

REVIEW OF HEALTH CARE MODELS OF BOTH DEVELOPED AND DEVELOPING COUNTRIES

INTRODUCTION

As Paul Russel has very aptly remarked – “Nothing on earth is more international than disease. Health and disease have no political, economical or geographical boundaries”; and yet the manner in which different societies and countries have responded to the challenge of overcoming disease has been varied, giving rise to different models of health systems and health services in different countries of the world. These systems have had a different social, economic, cultural and political context and a guiding ideology that tempered their development. Each of these systems offer experiences of health care in different contexts – the resource rich developed countries of the West, the relatively resource constrained middle income developing countries and the low income developing countries; market economies, socialist economies, mixed economies and the like, with varying degrees of success in alleviating the people’s suffering as reflected in the health indices of the respective countries.

India’s achievements in health outcomes remain far from satisfactory. However, there have been concerted efforts over the past few years to revitalize health care, especially in the rural areas and now the 12th Five Year Plan has embarked on the ambitious project for ‘Universal Health Coverage’. In this context it would be pertinent to look at the experiences of different countries and draw appropriate lessons for strengthening of the public health system in India. This document elucidates an extensive review of literature to express this purpose.

THEORETICAL CONCEPTUALIZATION OF REVIEW

The WHO defines – “Health is a state of complete physical, mental and social well-being and not merely the absence of disease or infirmity” (WHO, 1946). The most direct implication of this definition is that it underscores the importance of a number of sectors other than health care delivery in ensuring the health of the populations. For example, the primary objective of economic development - wise economic growth or overall human development has the most direct impact on development of the health care delivery system. Some of the components like food security and nutrition are generally not the direct responsibility of health care delivery systems, yet no health can be conceptualized without putting in place a mechanism to ensure the food and nutrition security of the population. Similarly the importance of literacy for enhanced health outcomes cannot be over emphasized. All these aspects in turn are impacted by the overall political and ideological underpinnings of the society.

Accordingly then an understanding of the different ‘Healthcare Models’ ought to be nested in their overall social, economic, cultural and political context to enable us to draw appropriate lessons for modeling health systems / healthcare delivery systems in a given country, region, district or place. However, this understanding has been modulated

differently by policy makers, health administrators or researchers from the point of what is considered expedient to improve the performance of health system or healthcare system for achieving the desired impact. This review shall endeavor to reflect as comprehensive an understanding of the 'Healthcare Models' as possible to enable a holistic understanding of how we may progress in furthering the health of the people.

A convenient approach in this regard would be to use an available and well acknowledged structure to define and quantify health systems and healthcare delivery processes. In this respect WHO has come forth with its conceptualization and methodology of monitoring what have been described as the 'Building Blocks of Health Systems' (WHO, 2010). This approach underlines the following as the 'Building Blocks of Health Systems'(WHO, 2010):

1. Health Service Delivery
2. Health Workforce
3. Health Information Systems
4. Access to Essential Medicines
5. Health Systems Financing
6. Leadership and Governance

This conceptualization of 'Building Blocks of Health System' while being expedient for mapping out the deficiencies in health care delivery systems, planning for requisite interventions to improve their efficiency and monitoring the progress in their implementation falls short on contextualizing the larger social, economic, cultural and political milieu which plays the formative role in defining the aforementioned 'building blocks'. WHO document itself states – "It does not take into account actions that influence people's behaviors, both in promoting and protecting health and the use of healthcare services. The framework does not address the underlying social and economic determinants of health" (WHO, 2010).

In the framework proposed for a comparative review of different 'healthcare models' this deficiency has been sought to be overcome by adding newer dimensions to the aforesaid six. Accordingly, the following structured format to facilitate the review of 'Healthcare Systems' of specific countries is being proposed.

PLAN OF THE HEALTH SYSTEMS' REVIEW

In this review we are discussing the health systems of selected developing countries only from around the globe. Before we move further it is important to explain this exclusion, for unlike successful developing country models, it is often the developed country models that grip the fancy of our policy planners and also the fact that it is these countries that maneuver policy through the long handle of aid.

The table below gives the per capita cost of healthcare in selected developed countries compared to India.

Indicator	U.S.A	Canada	U.K	Japan	Singapore	Australia	India
Per capita total expenditure on health (PPP in int. \$) (2011)	8607.9	4520.0	3321.7	3174.3	2787.0	3691.6	0141.1
Per capita government expenditure on health (PPP int. \$) (2011)	3954.2	3182.6	2747.0	2539.6	0864.5	2529.2	0043.8

Source: Global Health Observatory Data, WHO.

As per our view, a country spending a total of 141.1 international dollars per capita on health, of which also merely 43.8 dollars coming from the government, there can hardly be a comparison with countries spending upwards of dollar 3,000 per capita. The way these countries dispense healthcare is neither feasible for India nor desirable, at least not with the given level of our socioeconomic development. The more obvious models of choice would come from countries which have achieved major improvements in the health of their people through lower cost interventions with assured access to healthcare for the people. Hence, there is a greater need to draw comparison with some of the better performing developing countries. Nonetheless, the official policy does not appear conducive to this view point at the moment given the manner in which the American managed care model is being pushed in the country as the mainstay of the 'Universal Healthcare' that has been so vigorously argued in the 12th Five Year Plan document.

In the end a comparative table of selected indicators across different developing and developed countries is given followed by recommendations on features of health systems of different countries that can be or need to be adopted/adapted for India. For each country, sections on Political and Economic Profile, Social Development Profile, Historical Context of the 'Health Systems Development' and Present Trends, Health Service Delivery Structure, Health Financing, Health Workforce, Health Information Systems, Health Outcomes and the Impact of the Healthcare Delivery System have been discussed (in that order).

The countries included in the review have been chosen in view of the variety of the systems and societies they represent, as also the diversity of their achievements in different settings.

HEALTH SYSTEM OF CUBA

In international public health, achievements of no other national system of health have been sought to be undermined through a conspiracy of silence as much they have been in case of Cuba. This fact becomes even more conspicuous when we realize that to improve their healthcare, the resource starved developing { countries } around the world have a lot more to

learn from Cuban healthcare than they need to from the profligate healthcare systems of the developed capitalist countries.

The need to look towards Cuba couldn't be more emphatically underscored than this fact that the life expectancy in Cuba is 78yrs, the same as in the U.S. and that too for a per capita annual expenditure that is barely 4% of the per capita health expenditure in the U.S (Fitz, 2012). Infant mortality rate of Cuba is less than that of the US and is less than half of the U.S. black population (Cooper et. al, 2006). Many a chronic and acute infectious diseases have already become history in Cuba. Some of these with the year of their eradication are - polio (1962), malaria (1967), neonatal tetanus (1972), diphtheria (1979), congenital rubella syndrome (1989), post-mumps meningitis (1989), measles (1993), rubella (1995), and TB meningitis (1997) (Perez, 2012).

The renewed efforts of the countries to meet the health needs of their people in an era when the global sheen of neoliberalism is fast eroding, could well be a harbinger of the much awaited change in the right direction.

Cuban health system is strongly underpinned by the Socialist ideology of the country wherein healthcare is enshrined as fundamental right in the constitution of the country and is available to all equally, free from the ability to pay or the influence of the market forces (Schwab, 1997:18; Roemer, 1976.). From early on after the revolution, the Cubans emphasized a systems analysis approach to health that recognized health to be a function of the interaction between biological, environmental and social wellbeing of the individuals. Accordingly they christened their healthcare system as *medicina general integral* (MGI, comprehensive general medicine) that emphasizes prevention and early treatment of the patients. Natural consequences of the Cuban approach to healthcare have been the realization that more lives are saved from preventive interventions like nutrition and hygiene, that traditional systems have their own healing mechanisms and there is a need to learn from them (Fitz, 2012). This stands in sharp contrast to the costly diagnostic and curative treatments that are the first line of intervention in "modern" western medicine.

Cuba has a crude death rate of seven per thousand and the infectious diseases account for only 0.1% of deaths. In the past four decades these diseases have gradually been overtaken by non-communicable diseases, which today account for more than 90% of deaths. The three leading causes of all cause mortality are heart disease, malignant neoplasm, and cerebrovascular and cardiovascular disease, accounting for 58.9% of deaths (WHO, 2013a).

Economic Profile of Cuba

Despite the U.S. economic blockade for more than three decades the Cuban economy managed an average annual growth rate of 3.1% (WHO, 2013). Cuba's socialist pattern of economy underwent a serious crisis with the collapse of the 'Soviet Bloc' in 1989. To tide over the crisis Cuban economy entered what is called 'special period' that entailed considerable restructuring of the economy and opening up of certain sectors of the economy to private enterprise. Of late the government has expanded opportunities for self employment and has introduced limited reforms; some (initially) implemented in the 1990s to increase

enterprise efficiency and alleviate serious shortages of food, consumer goods, services and housing. Since 2000 Venezuela has emerged as the chief supplier of cheap energy for Cuba, at least a part of which is being repaid in kind by the services of some 30,000 Cuban health professionals working in Venezuela (Index mundi, 2013a).

In 1993, Cuba's GDP was 65% lower than what it was in 1990. The country began to recover during the period 2000-2005,. Over 60% of current budgetary expenditures have been allocated specifically for health, education, safety and social welfare (WHO, 2013a).

Some selected economic indicators of Cuba are (Index mundi, 2013a):

- GDP (official exchange rate) - \$57.49 billion (2010 est.)
- GDP - real growth rate - 1.5% (2010 est.)
- GDP - per capita (PPP) - \$9,900 (2010 est.)
- GDP - composition by sector- agriculture: 4%; industry: 20.8%; services: 75.2% (2011 est.)
- Poverty head count ratios - Not available.

Socio-demographic Profile

Demographic profile

Indicator	Year	Estimate	Source
Sex ratio (women / 100 men)	2011	99	UN statistics division*
Annual population growth rate (%)	2005-2010	0.2	UN Population Division
% of population in urban areas	2007	75	UN Population Division
Annual rate of population change (%) – Urban / Rural	2010-2015	0 / 0	UN Population Division
Crude birth rate (births per 1000 popl.)	2007	10.5	UN Population Division
Crude death rate (births per 1000 popl.)	2007	7.6	UN Population Division
Improved drinking water coverage (%) – Total/Urban/Rural	2008	94/96/89	UN statistics division*
Improved sanitation coverage (%) – Total/Urban/Rural	2008	91/94/81	UN statistics division*

Source: Except* the rest of data and source are as mentioned in - Country profile, Cuba, WHO. Available from: <http://www.who.int/countries/cub/en/>

Literacy profile

Indicator	Year	Total (%)	Men	Women	Girls share of enrollment
Adult (15+) literacy rate, by sex	2009	100	100	100	-
Youth (15-24) literacy rate, by sex	2009	100	100	100	-
Primary net enrollment ratio, by sex	2010	-	99	99	48
Secondary net enrollment ratio, by sex	2010	-	86	85	48
Tertiary gross enrollment ratio, by sex	2010	-	72	119	61

Source: United Nations Statistics Division.

Employment profile

Indicator	Year	Total		
Total labor force*	2011	5.153 million	78% (state sector)	22% (non-state sector)
Employment by sectors (%)*	2005	Agriculture (20), Industry (19.4), Services (60.6)		
Adult unemployment (%)	2008**	1.4 (males)	2 (females)	

Notes: *Source: Index mundi, 2012. ** Data for males refers to ages 17-60 and data for females to ages 17-55, data from household or labor force survey.

Meta indicators

Indicator	Year	Value	Source
% Seats held by women in the national parliament	2011	43.2	Millennium Development Goals Indicators - UN.
Gender inequality index (GII)	2011	.337	UNDP International Human Development Indicators
Gender parity index in primary level enrolment (ratio of girls to boys)	2009	0.98	Millennium Development Goals Indicators – UN
Global Hunger Index	2012	4	(IFPRI). Global Hunger Index 2012, 2012
Human Development Index (HDI)	2011	.776	UNDP International Human Development Indicators

Cuban healthcare services system and indicators

The Cuban healthcare system was created by the Cuban Ministry of Public Health in 1961 and is responsible for providing universal health care to all Cubans. The guiding principles of healthcare in Cuba are laid out in the Public Health Act of 1983 wherein the government bears the responsibility for “free universal access, an emphasis on prevention and public participation, the intelligent employment of technological advances, the total integration all systems and levels of care, and working in medical cooperation with foreign nations” (Sanchez, 1999).

Organization of Cuban health system at municipal, regional and the national level corresponds with the similar organization of country's administrative units. The system is organized into mini-polyclinics, polyclinics, regional hospitals and national level health institutions (Iatridis, 1990: 30). By the 1990s the Cubans reached a strategic goal wherein the primary healthcare needs of a block of about 120 to 160 families were entrusted to a team of family health physician and a nurse (Feinsilver, 1993). As of 2006 Cuba had 31,000 family physicians with a doctor: population ratio of 1:170 (Cooper et.al, 2006).

