9 percent of the U.K. physician workforce" (Fitzhugh Mullan, p.386). Out of about 5,000 yearly graduates from Indian medical schools, 1,200 enter into the U.S. residency system each year (p.386). This is significant to the Indian healthcare system because many of these physicians can be very useful in India where access to qualified professionals is limited.

IV. Conclusion

As two of the major emerging economies of the world, both Brazil and India have healthcare systems that differ greatly in terms of structure and healthcare access. While the government of Brazil has legally guaranteed healthcare access to all of its citizens through the SUS, the Indian government does not play a major role in its healthcare system as the private sector shoulders this burden. Still, the expanding healthcare sectors in each country have drawn attention to the fact that there are some serious issues in both countries. The two governments have significantly increased government spending on healthcare infrastructures to match increased demand by the populations. The Indian government has begun to invest in rural areas of the country to provide healthcare access to citizens in less developed areas. However, there still remain issues of access, cost burden on citizens, and poor infrastructure.

On the face Brazil has the better system that provides more access to more people. In addition, Brazil's government seems to spend significantly more money than India does for healthcare. Yet, surprisingly enough, comparing the two countries' out-of-pocket expenditures percentage shows a similar number of costs are paid for out-of-pocket in both countries. Considering that Brazil guarantees 100% healthcare coverage to its citizens, why are 57.10% of the country's

healthcare costs paid for out-of-pocket? In addition, why do 26% of all citizens insure themselves when the government is providing full coverage? In effect, Brazil's healthcare system is similar to India's in that it relies heavily on the private sector to shoulder the cost burden of healthcare. A primary reason for this, as discussed in the analysis, is the long wait times and poor medical care provided by hospitals and medical professionals in Brazil's government-run facilities. Furthermore, because a large majority of hospitals in Brazil are located in the populated areas with middle to upper-middle class citizens, many lower class citizens in rural areas are implicitly denied access to healthcare. There are many citizens in Brazil who must travel many miles before they are able to reach a hospital or healthcare facility. Although there is 100% legal access to healthcare in Brazil, there is not nearly as high of a percentage of implied access to healthcare.

On the flipside, India is no perfect system either. In India there is neither legal access nor implied access. The government simply does not play a major role in healthcare. The private sector has the potential to play a major role if insurance companies can convince citizens to purchase health insurance. Currently, only about 1% of all Indian citizens hold a form of health insurance to protect themselves from inopportune costs. Effectively, there is significant room for growth in the insurance sector. Furthermore, India is far behind Brazil in maintaining more medical professionals in its hospitals. This must change to match demand from a growing population and healthcare sector.

In my opinion, as the systems stand today, the Indian healthcare system is more viable in the long-term. In terms of effectiveness, Brazil is far superior to India as it stands today. Although Brazil has its own access and funding problems, the system provides access to a significant portion of the population free of charge. This government-guaranteed system, however, is not sustainable in the long-term. Brazil is already experiencing many problems in funding and access when the country is currently an emerging economy. There will come a point in the future where the country will not be economically booming and will face rather large deficits because they have a government-guaranteed healthcare system. In addition, Brazil's government healthcare system faces significantly worse problems in overcrowding in the future as their population continues to age. An older population will only mean more demand for healthcare services and subsequently a greater cost burden on Brazil's state governments.

The Indian healthcare system is more viable long-term because of two reasons: 1) significant savings rate of 25%, and 2) health insurance growth opportunity. Until 2007, the Indian

government taxed and put tariffs on health insurance that created a deterrent for potential health insurance buyers. However, as that policy has been revoked and the Indian health sector is expected to expand from $34 Billion to over $150 Billion by 2017, there is potential for the health insurance industry to significantly expand in India. Combine that with the rather high savings rate, and India's private health sector may eventually be able to provide much better access and coverage to its citizens at relatively low costs. Of course, investment must still be made in the healthcare sector by the Indian government to improve access in rural areas. The Indian government has shown the willingness to do exactly this through its National Rural Health Mission (NRHM). The government investing to improve healthcare access combined with the private sector's insurance growth opportunities will likely create a more viable healthcare system in India than that of Brazil.

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