CHAPTER 30

HEALTH AND FAMILY WELFARE

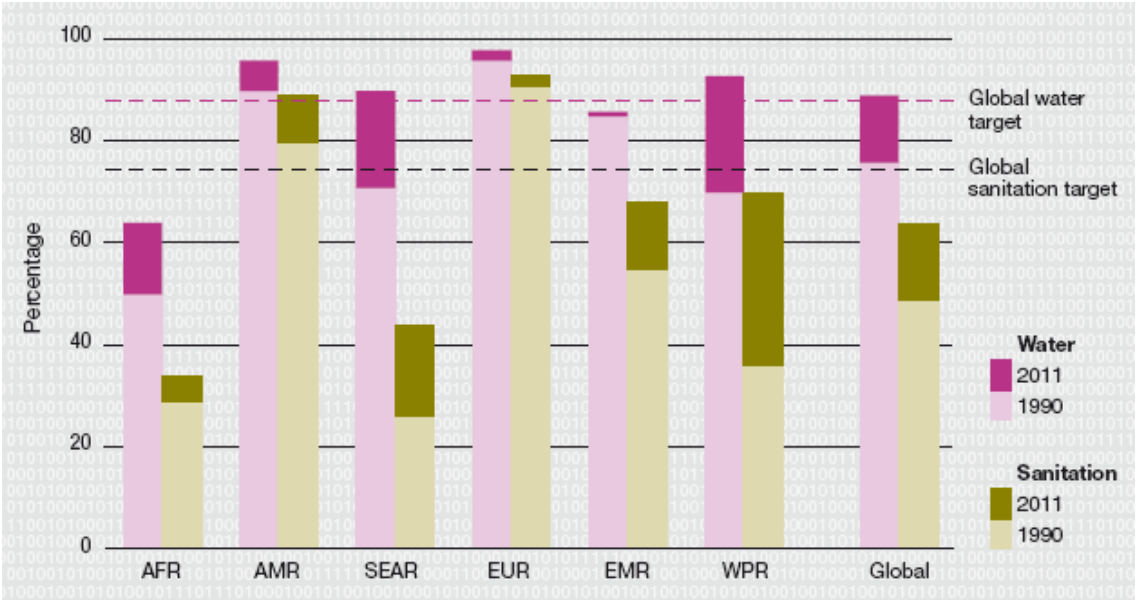
We recognise health as an inalienable human right that every individual can justly claim. So long as wide health inequalities exist in our country and access to essential health care is not universally assured, we would fall short in both economic planning and in our moral obligation to all citizens.

Prime Minister Manmohan Singh, October 2005

30.1 Incorporating Health Concerns Globally : 30.1.1 The **right to health** is the economic, social and cultural right to the highest attainable standard of health. It is recognised in the Universal Declaration of Human Rights, International Covenant on Economic, Social and Cultural Rights and the Convention on the Rights of Persons with Disabilities . Countries round the world are trying to address the issue of affordable health care for all . Recent 'Obama Care' or the 'Patient Protection and Affordable Care Act' in the US has been making waves of late. Recognition of health as instrumental in the global development goals is also reflected through its inclusion as one of the three component of **Human Development Index** (life expectancy at birth is used as an indicator for assessing health attainments) and in selection of several health indicators for monitoring the health related **Millennium Development Goals (MDG)** viz reducing child mortality, improving maternal health & combating HIV/AIDS, malaria & other diseases.

30.1.2 As per **World Health Statistics 2013**, everyday about 800 women die due to complications of pregnancy and birth. However the World has made significant progress in reducing child deaths by 40 % from nearly 12 million deaths in 1990 to less than 7 million in 2011as the child survival rates have improved in all regions of the world over the past decade. Preterm birth is the world's leading killer of newborn babies, causing one million deaths each year. The world is facing a double burden of malnutrition, with under nutrition and overweight impeding survival and causing serious health problems. Almost 10 % of world's adult population has diabetes, measured by elevated fasting blood glucose (≥ 126 mg/dl). The world has reached the global target for drinking water, having halved the number of people in the world without access to improved drinking water sources since 1990. However, global coverage in terms of sanitation facility is currently estimated at just 64 %, leaving one third of the global population without access to improved sanitation facilities even though about 1.9 billion people have gained access to the same since 1990. Fewer people are dying from HIV. In 2011, an estimated 1.7 million people died from AIDS related causes world wide, 24% less than in 2005 . Many low and middle income countries face a scarcity of medicine in the public sector, forcing people to the private sector where prices can be up to 16 times higher. Also there are wide inequities in access to health services within the population due to factors including education and income level, geographic location, gender etc.

