1.1. PUBLIC HEALTH

Public health challenges are no longer just local, national or regional. They are global. They are no longer just within the domain of public health specialists. They are among the key challenges to our societies. They are political and cross-sectoral. They are intimately linked to environment and development. They are key to national, regional and global security.

Historically, disease in other places was seen as an impediment to exploration, and a challenge to winning a war. Cholera and other diseases killed at least three times more soldiers in the Crimean War than the actual conflict. Malaria, measles, mumps, smallpox and typhoid felled more combatants than did bullets in the American civil war. And the Panama Canal went over-schedule because of “tropical” diseases then unknown, untreatable and often fatal.

Today on that front, there are very few unknowns. Globalization has connected Bujumbura to Bombay, and Bangkok to Boston. In an interconnected and inter-dependent world, bacteria and viruses travel almost as fast as e-mail messages and money flows. There are no health sanctuaries. No impregnable walls between the world that is healthy, well fed, and well off, and another world, which is sick, malnourished and impoverished. Globalization has shrunk distances, broken down old barriers, and linked people together. It has also made problems half way around the world everyone's problem. And we know that, like a stone thrown on the waters, a difficult social or economic situation in one community can ripple and resonate around the world.

Now, there are solutions for those diseases, which plagued the explorers, soldiers and colonialists of historical times. We know how to prevent and treat malaria. There are vaccines for yellow fever. There are
treatments for Tuberculosis (TB). The striking feature is: while we diligently take antimalarial and top up our vaccinations when we travel to developing countries the people living there, those threatened most by these diseases don't have this access. 3,000 Children in Africa die each day from malaria. They die of vaccine preventable diseases like measles, by the hundreds of thousands. And, people are dying, by the millions every year, of Human Immunodeficiency Virus/ Acquired Immune Deficiency Syndrome (HIV/AIDS)

1.1.1. Human Immunodeficiency Virus / Acquired Immune Deficiency Syndrome (HIV/AIDS)

Twenty years ago, Human Immunodeficiency Virus (HIV) was a specter, all but invisible on the horizon. It was considered a disease, which affected specific minorities gay men and intravenous drug users. Science was slow to respond. The rare cancer, Kaposi's sarcoma, was a marker, and a sentence to die a painful, slow and often lonely death.

The world took more notice with the realization that the human immunodeficiency virus knew no borders. Given the right vector, it could infect anyone man, woman, gay, straight, healthy and hemophiliac. By 1990 in wealthy countries, we were screening blood donors and teaching our kids how to protect themselves against Human Immunodeficiency Virus (HIV). Condom use had increased. Incidence declined. And then antiretroviral were made available to those who could afford them. People in countries with health insurance gained access, giving tremendous hope for a longer, healthier life. In short, Human Immunodeficiency Virus (HIV) diminished for those in rich countries as an urgent public health problem.

Today, more than 42 million people are Human Immunodeficiency Virus (HIV) positive. 30 million of them are living in sub-Saharan Africa.
They are trying to survive in some of the poorest countries and conditions with no access to the most basic health care much less sophisticated and expensive treatment. Many have died. Many are dying. They are mothers and fathers, teachers, and nurses and other health professionals, civil servants, miners, and soldiers. They are leaving a huge social and professional gap an imminent threat to countries struggling to develop. They are leaving orphans, penniless grandmothers caring for their children’s children, family members and communities frightened, hurt, stigmatized. Health systems stretched well beyond their often-frail capacities. We will see the effects of this unfolding tragedy for decades to come.

Many places in Africa we see a downward spiral, making countries increasingly weak. The important challenge is to address the underlying causes and arrest the descent, before we are forced to deal with the ultimate consequences famine, unrest and human suffering. Consequences that will touch everyone the loss of so much human potential will indeed resonate around the world.

Let us think of other areas where Human Immunodeficiency Virus (HIV) is creeping in China, India, the Central Asian Republics. Knowing the impact in so many other areas, we cannot stand on the sidelines, only to see another Human Immunodeficiency Virus (HIV) crisis unfold before our eyes with the economic, social, and political devastation it will bring.

The short, sharp impact of conflict more quickly brings to light the inevitable links between health and development, between health and security. The obvious the war wounded soldiers and civilians. The medium-term impacts people uprooted, displaced to camps with little sanitation or health services, schools disrupted, and food insecurity.
1.1.2. Sars

And last year, the shortest, sharpest shock of all an outbreak which captured imaginations, often more column inches than the war in Iraq, and always more headlines than Aids, Tuberculosis (TB) or malaria. Severe Acute Respiratory Syndrome (SARS) put the world on high alert, and drove unprecedented cooperation to stop a disease, which had an immediate and negative impact on markets, on tourism, on trade. And, on hospitals, even in the most well developed countries with the most advanced health systems.

One person infected, staying at an international hotel, put the world at risk. And, unlike other diseases which we can prevent or treat, Severe Acute Respiratory Syndrome (SARS) was undiagnosable, untreatable, and, for one of every six people, fatal.

The way the world responded to Severe Acute Respiratory Syndrome (SARS) was global public health at its best. Scientists put aside their differences and drives to be the first, and came together, to share sequencing and study results. Doctors from around the world came together in virtual conferences, to share advice on how best to treat patients. Public health authorities from opposite sides of the globe flew to Geneva, to share their experiences with Severe Acute Respiratory Syndrome (SARS), their success and failures with 192 member states at the World Health Assembly. And as a result, in just four short months, we had identified a new disease and contained a global outbreak, which could have become a global catastrophe.

The short sharp shock made us all stand up and pay attention. Due to the speed of science and using the best evidence, we quickly knew that Severe Acute Respiratory Syndrome (SARS) could infect anyone. Governments were committed. Resources made available. People made aware. Health workers given tools for action. Information shared across borders. In short, there was
global mobilization to fight a global threat. The result we probably won't find ourselves 10 years down the road with Severe Acute Respiratory Syndrome (SARS) also endemic in the countries, which can least afford it devastating lives and economies. Because we acted to make sure that wouldn't happen.

And, we found that it was in everyone's interest to act. In today's connected societies, there was no choice. Impossible to pretend it didn't exist, or that it was already contained. The consequences of doing so were mistrust in government, and in economies. Societies have been shaken to their foundation, fundamental questions raised about the handling of disease, of media and information, of constituents.

1.2. HEALTH CARE

There are two ways to look at health systems, both of them useful and both somewhat flawed. On the one hand, individuals trying to understand health care can examine individual units (the “trees”) and then try putting them tighter to get an idea of the system that contains them (the “forest”). On the other hand, individuals can look first at the broad collection of individual health services (the “forest”) and then spend time examining the individual services (the “trees”) that make up that system.

The informed health care professional must understand both health care systems and the individual services that comprise them-if one wants have to fully workable understanding of health care.

In the World Health Organization (WHO) released a report ranking the health care systems of the world’s 191 countries. The first attempt of its kind, the report attracted a great deal of media attention and surprised many health experts in its kind; the report attracted a great deal of media attention and surprised many health experts in its findings. The World Health Organization (WHO) rankings were based on five composite indicators: (1) the overall level
of health of the population; (2) health inequality within the population, (3) health system responsiveness, (4) the distribution of responsiveness to measure, and (5) how fairly the financial burden is shared across different socioeconomic groups.

The health of the population was measured in terms of disability-adjusted life expectancy and disparities in that measure across groups. Health system responsiveness measured how well patients are served and the degree of service disparities among different groups. This composite index was compiled from surveys administered to 1,791 public health experts in 35 selected countries. The fairness of the financial burden was recorded as an index based on survey data measuring the percentage of household income beyond subsistence spent on health care. A weighting scheme was used to develop an index of overall performance, giving a 25 per cent weight to each of categories 1, 2, and 5, and a 12.5 per cent weight each to categories 3 and 4.