In 1996 the system included 66,263 hospital beds (6.0 per 1,000 inhabitants) and 14,265 beds in social welfare institutions (1.3 beds per 1,000 inhabitants). Medical care is provided through a network made up of 281 hospitals, 11 research institutes, 442 polyclinics, and a contingent of family doctors practicing in workplaces and schools in the community. In addition, there are 164 health posts, 209 maternity homes, 26 blood banks, and 4 health spas. Oral health care is provided in 168 dental clinics. Social welfare services include 190 homes for the elderly and 27 homes for disabled persons of different ages and with various types of impairment. In 1996, admissions totaled 1,419,895 (12.9 per 100,000 inhabitants). In the same year, there were 77,499,250 medical visits (7.0 per person). 28,350 Family doctors, provide 97% of the national coverage, provided 74% of the outpatient consultations. The number of dental visits per person in 1996 (1.6) (PAHO, 2013).

Selected health service indicators of Cuba:

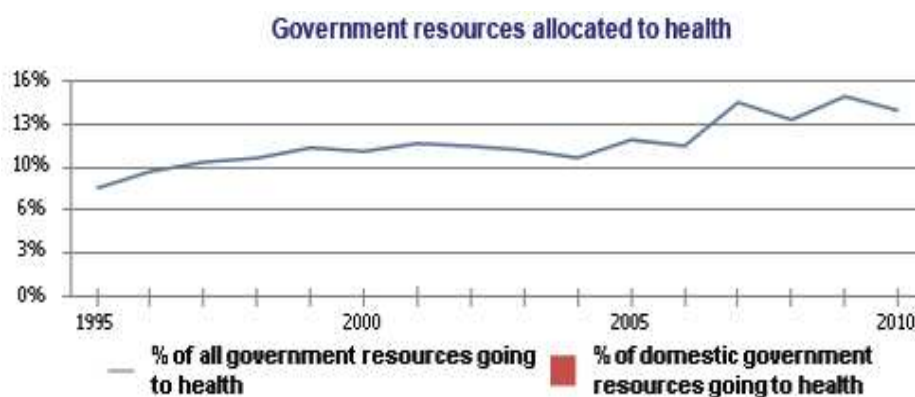
Indicators	Year 2010
Births attended by skilled health personnel (%)	99.9
Dentistry personnel density (per 10 000 population)	16.32
Nursing and midwifery personnel density (per 10 000 population)	90.53
Density of environment and public health workers (per 10 000 population)	2.46
Density of pharmaceutical personnel (per 10 000 population)	4.09
Physicians density (per 10 000 population)	67.23
Hospital beds (per 10 000 population)	59

Health financing in Cuba

The following indicators for health financing are reflective of the political commitment of the state towards healthcare of the people.

Indicator	Year		
	2008	2009	2010
Total expenditure on health (TEH) as % of GDP	10.1	12.1	10.6
External resources on health as % of TEH	0.2	0.1	0
General government expenditure on health (GGHE) as % of TEH.	95.3	92.7	91.5
Private expenditure on health (PvHE) as % of TEH	4.7	7.3	8.5
GGHE as % of general government expenditure	13.2	14.9	13.9
Private insurance as % of PvHE	0	0	0
Out of pocket expenditure as % PvHE	100	100	100
Total expenditure on health / capita at purchasing power parity (NCU per US \$)	399	431	478
General government expenditure on health / capita at purchasing power parity (NCU per US \$)	379	411	443

Source: WHO, Cuba – National Expenditure on Health (Cuban Peso), Available from: http://apps.who.int/nha/database/StandardReport.aspx?ID=REP_WEB_MINI_TEMPLATE_WEB_VERSION&COUNTRYKEY=84631 on 7th Feb 2013.



Source: WHO Global Health Expenditure Atlas, 2012, p 70.

It is noteworthy from the figure above that even during the acute phase of economic crisis in Cuba during the 1990s, unlike many other developing countries, the health expenditure of the Cuban government kept increasing. What about more recent 2007-08 financial crisis

Cuba – health outcome indicators (2010)

Indicator	Sex	Cuba	Regional average	Global average
Life expectancy at birth (yrs)	Male	76	73	66
	Female	80	79	71
	Both sexes	78	76	68
Infant mortality rate (probability of dying between birth and age 1 per 1000 live births)	Both sexes	5		

(8)

Under five mortality rate / 1000 live births	Both sexes	6	18	57
Adult mortality rate (probability of dying between 50 and 60 years per 1000 population)	Both sexes	99	125	176
Maternal mortality ratio (per 100 000 live births)	-	73	63	210
Prevalence of HIV (per 1000 adults aged 15 to 49)	-	1	5	8
Prevalence of tuberculosis per 100 000 population	-	13	36	178

Source: WHO, Cuba Health Profile, year 2010. Available from: <http://www.who.int/gho/countries/cub.pdf> on 7th Feb 2013.

Take home points

Positives

- Cuba is a middle income country that has maintained its commitment towards the social and economic welfare of its people despite tremendous economic odds due to the U.S. economic blockade and withdrawal of special economic relationship with the erstwhile Soviet bloc.
- Cuban government spends more than 60% of its budget on health, education, food security and other social welfare schemes.
- Cuba does not seem to have been captive of economic growth fetish, but has been able to maintain a moderate economic growth against heavy odds.
- Cuba has attained good health outcomes at a per capita expenditure on health that is considerably lower than the average in the Americas and the Caribbean.

Literacy, employment and women's empowerment are crucial determinants of health outcomes. In all these parameters Cuba's achievements have been laudable. Women's share of enrolment in tertiary education is remarkably higher than that of the males, while they occupy nearly 50% of seats in the parliament. These achievements are further amplified if we compare this with the state of reservation of seats for women in Indian parliament. These achievements have definitely gone a long way in building Cuba's achievements in health outcomes.

Negatives

- There are crucial infirmities in the Cuban economy which constrict the government's ability to further elevate the standard of living of the people relative to that of the OECD countries. For example the service sector still employs 61% of the labor force as against only 19% in manufacturing and 20% in agriculture. This implies predominance of sectors like tourism in the Cuban economy, the prosperity of which would depend on a lot many

extraneous factors. A more robust manufacturing sector of the economy is required for strengthening the economic basis of welfare functions of the state.

- Cuban healthcare system is one of the most medicalized systems in the world that is too heavily dependent on medical doctors which makes its duplication very difficult in the large and populous developing world countries like India in comparison to a strategy relying on well trained paramedical workers, e.g. the barefoot doctors concept that was successfully practiced in Mao's China.
- In spite of the fact that nearly all deliveries are institutional and attended to by qualified medical professionals, the MMR in Cuba at 73 remains higher than the regional average of 63 per 100,000 live births.
- While Cuba may not suffer from a fetish for high economic growth rates, but its expenditure on health as a proportion of its GDP remains inordinately high for most developing countries to adopt as a model, and if the same were attempted, given the state of development of health systems such funds would be difficult to absorb.

HEALTH SYSTEM IN BRAZIL

Brazil gained independence from three centuries of Portuguese rule in 1822, where after a monarchical system of government continued until the abolition of slavery in 1888 and in 1889 the military proclaimed a republic in the country. After the populist leader Getulio Vargas rose to power in 1930 there was continuation of a populist military dictatorship until 1985 after which the reins of power passed on to the civilian authority (Index Mundi, 2013b). However, Brazilian economy continued to face considerable turbulence till the end of the decade of the 1990s with very high inflation and Brazil being forced to take huge loan from IMF and the inter-American Bank. It was not until the beginning of the 21st century that Brazil saw a reversal of its economic fortunes (Brazil Gov Website, 2012).

Brazil is a Federal Republic and is the largest country in South America sharing borders with all other countries of the continent except Chile and Ecuador. It has Presidential form of government with independent Executive, Legislative and Judicial branches. Apart from the Federal Government, there are 26 States comprising of 5,561 municipalities and Federal Districts that are constituted into five macro-regions.

The years of economic instability and turbulence were marked by its associated social features of unemployment, poverty, inequity and crime that were very high relative to the regional standards. However, with the beginning of the 21st century the Brazilian politics has taken a turn to the Left of Centre with the election of Jose Inacio Lula Da Silva as President of the country, who was one of the founders of the 'Workers Party'. This ushered in a greater intervention of the Federal government in social sector and concerted efforts at reducing poverty, hunger and unemployment. The Lula government launched 'Fome Zero' program in 2003 with the express purpose of eradicating extreme poverty and hunger in Brazil (FAO, 2011). 'Bolsa Familia' is another of the Brazilian government's social welfare program that has components of 'Direct' as also 'Conditional' cash transfers aimed at reducing poverty In

the short term as also in the long term by enhancing the human capital of the poor (Lindert K (2006).

These programs have had considerable impact on social welfare in the country resulting in enhanced social and health indicators. Exploiting vast natural resources and a large labor pool, Brazil is today South America's leading economic power and a regional leader, one of the first in the area to begin an economic recovery.

Brazil – Economic Profile

Agriculture, mining, manufacturing and service sectors are all very well developed in Brazilian economy lending it a weight that far outweighs other regional economies, and an increasing presence in the world markets. An improving debt profile and macroeconomic stability have been characteristic features of Brazilian economy since 2003, and in 2008 Brazil achieved the status of net creditor country. After a brief set back due to global economic crisis of 2008, Brazil was quick to bounce back on the path to recovery and in 2011 it overtook Britain as the seventh largest economy of the world in GDP terms (Index mundi, 2013c).

Some of the selected economic indicators of Brazil are (Index mundi, 2013c; World Bank*, 2013a):

- GDP (official exchange rate) – \$2.493 trillion (2011 est.)
- GDP – real growth rate - 2.7% (2011 est.), 7.5% (2010 est.), -0.3% (2009 est.)
- GDP – per capita (PPP) - \$11,900 (2011 est.), \$11,700 (2010 est.) in 2011 US \$
- GDP – composition by sector – agriculture: 5.5%, industry: 27.5%, services: 67% (2011 est.)
- Proportion of population living below \$1.25 a day – 6.1%.

Socio-demographic Profile - Brazil

Demographic profile

Indicator	Year	Estimate	Source
Sex ratio (women / 100 men)	2011	103	UN statistics division*
Annual population growth rate (%)	2010-2015	.8	UN Population Division
% of population in urban areas	2011	87	UN Population Division
Annual rate of population change (%) – Urban / Rural	2010-2015	1.1/-2	UN Population Division
Crude birth rate (births per 1000 popl.)	2010	16	UN Population Division
Crude death rate (births per 1000 popl.)	2009	6	UN Population Division
Improved drinking water coverage (%) – Total/Urban/Rural	2008	97/99/84	UN statistics division*

Improved sanitation coverage (%) – Total/Urban/Rural	2008	80/87/37	UN statistics division*
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Source: Except* the rest of data and source are as mentioned in - Country profile, Brazil, WHO. Available from: <http://www.who.int/countries/bra/en/> on 14th Feb 2013.

Literacy profile

Indicator	Year	Total	Men	Women	Girls share of enrollment
Adult (15+) literacy rate, by sex	2011	90	90	90	-
Youth (15-24) literacy rate, by sex	2011	98	97	99	-
Primary net enrollment ratio, by sex	2008	-	95	93	47 (2009)
Secondary net enrollment ratio, by sex	2008	-	78	86	52 (2009)
Tertiary gross enrollment ratio, by sex	2009	-	31	42	57 (2009)

Source: United Nations Statistics Division.

Employment profile

Indicator	Year	Total	Males	Females
Total labor force*	2011	104.7 million		
Employment by sectors (%)*	2005	Agriculture: 20%, industry: 14%, services: 66% (2003 est.)		
Adult unemployment (%)	2009**		6.1	11

Notes: *Source: Index mundi, 2012. ** United Nations Statistics Division, Available from unstats.un.org/unsd/demographic/products/socind/Dec.../5d.xls on 12th Feb 2013.

Meta indicators

Indicator	Year	Value	Source
% Seats held by women in the national parliament	2011	8.6	Millennium Development Goals Indicators - UN.
Gender inequality index (GII)	2011	0.449	UNDP International Human Development Indicators
Gender parity index in primary level enrolment (ratio of girls to boys)	2009	0.93	Millennium Development Goals Indicators – UN
Global Hunger Index	2012	4	(IFPRI). Global Hunger Index 2012, 2012
Human Development Index (HDI)	2011	.718	UNDP International Human Development Indicators

Source: WHO Country Profile – Brazil, Available from: <http://apps.who.int/nutrition/landscape/report.aspx?iso=bra> on 12th Feb 2013.