30.1.3 Proportion of population with access to improved drinking water sources and improved sanitation, globally and by WHO region – 1990-2011



AFR: African Region AMR : America SEAR : South East Asia Region EUR: European Region EMR : Eastern Mediterranean Region WPR Western Pacific Region .

Comparison of Expenditure (at average Exchange Rate USD) On Health During 2011

WHO Region/Country	Per Capita Govt Expenditure on Health	Per Capita Total Expenditure on Health
Global	614.8	1029.6
Europe	1786.3	2373.4
Americas	1695.7	3537.3
Africa	49.2	99.4
South-East Asia	24.5	65.8
China	155.4	**278**
India	**18.3**	**59.1**

WHO Region/Country	Total Expenditure on Health as Percentage of GDP	General Govt Expenditure on Health as Percentage of Total Govt Expenditure
Global	9.2	15.3
Europe	9.1	14.9
Americas	14.3	18.8
Africa	6.0	9.8
South-East Asia	3.7	8.2
China	5.2	**12.5**
India	**3.9**	**8.1**

Source WHO database

30.2 History of Health Planning in India

30.2.1 Pre Independence : Probably the first document of 'public health policy' in British India was the 1863 report of the Royal Commission on the sanitary state of the British Army in India (Harrison, 1994). Concern about threats to the health of the Indian Army, particularly after the rebellion of 1857, motivated a wide-ranging inquiry into health conditions in the country. If India did not experience the massive decimation of indigenous populations through disease and warfare that the 'New World' witnessed, there were nevertheless many episodes of sharp rises in mortality, associated with the violence and social disruption of conquest and conflict, most notably the Bengal Famine of 1770. A century later, the great famines of the 1870s and 1890s caused both mass mortality and mass migration; it was fear of unrest and social disruption that caused the colonial state, belatedly, to take some interest in famine relief and public health (Dreze, 1988; Hodges, 2004). It was for a long time a commonplace that one of the 'benefits' of colonial rule in Asia and Africa was the advent of modern medicine. Institutions of public health—hospitals, health centres, medical research laboratories, pharmaceutical production facilities—were amongst the new colonial institutions that appeared in South Asia, along with the railways, the telegraph and new forms of land tenure and law. As an 'extractive' colonial state, public health and social welfare were never near the top of the Raj's priorities as it focused on keeping epidemics at bay, responding to crises and not much more. A crucial institutional innovation came in the 1880s (Jeffery, 1988), when much of the responsibility for local health and sanitation was devolved to partly elected local government bodies, a responsibility shared by the 1920s with provincial governments an arrangement that continues more or less till present day Nonetheless, it was at the level of local sanitation that the most tangible improvements in public health were found in early 20th-century India. Cholera, the great scourge of India in the 19th century, saw a significant decline, as a result of the provision of clean drinking water at major sites of pilgrimage (Arnold, 1993).However due to weakness of infrastructure, 'local authorities at best could only select the most pressing cases for relief; at worst the slender local funds were dissipated in tiny sporadic ventures from which no permanent benefit was derived' (Tinker, 1954: 287). The nature of the colonial state's engagement with questions of public health can best be described as ambivalent. This left much scope for 'civil society' or voluntary initiatives in health. Devolving responsibility to charities and voluntary bodies suited the colonial state, In the view of Dr Nil Ratan Sircar, a prominent nationalist and member of the Indian Medical Association, 'medical backwardness' was a consequence of imperialism.