Table No.1.1. WHO Health Care System Performance, 1997

<table>
<thead>
<tr>
<th>Countries</th>
<th>Health Attainment Level</th>
<th>Health Distribution</th>
<th>Responsiveness Attainment Level</th>
<th>Responsiveness Distribution</th>
<th>Financial Attainment</th>
<th>Goal Attainment</th>
<th>Overall Performance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Canada</td>
<td>12</td>
<td>18</td>
<td>17</td>
<td>T3</td>
<td>T17</td>
<td>7</td>
<td>30</td>
</tr>
<tr>
<td>France</td>
<td>3</td>
<td>12</td>
<td>T16</td>
<td>T3</td>
<td>T26</td>
<td>6</td>
<td>1</td>
</tr>
<tr>
<td>Germany</td>
<td>22</td>
<td>20</td>
<td>5</td>
<td>T3</td>
<td>T6</td>
<td>14</td>
<td>25</td>
</tr>
<tr>
<td>Japan</td>
<td>1</td>
<td>3</td>
<td>6</td>
<td>T3</td>
<td>T8</td>
<td>1</td>
<td>10</td>
</tr>
<tr>
<td>United Kingdom</td>
<td>14</td>
<td>2</td>
<td>T26</td>
<td>T3</td>
<td>T8</td>
<td>9</td>
<td>18</td>
</tr>
<tr>
<td>States</td>
<td>24</td>
<td>32</td>
<td>1</td>
<td>T3</td>
<td>T54</td>
<td>15</td>
<td>37</td>
</tr>
</tbody>
</table>

Note: Tn Indicates a tie for n th place.

Overall, the French health care system was rated number 1. The only other country examined in this chapter that made the top 10 was Japan, finishing at number 10. The top spots were filled by countries that usually don’t come to mind in discussions of the world’s best health systems: Italy, Spain, Oman, and Austria. The next large developed country on the list was the United Kingdom at number 18, Germany finished 25th, Canada 30th, and the United States 37th.

Needless to say, the results were met with heavy criticism, mostly from those countries whose rankings did not meet expectations. Blendon, Kim, and Benson (2001) point out one methodological flaw in the World Health Organization (WHO) approach, namely that the rankings show little correlation between overall performance and the results of patient satisfaction surveys conducted in the countries. Italy, Portugal, and Greece ranked 2, 12, and 14 in the World Health Organization (WHO) study but consistently scored quite low on patient satisfaction surveys. And countries such as the Netherlands, Finland, and Denmark which ranked 17, 31, and 34, rated high in patient satisfaction.
Despite its flaws, despite the criticism, the World Health Organization (WHO) report was an attempt to do a thankless, but necessary task—develop a method to compare health care systems.

Table No.1.2. Key Statistics

<table>
<thead>
<tr>
<th>2001</th>
<th>Canada</th>
<th>France</th>
<th>Germany</th>
<th>Japan</th>
<th>United Kingdom</th>
<th>United States</th>
</tr>
</thead>
<tbody>
<tr>
<td>Population (in millions)</td>
<td>31.1</td>
<td>59.2</td>
<td>82.4</td>
<td>127.1</td>
<td>58.8</td>
<td>284.8</td>
</tr>
<tr>
<td>GDP Per Capita</td>
<td>28,811</td>
<td>26,879</td>
<td>26,199</td>
<td>26,652</td>
<td>26,315</td>
<td>35,182</td>
</tr>
<tr>
<td>Health Expenditure health Care Spending Per Capita</td>
<td>2,792</td>
<td>2,561</td>
<td>2,808</td>
<td>1,984</td>
<td>1,992</td>
<td>4,887</td>
</tr>
<tr>
<td>Health Care Spending Per Capita GDP</td>
<td>9.7</td>
<td>9.5</td>
<td>10.7</td>
<td>7.6</td>
<td>7.6</td>
<td>13.9</td>
</tr>
<tr>
<td>Medical Services</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Number of Physicians (1000)</td>
<td>2.1</td>
<td>3.3</td>
<td>3.3</td>
<td>1.9</td>
<td>2.0</td>
<td>2.7</td>
</tr>
<tr>
<td>Number of Hospitals and Beds (1000)</td>
<td>3.2</td>
<td>6.7</td>
<td>6.3</td>
<td>16.5</td>
<td>3.9</td>
<td>2.9</td>
</tr>
<tr>
<td>Average Length of Stay (days)</td>
<td>7.2</td>
<td>8.5</td>
<td>9.3</td>
<td>40.8</td>
<td>7.0</td>
<td>5.8</td>
</tr>
<tr>
<td>Medical Technology</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CT Scanners</td>
<td>9.5</td>
<td>9.6</td>
<td>17.1</td>
<td>84.4</td>
<td>6.2</td>
<td>13.1</td>
</tr>
<tr>
<td>MRI Units</td>
<td>3.5</td>
<td>2.6</td>
<td>6.2</td>
<td>23.2</td>
<td>4.6</td>
<td>8.1</td>
</tr>
<tr>
<td>Lithotripters</td>
<td>0.4</td>
<td>1.0</td>
<td>1.7</td>
<td>4.0</td>
<td>__</td>
<td>2.9</td>
</tr>
<tr>
<td>Patients Undergoing Dialysis</td>
<td>45.7</td>
<td>__</td>
<td>64.0</td>
<td>162.4</td>
<td>27.0</td>
<td>86.5</td>
</tr>
</tbody>
</table>

Figure No.1.2. Health Expenditure Health Care Spending Per Capita


Figure No. 1.3. Medical Services

1.2.1. Expenditures Across OECD Countries

Medical care spending in the United States is the highest in the world, both in per capita terms and as a percentage of gross domestic products. Although health care spending as a percentage of gross domestic product (health-to-Gross Domestic Product (GDP) ratio) is the most widely used performance measure for the health care sector, it is important to remember that there are actually two components to this ratio. Comparisons at a given point in time tend to focus on the ratio alone. If countries over time, however, it is important to examine both the change in health spending and the change in Gross Domestic Product (GDP). In other words, both the numerator and the denominator of the ratio are important.

The below table no.1.3. Presents a comparison of the growth rates for health care sector components for the decades of the 1980s. Annual growth rates in health care spending were considerably higher in the 1980s and 1990s.
Table No.1.3. Annual Compound Growth in Health Sector Components  
1980s and 1990s, in percentages

<table>
<thead>
<tr>
<th>Component</th>
<th>Canada</th>
<th>France</th>
<th>Germany</th>
<th>Japan</th>
<th>United Kingdom</th>
<th>United States</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nominal Health care spending</td>
<td>9.64</td>
<td>3.89</td>
<td>9.64</td>
<td>3.82</td>
<td>4.19</td>
<td>6.87</td>
</tr>
<tr>
<td>Nominal Per Capita health Care Spending</td>
<td>8.47</td>
<td>2.89</td>
<td>9.06</td>
<td>3.48</td>
<td>4.11</td>
<td>4.12</td>
</tr>
<tr>
<td>Real Health Care Spending</td>
<td>3.76</td>
<td>2.23</td>
<td>4.61</td>
<td>2.38</td>
<td>1.24</td>
<td>6.21</td>
</tr>
<tr>
<td>Real Per Capita Health Care Spending</td>
<td>2.65</td>
<td>1.25</td>
<td>4.08</td>
<td>2.04</td>
<td>1.16</td>
<td>2.10</td>
</tr>
<tr>
<td>Real Health Care Spending</td>
<td>4.68</td>
<td>2.55</td>
<td>3.59</td>
<td>2.31</td>
<td>1.63</td>
<td>4.95</td>
</tr>
<tr>
<td>Real Per Capita health Care Spending</td>
<td>3.57</td>
<td>1.57</td>
<td>2.72</td>
<td>1.97</td>
<td>1.54</td>
<td>2.24</td>
</tr>
</tbody>
</table>


The average growth rate in nominal health care spending averaged 7.82 per cent, ranging from 4.19 per cent in Germany to 9.78 per cent in the United States. Nominal spending growth slowed to an average of 5.16 per cent in the 1990s, ranging from 3.82 per cent in France to 6.80 per cent in France to 6.80 per cent in the United Kingdom. The highest growth rate in nominal spending per capita in the 1980s was 9.06 per cent in France. During the 1990s the highest rate was 6.58 per cent in the United Kingdom. Germany and Japan consistently had the lowest rates of growth for these measures during the two decades.
Deflating health care expenditures by the medical care price index provides information on the change in the volume and intensity of service in this sector. Canada and France had the largest increase in volume of intensity of service in this sector. Canada and France had the largest increase in volume and intensity of service during the 1980s, with real spending growing at rates of 3.76 per cent and 4.61 per cent per year when using total spending, and 2.65 per cent and 4.08 per cent when using per capita spending. During the 1990s the growth rates in real spending fell sharply, to as low as 2.23 per cent for total spending in Canada, and 1.24 per cent for per capita spending in the United States.