Brazil healthcare services system and indicators

The present Constitution of Brazil adopted in 1988 holds health as a universal right and mandates the State for ensuring conditions such that this right gains full play. Following this constitutional mandate Brazil undertook a through going reform of its health system. Resurgence in economic growth in recent years accompanied by control of runaway inflation of yesteryears, reduction in income inequality and expanding formal employment have led to steady and stable improvement in the living conditions and health standards of the people that has placed Millennium Development Goals well within reach (PAHO & USAID, 2008).

As per the financing sources the health system in Brazil is divided into two subsystems – public and private; however, there is come overlapping of the two systems as well. Public system further comprises of (PAHO, 2008, 21):

- I. Unified Health System (SUS): A free universal system accessible for all citizens without exception, and financed fully by public resources.
- II. The second kind of public system is accessible to government employees and military personnel and is financed from public resources and employee contributions.

Private system also comprises two subtypes (PAHO, 2008, 21):

- I. Supplementary system: This comprises of health plans and insurances, based on voluntary participation and is financed by contributions from employers and employees or exclusively by families.
- II. The second type of private system comprises of payment to the providers at the time of accessing care.

For almost 75 percent of the population access to healthcare is ensured through publically financed system. Even those covered by private system are benefited from public health activities of the public network or they may use the public healthcare setup for more complex or costly procedures (PAHO, 2008, 21). According to another PAHO document 80.4% are covered exclusively by the Unified Health System (SUS), with there being 98% coverage for basic health services and 68.4% coverage for Family Health Program. 19.6% supplementary medical care (private company collective plans 14.4% and individual and family plans 5.2%); 3.8% supplementary dental plans. Private insurance beneficiaries maintain their full right to coverage under the SUS (PAHO, 2007).

Brazil follows a federal structure in political-administrative organization in which the Union government is at the apex, followed by the state governments, the federal district and municipal governments which are autonomous and exercise exclusive and concurrent responsibilities. The Ministry of Health oversees national management of the SUS. The SUS is made up of subsystems at the state and municipal levels. At the state level, the SUS is managed by the health secretariat of each state government, which coordinates and administers strategic resources, and executes supplementary activities and services (PAHO, 2008, 21).

Selected health service indicators of Brazil:

Indicators	Year
Births attended by skilled health personnel (%)	98.9 (2009)
Dentistry personnel density (per 10,000 population)	11.72 (2008)
Nursing and midwifery personnel density (per 10,000 population)	64.19 (2008)
Density of environment and public health workers (per 10,000 population)	9.7 (2000)
Density of pharmaceutical personnel (per 10,000 population)	5.37 (2008)
Physicians density (per 10,000 population)	17.64 (2008)
Hospital beds (per 10,000 population)	24 (2010)

Source: WHO Country Profile – Brazil, Available from: <http://apps.who.int/ghodata/?vid=5200&theme=country> on 12th Feb 2013.

Health financing in Brazil

Public financing covers nearly 48% of the total health expenditure, originating in general taxes in the three government spheres and in social contributions (federal). The Union's portion in financing the SUS was a little more than 50% of the total for the public system in 2004; states contributed nearly 27%, and municipalities 23%. When Brazil's statistics are compared to the public spending in other countries with universal access public health systems, it is evident that the government's contribution is insufficient for the country's health system: in the other countries, as a rule, public spending in health equals 7.3% of the GDP, ranging from a minimum of 5.5% to a maximum of 12.7% (PAHO, 2008, 30).

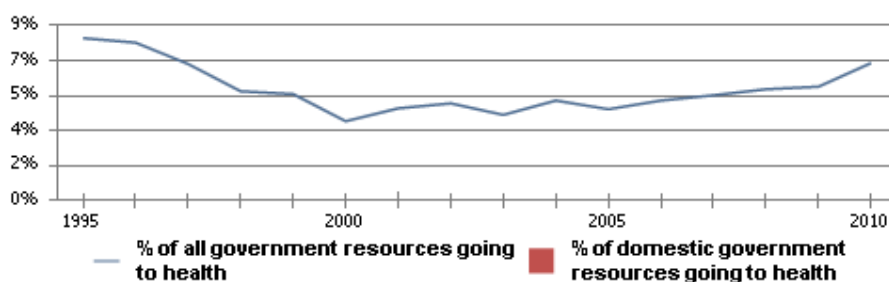
The following indicators for health financing are reflective of the political commitment of the state towards healthcare of the people.

Indicator	Year		
	2008	2009	2010
Total expenditure on health (TEH) as % of GDP	8.3	8.8	9
External resources on health as % of TEH	0.0	0.0	0.0
General government expenditure on health (GGHE) as % of TEH.	42.8	43.6	47
Private expenditure on health (PvHE) as % of TEH	57.2	56.4	53
GGHE as % of general government expenditure	5.7	5.9	7.1
Private insurance as % of PvHE	42.2	41	40.4

Out of pocket expenditure as % of PvHE	56.0	57.2	57.8
Total expenditure on health / capita at purchasing power parity (NCU per US \$)	862	921	1,028
General government expenditure on health / capita at purchasing power parity (NCU per US \$)	369	401	483

Source: WHO, Brazil – Brazil - National Expenditure on Health (Reais), Available from: file:///C:/Documents%20and%20Settings/NHSRC_New/Desktop/Desk%20Review%20of%20Comparative%20Health%20Systems/Brazil/Brazil%20-%20National%20Expenditure%20on%20Health%20%28Reais%29.htm on 13th Feb 2013.

Government resources allocated to health



Source: WHO Global Health Expenditure Atlas, 2012, p 65.

Brazil – health outcome indicators

Indicator	Sex	Brazil	Regional average	Global average
Life expectancy at birth (yrs) (Data refers to 2009)	Male	70	73	66
	Female	77	79	71
	Both sexes	73	76	68
Infant mortality rate (probability of dying between birth and age 1 per 1000 live births)	Both sexes	17 (2010)	-	37 (2011)
Under five mortality rate / 1000 live births (2009)	Both sexes	19	18	57
Adult mortality rate (probability of dying between 50 and 60 years per 1000 population)	Both sexes	154	125	176
Maternal mortality ratio (per 100 000 live births)	-	56	63	210
Prevalence of HIV (per 1000 adults aged 15 to 49)	-	.3 - .6	5	8
Prevalence of tuberculosis per 100 000 population	-	47	36	178

(2009)				
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Source: WHO, 2013b.

Take home points

Positives

- After a long history of economic instability Brazil has finally graduated to an emerging economic power and is the largest regional economy which has given it the financial muscle to support enhanced spending on the social sector of development.
- The Unified Health System (SUS) that is fully supported by the Central and State government finances ensures universal access to all the citizens without exception at no cost to them which provides much needed relief to the poorer sections of the society.
- From a social and economic scenario that was marked by high degree of inequity and poverty until the beginning of the 1990s, Brazil has seen considerable improvement in its social development indicators with rapidly improving formal employment and an impressive HDI status.
- Since the beginning of the 1990s Brazilian government has intervened proactively in the development of the human capital with massive programs directed at resource transfers to the poor.
- Women seem to have benefitted considerably from the development efforts in Brazil as is reflected in their participation in education.

Negatives

- The government spending on health remains inadequate to the needs of the health system and is lower than the regional average which varies between a minimum of 5.5% to a maximum of 12.7%.
- Most of the health outcomes of Brazil continue to trail behind the regional averages.
- Compared to Cuba the per capita health expenditure of Brazil is considerably higher, yet with the exception of maternal mortality, the health outcome indicators of Brazil are far poorer compared to that of Cuba. One of the reasons for this could be that the government expenditure on health accounts only for 48 percent of expenditure on health.
- Commitment of the government towards spending on health, even though higher than in the 1970s and 1980s, has not remained consistent. There was a decline in expenditure on health beginning from 1995 which stagnated between 4 to 5 percent of the total government expenditure until 2008, when it started rising again.

HEALTH SYSTEM OF MEXICO

Mexico is a union of 31 states and a Federal District constituting the 'United Mexican States'. Mexico has a representative democracy with presidential form of government. Mexico is

undergoing demographic transition and has a complex epidemiological profile that is characterized by a rising trend in non-communicable diseases, unhealthy lifestyle behaviors, rising accident rates. The development terrain in Mexico is marked by historical structural inequities and iniquitous distribution of wealth across regions, ethnic groups and classes. By implication then there are inequities in access to basic services, opportunities and social participation in the development process including the social sectors – health, education, employment etc. The poorer states located in the country’s southern region are characterized by a high concentration of rural and indigenous people who have the highest morbidity and mortality from preventable causes (WHO, 2013c).

Mexico – Economic Profile

Mexico has a trillion dollar free market economy where there is a mixture of both modern and outmoded industry and agriculture that is increasingly dominated by private sector. Governments in the recent past have introduced privatization and competition even in the core areas of economy like the seaports, railroads, telecommunications, electricity generation, natural gas distribution and airports. Mexico’s trade is governed by free trade agreements which cover over 90% its trade with 50 countries. In 2009 in the wake of the world economic crisis Mexico’s GDP growth rate plunged by 6.2% as the economy was fuelled primarily by exports, remittances from abroad and FDI. The moderate recovery in 2010 and 2011 has been export led with exports to the United States leading the way. Despite the size of its economy there remain formidable economic challenges of upgrading and strengthening the public education system, upgrading infrastructure, fostering investments in energy sector and above all reducing poverty and creating jobs (Index mundi, 2013d).

Some of the selected economic indicators of Mexico are (Index mundi, 2013d; *World Bank, 2013b):

- GDP (official exchange rate) – \$1.155 trillion (2011 est.)
- GDP – real growth rate - 4% (2011 est.), 5.5% (2010 est.), - 6.3% (2009 est.)
- GDP – per capita (PPP) - \$14,800 (2011 est.), \$14,400 (2010 est.), \$13,900 (2009 est.)
- GDP – composition by sector – agriculture 3.8%, industry: 34.2%, services: 62% (2011 est.)
- Proportion of population living below \$1.25 a day – 1.2 %.

Socio-demographic Profile - Mexico

Demographic profile

Indicator	Year	Estimate	Source
Sex ratio (women / 100 men)	2011	103	UN statistics division*
Annual population growth rate (%)	2010-2015	1.1	UN Population Division
% of population in urban areas	2011	78 17	UN Population Division

Annual rate of population change (%) – Urban / Rural	2010-2015	1.2/ - 0.5	UN Population Division
Crude birth rate (births per 1000 popl.)	2010	20	UN Population Division
Crude death rate (deaths per 1000 popl.)	2009	5	UN Population Division
Improved drinking water coverage (%) – Total/Urban/Rural	2008	94/96/87	UN statistics division*
Improved sanitation coverage (%) – Total/Urban/Rural	2008	85/90/68	UN statistics division*

Source: *United Nations Statistics Div. Available from: unstats.un.org/unsd/demographic/products/socind/Dec.../3c.xls on 10th of Feb 2013. The rest of data and source are as mentioned in - Country profile, Mexico, WHO. Available from: <http://www.who.int/countries/mex/en/> on 14th Feb 2013.

Literacy profile

Indicator	Year	Total	Men	Women	Girls share of enrollment
Adult (15+) literacy rate, by sex	2011	93	95	92	-
Youth (15-24) literacy rate, by sex	2011	99	99	98	-
Primary net enrollment ratio, by sex	2008	-	98	98	49
Secondary net enrollment ratio, by sex	2008	-	69	72	51
Tertiary gross enrollment ratio, by sex	2009	-	27	27	50

Source: United Nations Statistics Division.

Employment profile

Indicator	Year	Total	Men	Women
Total labor force*	2011	49.17 million		
Employment by sectors (%)*	2005	agriculture: 13.7%, industry: 23.4%, services: 62.9%		
Adult unemployment (%)	2009**	-	5.3	5.3

Notes: *Source: Index mundi, 2013d. ** United Nations Statistics Division, Available from unstats.un.org/unsd/demographic/products/socind/Dec.../5d.xls. on 12th Feb 2013.

Meta indicators

Indicator	Year	Value	Source
% Seats held by women in the national parliament	2011	26.2	Millennium Development Goals Indicators - UN.
Gender inequality index (GII)	2011	0.448	UNDP International Human Development Report

Gender parity index in primary level enrolment (ratio of girls to boys)	2009	.98	Development Indicators Millennium Development Goals Indicators – UN (IFPRI). Global Hunger Index 2012, 2012
Global Hunger Index	2012	4	
Human Development Index (HDI)	2011	0.77	

Source: WHO Country Profile – Mexico, Available from: <http://apps.who.int/nutrition/landscape/report.aspx?iso=mex> on 12th Feb 2013.