30.2.2 Post Independence :

30.2.2.1 The serious crises of the 1940s, with the massive influx of refugees during and after Partition, revealed the fragility and weakness of India's health infrastructure. Independence arose great expectations amongst people. However, the long legacy of **under-investment in health institutions**, made the promises and expectations related to public health unrealistic as plethora of issues competed for support and resources. When, by the 1960s, external resources for population control proliferated, and the old argument re-asserted itself that population control may be a more 'cost-effective' way of achieving the same ends as public health, the level of resources devoted to public health dropped significantly (Rao, 2005), and there was surprisingly little discussion or dissent. The post-colonial Indian state population policy reached its sordid climax in the forced sterilisations of the

Emergency period . It is in the gap between expectations of health and the availability of health facilities that we can look for an explanation of why, despite the centrality of the state to public health policy in India since independence, India has developed one of the most extensive, and least regulated private markets in health in the world. Indian state was engaged with public health in the period since independence—emphasising single diseases, and techno-centric interventions on a large scale— eg National Malaria Control Programme resulting in relative neglect of issues like sanitation.

30.2.2.2 However, significant **regional variations** have been observed in the ways in which the national (and international) disease control campaigns affected local health services. Health, in mid-20th century **Kerala**, was championed as a 'people's right', in a way almost without parallel in the region. The broad politicisation of questions of public health led to a heightened awareness among the poor that 'health services were their right and not a boon conferred upon them'. This was aided by vigorous popular press—newspapers, women's magazines—in a highly literate and informationally dense society of Kerala where female labour-force participation was high (Devika, 2002). In the more recent past, the neighbouring state of **Tamil Nadu** has also chalked up significant achievements in the field of health. A particularly noteworthy intervention in this case was the institution in 1982 of the Mid-Day Meals scheme, which has guaranteed one meal a day to children in government-aided schools. More generally, and again in contrast to the pattern across large parts of north India, local health services in Tamil Nadu are broadly of good quality, and widely accessible. Civic activism in health has shaped the policies in these states eg People's Science Movement in Kerala, focussed initially on literacy, but by the 1990s turned to public health. The Tamil Nadu Science Forum's health movement, the Arogya Iyakkam , has been active in 500 villages, spreading awareness and education about public health.

30.2.2.3 By the mid-20th century the notion that health was a right gained ground. Yet the institutional legacies of the colonial state, in terms of the medical infrastructure and fiscal structure of the new state, acted to constrain the extent to which the 'desirable' (a vast reduction in disease and human suffering) could be realised.

30.2.2.4 The political economy of health care in India has been characterised by **widespread privatisation**, and the large, perhaps dominant, role of the private and informal sector in providing healthcare, even to the very poor. Marked regional variations are observed in health outcomes, and in the degree and the extent to which healthcare is publicly available. Emphasis on health in terms of public expenditure, access to public health services and its quality , penetration & access of health services, still leaves much to be accomplished.

30.2.2.5 National Health Policy document (Government of India, 2002) summarised the same

"Given a situation in which national averages in respect of most indices are themselves at unacceptably low levels, the wide inter-state disparity implies that, for vulnerable sections of society in several states, access to public health services is nominal and health standards are grossly inadequate".

30.2.2.6 Sen & Dreze pointed out the stark comparisons while analyzing India's performance in health about a decade ago . Only in the last few years has public expenditure on health in India risen above the level of 0.8 or 0.9 percent of GDP, which is India's historical average, lower than almost any other country in the world (Sen and Dreze, 2002: 202). The share of public expenditure to total health expenditure in India is around 15 percent: the average for sub-Saharan Africa is 40 percent, and for high-income European countries, over 75 percent (Sen and Dreze, 2002: 204)

30.2.2.7 Even presently, as revealed by WHO database, per capita health expenditure in India is quite low both in terms of government expenditure & total expenditure on health. Besides being significantly lower than the global average, it falls much short even compared to the average for Africa. (The comparisons have been tabulated earlier in the chapter). The low per capita expenditure can't be attributed to India's higher population only (which is higher in case of China also but China performs far better) since the indicators pointing to relative importance of health (expenditure on health as per cent of GDP and government expenditure on health as per cent of total government expenditure) also do not compare well with the global average or even that of the Africas.