1.3. HEALTH CARE IN THE UNITED STATES

Health care in the United States is provided by many separate legal entities. Health care facilities are largely owned and operated by the private sector. Health insurance is now primarily provided by the government in the public sector, with 60-65 per cent of healthcare provision and spending coming from programmes such as Medicare, Medicaid, TRICARE Management Activity (TRICARE), the Children's Health Insurance Program, and the Veterans Health Administration.

Life expectancy in the United States of America (USA) is 42nd in the world, below in comparison to most developed nations and some developing nations. It is below the average life expectancy for the European Union. The World Health Organization (WHO), in 2000, ranked the United States (U.S) health care system as the highest in cost, first in responsiveness, 37th in overall performance, and 72nd by overall level of health. The Commonwealth Fund ranked the United States last in the quality of health care among similar countries, and notes United States (U.S) care costs the most.
1.3.1. Medical Products, Research and Development

As in most other countries, the manufacture and production of pharmaceuticals and medical devices is carried out by private companies. In 2003, research and development expenditures were approximately $95 billion with $40 billion coming from public sources and $55 billion coming from private sources. These investments into medical research have made the United States the leader in medical innovation, measured either in terms of revenue or the number of new drugs and devices introduced. In 2006, the United States accounted for three quarters of the world’s biotechnology revenues and 82 per cent of world Research and Development (R&D) spending in biotechnology.

1.3.2. Health Care Spending

Current estimates put United States (U.S) health care spending at approximately 16 per cent of Gross Domestic Product (GDP), second highest to East Timor (Timor-Leste) among all United Nations member nations. Of each dollar spent on health care in the United States, 31 per cent goes to hospital care, 21 per cent goes to physician/clinical services, 10 per cent to pharmaceuticals, 4 per cent to dental, 6 per cent to nursing homes and 3 per cent to home health care, 3 per cent for other retail products, 3 per cent for government public health activities, 7 per cent to administrative costs, 7 per cent to investment, and 6 per cent to other professional services (physical therapists, optometrists, etc).

In 2009, the United States federal, state and local governments, corporations and individuals, together spent $2.5 trillion, $8,047 per person, on health care. This amount represented 17.3 per cent of the Gross Domestic Product (GDP), up from 16.2 per cent in 2008.
One analysis of international spending levels in the year 2000 found that while the United States (U.S) spends more on health care than other countries in the Organization for Economic Cooperation and Development (OECD), the use of health care services in the United States (U.S) is below the Organization for Economic Cooperation and Development (OECD) median by, most measures.

In 2009, the average private room in a nursing home cost $219 daily. Assisted living costs averaged $3,131 monthly. Home health aides averaged $21 per hour. Adult day care services averaged $67 daily.

1.3.3. Medical Reform in United States

a. Medicare
b. Medicaid
c. Employer-based health insurance helping the uninsured
   Other health insurance reforms at the top of congressional list
d. Medical liability reform
e. A safety net for people with pre-existing conditions

1.4. HEALTH CARE IN UNITED KINGDOM

Healthcare in the United Kingdom is a devolved matter, meaning England, Northern Ireland, Scotland and Wales each have their own systems of private and publicly-funded healthcare, together with alternative, holistic and complementary treatments. Each country having different policies and priorities has resulted in a variety of differences existing between the systems.

Taken together, the World Health Organization, in 2000, ranked the provision of healthcare in the United Kingdom as fifteenth best in Europe and eighteenth in the world. Overall, around 8.4 per cent of the United Kingdom (UK's) gross domestic product is spent on healthcare, which is 0.5 per cent
below the Organization for Economic Co-operation and Development average and about one percent below the average of the European Union.

Most healthcare in England is provided by the National Health Service (NHS), England’s publicly funded healthcare system, which accounts for most of the Department of Health’s budget (£98.6 billion in 2008-09). The actual delivery of health care services is managed by ten Strategic Health Authorities and, below this, locally accountable trusts and other bodies.

In the 2010 Frontier Economics report for the Homes and Community Agency, retirement housing produced a financial gain of some £444 per older person per annum where public funding was used for retirement housing for rent. A further 44 per cent capital cost could be added where development was for owner occupied retirement housing.

A further report by Professor Michael Ball at the Henley Research Institute identified that there are just 105,000 units of owner occupied retirement housing in the United Kingdom (UK) although there are expected to be an extra 3.5 million older households by 2033 in England alone. Even a modest potential increase in the development of this type of accommodation from 2 per cent currently, to 5 per cent would generate a build rate of 16,000 units of owner occupied retirement housing a year.

There is also a need to estimate the saving in releasing family housing, given that half of all housing equity is held by people aged 65 and over. A conservative estimate would be at least £40 million per annum based on the above development figures.

1.5. HEALTH CARE IN FRANCE

France has a system of universal health care largely financed by government national health insurance. In its 2000 assessment of world health
care systems, the World Health Organization found that France provided the "best overall health care" in the world. In 2005, France spent 11.2 per cent of Gross Domestic Product (GDP) on health care, or US$3,926 per capita, a figure much higher than the average spent by countries in Europe but less than in the United States (US).

The entire population must pay compulsory health insurance. The insurers are non-profit agencies that annually participate in negotiations with the state regarding the overall funding of health care in France.

After paying the doctor's or dentist's fee, a proportion is reimbursed. This is around 75 to 80 per cent but can be as much as 85 per cent. The balance is effectively a co-payment paid by the patient but it can also be recovered if the patient pays a regular premium to a voluntary health insurance scheme. Nationally, about half of such copayments are paid from Voluntary Health Insurance (VHI) and half out of pocket.

As costs are borne by the patient and then reimbursed, patients have freedom of choice of where to receive health care services. Around 65 per cent of hospital beds in France are provided by public hospitals, around 15 per cent by private non-profit organizations, and 20 per cent by for-profit companies.

Private insurance, but a much higher share of the cost of spectacles and prostheses (21.9 per cent), drugs (18.6 per cent) and dental care (35.9 per cent). There are public hospitals, non-profit independent hospitals (which are linked to the public system), as well as private for-profit hospitals.

Because the model of finance in the French health care system is based on a social insurance model, contributions to the scheme are based on income. Prior to reform of the system in 1998, contributions were 12.8 per cent of gross earnings levied on the employer and 6.8 per cent levied directly on the employee. The 1998 reforms extended the system so that the wealthier with
capital income (and not just those with income from employment) also had to contribute; since then the 6.8 per cent figure has dropped to 0.75 percent of earned income. In its place a wider levy based on total income has been introduced, gambling taxes are now redirected towards health care and recipients of social benefits also must contribute. Because the insurance is compulsory, the system is effectively financed by general taxation rather than traditional insurance.