Mexico healthcare services system and indicators

The health services system is classifies beneficiaries into three major groups, depending on where the worker is employed and his or her ability to pay. Within these categories, access to care is divided among several institutions, as described below:

1. By law, workers in the formal economy must be affiliated with some social security institution. In 2000 this population numbered roughly 50 million. The Mexican Social Security Institute (IMSS) covered the majority of these individuals (nearly 80%), followed by the Social Security and Services Institute for State Workers (ISSSTE), Petróleos Mexicanos (PEMEX), the Armed Forces (SEDENA), the Navy, and various insurance plans for state workers.
2. The system for the uninsured population (around 48 million people) includes the Ministry of Health's (SSA) services, which operate in urban and rural areas throughout the country, and the IMSS Solidarity Program, which covers the population in certain rural areas (around 11 million people in 14 states). The SSA is financed basically with funds from the Federal and state budgets and receives income from the fees charged to people who have the resources to pay, while the IMSS Solidarity Program receives allocations from the federal budget, with administrative support from IMSS.
3. There is little oversight of private-sector operations, the quality of care varies, as do the fees charged, and the services are rather fragmented. In 1999 there were 2,950 private medical units with inpatient services, for a total of 31,241 beds, 48% of which were in facilities with less than 15 beds²⁰. NGOs play an insignificant role in health service delivery, although their network or organizations is becoming increasingly relevant in the fields of sexuality and reproductive health, HIV/AIDS, domestic violence, and the treatment of addictions and disabilities.

Selected health service indicators of Mexico:

Indicators	Year
Births attended by skilled health personnel (%)	95.3 (2009)
Dentistry personnel density (per 10 000 population)	14.15 (2004)

Nursing and midwifery personnel density (per 10 000 population)	39.8 (2004)
Density of environment and public health workers (per 10 000 population)	-
Density of pharmaceutical personnel (per 10 000 population)	7.62 (2004)
Physicians density (per 10 000 population)	19.59 (2009)
Hospital beds (per 10 000 population)	16 (2009)

Source: WHO Country Profile – Mexico, Available from:
<http://apps.who.int/ghodata/?vid=13600&theme=country> on 12th Feb 2013.

Health financing in Mexico

41.8% federal and state health departments (theoretical coverage, corresponds to the uninsured population, informal sector workers, the rural population, and the unemployed). 14.8% Seguro Popular (estimated on the basis of 5.1 million member families in November 2006). 58.2% Mexican Social Security Administration (IMSS): 45.3% (IMSS 34.3%; IMSS Oportunidades 11%); Public Employees Social Security and Services Administration (ISSSTE); 7% (Public Employees Social Security and Services Administration), PEMEX (Petróleos Mexicanos), armed forces, navy department and other insurance for government employees 5.9%). Some of the insured are covered by more than one insurance plan. 2.8% private health insurance (5%-23% of IMSS affiliates also have private insurance). 1% population is with no access to health services (PAHO, 2007, 310).

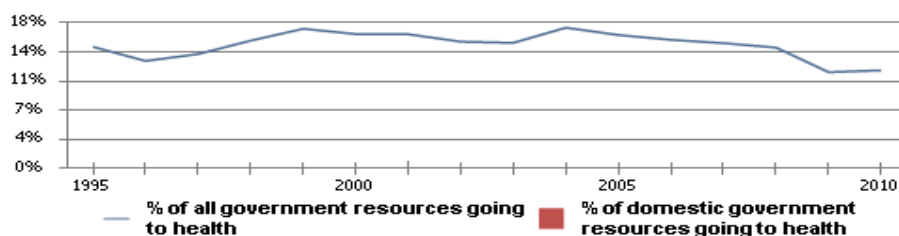
The following indicators for health financing are reflective of the political commitment of the state towards healthcare of the people.

Indicator	Year		
	2008	2009	2010
Total expenditure on health (TEH) as % of GDP	5.9	6.5	6.3
External resources on health as % of TEH	-	-	-
General government expenditure on health (GGHE) as % of TEH.	47	48.3	48.9
Private expenditure on health (PvHE) as % of TEH	53	51.7	51.1
GGHE as % of general government expenditure	15	11.9	12.1
Private insurance as % of PvHE	8	7	-
Out of pocket expenditure as % of PvHE	92.9	92.3	92.2
Total expenditure on health / capita at purchasing power parity (NCU per US \$)	891	920	-

General government expenditure on health / capita at purchasing power parity (NCU per US \$)	418	445	-
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Source: WHO, Mexico – Mexico - National Expenditure on Health (Reais), Available from: file:///C:/Documents%20and%20Settings/NHSRC_New/Desktop/Desk%20Review%20of%20Comparative%20Health%20Systems/Brazil/Brazil%20-%20National%20Expenditure%20on%20Health%20%28Reais%29.htm on 13th Feb 2013.

Government resources allocated to health



Source: WHO Global Health Expenditure Atlas, 2012, p 81.

Mexico – health outcome indicators

Indicator	Sex	Mexico	Regional average	Global average
Life expectancy at birth (yrs) (Data refers to 2009)	Male	73	73	66
	Female	78	79	71
	Both sexes	76	76	68
Infant mortality rate (probability of dying between birth and age 1 per 1000 live births)	Both sexes	14		37 (2011)
Under five mortality rate / 1000 live births (2009)	Both sexes	17	18	57
Adult mortality rate (probability of dying between 50 and 60 years per 1000 population)	Both sexes	122	125	176
Maternal mortality ratio (per 100,000 live births)	-	50	63	210
Prevalence of HIV (per 1000 adults aged 15 to 49)	-	3	5	8
Prevalence of tuberculosis per 100,000 population (2009)	-	18	36	178

Source: WHO, Mexico Health Profile. Available from: <http://www.who.int/countries/mex/en/> on 13th Feb 2013.

Take home points

Positives

- Despite some regional inequities, overall Mexico has done remarkably well in the social development indicators and poverty reduction.
- There is more than 90% literacy with women having higher enrollment ratios in higher levels of education.
- Nearly 90% of the population has access to improved drinking water and the same holds true for access to improved sanitation in urban areas, though access to sanitation for rural areas is slightly less at 68%.
- The levels of unemployment are comparatively low at 5.3 % for both men and women.

Negatives

- Mexico's economy continues to be dependent heavily on the export led growth to provide market for its products rather than the expansion of the internal market. This lends economy vulnerable to external shocks and hence impacts the economic ability of the government to finance its ambitious health program as can be seen in the post 2008 world economic crisis scenario.
- The public finances constitute only about 50% of the total expenditure on health, which means that a large part of the expenditure is incurred from people's pockets and on the ability of the people to pay.
- The regulation of the private sector continues to be poor.

HEALTH SYSTEM OF SRI LANKA

Sri Lanka is on track for achieving most of the MDG targets. The Government's commitment to health and education is commendable. Although statistics suggest the high attainment of health standards compared to other countries in the region, Sri Lanka is now faced with many new challenges. It is undergoing demographic, epidemiological and social transition and is facing a unique situation in which the double burden of communicable diseases and rapidly emerging non-communicable diseases pose many challenges. In addition, Sri Lanka has emerged from a long conflict situation and the recovery and rebuilding of health Services in the North and Eastern Provinces is of paramount importance at this juncture (WHO, 2013d).

Sri Lanka – Economic Profile

Sri Lanka continues to experience strong economic growth, driven by large-scale reconstruction and development projects following the end of the 26-year conflict with the LTTE. Sri Lanka is pursuing a combination of government directed policies, private investment, both foreign and domestic, to spur growth in disadvantaged areas, develop small and medium enterprises, and increase agricultural productivity. The government struggles with high debt interest payments, a bloated civil service, and historically high budget deficits. However recent reforms to the tax code have resulted in higher revenue and lower budget

deficits in recent years. The 2008-09 global financial crisis and recession exposed Sri Lanka's economic vulnerabilities and nearly caused a balance of payments crisis. Growth slowed to 3.5% in 2009. Economic activity rebounded strongly with the end of the war and an IMF agreement, resulting in two straight years of high growth in 2010 and 2011. Per capita income of \$5,600 on a purchasing power parity basis is among the highest in the region (Index mundi, 2013e).

Some of the selected economic indicators of Sri Lanka are (Index mundi, 2013e; *World Bank, 2013c):

- GDP (official exchange rate) – \$59.1 billion (2011 est.)
- GDP – real growth rate - 8.2% (2011 est.)
- GDP – per capita (PPP) - \$5,700 (2011 est.)
- GDP – composition by sector – agriculture: 13%; industry: 29.6%; services: 57.4% (2011 est.)
- Proportion of population living below \$1.25 a day – 7% (2007)

Socio-demographic Profile – Sri Lanka

Demographic profile

Indicator	Year	Estimate	Source
Sex ratio (women / 100 men)	2011	103	UN statistics division*
Annual population growth rate (%)	2010-2015	.8	UN Population Division
% of population in urban areas	2011	14.3	UN Population Division
Annual rate of population change (%) – Urban / Rural	2010-2015	1.1/.7	UN Population Division
Crude birth rate (births per 1000 popl.)	2012	17.04	UN Population Division
Crude death rate (deaths per 1000 popl.)	2012	5.96	UN Population Division
Improved drinking water coverage (%) – Total/Urban/Rural	2008	90/98/88	UN statistics division*
Improved sanitation coverage (%) – Total/Urban/Rural	2008	91/88/92	UN statistics division*

Source: *United Nations Statistics Div. Available from: <http://www.who.int/countries/lka/en/> on 10th of Feb 2013. The rest of data and source are as mentioned in - Country profile, Sri Lanka, WHO. Available from: <http://www.who.int/countries/lka/en/> on 14th Feb 2013.

Literacy profile

Indicator	Year	Total	Men	Women	Girls share of enrollment
Adult (15+) literacy rate, by sex	2008	91	92	89	-
Youth (15-24) literacy rate, by sex	2008	98	97	99	-
Primary net enrollment ratio, by sex	2009	-	93	94	49
Secondary net enrollment ratio, by sex	2004	-	-	-	49
Tertiary gross enrollment ratio, by sex		N.A.	N.A.	N.A.	N.A.

Source: United Nations Statistics Division.

Employment profile

Indicator	Year	Total	Men	Women
Total labor force*	2011	8.307 million		
Employment by sectors (%)*	2010	agriculture: 32.7%; industry: 24.2%; services: 43.1%		
Adult unemployment (%)	2009**	-	3.5	7.7

Notes: *Source: Index mundi, 2013e. ** United Nations Statistics Division, Available from unstats.un.org/unsd/demographic/products/socind/Dec.../5d.xls. on 12th Feb 2013.

Meta indicators

Indicator	Year	Value	Source
% Seats held by women in the national parliament	2011	5.3	Millennium Development Goals Indicators - UN.
Gender inequality index (GII)	2011	.419	UNDP International Human Development Indicators
Gender parity index in primary level enrolment (ratio of girls to boys)	2009	1	Millennium Development Goals Indicators – UN
Global Hunger Index	2012	14.4	(IFPRI). Global Hunger Index 2012, 2012
Human Development Index (HDI)	2011	.691	UNDP International Human Development Indicators

Source: WHO Country Profile – Sri Lanka, Available from: <http://www.who.int/countries/lka/en/> on 12th Feb 2013.

Sri Lanka healthcare services system and indicators

Both Public and Private sectors provide healthcare in Sri Lanka with Public sector providing healthcare to more than 60% of the population. The entire range of preventive, curative and rehabilitative services is provided by the Department of Health Services and the Provincial Health Sector. Private sector is largely restricted to Urban and sub-urban areas and caters to nearly 50% of the out patient load of the country. Public sector almost monopolizes inpatient

care with 95% of the inpatients being treated in public health facilities. Health services for the armed forces, police personnel and on the rubber, tea and coffee estates are separately organized (DGHS, 2003).

Different indigenous medical systems – Ayurvedic, Unani, Siddha and Homeopathy are widely practiced in Sri Lanka. While the public sector mainly provides Allopathic and Ayurvedic services, private practitioners practice varied forms of medicine, thus providing the people a wide range of choice from among different systems. It is commendable that Sri Lanka has a separate Ministry of Indigenous Medicine (DGHS, 2003).

According to a study, as early as 1971 to 1973, a healthcare unit was available within a distance of 1.4 km on an average from every home; while free allopathic government healthcare service was no farther than 4.8 km from a patient’s home (DGHS, 2003).

Selected health service indicators of Sri Lanka:

Indicators	Value (Year)
Births attended by skilled health personnel (%)	98.6 (2007)
Dentistry personnel density (per 10,000 population)	.83 (2007)
Nursing and midwifery personnel density (per 10,000 population)	19.3 (2007)
Density of environment and public health workers (per 10 000 population)	1.14 (2007)
Density of pharmaceutical personnel (per 10,000 population)	.42 (2007)
Physicians density (per 10,000 population)	4.92 (2006)
Hospital beds (per 10,000 population)	31 (2004)

Source: WHO Country Profile – Sri Lanka, Available from: <http://apps.who.int/gho/data/node.main.A1444?lang=en> on 12th Feb 2013.