30.3 Recent Govt Initiatives & Achievements :

30.3.1 Health Policy : The policy directions of the Health for All declaration became stated policy of Government of India with the adoption of the National Health Policy Statement of 1983. Driven by this declaration there was some expansion of primary health care in the eighties. Further, the National Health Policy of 2002 and the Report of the Macro-Economic Commission on Health and Development (2005) were to emphasize a) the need to increase the total public health expenditure from 2 to 3% of the GDP, b) the need to strengthen the role of public sector in social protection against the rising costs of health care and the need to provide a comprehensive package of services without reducing the prioritization given to women and children's health. **The National Population Policy** (2000) not only focused on the unmet needs of contraception, but also stressed the need for an integrated service delivery for basic reproductive and child health care. It was in this context that the **National Rural Health Mission** was launched and this was the main programme of the 11th Plan period.

30.3.2 The National Population Stabilisation Fund was constituted under the **National Commission on Population** in July 2000. Subsequently it was transferred to the Department of Health and Family Welfare in April 2002. It was renamed and reconstituted as **Jansankhya Sthirata Kosh (JSK)** under the Societies Registration Act (1860) in June 2003.

- **Prerna Strategy :** The strategy was launched by JSK in 2008 and is in operation in seven high focus states of Odisha, Bihar, Uttar Pradesh, Madhya Pradesh, Chhattisgarh, Jharkhand and Rajasthan. The strategy recognizes and awards the eligible young BPL couples from backward districts of the country, who have broken the stereotype of early marriage and early child birth and helped change mindsets.

- **Santushti Strategy:** Santushti is a scheme of Jansankhya Sthirata Kosh (JSK) for high populated states of India viz Bihar, Uttar Pradesh, Madhya Pradesh, Rajasthan, Jharkhand, Chhattisgarh & Odisha. Under this scheme, Jansankhya

Sthirata Kosh, invites private sector gynecologists and vasectomy surgeons to conduct operations in Public Private Partnership mode.

30.3.3The National Rural Health Mission (NRHM) : 30.3.3.1 It was launched by Government of India in 2005 . It places considerable emphasis on strengthening rural health infrastructure including physical infrastructure, manpower and other facilities and consists of following components:

(i) **Health System Strengthening**: Mobile Medical Units (MMUs) are being operated to provide outreach services in rural and remote areas. Emergency Medical Transport System - A fleet of EMRI vehicles to provide basic and advanced life support to the beneficiaries have also been given to states. This is popularly also known as the 108 type ambulance. Support is being provided to the States for new construction/ up- gradation/renovation of healthcare facilities. Strengthening First Referral Units and Operationalisation of more 24x7 Facilities is also being carried out . As part of infrastructure establishment, dedicated 100 bedded MCH wings are being constructed in 148 District Hospitals while 50/30 bedded dedicated MCH wings are being constructed in 110 CHC/Sub District Hospitals. Augmenting human resource in health sector by encouraging the States for engaging health personnel including doctors, nurses and .paramedics etc are other activities envisaged under the component of strengthening of health system.

As per the Annual Report of Department of Health & Family Welfare 2012-13, Sixty Four district Hospitals, 426 Community Health Centers (CHCs), 1514 Primary Health Centers (PHCs), and 18630 Health Sub-Centers were taken up for new construction. Out of which construction of 49 DH, 189 CHCs, 668 PHCs and 8777 SCs were completed (As on 30.6.2012). 537 District Hospitals, 2105 Community Health Centers (CHCs), 3542 Primary Health Centers (PHCs), and 13402 Health Sub-Centers have been taken up for upgradation /renovation. Out of which upgradation /renovation of 274 DHs, 1159 CHCs, 2341 PHCs and 9276 SCs have been completed(As on 30.6.2012). 8199 PHCs are made functional round the clock (24x7) and 2552 facilities were operationalised as First Referral Units (FRUs). All 1.48 lakh Sub Centers (RHS 2011) in the country have been strengthened with untied fund of Rs. 10,000 each. 7,382 Doctors, 11,478 AYUSH Doctors, 2,131 Specialist, 66,407 ANMs, 32,278 Staff Nurses, 11,030 Paramedics and 4,894 AYUSH Paramedics have been appointed on contract by States to fill in critical gaps under NRHM. 2024 Mobile Medical Units (MMUs) are operational in different States, providing services in the interior areas covering 459 districts. Mainstreaming of AYUSH has been taken up in the States. 15,782 AYUSH facilities are available at District and below district level health institutions. AYUSH person are part of State Health Mission / Society / RKS / ASHA training as members. As a part of institutional