1.5.1. Budget allocation of Sweden for Health Care

Table No.1.4. Trends in Health Care Expenditure 1995-2009

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>GDP, US$ Per capita</td>
<td>28755</td>
<td>27686</td>
<td>40551</td>
<td>51937</td>
<td>42965</td>
</tr>
<tr>
<td>GDP, PPP US$ Per capita</td>
<td>21911</td>
<td>27726</td>
<td>32298</td>
<td>37424</td>
<td></td>
</tr>
<tr>
<td>Total health expenditure as per cent of GDP</td>
<td>8.0</td>
<td>8.2</td>
<td>9.78</td>
<td>9.2</td>
<td>9.9</td>
</tr>
<tr>
<td>Public expenditure on health as per cent of total expenditure on health</td>
<td>86.6</td>
<td>84.9</td>
<td>78.8</td>
<td>78.3</td>
<td>78.6</td>
</tr>
<tr>
<td>Private expenditure on health as per cent of total expenditure on health</td>
<td>13.4</td>
<td>15.1</td>
<td>17.4</td>
<td>16.8</td>
<td>16.6</td>
</tr>
<tr>
<td>Government health spending as per cent of total Government spending</td>
<td>10.6</td>
<td>12.6</td>
<td>13.1</td>
<td>13.8</td>
<td>13.8</td>
</tr>
<tr>
<td>OOP payments as per cent of private expenditure on health</td>
<td>99.9</td>
<td>91.1</td>
<td>93.5</td>
<td>92.8</td>
<td>192.8</td>
</tr>
<tr>
<td>VHI as per cent of private expenditure on health</td>
<td>0.1</td>
<td>1.2</td>
<td>0.8</td>
<td>1.2</td>
<td>1.2</td>
</tr>
</tbody>
</table>

Figure No.1.5. Trends in Health Care Expenditure 1995-2009


1.6. HEALTH CARE IN CANADA

Health care in Canada is delivered through a publicly funded health care system, which is mostly free at the point of use and has most services provided by private entities. It is guided by the provisions of the Canada Health Act. The government assures the quality of care through federal standards. The government does not participate in day-to-day care or collect any information about an individual's health, which remains confidential between a person and his or her physician. Canada’s provincially based Medicare systems are cost-effective partly because of their administrative simplicity.
1.6.1. Economics

The amount Canadians spend on health care in 1997 dollars has increased every year between 1975 and 2009 from $39.7 billion to $137.3 billion or a more than doubling of per capita spending from $1,715 to $4089. In 2009 dollars spending is expected to reach $183.1 billion or $5,452 per person. Most of this increase in health care costs has been covered by public funds. The greatest proportion of this money goes to hospitals ($51B), followed by pharmaceuticals ($30B), and physicians ($26B). Total spending in 2007 was equivalent to 10.1 per cent of the gross domestic product which was slightly above the average for Organization for Economic Cooperation and Development (OECD) countries, and below the 16.0 per cent of Gross Domestic Product (GDP) spent on health care in the United States.

Of the three biggest health care expenses, the amount spent on pharmaceuticals has increased the most. In 1997 the total price of drugs surpassed that of doctors. In 1975 the three biggest health costs were hospitals ($5.5B/44.7 per cent), physicians ($1.8B/15.1 per cent), and medications ($1.1B/8.8 per cent), while in 2007 the three biggest costs were hospitals ($45.4B/28.2 per cent), medications ($26.5B/16.5 per cent), and physicians ($21.5B/13.4 per cent).

In 2009, the government funded about 70 per cent, of Canadians' health care costs. This covered most hospital and physician cost whiles the dental and pharmaceutical costs were primarily paid by individuals. This is slightly below the Organization for Economic Cooperation and Development (OECD) average. Under the terms of the Canada Health Act, public funding is required to pay for medically necessary care, but only if it is delivered in hospitals or by physicians.
1.7. HEALTH CARE IN ETHIOPIA

Ethiopia is the second most populous country in Sub-Saharan Africa, with a population of over 92.9 million people. The country introduced a federal government structure in 1994 composed of nine Regional States: Tigray, Afar, Amhara, Oromia, Somali, Benishangul Gumuz, Southern Nations Nationalities and Peoples Region (SNNPR), Gambela and Harrari and two city Administrations (Addis Ababa and Dire Dawa). The Regional States are administratively divided into 78 Zones and 710 Woredas.

Ethiopia experiences a heavy burden of disease mainly attributed to communicable infectious diseases and nutritional deficiencies. Shortage and high turnover of human resource and inadequacy of essential drugs and supplies have also contributed to the burden. However, there has been encouraging improvements in the coverage and utilization of the health service over the periods of implementation of Health Sector Development Plan (HSDP).

Gross Domestic Product (GDP) constitutes the health chapter of the national poverty reduction strategy and aims to increase immunization coverage and decrease under-five mortality at large. The health service currently reaches about 72 per cent of the population and The Federal Ministry of Health aims to reach 85 per cent of the population by 2009 through the Health Extension Program (HEP). The Health Extension Program (HEP) is designed to deliver health promotion, immunization and other disease prevention measures along with a limited number of high-impact curative interventions.

In 2002 the government embarked on a poverty reduction programme that called for outlays in education, health, sanitation, and water. A polio vaccination campaign for 14 million children has been carried out, and a
A programme to resettle some 2 million subsistence farmers is underway. In 2003, the government launched the Health Extension Programme which will provide universal primary health care coverage by 2009. This includes placing two government-salaried female Health Extension Workers (HEW) in every kebele, with the aim of shifting the emphasis of health care to prevention.

According to the head of the World Bank's Global Human Immuno Deficiency Virus/Acquired Immune Deficiency Syndrome (HIV/AIDS) Programme, Ethiopia has only 1 medical doctor per 1,00,000 people. However, the World Health Organization in its 2006 World Health Report gives a figure of 1936 physicians (for 2003), which comes to about 2.6 per 1,00,000. There are 119 hospitals (12 in Addis Ababa alone) and 412 health centres in Ethiopia.

1.8. HEALTH CARE IN LIBYA

The health care system is not purely state-run, having very small private hospitals in some areas. In comparison to other states in the Middle East, the health status of the population is above average. Childhood immunization is almost universal. The clean water supply has increased, and sanitation has been improved. The country’s major hospitals are in Tripoli and Benghazi.

The number of medical doctors and dentists reportedly increased seven fold between 1970 and 1985, producing a ratio of one doctor per 673 citizens. In 1985 about one-third of the doctors in the Libya were native-born, with the remainder being primarily expatriate foreigners. The number of hospital beds tripled in this same time period. Among major health hazards endemic in the country in the 1970s were typhoid and paratyphoid, infectious hepatitis, leishmaniasis, rabies, meningitis, schistosomiasis, venereal diseases, and the principal childhood ailments. Malaria has been eradicated, and significant progress has been made against trachoma and leprosy.
Table No.1.5. Health Expenditure

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
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</thead>
<tbody>
<tr>
<td>Total health expenditure/capita</td>
<td></td>
<td>58*</td>
<td>68*</td>
<td>121*</td>
<td></td>
</tr>
<tr>
<td>Total health expenditure as per cent of GDP</td>
<td></td>
<td></td>
<td></td>
<td>3.1%</td>
<td></td>
</tr>
<tr>
<td>Investment expenditure on health (million Libyan dinars)</td>
<td>22.3</td>
<td>22.3</td>
<td>107</td>
<td>249.0</td>
<td>274.2</td>
</tr>
<tr>
<td>Public sector per cent of total health expenditure</td>
<td></td>
<td></td>
<td>60.1</td>
<td>71</td>
<td></td>
</tr>
<tr>
<td>Expenditure on health as per cent of total government expenditure</td>
<td></td>
<td></td>
<td>17.4</td>
<td>16</td>
<td></td>
</tr>
<tr>
<td>Per capita Government expenditure on health (USD)</td>
<td></td>
<td></td>
<td>78.5</td>
<td>86</td>
<td></td>
</tr>
<tr>
<td>Social insurance as per cent of government expenditure on health</td>
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<td></td>
<td>17.4</td>
<td>14.6</td>
<td></td>
</tr>
<tr>
<td>Out of pocket as per cent of total expenditure on health</td>
<td></td>
<td></td>
<td></td>
<td>23</td>
<td>23</td>
</tr>
<tr>
<td>OOP as per cent of private expenditure on health</td>
<td>100</td>
<td>100</td>
<td>100</td>
<td>100</td>
<td>100</td>
</tr>
</tbody>
</table>

1.8.1. Medical Facilities in Libya

The medical facilities in Libya are limited and it is essential for expats to become a member of a private clinic.