Health financing in Sri Lanka

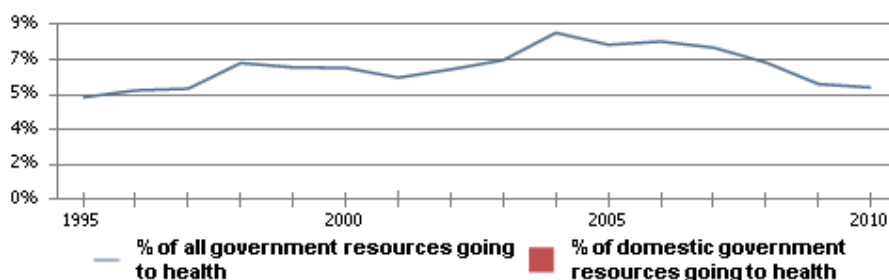
The following indicators for health financing are reflective of the political commitment of the state towards healthcare of the people.

Indicator	Year		
	2008	2009	2010
Total expenditure on health (TEH) as % of GDP	3.4	3.2	2.9
External resources on health as % of TEH	2.2	2.5	3.0
General government expenditure on health (GGHE) as % of TEH.	46.8	46.2	44.7

Private expenditure on health (PvHE) as % of TEH	53.2	53.8	55.3
GGHE as % of general government expenditure	7.1	5.9	5.8
Private insurance as % of PvHE	5.0	4.9	5.3
Out of pocket expenditure as % of PvHE	82.0	82.5	81.2
Total expenditure on health / capita at purchasing power parity (NCU per US \$)	154	149	148
General government expenditure on health / capita at purchasing power parity (NCU per US \$)	72	69	66

Source: WHO, Sri Lanka – Sri Lanka - National Expenditure on Health (Sri Lanka Rupees), Available from: <http://apps.who.int/nha/database/DataExplorer.aspx?ws=0&d=1> on 13th Feb 2013.

Government resources allocated to health



Source: WHO Global Health Expenditure Atlas, 2012, p 103.

Sri Lanka – health outcome indicators

Indicator	Sex	Sri Lanka	Regional average	Global average
Life expectancy at birth (yrs) (Data refers to 2009)	Male	65	64	66
	Female	76	67	71
	Both sexes	71	65	68
Infant mortality rate (probability of dying between birth and age 1 per 1000 live births)	Both sexes	14		37 (2011)
Under five mortality rate / 1000 live births (2009)	Both sexes	17	57	57
Adult mortality rate (probability of dying between 50 and 60 years per 1000 population)	Both sexes	182	209	176
Maternal mortality ratio (per 100 000 live births)	-	35	200	210
Prevalence of HIV (per 1000 adults aged 15 to 49)	-	1	3	8
Prevalence of tuberculosis per 100 000 population (2009)	-	101	278	178

Source: WHO, Sri Lanka Health Profile. Available from: <http://www.who.int/countries/lka/en/> on 13th Feb 2013.

Take home points

Positives

- Powered by a consistent political and budgetary commitment of the government, Sri Lanka is well on its path of achieving the Millennium Development Goals.
- Much of Sri Lanka's achievements in health have been possible due to impressive achievements in social sector. More than 90% of the population has access to improved water and sanitation.
- Additionally, the literacy rate among the youth is almost 100% and women's share of enrollment in primary and secondary education is nearly 50%.
- Easy physical access to health services close to households was ensured in Sri Lanka as far back as 1971/73. This along with the public sector taking care of almost 95% of inpatient care has meant that people do not generally fall prey to catastrophic medical expenditure.

Sri Lanka has paid special attention to the development of indigenous medicine in the country.

Negatives

- Total government expenditure on health remains less than 50% of the total expenditure on health, which means that a considerable sum to finance healthcare continues to come from the peoples' pockets.
- In 2010 external resources constituted as much as 3% of the total expenditure on health. Experience from across the world shows that even small amounts of aid money that is deployed in crucial sectors can come with conditions that are capable of distorting country's health priorities.

HEALTH SYSTEM OF THAILAND

As a middle-income country, Thailand has come to be recognized as a success story in terms of its economic and social development. Thailand has strengthened its health system over the years with positive outcomes. In 2002 Thailand introduced universal healthcare for all Thai citizens. The 11th National Development Plan, 2012 – 2016 has proclaimed 'quality' and 'universal security' for all Thais as its main goal. In spite of considerable disparities across regions and social classes all health related Millennium Development Goals have been accomplished at the national level.

These successes notwithstanding, formidable challenges still confront Thailand on health front. The nature of development in Thailand has placed certain sections of the population at a considerably greater risk – for example large migrant and mobile population suffers from disproportionately higher burden of disease, public health hazards, exploitation and human trafficking. Even as public health challenges related to communicable diseases remain, non-communicable diseases and injuries have emerged as major public health hazards thus giving rise to a double burden of disease. HIV/AIDS, tuberculosis, malaria and emerging pathogens remain important and are compounded with emerging drug resistance particularly among mobile/border populations. Addressing these public health challenges would require multi-sectoral and multi-stakeholder collaboration taking into its fold the broader social determinants of health that underline the present health challenges (WHO, 2013e).

Thailand – Economic Profile

The complexion of Thai economy has metamorphosed from agriculture to services and manufacturing sectors over the past 50 years. From a share of 23% in the GDP in 1970, agriculture came down to 8.9% of GDP in 2009, while manufacturing increased from 21% to 39% of the GDP over the same period. Despite slumps in the economy associated with the economic crisis of 1996-97 and 2008-09, Thailand has achieved impressive economic growth rates over the past three decades. Industry, agriculture and tourism are the major sources of income for the country. With exports accounting for as much as 70% of the GDP, Thailand's dependence on international trade has lent its economy particularly vulnerable to global financial and economic crisis (WHO, 2011e)

Thailand's otherwise impressive economic growth has not succeeded in mitigating the enormous disparities between regions, between urban / rural localities. Time has failed to narrow down the gap between the rich and the poor, as per the 'Thailand Human Development Report, 2009'. The wealth of the poorest quintile is about 3 to 4 times less than that of the richest quintile (WHO, 2011).

Thailand's dramatic economic growth has produced new environmental challenges in this once agrarian society. The country now faces problems with air and water pollution, declining wildlife populations, deforestation, soil erosion, water scarcity, and hazardous waste (WHO, 2011).

Some of the selected economic indicators of Sri Lanka are (Index mundi, 2013f; *World Bank, 2013c):

- GDP (official exchange rate) – \$377 billion (2012 estimate)
- GDP – real growth rate - 5.6% (2012 estimate)
- GDP – per capita (PPP) - \$ 10,000 (2012 estimate)
- GDP – composition by sector – Agriculture (13%), Industry (43%), Services (44.1%)
- *Proportion of population living below \$1.25 a day – 0.4%

Socio-demographic Profile – Thailand

Demographic profile

Indicator	Year	Estimate	Source
Sex ratio (women / 100 men)	2011	104/100	UN statistics division*
Annual population growth rate (%)	2010-2015	.5	UN Population Division
% of population in urban areas	2011	34	UN Population Division
Annual rate of population change (%) – Urban / Rural	2010-2015	1.8/-0.2	UN Population Division
Crude birth rate (births per 1000 popl.)**	2012	12	World Bank
Crude death rate (deaths per 1000 popl.)**	2012	7	World Bank
Improved drinking water coverage (%) – Total/Urban/Rural	2008	98/99/98	UN statistics division*
Improved sanitation coverage (%) – Total/Urban/Rural	2008	96/95/96	UN statistics division*

Source: *United Nations Statistics Div. Available from: unstats.un.org/unsd/demographic/products/socind/Dec.../3c.xls on 10th of Feb 2013. **The crude birth and death rate data has been obtained from the World Bank data available from <http://data.worldbank.org/indicator/SP.DYN.CBRT.IN> and <http://data.worldbank.org/indicator/SP.DYN.CDRT.IN> respectively. The rest of data and source are as mentioned in - Country profile, Thailand, WHO. Available from on 14th Feb 2013.

Literacy profile

Although Thailand has a very high literacy rate (almost 100%), there are still big differences in the proportions of higher-level education among people in provinces compared to Bangkok. Out of 134 universities and colleges, 65 are located in Bangkok, resulting in disparities of access to higher-level education (WHO, 2011).

Indicator	Year	Total	Men	Women	Girls share of enrollment
Adult (15+) literacy rate, by sex	2005	94	96	92	-
Youth (15-24) literacy rate, by sex	2005	98	98	98	-
Primary net enrollment ratio, by sex	2009	-	90	89	48
Secondary net enrollment ratio, by sex	2004	-	68	77	51
Tertiary gross enrollment ratio, by sex	2009	-	53	40	56

Source: United Nations Statistics Division.

Employment profile

Indicator	Year	Total	Men	Women
Total labor force*	2011	39.77 million (2012 estimate)		
Employment by sectors (%)*	2010	Agriculture 40.7%, Industry 13.2%, Services 46.1%		
Adult unemployment (%)	2009**	-	1.2	1.1

Notes: *Source: Index mundi, 2013f. ** United Nations Statistics Division, Available from unstats.un.org/unsd/demographic/products/socind/Dec.../5d.xls. on 12th Feb 2013.

Meta indicators

Indicator	Year	Value	Source
% Seats held by women in the national parliament	2011	13.3	Millennium Development Goals Indicators - UN.
Gender inequality index (GII)	2011	.382	UNDP International Human Development Indicators
Gender parity index in primary level enrolment (ratio of girls to boys)	2009	.98	Millennium Development Goals Indicators – UN
Global Hunger Index	2012	8.1	(IFPRI). Global Hunger Index 2012, 2012
Human Development Index (HDI)	2011	.682	UNDP International Human Development Indicators

Source: WHO Country Profile – Thailand, Available from: <http://apps.who.int/nutrition/landscape/report.aspx?iso=tha> on 12th Feb 2013.

Thailand healthcare services system and indicators

There are also inequities in access to quality health care in different parts of the country. Large gaps exist, for example, between Bangkok and the North-eastern Region in health resource distribution. The Bangkok area has significantly more beds and physicians per population than the North-eastern Region (Table 3). While private hospital beds account for about 25% of total beds, these mostly serve wealthy patients. Healthcare system in Thailand is characterized by unequal access to medical care by different social groups due to the rise in imported sophisticated technologies that increase the cost of medical services.

Selected health service indicators of Thailand:

Indicators	Value (Year)
Births attended by skilled health personnel (%)*	99.4 (2009)
Dentistry personnel density (per 10,000 population)	0.65 (2004)
Nursing and midwifery personnel density (per 10,000 population)	15 (2004)
Density of environment and public health workers (per 10,000 population)	0.4 (2000)
Density of pharmaceutical personnel (per 10,000 population)	1.17 (2004)
Physicians density (per 10,000 population)	3.0 (2004)

Hospital beds (per 10,000 population)*	22 (2008)
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Source: *WHO Country Profile – Thailand, Available from:

<http://apps.who.int/nutrition/landscape/report.aspx?iso=tha> on 12th Feb 2013 and World Health Statistics, 2012.

Other data is obtained from ‘Global Health Observatory Data’ of WHO.

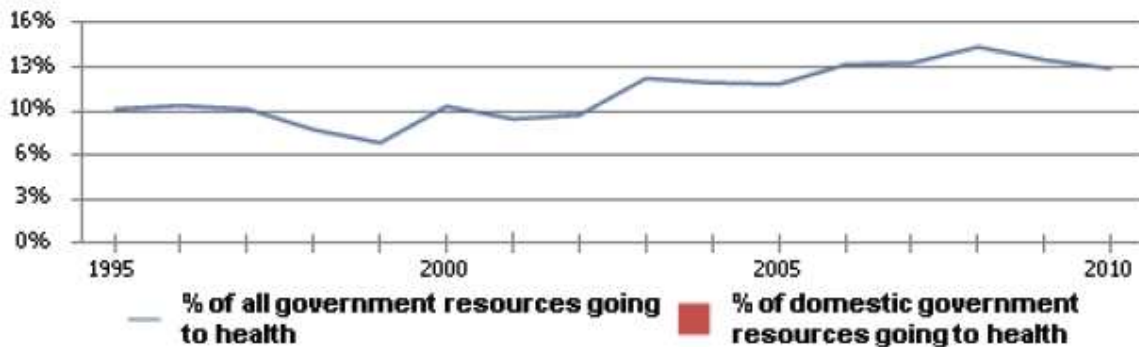
Health financing in Thailand

The following indicators for health financing are reflective of the political commitment of the state towards healthcare of the people.