strengthening , Health Resource Centres have been set up - **National Health Systems Resource Centre (NHSRC)** at the National level, Regional Resource Centre set up for NE and the State Resource Centres are being set up by States.

(ii) **Reproductive, Maternal, Newborn, Child and Adolescent Health**: The targets under this component of NRHM includes reducing Maternal Mortality Rate , providing essential obstetric care, quality ante and post natal care for mother and new born and skilled attendance at birth . Family Planning : In 1952, India launched the world's first national program emphasizing family planning to the extent necessary for reducing birth rates "to stabilize the population at a level consistent with the requirement of national economy". Since then, the family planning program has evolved and the program is currently being repositioned to not only achieve **population stabilization** but also to promote **reproductive health** and reduce **maternal, infant & child mortality and morbidity.** The objectives, strategies and activities of the Family Planning division are designed and operated towards achieving the family welfare goals and objectives stated in various policy documents (NPP: National Population Policy 2000, NHP: National Health Policy 2002, and NRHM: National Rural Health Mission) and to honour the commitments of the Government of India (including ICPD: International Conference on Population and Development, MDG: Millennium Development Goals and others). Both spacing (IUCD, Oral Comntraceptive Pills, Condoms) and limiting methods (Minilap, laproscopic sterilization, no scalpel Vasectomy) , are being promoted . Strengthening community based distribution of contraceptives by involving ASHAs and Focussed IEC/ BCC efforts for enhancing demand and creating awareness on family planning. *Contraceptives like oral contraceptive pills OCPs, Condoms are also provided through Social Marketing Organizations.*

Family Planning Insurance Scheme (FPIS) for treatment of post operative Complications, or Death attributable to the procedure of sterilization was introduced w.e.f 29th November, 2005. Compensation scheme for acceptors of sterilization for the loss of wages for the day on which he/she attended the medical facility for undergoing sterilization has also been revised.The Government of India has made a provision for development of **Health Insurance Scheme** for below Poverty Line (BPL) families under the framework of National Rural Health Mission (NRHM). The Ministry of Health and Family Welfare subsidizes the cost of the annual premium up to 75% subject to a maximum of Rs. 300 per BPL family for this Scheme .The Rastriya Swasthya Bima Yojana (RSBY) being administered by Ministry of Labour & Employment provides for smart card based cashless health insurance cover for Rs. 30000 per annum to BPL families (a unit of five) in the unorganized sector. The scheme is presently being implemented in 25 States/UTs.

Child Health & Immunization: Facility Based Newborn & Child care: Setting up of facilities for care of Sick Newborn such as Special New Born

Care Units (SNCUs), New Born Stabilization Units (NBSUs) and New Born Baby Corners (NBCCs) at different levels is a thrust area under NRHM. **Janani Shishu Suraksha Karyakram** (JSSK) was launched on 1st June 2011and has provision for both pregnant women and sick new born till 30 days after birth are (1) Free and zero expense treatment, (2) Free drugs and consumables, (3) Free diagnostics & Diet, (4) Free provision of blood, (5) Free transport from home to health institutions, (6) Free transport between facilities in case of referral, (7) Drop back from institutions to home, (8) Exemption from all kinds of user charges.

Integrated Management of Neonatal & Childhood Illness : F-IMNCI is the integration of the Facility based Care package with the IMNCI package, to empower the Health personnel with the skills to manage new born and childhood illness at the community level as well as at the facility. Facility based IMNCI focuses on providing appropriate skills for inpatient management of major causes of Neonatal and Childhood mortality such as asphyxia, sepsis, low birth weight and pneumonia, diarrhea, malaria, meningitis, severe malnutrition in children. This training is being imparted to Medical officers, Staff nurses and ANMs at CHC/FRUs and 24x7 PHCs where deliveries are taking place. The training is for 11 days . ASHAs are incentivized for providing Home Based Newborn Care.