The Medilink Clinic in Tripoli is staffed by English-speaking expert doctors, and is a popular choice of those accustomed to Western standards of healthcare. The clinic offers family services, Energy Research (ER) services and is equipped with modern ambulances to boot. Medilink is a “members only” private clinic that functions according to either a basic membership and pay-as-you-go service fees, or all-inclusive style membership. Many of the oil company and other corporate employees and their families are known to be paying members.

1.9. HEALTH CARE IN SOUTH AFRICA

South Africa's health system consists of a large public sector and a smaller but fast-growing private sector. Health care varies from the most basic primary health care, offered free by the state, to highly specialised hi-tech health services available in the private sector for those who can afford it.

The public sector is under-resourced and over-used, while the mushrooming private sector, run largely on commercial lines, caters to middle- and high-income earners who tend to be members of medical schemes and to foreigners looking for top-quality surgical procedures at relatively affordable prices. The private sector also attracts most of the country's health professionals.

1.9.1. Public Versus Private Spending

Although the state contributes about 40 per cent of all expenditure on health, the public health sector is under pressure to deliver services to about
80 per cent of the population. Despite this, most resources are concentrated in
the private health sector, which sees to the health needs of the remaining 20
per cent of the population.

The number of private hospitals and clinics continues to grow. Four
years ago there were 161 private hospitals, with 142 of these in urban areas.
Now there are 200. The mining industry also provides its own hospitals, and
has 60 hospitals and clinics around the country.

Most health professionals, except nurses, work in private hospitals.
With the public sector's shift in emphasis from acute to primary health care in
recent years, private hospitals have begun to take over many tertiary and
specialist health services.

Public health consumes around 11 per cent of the government's total
budget, which is allocated and spent by the nine provinces. How these
resources are allocated, and the standard of health care delivered, varies from
province to province.

With less resources and more poor people, cash-strapped provinces
like the Eastern Cape face greater health challenges than wealthier provinces
like Gauteng and the Western Cape.

1.10. ISSUES IN MEDICAL CARE DELIVERY -SWEDEN

The provision of health care is the responsibility of 20 country councils
and one municipality under the central supervisory authority of the National
Board Control. More than 75 per cent of the medical expenditure is financed
through taxes: an 8.5 per cent pay roll tax levied by the country councils. This
combined tax amounts to about 12 per cent of income. The remainder of the
funding comes from lumpsum payments from the national government and
individual out of pocket payments.
1.11. HEALTH CARE SYSTEM IN JAPAN

Enrollment in one of Japan's health insurance programmes is compulsory for residents of Japan. There is not robust enforcement of this rule, so in practice, a fair number of individuals are not covered by insurance. This has mostly come to be a problem as the economic conditions because some Japanese companies to stop paying for employee insurance premiums and often employees do not independently obtain insurance in such circumstance. Additionally, the minority of foreigners in Japan that do not get coverage through an employer live within a grey zone where they are not compelled to get insurance, but government officials strongly encourage joining the national health scheme. There are a total of eight health insurance systems in Japan. They can then be divided into two categories. The two main categories of health insurance are referred to as Employees' Health Insurance. Employees’ Health Insurance is broken down to the following systems:

Union Managed Health Insurance

- Government Managed Health Insurance
- Seaman’s Insurance
- National Public Workers Mutual Aid Association Insurance
- Insurance Local Public Workers Mutual Aid Association

National Health Insurance is generally reserved for self-employed people and students, whereas social insurance is normally for corporate employees. National Health Insurance can be broken down into:

- National Health Insurance for each city, town or village
- National Health Insurance Union

In Japan, services are provided either through regional/national public hospitals or through private hospitals/clinics, and patients have universal
access to any facility, though hospitals tend to charge higher for those without a referral. Cost in Japan tends to be quite low compared to other developed countries, but utilization is much higher.

1.11.1. History

The beginning of the Japanese Health care system happened in 1927 when the first Employee Health Insurance plan was created.

In the 1980s, health care spending was rapidly increasing as was the case with many industrialized nations. While some countries like the United States allowed costs to rise Japan instead tightly regulated the health industry to rein in costs. As of 2009, a Magnetic Resonance Imaging (MRI) scan of the neck region costs United States ($US) 1,500 but in Japan, United States ($US) 98. Japanese patients favor medical technology such as scans, and they receive Magnetic Resonance Imaging (MRI's) at a per capita rate 8 times higher than the British and twice the amount of Americans. Prices all for health care services are set every two years by negotiations between the health ministry and physicians. The negotiations determine the price for every medical procedure and drug, and prices are identical across the country.

Since 1983 all elderly persons have been covered by government-sponsored insurance.

By the early 1990s, there were more than 1,000 mental hospitals, 8,700 general hospitals, and 1,000 comprehensive hospitals with a total capacity of 1.5 million beds. Hospitals provided both out-patient and in-patient care. In addition, 79,000 clinics offered primarily out-patient services, and there were 48,000 dental clinics. Most physicians and hospitals sold medication directly to patients, but there were 36,000 pharmacies where patients could purchase synthetic or herbal medication.
National health expenditures rose from about 1 trillion yen in 1965 to nearly 20 trillion yen in 1989, or from slightly more than 5 per cent to more than 6 per cent of Japan's national income.

In the early 1990s, there were nearly 1,914,000 physicians, 66,800 dentists, and 3,330,000 nurses, plus more than 2,000,000 people licensed to practice massage, acupuncture, moxibustion, and other East Asian therapeutic methods.

1.12. Japan’s International Cooperation in Health

Paralleling its astounding economic growth, Japan is rapidly overtaking the United States as the largest source of foreign and Japan’s development assistant policies have progressed through a series of stages, and the country is now assuming greater global responsibilities. Japan proposed foreign aid budget for 1989 exceeded the United States (U.S) allocation for 1988 by more than $1 billion. This budget marks the first step of Prime Minister Noboru Takeshita’s June 1988 promise to double Japan’s official development assistance over five years- from $50 billion in 1983-92 and to improve such assistance through increasing the share of grants and untied aid.

At the same time, major changes are underway in Japanese institutions involved in International Cooperation in health. The Japan International Cooperation Agency (JICA) is planning to balance its system for providing assistance between a “request basis” and an “offer basis”. The Ministry of Health and Welfare has established a Department of International Medical Cooperation at the National Medical Center Hospital of Tokyo, and also has created an Office of International Cooperation, separate from the Division of International Affairs. In order to assist in these activities, the establishment of two foundations is in progress. The first, called the Foundation for
International Medical Research, promotes health and medical research for development, and the second, the Foundation for Development of International Health, aims at strengthening the preventive component of Japan’s health programmes in the Third World. The Minister of Foreign Affairs, Taro Nakayama, who is a physician, emphasizes the need for health cooperation in Japan’s foreign policy. Survey missions have already been sent to several nations involving the joint efforts of the ministries of health and welfare, education, and foreign affairs.