Indicator	Year		
	2008	2009	2010
Total expenditure on health (TEH) as % of GDP	4	4.2	3.9
External resources on health as % of TEH	.3	.3	.3
General government expenditure on health (GGHE) as % of TEH.	76.2	74.6	75.0
Private expenditure on health (PvHE) as % of TEH	23.8	25.4	25
GGHE as % of general government expenditure	14.3	13.3	12.7
Private insurance as % of PvHE	26.7	28.5	31.4
Out of pocket expenditure as % of PvHE	60.9	59.6	55.8
Total expenditure on health / capita at purchasing power parity (NCU per US \$)	318	327	330
General government expenditure on health / capita at purchasing power parity (NCU per US \$)	242	244	247

Source: WHO, Thailand – Thailand - National Expenditure on Health (Thailand Bhat), Available from: Global Health Expenditure Database, WHO on 13th Feb 2013.

Government resources allocated to health



Source: WHO Global Health Expenditure Atlas, 2012, p 103.

Thailand – health outcome indicators

Indicator	Sex	Thailand	Regional average	Global average
Life expectancy at birth (yrs) (Data refers to yr 2010)	Male	66	64	66
	Female	74	67	71
	Both sexes	70	65	68
Infant mortality rate (probability of dying between birth and age 1 per 1000 live births)	Both sexes	15.9 (2012 est.)*		37 (2011)
Under five mortality rate / 1000 live births (yr 2010)	Both sexes	13	57	57
Adult mortality rate (probability of dying between 50 and 60 years per 1000 population) (yr 2010)	Both sexes	205	209	176
Maternal mortality ratio (per 100 000 live births) (yr 2010)	-	48	200	210
Prevalence of HIV (per 1000 adults aged 15 to 49) (yr 2010)	-	13	3	8
Prevalence of tuberculosis per 100,000 population (yr 2010)	-	182	278	178

Source: WHO, Thailand Health Profile. Available from: <http://www.who.int/gho/countries/tha.pdf> on 13th Feb 2013.* Available from CIA World fact book at <https://www.cia.gov/library/publications/the-world-factbook/rankorder/2091rank.html> on 9th April 2013.

Take home points

Positives

- Though not on a very high growth trajectory, Thailand has used its economic growth to address the developmental needs of its population and has successfully met all the Millennium Development Goals.
- Government bears nearly 3/4th of the total expenditure on health with private expenditure accounting for only 1/4th of the total health expenditure.
- Government's commitment to social security for all citizens along with very low levels of unemployment help in creating a situation where the subaltern sections of the society can seek services without compromising their dignity.

Negatives

- Despite its achievements in social sector, Thailand remains a highly unequal society.
- Dichotomy between the rich and the poor and between different regions of the country has resulted in differential access of the people to health services.
- The private sector comprising nearly 1/4th of the bed strength primarily caters to the rich while the poor access the public sector health facilities.
- High dependence of the Thai economy on export led economic growth renders its vulnerable to international economic shocks and therefore raise questions over the continuing viability of its social sector policies.

HEALTH SYSTEM OF INDIA

Economic Profile of India

Though India's Constitution enshrines her as a – 'sovereign, socialist, secular, democratic republic', it has fast emerged as an open market economy since the adoption of the '*new economic policies*' of '*globalization*', '*liberalization*' and '*privatization*' since the beginning of 1990s. In fact since late 1990s until 2010-11 India's economy grew at a unprecedented rate of 7 to 9 %, thus making it the second fastest growing economy after China. However, nearly two third of this growth has come from the growth of the services sector of the economy which accounts for barely one third of the labor force (Index mundi, 2013g). Even manufacturing sector has varied between stagnation or a very modest growth. Agricultural sector, though accounting for less than 20 percent of India's GDP, is still major source of employment for more than 50 percent of the workforce. Most importantly, India's economic growth has largely bypassed the agricultural sector of the economy with stagnation becoming the defining feature of Indian agriculture (World Bank, 2011). This period of 'neo-liberal' economic reforms has also been characterized by huge number of suicides by peasantry due to economic distress.

There are important consequences to India's growth story by passing the agricultural sector. Nearly 70 percent of the country's population still lives in rural areas where agriculture constitutes the bed rock of rural economy. Its stagnation leads to difficulties in tackling the problem of 'enormous poverty' and raising the living standards of the majority of its population. Even though about 30 percent of the population is below the measly official poverty line, the proportion below the international poverty line of \$ 1.25 a day is 33 percent.

This economic picture also explains very well the fact that while on one hand there is a section of the population that is becoming a victim of lifestyle / non-communicable diseases; on the other hand a very large section of the population continues to be the repository of infectious diseases (Quigley, 2006).

Some selected economic indicators of India are (Index mundi, 2013f):

- GDP (official exchange rate) - \$1.947 trillion (2012 est.)
- GDP - real growth rate - 5.4% (2012 est.)
- GDP - per capita (PPP) - \$3,900 (2012 est.)
- GDP - composition by sector- Agriculture (17%), Industry (18%), Services (65%) (2011 est.)
- Poverty head count ratios - 33 percent below \$ 1.25 expenditure a day; 30 percent below national poverty line (World Bank, 2013e).

Socio-Demographic Profile

Demographic profile

Indicator	Year	Estimate	Source
Sex ratio (women / 100 men)	2011	94	UN statistics division*
Annual population growth rate (%)	2010-2015	1.3	UN statistics division
% of population in urban areas	2011	30.3	UN statistics division
Annual rate of population change (%) – Urban / Rural	2010-2015	2.4 / .8	UN Population Division
Crude birth rate (births per 1000 popl.)	2010	22	WHO country profile: India*
Crude death rate (births per 1000 popl.)	2009	8	WHO country profile: India*
Improved drinking water coverage (%) – Total/Urban/Rural	2008	88/96/84	UN statistics division
Improved sanitation coverage (%) – Total/Urban/Rural	2008	31/54/21	UN statistics division

Source: * Country profile, India, WHO. Available from: <http://apps.who.int/gho/data/view.country.10400> on 11th April 2013. Rest of the data is from UN Statics Division.

Literacy profile

Indicator	Year	Total (%)	Men	Women	Girls share of enrollment
Adult (15+) literacy rate, by sex	2006	63	75	51	-
Youth (15-24) literacy rate, by sex	2006	81	88	74	-
Primary net enrollment ratio, by sex	2007	-	89	92	47
Secondary net enrollment ratio, by sex	2010	-	-	-	45
		34			

Tertiary gross enrollment ratio, by sex	2009	-	13	19	39
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Source: United Nations Statistics Division.

It is noteworthy here that the proportion of women in education at all levels is less than 50 percent, while that for other countries women have a higher proportion, especially in higher education.

Employment profile

Indicator	Year	Total	Men	Women
Total labor force	2012 (est.)	498.4 million	-	-
Employment by sectors (%)	2011 (est.)	Agriculture (53%), Industry (19%), Services (28%)		
Adult unemployment (%)	2012 (est.)	9.9%	-	-

Source: Index mundi, 2013g.

Meta indicators

Indicator	Year	Value	Source
% Seats held by women in the national parliament	2011	10.8	Millennium Development Goals Indicators - UN.
Gender inequality index (GII)	2012	0.61	UNDP International Human Development Indicators
Gender parity index in primary level enrolment (ratio of girls to boys)	2007	0.97	Millennium Development Goals Indicators – UN
Global Hunger Index	2012	22.9	(IFPRI). Global Hunger Index 2012, 2012
Human Development Index (HDI)	2012	0.554	UNDP International Human Development Indicators

India healthcare services system and indicators

The foundation of India's public health system was laid on the basis of the recommendations made by the 'Health Survey and Development Committee', popularly known as the 'Bhore Committee', in its report submitted in 1946. The Committee specified three levels of care – Primary (to be delivered by 'Primary Health Centre' and its associated Sub-Centers), Secondary level (to be delivered by a sub-district hospital at the level of a development block) and the Tertiary level (to be delivered through a tertiary care referral hospital at the district level).

Even though subsequent health planners retained the basic scheme of public health structure as proposed by Bhore Committee, the targets set by the Committee in terms of population norms, physical infrastructure and health manpower etc. could not be achieved till date. The development of health services in India has suffered from the colonial dichotomy of curative versus preventive and urban versus rural (Banerji, 1990; Duggal, 2003). Hence large hospitals to provide curative care came up in the bigger cities vis-à-vis preventive services for

rural areas that were provided through a series of vertical disease control programs. Gradually, this led to the evolution of city based costly curative care for the rich, while public sector health care became synonymous with poor service for poor people. The economic liberalization pursued since 1990 has given further fillip to expansion of privately managed healthcare in India. The private sector accounts for more than 80 percent of healthcare in the country (PricewaterCoopers, 2007; CII & KPMG, undated).

It is in this context that the Government of India launched a series of social sector programs beginning 2005. The ‘National Rural Health Mission’ (NRHM) was launched with a view to reinvigorating the rural healthcare set up in the country. A series of measures were initiated under NRHM to reach out the healthcare services to the most marginalized of the sections of the population in the remotest areas of the country. This has resulted in some laudable achievements in public health in the country even though much still remains to be achieved in terms of improving country’s health indicators.

Selected health service indicators of India:

Indicators	Value (Year)
Births attended by skilled health personnel (%)	52.7 (2008)
Dentistry personnel density (per 10,000 population)	0.8 (2008)
Nursing and midwifery personnel density (per 10,000 population)	10 (2008)
Density of environment and public health workers (per 10,000 population)	Not available
Density of pharmaceutical personnel (per 10,000 population)	5.2 (2006)
Physicians density (per 10,000 population)	6.5 (2009)
Hospital beds (per 10,000 population)*	9 (2005-11)

Source: WHO ‘Global Health Observatory Data’. *Available from <http://www.globalhealthfacts.org/data/topic/map.aspx?ind=78> on 11th April 2013.

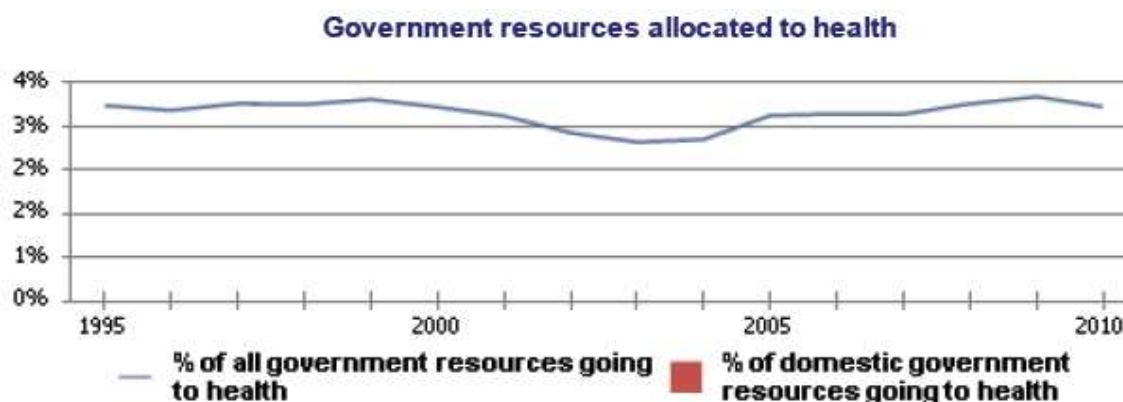
Health financing in India

The following indicators for health financing are reflective of the political commitment of the state towards healthcare of the people.

Indicator	Value (Year)		
	2008	2009	2010
Total expenditure on health (TEH) as % of GDP	4.0	4.2	4.1
External resources on health as % of TEH	1.7	1.1	1.2
General government expenditure on health (GGHE) as % of TEH.	27.6	30.3	29.2

Private expenditure on health (PvHE) as % of TEH	72.4	69.7	70.8
GGHE as % of general government expenditure	3.6	3.7	3.6
Private insurance as % of PvHE	4.1	4.6	4.6
Out of pocket expenditure as % of PvHE	87	86.4	86.4
Total expenditure on health / capita at purchasing power parity (NCU per US \$)	116	124	132
General government expenditure on health / capita at purchasing power parity (NCU per US \$)	32	38	39

Source: WHO, Cuba – National Expenditure on Health (Indian rupees), Available from: on 10th Apr 2013.



Source: WHO Global Health Expenditure Atlas, 2012, p 98.