Navjat Shishu Suraksha Karyakram : objective of this new initiative is to have a trained health personal in Basic newborn care and resuscitation at every delivery point. Infant & Young Child feeding is encouraged and for reduction in morbidity & mortality due to acute respiratory infections (ARIs) & Diarrhoeal diseases : promotion of zinc and ORS supply is ensured . Nutritional Rehabilitation Centres (NRCs) are being set up in the health facilities for inpatient management of severely malnourished children, with counselling of mothers for proper feeding and once they are on the road to recovery, they are sent back home with regular follow up.

Services of ASHAs were useful in Intense monitoring of Polio Progress. JE vaccination completed in 11 districts in 4 states – 93 lakh children immunized during 2006-07. JE vaccination has been implemented in 26 districts of 10 states in 2007. House tracking of polio cases and intense monitoring. Neonatal Tetanus declared eliminated from 7 states in the country. Full immunization coverage evaluated at 43.5% at the national level (NFHS-III)

Institutional Delivery: Janani Suraksha Yojana (JSY) is operationalised in all the States, 7.38 lakh women are benefited in the year 2005-06, 31.58 lakh in 2006-07, 73.28 lakh in 2007-08, 90.36 lakh in 2008-2009, 100.78 lakh in the year 2009-2010, 106.96 lakh in the year 2010-11, 109.37 lakh in the financial year 2011-12 and so far, 50.43 lakh in the financial year 2012-13.(upto Sept.)

(iii) **National Diseases Control Program:** This includes Iodine deficiency disorders control programme, vector borne diseases control programme, TB Control Programme, National Programme for control of blindness, leprosy eradication programme etc . **Integrated Disease Surveillance Project (IDSP)** was launched with World Bank assistance in November 2004 to detect

and respond to disease outbreaks quickly. The project was extended for 2 years in March 2010. From April 2010 to March 2012, World Bank funds were available for Central Surveillance Unit (CSU) at NCDC & 9 identified states (Uttarakhand, Rajasthan, Punjab, Maharashtra, Gujarat, Tamil Nadu, Karnataka, Andhra Pradesh and West Bengal) and the rest 26 states/UTs were funded from domestic budget. The Programme continues during 12th Plan under NRHM with outlay of Rs. 640 Crore from domestic budget only.

30.3.3.2 Some of the other major initiatives under NRHM are as follows :

- **ASHAs:** More than 8.84 lakh community Health volunteers called Accredited Social Health Activists (ASHAs) have been engaged under the mission for establishing a link between the community and the health system. ASHA is the first port of call for any health related demands of deprived sections of the population, especially women and children, who find it difficult to access health services in rural areas.

- **Rogi Kalyan Samiti (Patient Welfare Committee) / Hospital Management Society** is a simple yet effective management structure. This committee is a registered society that acts as a group of trustees for the hospitals to manage the affairs of the hospital. Financial assistance is provided to these Committes through untied fund to undertake activities for patient welfare. 31694 Rogi Kalyan Samitis (RKS) have been set up involving the community members in almost all District Hospitals, Sub-divisional Hospitals, Community Health Centres and PHCs till date.RKSs have been registered in 31,694 Health facilities (693 District Hospitals,4847 CHCs, 1042 facilities other than CHCs above block level, 18,385 PHCs and 6,727 facilities above SC and below block level). A support of Rs. 5 lakh per DH, Rs. 1lakh per CHC and Rs. 1 lakh per PHC is given. School health programmes have been initiated in over 26 States.

- **The Untied Grants to Sub-Centres** has given a new confidence to our ANMs in the field who are far better equipped now with Blood Pressure measuring equipment, stethoscope, the weighing machine etc. They can actually undertake a proper ante-natal care and other health care services. The Village Health Sanitation and Nutrition Committee (VHSNC) is an important tool of community empowerment at the grassroots level.