In the nongovernmental sector, Japan’s Research Institute on Tuberculosis has long provided educational courses in English, supported by Japan International Cooperation Agency (JICA), for researchers and practitioners from the developing world. As one of the few remaining major research institutes on tuberculosis in the world, Japan facility seeks to fulfill a global responsibility in this field. Several Japanese universities have international health research Center of Kobe University and the Institute of Tropical Medicine of Nagasaki University. And the University of Tokyo is now planning to begin a graduate level course of the Commission’s activities, commissioner Saburo Okita formed a special committee of distinguished Japanese scientists and leaders to advise him on matters related to the commission’s work.

These developments along with the election of Dr.Hiroshi Nakajima as director-general of World Health Organization (WHO), indicate that Japan will continue to expand its role in research for health and development and will continue to improve the quality of its international cooperation for health in developing countries.
1.13. CHINA HEALTH CARE SYSTEM

While the spring of 2009 has been difficult for most global industries, the Chinese healthcare sector seems to be an exception. Recently announced healthcare reforms bring wider insurance coverage to the country’s 1.3 billion people as well as invest an additional $124 billion into the sector have opened up many opportunities for domestic as well as multinational firms.

While the $124 billion will be spread across China’s healthcare industry, the vaccine sector is expected to garner significant benefit as the reform plan stresses the importance of preventive care. Even if all of the sectors benefit evenly, the reform plan translates to 30 per cent Compound Annual Growth Rate (CAGR) for the vaccine industry over the next few years, to $1.7 billion, according to China Merchant Securities projections. The current vaccine market in China is valued at between $658 and $761 million.

1.13.1. Vaccine Industry

China is currently the world’s largest vaccine producer, producing more than one billion vaccine doses annually. But, given the huge population of China, analysts still consider the market underserved. According to the National Immunization Program (NIP), the 16 million infants born every year in China require 64 million doses of Diphtheria, Pertussis and Tetanus (DPT) vaccines (four immunizations in the first year), yet China currently only produces 18 million doses. The case is similar with Mumps, Measles, Rubella (MMR), hepatitis A, and other vaccines.

In the past, the vaccine industry in China had been monopolized by the China National Biotech Group, with regulatory barriers that excluded newcomers. The monopoly was loosened during the 1990s, and China now has more than 50 vaccine manufacturers. But the China Biotech Group remains an industry leader domestically.
In recent years, domestic vaccine makers have been trying to produce secondary vaccines outside National Immunization Programme (NIP) coverage, but their technology, product stability, as well as economies of scale have yet to catch up with that of their global counterparts.

1.13.2. Market-Oriented Reform

Though still heavily vaccine regulated, China’s industry has also been through market-based reforms in recent years. In June 2005, China’s “Guidance on Vaccine Distribution and Immunization” came into effect, which permits vaccine makers and distributors to directly sell vaccines not covered by National Immunization Programme (NIP) to the Centres for Disease Control and Prevention (CDC), other vaccine distributors, and vaccine-consuming organizations. The new regulation breaks the Centres for Disease Control and Prevention (CDCs) monopoly and increased vaccine sales channels from 54 provincial Centres for Disease Control and Prevention (CDC) centres to over 5,700 sales terminals. While seen as good news to both domestic and Multinational Companies (MNC) vaccine makers, it also increases competition.

1.14. POLICY REFORMS AND HEALTH SECTOR IN INDIA

a. National Indian Health Education and Outreach initiative.

b. Centres for Medicare and Medicaid Services (CMS)

Health sector reforms are a part of economic reforms. Health sector reforms have been implemented in an effort to improve health services management and supervision. These reforms are intended to decentralize health systems, reduce bureaucracy, and increase cost-effectiveness and efficiency by reorganizing services, streamlining management, and allocating resources to better meet local needs.
1.14.1. India’s Health Care System

- Medicine systems: Allopathy, Ayurvedic, Unani, Siddha and Homeopathy.
- Major groups: public, private and households.
- Public: union government, state government, local government Employers State Insurance (ESIs)
- Private: not for profit organizations.
  - For profit organizations
  - Non Governmental Organization (NGOs), trusts, charities, missions

1.14.2. Health Policies and Health Sector Reforms

A health policy is defined as a programme of action whose aim is to improve health conditions of the people. Health sector reforms are part of the overall economic, social, and political reforms that began two decades ago.

Health sector reforms in developing countries have largely focused on health financing, user fees, health insurance, changes in health system organization, delivery and management of health systems, regulation of public-private partnerships and contracting out services.

1.14.3. Composition of Health System

As far as the composition of the health system in the country is concerned, and we know that the health system is highly heterogeneous and complex with multiple actors, the large number of treatment providers belonging to different apathies and in different settings.
Table No. 1.6. Health and Health Related Indicators

<table>
<thead>
<tr>
<th>Indicator Description</th>
<th>Value</th>
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<tbody>
<tr>
<td>Hospitals</td>
<td>149</td>
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<tr>
<td>Health Centers</td>
<td>732</td>
</tr>
<tr>
<td>Health Posts</td>
<td>11,446</td>
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<tr>
<td>Health Stations+NHC</td>
<td>1,517</td>
</tr>
<tr>
<td>Private Clinics for Profit</td>
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</tr>
<tr>
<td>Private clinics not for profit</td>
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</tr>
<tr>
<td>Pharmacies</td>
<td>320</td>
</tr>
<tr>
<td>Drug Shops</td>
<td>577</td>
</tr>
<tr>
<td>Rural Drug Vendors</td>
<td>2,121</td>
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</tbody>
</table>

Source: Vision Tamil Nadu 2023. Strategic Plan for Infrastructure Development in Tamil Nadu

Figure No.1.6. Health and Health Related Indicators

Source: Vision Tamil Nadu 2023.
1.14.4. User Charges in the Public Health Sector in India

1. Reforms in health sector in India, initiated in early 1990’s, included levying of user charges for services in public health facilities as one of the initiatives.

2. States where user fees are being levied include Assam, Gujarat, Haryana, Himachal Pradesh, Orissa, Tripura, Rajasthan and Punjab.

3. Some states like Haryana levy rates for various services in all public health institutions from primary health centre upwards. In West Bengal, user charges apply only in secondary and tertiary level health facilities.

4. There is also variation in the nature of services for which user charges are levied.

5. The funds collected by way of user charges are meant to be utilized for improving the quality of services in health facilities, such as maintenance of hospital buildings, improving the cleanliness and hygiene, minor repairs and construction work, maintenance and repair of equipment, purchase of medicines and consumables, and improving facilities for patients and attendants.

1.14.5. Health Care Programmes in India

a. Common Minimum Programme
b. National Rural Health Mission
c. Strengthening of primary health infrastructure and improving service delivery
d. Reproductive and Child health (RCH-II) Programme
1.14.6. Plan Outlay

Plan outlay of the Department of Health was increased from Rs.5,118 crore during IX Plan to Rs.9,253 crore during X plan. However with the transfer of Rs.999 crore from Department of Family Welfare the X plan Outlay Department of Health has been increased to Rs. 10,252 crore. Plan outlay of the Department of Health for 2006-07 has been enhanced to Rs.3,328 crore as against Rs. 2,908 crore for the year 2005-06.