India – health outcome indicators (2010)

Indicator	Sex	India	Regional average	Global average
Life expectancy at birth (yrs)	Male	63	64	66
	Female	66	67	71
	Both sexes	65	65	68
Infant mortality rate (probability of dying between birth and age 1 per 1000 live births)	Both sexes	46.07*	51.64**	
Under five mortality rate / 1000 live births	Both sexes	63	57	57
Adult mortality rate (probability of dying between 50 and 60 years per 1000 population)	Both sexes	212	209	176
Maternal mortality ratio (per 100 000 live births)	-	200	200	210
Prevalence of HIV (per 1000 adults aged 15 to 49)	-	3	3	8
Prevalence of tuberculosis per 100 000 population	-	256	278	178

Source: WHO, India Health Profile, year 2010. Available from: <http://www.who.int/gho/countries/ind.pdf> on 10th Apr 2013. *Figure for IMR is obtained from Country profile India, Available at http://www.indexmundi.com/india/infant_mortality_rate.html on 11th April 2013. Regional IMR figure for South Asia is World Bank data from a report published in 2012. It is available from <http://www.tradingeconomics.com/south-asia/mortality-rate-infant-per-1-000-live-births-wb-data.html> on 11th April 2013.

Take home points

Positives

- Over the years India has developed an extensive network of health facilities to reach out to the remotest corners of the country.
- Launching of programs like NRHM shows government's commitment towards providing affordable and accessible healthcare to the people of the country, especially the marginalized sections.
- Despite huge variation in terrain, culture, ethnicity, infrastructure and economic development across different regions of the country, India has successfully implemented nationwide health programs which have resulted in consistent improvement in the health indicators of the country.

Negatives

- Despite robust economic growth in the last decade or so large sections of the Indian population have been left outside the ambit of social and economic progress. The official poverty line of the country continues to be defined very stingily thus preventing many people to avail of the facilities / concessions reserved for poor.
- Unlike in the case of other developing countries, women in India continue to lag behind in social and economic development which limits the scope of securing health of the families, especially the children.
- The fact that for profit sector is the dominant player in healthcare service provisioning makes it difficult to ensure the access of the poor to an affordable curative care. This is also a big limitation in leveraging public health goals of the government.
- Government expenditure on health continues to be a small percent of the total expenditure on health. Much of this expenditure is confined to provide preventive services to the people.

Master table: Comparison of selected indicators across different countries.

Indicator	Cuba	Brazil	Mexico	Sri Lanka	Thailand	India
<i>Economic indicators</i>						
• GDP per capita (PPP)	\$ 9,000 (2010)	\$ 11,900	\$14,800	\$5,700	\$10,000	\$3,900
• GDP composition (%) – Agriculture/Industry/Services	4 / 20.8 / 75.2	5.5 / 27.5 / 67	3.8/34.2/62	13/29.6/57.4	13/43/44.1	17/18/65
• % population below \$ 1.25 / day	Not available	6.1	1.2	7	.4	33
<i>Social development indicators</i>						
• % of urban population	75	87	78	14.3	34	30.3
• Improved drinking water coverage (%) – Total/Urban/Rural	94 / 96 / 89	97 / 99 / 84	94/96/87	90/98/88	98/99/98	88/96/84
• Improved sanitation coverage (%) – Total/Urban/Rural	91 / 94 / 81	80 / 87 / 37	85/90/68	91/88/92	96/95/96	31/54/21
• Literacy:						
➢ Adult (15+) literacy rate, by sex (M/F)	100 / 100	90 / 90	95/92	91/92/89	96/92	75/51
➢ Tertiary gross enrollment ratio, by (M/F/Girls share of enrollment)	72 / 119 / 61	31 / 42 / 51	27/27/50	Not available	53/40/56	13/19/39
• Employment:						
➢ Adult unemployment (%) (M/F)	1.4 / 2	6.1 / 11	5.3/5.3	3.5/7.7	1.2/1.1	9.9(Total)
- Employment by sectors (%): Agriculture/Industry/Services	20 / 19.4 / 60.6	20 / 14 / 66	13.7/23.4/62.9	32.7/24.2/43.1	40.7/13.2/46.1	53/19/28
• Gender inequity index	.337	.449	.448	.415	.382	.61
• Global Hunger Index (2012)	4	4	4	14.4	8.1	22.9
• Human Development Index (HDI) (2011)	0.776	0.718	0.77	0.691	.682	.554
<i>Health Service Indicators</i>						
• Births attended by skilled health personnel (%)	99.9	98.9	95.3	98.6	99.4	52.7
• Density of environment and public health workers (per 10 000 population)	2.46	9.7	Not available	1.14	.4	Not available
• Physicians density (per 10 000 population)	67.23	17.64	19.59	4.92	3	6.5
• Hospital beds (per 10 000 population)	59	24	16	31	22	9
<i>Health financing indicators</i>						
• Total expenditure on health (TEH) as % of GDP.	10.1/12.1/0.6	8.3/8.8/9	5.9/6.5/6.3	3.4/3.2/2.9	4/4.2/3.9	4/4.2/4.1
• General government expenditure on health (GGHE) as % of TEH.	95.3/92.7/91.5	42.8/43.6/47	47/48.3/48.9	46.8/46.2/44.7	76.2/74.6/75	27.6/30.3/29.2
• Private expenditure on health (PvHE) as % of TEH	4.7/7.3/8.5	57.2/56.4/53	53/51.7/51.1	53.2/53.8/55.3	23.8/25.4/25	72.4/69.7/70.8
• Private insurance as % of PvEH	0/0/0	42.2/41/40.4	8/7/-	5/4.95.3	26.7/28.5/31.4	4.1/4.6/4.6
• Out of pocket expenditure as % of PvEH	100/100/100	56/57.2/57.8	92.9/92.3/92.2	82/82.5/81.2	60.9/59.6/55.8	87/86.4/86.4
• Per capita total expenditure on health (PPP in int. \$) (2011)	429	1042.7	940.1	191.4	353.3	141.1
• Per capita government expenditure on health (PPP int. \$) (2011)	407.0	477.0	464.9	85.4	266.6	43.8
<i>Health outcome indicators</i>						
• Life expectancy at birth (yrs): (Total/Male/Female)	78 / 76 / 80	73 / 70 / 77	76/73/78	71/65/76	70/66/74	65/63/66
• Infant Mortality Rate	5	17	14	14	15.9	46.07
• Under Five Mortality Rate	6	19	17	17	13	63
• Maternal Mortality Ratio	73	56	50	35	48	200
• Adult mortality rate (probability of dying between 15 and 60 years of age per 1000 population (T/M/F)	99/120/78	154/205/102	122/157/88	182/275/82	205/270/139	87/86.4/86.4
• Prevalence of tuberculosis per 100 000 population	13	47	18	101	182	256

LEARNING FROM AFOREMENTIONED DATA

Description of reality alone may serve little in terms of guiding policy unless we can put the facts in perspective. In a way the foregone description on the health systems of different countries has been summarized in the Master Table above and our next task is to place an analysis of the table so as to draw conclusions for policy. To this end we shall follow a simple dictum – ‘What are the outcomes, at what cost and with what inputs?’

Comparing achievements and their costs

It can be seen from the master table above that with the notable and strange exception of a somewhat higher maternal mortality ratio (in relative terms), Cuba marches ahead of the other countries in all other health outcome measures. In fact the health outcome indicators for Cuba are better than those of USA for infant mortality, under five years mortality and adult mortality rate and at a per capita cost that is one twentieth of that for USA.

Cuba does better than some of its closer neighbors – Brazil and Mexico on all the health outcomes and at a total per capita cost that is less than half of what is spent in Brazil and Mexico. For the later two even though the per capita government expenditure on health is more than that of Cuba, but the private expenditure on health remains more than 50 percent of the total expenditure on health while in case of Cuba private expenditure is around 5 to 6 percent of the total.

As discussed in the sections on individual countries, unlike Cuba the health delivery systems in Brazil and Mexico are not publically owned in the main, especially with respect to the tertiary and to some extent the secondary level of care. The government pitches in with subsidies to facilitate access to private health facilities. At least in Brazil a much wider reach of private insurance and government’s contributions to it lessen the burden on out of pocket expenditure for the people, which in case of Mexico is as high as 90 percent of the total private expenditure on health. It is thus clear that the strategy of public-private mix as compared to dominant role of public system increases the cost of care without commensurate benefits in terms of health outcomes.

The clear message is that greater state commitment to provision of health through strengthening the public system pays dividend both in terms of saving money in the provision of healthcare and in maximizing health outcomes.

The question still remains – how the Cubans manage equal or in certain aspects even better health outcomes at far less expenditure than countries like U.K. which also have an almost fully state own health services system? This can probably be explained by the much greater emphasis by Cuba on preventive healthcare interventions and in addressing other social determinants of health like poverty and hunger and gender equity than what most countries do. Secondly, many of the sectors supportive of the health services sector like health education, medical research,

pharmaceutical and biotechnology industries are also predominantly in the public sector which makes it possible to privilege low cost solutions in these respective fields in response to the actual health needs of the people unlike the situation where these sectors are largely in the private domain.

Rather than welfare concerns private sector by its very nature tends to privilege high cost technological solutions in promotive, preventive, diagnostic, curative and rehabilitative aspects of health with the objective of maximizing profit. Thus healthcare even though fully publically provided becomes loaded with high end technological solutions that are not just costlier but might be totally unnecessary towards fulfilling the health needs of the people. Besides these factors a much more comprehensive socioeconomic welfare of the people also goes to lessen the costs of providing healthcare.

Going by the total per capita health expenditure and that spent by the government per person Cuba, Brazil and Mexico might still be a class apart as compared to India. Hence, it becomes incumbent upon us to look at the experience of Sri Lanka and Thailand which have much lower per capita expenditures, but still higher than that of India but with much better health outcomes. While the per capita government expenditure on health is nearly two times that of India in Sri Lanka, in Thailand it is six times; correspondingly the infant mortality rate is nearly three times that of either country while the under five mortality rate is even higher. The moral of the story clearly is that it requires much greater commitment of the state towards making available the resources and provision of health services in order to improve health outcomes.

The question of inputs critical for improved health outcomes

As we have already discussed in the section on theoretical conceptualization of the review the conventional wisdom with regard to inputs required for improving health outcomes leads us to immediately make assessments of financial resources for health, the health infrastructure, manpower and supplies like medicines and equipment. As to everything else, it is included in the generic category of 'Governance'. However, in our description of health systems of different countries we have included details on economic structure, extent of unemployment, gender parity, safe drinking water and sanitation coverage, literacy and extent of women's literacy etc. It is these that we seek to assess for different countries over here.

In terms of social development indicators Cuba, Brazil and Mexico along with Thailand form a distinct group. Barring Thailand the other three are marked by high levels of urbanization. Here again Cuba has been the leader with above 90 percent coverage for provision of safe drinking water and improved sanitation, 100 percent literacy with share of women in tertiary level education being higher than that of men and low levels of gender inequality. It is commendable indeed that Thailand also has more than 90 percent coverage for improved drinking water and sanitation, education – in particular female education and gender equality. The reported level of unemployment in Thailand is even less than that in Cuba at 1.2 / 1.1 percent for males and

females as compared to corresponding figures of 1.4 / 2 percent for Cuba. Additionally, Thailand's achievements are in spite of the fact that a large section of its population is rural based and is engaged in agriculture i.e. probably in non-formal employment. This has lessons for India as a large section of her population also resides in villages and more than 50 percent of her population is employed in agriculture. Even in terms of economic development the proportion of people below international poverty line is only .4 percent in Thailand which is much lower than that in other countries except Cuba for which the corresponding percentage is not available.

In terms of per capita GDP Mexico and Brazil lead the pack in that order followed by Thailand, but higher levels of poverty in the former two are reflective of a more unequal economic growth. What is even more notable in terms of economic advancement is the fact that more than 40 percent of Thailand's GDP comes from industrial activity, which is much higher than that for other countries. However, to what extent this reflects economic resilience of the country, this being the necessary condition for development in social sectors including health, would depend on the extent to which this industrial production is for domestic consumption or for meeting demand of external markets. The former scenario would obviously be more desirable, while the later is liable to be undermined in case of economic crisis due to external factors and thereby create a resource crunch for health and other social sectors.

Even in case of Sri Lanka, with the exception of the fact that its urban population is only 14.3 percent, its social development indicators are quite comparable to others apart from slightly higher hunger index and proportion below international poverty line. Share of industry in GDP at 30 percent also compares favorably with other countries, being slightly less than that of only Mexico and Thailand. Still the per capita GDP of Sri Lanka is as yet considerably less in comparison to Mexico, Brazil, Thailand and Cuba and hence a potential constraint on making ample resources available for healthcare. Surprisingly, the human development index of Sri Lanka is still higher than that of Thailand.

We leave India for a while and come to addressing the question that if there is not a yawning gap in social development indicators of Cuba, Brazil, Mexico and Thailand then why is there a much larger gap in the health outcomes between these countries. There could possibly be three reasons for this:

- The indicators of social and economic development mentioned here like provision of improved water and sanitation, literacy, gender equality, per capita GDP and Human Development Index are neither comprehensive nor reflect the quality of different services. For example, the coverage for improved drinking water in urban India is said to be 96 percent; but we know that in every large city of India as much as 50 percent or more of the population lives in urban slums or unauthorized colonies which have generally poor or variable status of civic amenities. Likewise there are known large slum populations in Brazil and Mexico besides a good proportion of native Indian population in these countries which enjoy much lower levels of living than say the people of European descent.

- The second reason could be that apart from Cuba the other countries have a recognized capitalist model of economy and unequal development is the sine-qua-none of capitalist development, meaning thereby that while the national averages like per capita GDP may appear good but the actual distribution of the GDP in the society and resultantly the parameters of social wellbeing are quite skewed. This results in populations within the country which are poorer, malnourished, less likely to access health services, more liable to be excluded from the ambit of social welfare and hence in a greater danger to suffer from poorer health outcomes.
- State's political commitment to people's wellbeing – The ruling elite in every country would like to believe and proclaim that they are committed to provide for the welfare of their people equally, yet the story is quite to the contrary. It is well recognized that at the times of economic crisis or even a hunch of it, expenditure on social sectors is the first casualty. In India even at the best of times with an economic growth rate of 8 to 9 percent, resources for social sectors including health were never acknowledged to be freely available. The government in England is now concertedly trying to pare down the National Health Services (NHS) in the name of fiscal prudence.

Contrary to this we have already noted above that even at the time of its worst economic crisis during the decade of the nineties the proportion of the GDP devoted to health actually increased in Cuba. On an average 60 percent of Cuban government's expenditure is on social sectors. This automatically means that much more than treating the disease, emphasis is on obliterating the conditions that lead to disease.

Drawback of the Cuban healthcare system

Despite its very efficient and effective model of healthcare, it is not as if the same can be or need be replicated in countries like India. We can note from the master table above that the number of physicians and hospital beds per 10,000 people is way too high in Cuba as compared to other countries. This lends Cuba liable to the criticism that it's is the most medicalized healthcare system in the world and that while it may work in a small country with limited population, the same might be a logistical and financial hazard in countries like India with a huge and diverse population and a number of indigenous systems of medicine. These together constitute a hugely varied context for provision of healthcare.

Given its level of economic development, it may be near impossible for India to train medical professionals in such large number to achieve a doctor to population ratio even a third that of Cuba, especially given the trend where becoming a doctor is considered more as a lucrative career option in the main rather than a matter of fulfilling an important societal need. Instead a much greater reliance on paramedical health workers to administer primary level of healthcare and an efficient referral system for higher levels of care that is not contingent upon a person's ability to pay, would be more suitable.

Hence, even as every country needs to imbibe the social and political spirit of the Cuban healthcare system, there is a need to contextualize this with reference to the local needs and socioeconomic conditions.

The system in India and the required correctives

India as can be seen from the master table above lags far behind other countries in terms of per capita measures of economic development, overall poverty, financial inputs for health, socioeconomic development indicators, availability of health infrastructure and manpower, health service indicators and the health outcomes. It would appear that India's healthcare system is even more privatized than the beacon of capitalism – U.S.A where government's share of the total expenditure on health is around 46 percent (as per Global Health Observatory Data) as compared to around 30 percent in India. Further, the general government expenditure on health as a percentage of total government expenditure has been less than 8 percent generally and was 8 percent in 2011 in India as compared to consistently around 20 percent in U.S.A.

Even as the perennial 'scarcity of resources' argument tenaciously bogs down the healthcare, the argument that efficient and effective healthcare is cardinal to accomplish welfare of the people and is an essential precondition to ensuring economic growth seems to have lost out on the policy establishment in the country.

The biggest contradiction that bedevils healthcare sector in India today is the tension between the dominating and domineering private sector. Private sector today constitutes more than 80 percent of the healthcare in India. It, by its very nature acts as bulwark against successful functioning of public sector at all levels of care - primary, secondary as well as tertiary. The reason for this is simple – a non-performing public healthcare increases the clientele of the private sector.

Those who seek to establish a partnership between the public and the private sectors for achieving public health goals conveniently overlook the fundamental contradiction between the motives of the private sector to maximize profit by catering to those who can afford to pay and the motives of the public sector, which is to cater to the people's health needs irrespective of their ability to pay. The only manner in which this contradiction has been diluted is by attempts to commercialize public healthcare services through imposition of retrograde policies like user charges. Addressing 'World Health Assembly' at Geneva this year the World Bank President Jim Yong Kim while advocating adoption of "equitable models of health financing along with social protection measures such as cash transfers for vulnerable households" criticized user charges for the poor as "unjust and unnecessary" (Nigam, 2012). It is noteworthy that the Bank itself was the progenitor of this policy.

The dominance of private sector reinforces the traditional inequities / dichotomies in the health system – the curative – preventive dichotomy in favor of the curative; the urban-rural dichotomy in favor of the urban and dichotomy between the better developed and poorly developed regions in favor of the better developed regions. The reason for this is that the private sector plans all its

activities for maximization of profits. Even though this was always the case, but increasing privatization of healthcare has resulted in elite capture of medical profession where students from elite and urban sections of the society enter medical schools which are coming up more and more in the private sector; harbor aspirations to specialize and super-specialize to make careers in plush private hospitals in big urban centers if not at destinations in the West. Less to say that this colors the vision of the doctors in the way they see country's health problems, how they think these should be resolved and the empathy they feel for the hundreds of millions of Indians who suffer and die from the least glamorous of medical conditions like malnutrition, diarrhea, respiratory infections and tuberculosis for want of effective care even for these. Privatization of healthcare privileges high tech solutions to even simple public health problems and thereby raises the cost of care making it further difficult for the poor to access quality healthcare at an affordable cost. Most importantly, this process has metamorphosed healthcare as a moral obligation of the society towards its people to being a commodity that can legitimately be used to make profit.

The efforts made in the country from time to time to redress the health problems of the common Indians have attempted to do so without in as much as even touching this fundamental contradiction. Resultantly, even spirited attempts at rolling out initiatives like the National Rural Health Mission have remained stunted in achieving their full potential.

As a country we can keep formulating and rolling out some plan or the other ostensibly to improve the health of our people and draw satisfaction from whatever improvement as may occur in the process without regard to its correlation with the efforts made. However, if India were to achieve the health outcomes as achieved by some of the compatriot countries there is no alternative to the public sector healthcare acquiring a dominating and domineering position in healthcare delivery; this also being the necessary condition for enlisting the participation of private sector in achieving public health goals at terms conducive to the interest of India's impoverished masses.

REFERENCES

- Brazil Govt. Website (2012): 'Timeline of Brazilian Economy'. Available from http://www.brasil.gov.br/para/invest/timeline-of-the-brazilian-economy/view_sumario_contatos?b_start:int=30&-C= on 10th Feb 2013.
- Banerji D (1990): 'Future of Primary Healthcare in India', World Health Forum, Vol. 11: p 60-64
- Cooper R S, Joan F Kennelly, and Pedro Orduñez-Garcia (2006): "Health in Cuba," International Journal of Epidemiology 35: 817-824.
- CII & KPMG (Undated): 'The Emerging Role of PPP in Indian Healthcare Sector', Policy paper. Available from www.ibef.org/download/PolicyPaper.pdf on 11th April 2013.

- DGHS (2003): ‘Organization of Health Services’ in ‘Annual Health Bulletin – 2003’, Ministry of Health, Government of Sri Lanka.
- Duggal R (2003): ‘Operationalizing Right to Healthcare in India, CEHAT, Paper presented at 10th Canadian Conference on International Health, Ottawa, 28th October.
- Fitz D (2012): ‘Why Is Cuba's Health Care System the Best Model for Poor Countries?’ Monthly Review, 7th December. Available from <http://mrzine.monthlyreview.org/2012/fitz071212.html> on 7th Feb 2013.
- Feinsilver J M (1993): ‘Healing the Masses. Cuban Health Politics at Home and Abroad.’ Berkely, CA: University of California Press, 1993.
- FAO (2011): ‘The Fome Zero (Zero Hunger) Program; The Brazilian Experience’, José Graziano da Silva, Mauro Eduardo de El Grossi, Caio Galvão de França (Editors), Ministry of Agrarian Development, Brasilia.
- Index mundi (2013a): ‘Cuba Economy Profile 2012’. Available from: http://www.indexmundi.com/cuba/economy_profile.html on 7th Feb 2012.
- Index Mundi (2013b): ‘Introduction’ in ‘Brazil: country profile’, Available from <http://www.indexmundi.com/brazil/background.html> on 10th Feb 2013.
- Index mundi (2013c): ‘Economy overview’ in ‘Country profile – Brazil’. Available from http://www.indexmundi.com/brazil/economy_overview.html on 10th Feb 2013.
- Index mundi (2013d): ‘Economy overview – Mexico’, Available from: http://www.indexmundi.com/mexico/economy_overview.html on the 14th Feb 2013.
- Index mundi (2013e): ‘Sri Lanka – Country Profile’. Available from: http://www.indexmundi.com/sri_lanka/ on 15th Feb 2013.
- Indexmundi (2013f): ‘Country profile: India’. Available from <http://www.indexmundi.com/india/#Economy> on 10th April, 2013.
- Iatridis D S (1990): ‘Cuba’s Health Care Policy: Prevention and Active Community Participation.’ Social Work, 95:29-34.
- Lindert K (2006): ‘Brazil: Bolsa Familia Program – Scaling-up Cash Transfers for the Poor’, MfDR Principles in Action: Sourcebook on Emerging Good Practices.
- Nigam Aditi (2012): ‘World Bank chief favors equitable models of health financing’, Business Line, 22nd May.
- Pérez J (2012): "Gender and HIV Prevention," Slide presentation at the Pedro Kouri Institute of Topical Medicine, Havana, Cuba, May 15.
- PAHO (2013): ‘Country Health Profile, Cuba. Data updated for 2001’. Available from <http://www.paho.org/english/sha/prflcub.htm> on 8th Feb 2013.
- PAHO & USAID (2008): ‘Health Systems and Services Profile – Brazil, Monitoring and Analysis of Health Systems Change/Reform’, February.
- PAHO (2007): ‘Public Policies and Health Systems and Services’ in ‘Health in the Americas, 2007. Volume I – Regional.
- PricewaterCoopers (2007): ‘Emerging Market Report: Health in India 2007.’

- Quigley M A (2006): ‘Commentary: Shifting burden of disease—epidemiological transition in India’, *Int. J. Epidemiol.* Vol. 35 (6): 1530-1531. doi: 10.1093/ije/dyl244.
- Roemer M. I. (1976): ‘Health Care Systems in World Perspective.’ Health Administration Press, Ann Arbor.
- Schwab P (1997): ‘Cuban Healthcare and the U.S. Embargo’, *Monthly Review*, 49: 15-25.
- WHO (2013a): ‘Cuba: Country Cooperation Strategy’, Available from <http://www.who.int/countries/cub/en/> on 8th Feb 2013.
- WHO (2013b): Brazil Health Profile. Available from: <http://www.who.int/gho/countries/bra.pdf> on 13th Feb 2013.
- WHO (2013c): ‘Mexico, Country Cooperation Strategy’. Available from http://www.who.int/countryfocus/cooperation_strategy/ccsbrief_mex_en.pdf on 14th Feb 2013.
- WHO (2013d): ‘Sri Lanka – Country Cooperation Strategy’. Available from: <http://www.who.int/countries/lka/en/> on 15th Feb.
- WHO (2011e): ‘WHO Country Cooperation Strategy, Thailand: 2012–2016.
- World Bank (2013a): ‘Brazil - Poverty and Equity Data’. Available from: <http://povertydata.worldbank.org/poverty/home/> on 10th Feb, 2013.
- World Bank (2013b): ‘Mexico Poverty and Equity Data’. Available from: <http://povertydata.worldbank.org/poverty/country/MEX> on 14th Feb, 2013.
- World Bank (2013c): ‘Sri Lanka Poverty and Equity Data’. Available from: <http://databank.worldbank.org/ddp/home.do?Step=12&id=4&CNO=1208> on 14th Feb, 2013.
- World Bank (2013d): ‘Thailand Poverty and Equity Data’. Available from: on 14th Feb, 2013.
- World Bank (2013e): ‘Poverty and Equity Data – India.’ Available from: <http://povertydata.worldbank.org/poverty/country/IND> on 10th April 2013.
- World Bank (2011): ‘India: Priorities for Agriculture and Rural Development.’ Available from: <http://go.worldbank.org/8EFXZBL3Y0> on 10th April, 2013.