Table No.1.7. Trends in Plan Outlay and Expenditure from 2000-2011

<table>
<thead>
<tr>
<th>Years</th>
<th>Approved Outlay (in Crores)</th>
<th>Expenditure (in Crores)</th>
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<tr>
<td>2000-2001</td>
<td>1300</td>
<td>1129.3</td>
</tr>
<tr>
<td>2001-2002</td>
<td>1450</td>
<td>1307.94</td>
</tr>
<tr>
<td>2002-2003</td>
<td>1550</td>
<td>1359.83</td>
</tr>
<tr>
<td>2003-2004</td>
<td>1550</td>
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</tr>
<tr>
<td>2004-2005</td>
<td>2208#</td>
<td>1772.36</td>
</tr>
<tr>
<td>2005-2006</td>
<td>2908</td>
<td>2239.52*</td>
</tr>
<tr>
<td>2006-2007</td>
<td>3328</td>
<td>694.86**</td>
</tr>
<tr>
<td>2007-2008</td>
<td>2985</td>
<td>2183.71</td>
</tr>
<tr>
<td>2008-2009</td>
<td>3650</td>
<td>3008.22</td>
</tr>
<tr>
<td>2009-2010</td>
<td>4450</td>
<td>3261.91</td>
</tr>
<tr>
<td>2010-2011</td>
<td>5560</td>
<td>5139.55</td>
</tr>
<tr>
<td>2011-2012</td>
<td>5720</td>
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</tr>
</tbody>
</table>

Source: Annual Report 2006-07 and Budget Section (MOHFW)

*provisional **provisional up to 30.09.2006, #Additionality of Rs. 408 crore has been provided
1.14.7. Public Plus Private Expenditure

The public plus private out-of-pocket expenditure on health in India is 5.1 percent of Gross Domestic Product (GDP), higher than most ‘developing’ countries including China and several Latin American countries which spend 3.5-4.5 per cent and close to Japan and the West European countries that spend 5.5-8 per cent United Nations Development Programme (UNDP 2002).

Countries with much lower per cent of Gross Domestic Product (GDP) spent on health but a greater share of it through the public sector have achieved much better health indices, such as Sri Lanka and China.

An equally serious consideration is the nature of expenditure of public funds for health. For instance, the United States (US) has the highest Gross Domestic Product (GDP), spends the maximum on health through both public and private sectors, has the most hi-tech medical care and generates the maximum state-of-the-art- medical technology.
1.14.8. Improvement in the Quality of Health Care

(1) The improvement in the quality of health care over the years is reflected in respect of some basic demographic indicators. The Crude Birth Rate (CBR) declined from 40.8 births per thousand populations in 1951 to 29.5 in 1991 and further to 23.8 in 2005. Similarly there was a sharp decline in Crude Death Rate (CDR) which decreased from 25.0 deaths per thousands population in 1951 to 9.8 in 1991 and further to 7.6 in 2005.

(2) The Maternal Mortality Rate has also declined from 437 per one lakh live births in 1992-93 to 301 in 2001-03.

(3) Infant Mortality Rate, which was 110 in 1981, has declined to 58 per 100 live births in 1992-93 to 301 in 2001-03.

(4) In so far as family planning is concerned, the District Level Household Survey (DLHS) conducted in 2002-04, has revealed that 45.7 per cent eligible couples are currently using any one of the family planning methods as against 22.8 per cent in 1981.

(5) The total number of acceptors of different Family Planning methods enrolled in the country during the year 2006-07 as per provisional performance figures available so far was 29.44 million.

1.14.9. Household Expenditure on Health

The various studies conducted have revealed that households spend a substantial amount on health care and the poorer class spends more on health care in terms of their proportion to consumption expenditure and income. Household health expenditure works out to 8.4 per cent. The upper class
spends only 4 per cent of their consumption expenditure, while the lowest and lower middle classes spend as much as 8 per cent and 10 per cent respectively on health care.

1.14.10. Private Household Expenditure

Findings from various studies make it evident that a substantial financial burden of the household is borne for meeting health care needs. Compared to government expenditure on health the private household expenditure is nearly 4 to 5 times more.

This gains significance when we realize that nearly half of the country’s population does not have enough resources to meet their food requirements, and worse still the capacity to earn if the patient happens to be the sole earning member. Given this socio economic situation in the country the purchasing power becomes a crucial factor.

The issues raised above need to be addressed by the planners, policy makers, funders, Non- Governmental Organizations (NGO’s), researchers among others. In the new lexicography of Indian economics privatization and liberalization are the new panacea for ills in the economy.

Thus the focus of reforms and health sector in India, decentralization is going to be the key element of the reform process. One size doesn’t fit all is clearly the mantra. Alternate ways of financing health care should receive policy attention in a major way. Clearly there is scope of formulating demand side financing mechanisms so as to provide access to poor.

1.15. HEALTH CARE IN TAMIL NADU

The people of India suffer from terrible health. Nearly 40 per cent of all children under three years are stunted. Over half of all married women (age
15-49) are anaemic. The incidence of communicable diseases is rampant. Even the well-off often fall victim to outbreaks of diseases such as dengue, diarrhoea, malaria and hepatitis.

The economic costs of ill-health are huge. For the poor, it is often catastrophic. Government spending on health amounts to hardly 1 per cent of Gross Domestic Product (GDP).

It was not always so. At Independence, the fledgling medical and public health were separate cadres, each with its separate career ladder.

Following the 1946 Bhore Committee report, the two services were unified in the central government and the states were instructed to follow suit. Over time, attention and resources gravitated towards medical services and led to the atrophying of the public health component.

Environmental health services suffered a second blow in the 1950s, when the shrinking resources for public health were increasingly channeled into single-focus programmes, such as smallpox and malaria eradication, to the detriment of broader environment health needs.

The process was aggravated in the 1970s by the separating out of public health engineering services from health departments. The final blow also came in the 1970s when all grassroots male health workers, including sanitary inspectors, were combined into a single cadre of 'multi-purpose workers'.

By 2002, the National Health Policy could recognize the crucial importance of environmental health factors in engendering good health outcomes and yet blithely state that such matters were outside the purview of the health ministry.
One important state, which did not follow the herd and could light the way for the future, was Tamil Nadu. It offers a shining example of what can be achieved through effective and well-organized public health services.

Tamil Nadu has the best record in full child immunization coverage and the percentage of women receiving antenatal and postnatal care. It has very good infant mortality trends over time, though this is obviously affected by other factors (beyond public health services) as well.

The state has never figured as the main locus of any major epidemic in recent decades (a key yardstick of successful public health is the absence of disease outbreaks). It deployed its unusual technical expertise to help control the 1994 plague outbreak in Gujarat.

The state demonstrated an excellent record in responding swiftly to the 2004 tsunami disaster in organizing care for survivors and preventing epidemics.

And all this has been accomplished despite being India's third most urbanised state being one of the least endowed with fresh water sources, being one of the main poultry producers (but no bird flu epidemic), and with three international airports (but not an early hotspot for swine flu).

Moreover, all this has been achieved on a tight budget. Per capita public and private health expenditures in Tamil Nadu are below all-India averages.

First, the Public Health Directorate has maintained its separate identity and mission since 1922 and has been staffed by a trained cadre of public health managers. The Directorate has offered incentives and career paths in public health, thus minimizing the national tendency for dominance of public health specialists by medical specialists.
Second, the Directorate has retained a separate budget, which has facilitated the planning, staffing and implementation of full-scope public health services. Thus, for example, Tamil Nadu has about 120 entomologists (contrasted with just a handful in most other states) who can contribute effectively to controlling vector-borne diseases.

Third, Tamil Nadu has a Public Health Act, which assigns responsibilities to different layers of government and agencies, sets standards of food hygiene, water quality et cetera and mandates regulation and inspection of agencies and establishments, including a broad authority to control any 'nuisance' that could threaten people's health.

Fourth, there is a well-functioning professional public health cadre managing a team of non-medical specialists and lower-grade staff working solely on public health. This cadre has faster promotion avenues than medical care and enjoys considerable administrative responsibility and authority.

The administrative foundations are similar across the country. The key difference is that Tamil Nadu (a) separates the medical officers into the public health and medical tracks, (b) requires those in the public health track to obtain a public health qualification in addition to their medical degree, and (c) orients their work towards managing population-wide health services and primary health care.

The additional investment required to train a cadre of public health managers is modest: in Tamil Nadu, this cadre amounted to hardly 1 per cent of over 10,000 government doctors.

Of course, reverting to a separate Directorate of Public Health and having a good Public Health Act may also be necessary and quite feasible. And the data suggest that the costs are affordable. The central issue is not resources, but how they are organized, mandated and managed.
### Table No.1.8. Plan-Wise Total Outlay and Expenditure on Health in Tamil Nadu

(Rs. in Crore)

<table>
<thead>
<tr>
<th>S.No.</th>
<th>Plan</th>
<th>Year</th>
<th>Total Outlay</th>
<th>Total Expenditure</th>
</tr>
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<td>1</td>
<td>First Plan</td>
<td>1951-56</td>
<td>80.39</td>
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<td>2</td>
<td>Second Plan</td>
<td>1956-61</td>
<td>187.76</td>
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<tr>
<td>3</td>
<td>Third Plan</td>
<td>1961-66</td>
<td>347.15</td>
<td>79.17</td>
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<td>4</td>
<td>Annual Plan</td>
<td>1966-69</td>
<td>266.18</td>
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<td>5</td>
<td>Fourth Plan</td>
<td>1969-74</td>
<td>558.96</td>
<td>116.60</td>
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<td>6</td>
<td>Fifth Plan</td>
<td>1974-79</td>
<td>833.61</td>
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<td>7</td>
<td>Sixth Plan</td>
<td>1980-85</td>
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<td>8</td>
<td>Seventh Plan</td>
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Figure No. 1.8. Plan-Wise Total Outlay in Tamil Nadu

![Chart showing plan-wise total outlay in Tamil Nadu.](chart1)

Figure No. 1.9. Plan-Wise Total Expenditure on Health in Tamil Nadu

![Chart showing plan-wise total expenditure on health in Tamil Nadu.](chart2)

Source: Various Plan Document Reports, Tamil Nadu Planning Commission, government of Tamil Nadu, Chennai.
1.16. HEALTH CARE IN KARNATAKA

In December 2007, Bangalore ranked 2nd among the 593 districts in the country in terms of existence of health facilities. Chennai tops the list. Bangalore rural district stood at an impressive 67. The National Population Stabilization Fund (NPSF), in collaboration with National Informatics Center (NIC), has undertaken a unique exercise to create maps which show the existence of health facilities in each district across the country.

In Bangalore, only 26 per cent women have three or more children (rural is at 44 per cent), while the contraceptive prevalence rate is 83 per cent. The under-five mortality rate too is encouraging at 14 per cent but for rural it stands at 71 per cent. More than 3 Ante Natal Care (ANC) visits in rural Bangalore are at 87 per cent and Bangalore city is at 58 per cent.

Bangalore is finding a place in the global map for advanced spinal surgery due to the growing number of spinal surgeons in the Bangalore. Every month, Hosmat attends to 2-3 patients - mostly from Malaysia, Sri Lanka, Pakistan, Maldives, Bangladesh and Africa. As of October 2007, the state government has chalked out an ambitious plan to acquire around 500 acres of land near the Devanahalli International Airport for a super-speciality Health Park. With an increasing number of super-speciality hospitals, Bangalore has become increasingly popular in the field of health tourism.

1.17. HEALTH CARE IN MUMBAI

In little over a decade, Mumbai will be the largest city in the developing world. It will be a symbol of the megalopolis of the twenty-first century. And, like its counterparts in the developing world, the city's future is marked by great possibility and great peril.
While there has been considerable improvement in healthcare indicators since independence, Mumbai still remains well behind most developed Indian and international cities. Healthcare infrastructure in Mumbai in terms of hospital beds per 1,000 population lags behind several key peer Indian cities such as Gurgaon, Delhi, Chennai, Hyderabad and Bangalore, says a Kaiser Permanente Medical Group (KPMG) report.

Alongside the shortfalls in hospital beds, there is also a shortage of healthcare professionals, equipment and infrastructure needed at various levels in the healthcare delivery supply chain.

Healthcare delivery in Mumbai faces other important challenges. Mumbai does boast of traditionally reputed and well known general and speciality hospitals but the public healthcare facilities are burdened by the needs of an ever growing population.

This problem gets further accentuated by the speciality healthcare needs of in-migrants and citizens from other parts of Maharashtra. Although, the hospitals under Trusts have a requirement for providing 10 per cent of the capacity to the under-privileged, however, this does not provide adequate solution for the masses.

New healthcare infrastructure development in Mumbai has been constrained because of high cost of real estate. The private sector finds investments in healthcare in Mumbai un-remunerative, while the government finds it prohibitive in terms of capital and management demands.

Kaiser Permanente Medical Group (KPMG) covers healthcare delivery from five different facts: infrastructure capacity, accessibility, resources and productivity, disease focus and preventive measures. Healthcare in Mumbai requires a multi-pronged approach to address these aspects in healthcare
value chain to make a paradigm shift in delivery of healthcare services to the citizens of Mumbai.

Clearly, healthcare delivery in Mumbai has a significant scope for capacity development and efficiency improvement through further public private investment in infrastructure facilities.

Many aspects of delivery of the Bombay First strategy will therefore have an important contribution to make to improve the healthcare and well-being in Mumbai.

1.17. HEALTH CARE IN NEW DELHI

Delhi Health Care System contributes to the well being of the residents of the city. Both government and non government establishment’s takes care of all the health care facilities. Health is a primary concern for all individual and well developed health care systems of Delhi provide useful guidance for people of all ages.

There are different kinds of health care facilities available in the city. Some of these health care amenities, for example, are diagnostics centers, nursing home, hospitals, blood banks, health clubs, mobile health clinics, health centres, dispensaries and 24 hour chemists.

Delhi Government's The Directorate of Health Services provides the above health care amenities at both secondary and primary levels. The health services are regulated by Delhi's Directorate of Health Services that are offered by private nursing homes registered under the government.

There are many hospitals in Delhi which provides comprehensive health care opportunities to all individuals residing far and wide. Some of these hospitals are listed below:
• Aruna Asaf Ali Hospital - 5, Rajpur Road, Delhi
• Dr. Baba Saheb Ambedkar hospital- sector- VI, Rohini, Delhi-110085
• Central Jail Hospital- Hari Nagar, New Delhi
• Lok Nayak Hospital, Jawaharlal Nehru Marg, near Delhi Gate, ND-2
• Rao Tula Ram Memorial Hospital- Jaffarpur Village, New Delhi 110073
• Sanjay Gandhi Memorial Hospital
• Apollo hospital, Delhi
• All India Institute of Medical Sciences

Over the years, Delhi Health Care System has been modified and developed for meeting the requirement of its citizens' health.

1.19. HEALTH CARE IN BIHAR

India, the largest democratic republic in the world, possesses 2.4 per cent of the world’s land area and supports 16 per cent of the world population in which Bihar is the most populous state. Government of Bihar follows the statement - The First Wealth is Health. Hence Health & Welfare are of prime concerns for the Government of Bihar.

Over the years, the government has introduced various health programmes and policies to better the standard of life of its citizens. This has improved the life expectancy of males and females at birth every year and there has been a good decline in infant mortality rate as well.

The government has also been able to control and cure illnesses such as tuberculosis, malaria, pneumonia and water borne diseases to a certain extent. The World Health Assembly (WHA) defined 'Health' in 1948 as “a state of complete physical, mental and social well-being and not merely the absence of disease or infirmity”.
In 1986, the World Health Organization (WHO), in the Ottawa Charter for health promotion, said that health is “a resource for everyday life, not the objective of living. Health is positive concept emphasizing social and personal resources, as well as physical capacities.”

Family Welfare is responsible for aspects relating to family welfare, especially in reproductive health, maternal health, pediatrics, information; cooperation with Non-Governmental Organizations (NGOs) and international aid groups; and rural health services.

The Health Department is working towards providing health care “to the last household and to the last person of the state”, i.e., Government of Bihar is totally committed in building healthy people, not only by making available quality Medicare facilities at the door step of every citizen in the remotest corner of the state, but also by providing medical facilities of the highest order, keeping pace with rapid technological developments in the field of medicine.