- **Pre-Conception And Pre-Natal Diagnostic Techniques (Prohibition Of Sex Selection) Act, 1994 - Adverse Child Sex-ratio in India :** Funds are being made available under NRHM for strengthening infrastructure and augmentation of human resources required for effective implementation of the PC&PNDT Act. In 2012-13 an amount of approximately 22 crores was approved to States/UTs specifically for PNDT cells, PNDT law implementation and IEC activities.

30.3.4 National Urban Health Mission : NUHM would cover all cities/towns with a population of more than 50000. Towns below 50000 population will be covered under NRHM. It would cover urban population including slum dwellers; other marginalized urban dwellers like rickshaw pullers, street vendors, railway and bus station coolies, homeless people, street children, construction site workers, who may be in slums or on sites. The existing Urban Health Posts and Urban Family Welfare Centres would be taken as existing infrastructure under NUHM and will be considered for up gradation. All the existing human resources will then be suitably reorganized and rationalized.

30.3.5 E Governance Initiatives : For effective delivery of services and monitoring of various programs several steps have been taken in recent past .

- **Mother & Child Tracking System (MCTS)** aims to capture and track all pregnant women and children so that they receive full maternal and child health services. MCTS has been implemented across the country in all the states. MCTS was started in December 2009. It has registered more than 3.3 crore Pregnant Women/Mother and more than 2.5 crore of Children and their Health Care Services record. More than 2.25 Lakh ANMs and 8.29 Lakh ASHAs have been registered on MCTS Portal.

- **Online Monitoring of TB Patients (NIKSHAY), Computerization of Central Government Health Scheme** (**CGHS**), **MIS for Online Clinical Establishment Registration and Regulation, National Programme for Control of Blindness (NPCB) MIS** and **e-Hospital – A Hospital Management System from NIC** (a patient-centric system rather than a series of add-ons to a financial system) are among other uses of IT towards promoting health .

- In pursuance of the recommendation of National Knowledge Commission, the Ministry has decided to set up and operationalize **National Health Portal (NHP)** which will provide easy to access health related information for various stake holders like common man, health professionals, academicians, Government Departments, etc. in Hindi, English and other major regional languages.

- **Health Management Information System (HMIS)** is a web-based system being implemented by the Ministry. HMIS aims to collect information on some critical indicators related to the health sector. HMIS was launched in October 2008 and initially it was being implemented at District level. More than 99% of the districts are reporting regularly on HMIS portal. However, States / UTs were advised to shift to facility based reporting from April 2011 to facilitate micro planning by States / UTs. While the progress of States / UTs on facility-based reporting is not uniform, more and more Districts are shifting to facility-based reporting.

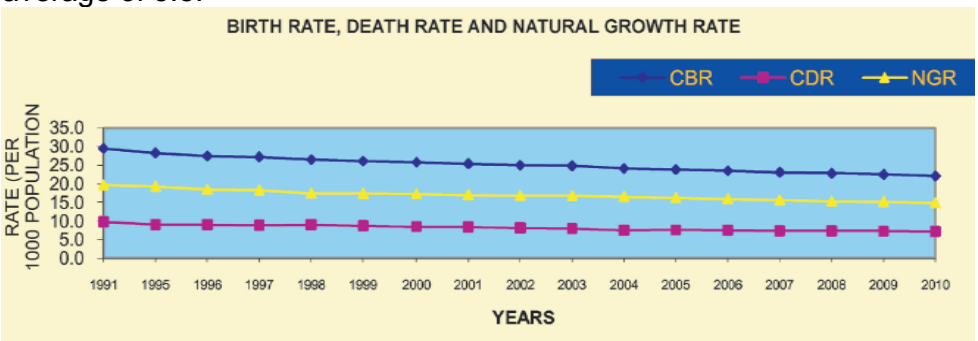
30.4 Performance of India on various indicators related to health & family welfare :

30.4.1 The demographic and health status indicators have shown significant improvements.The Table below captures data on mortality , fertility & other vital statistics .

Sl. No.	Parameters	1951	1981	1991	2001	Current Levels
1	**Crude Birth Rate (per 1000 population**	**40.8**	**33.9**	**29.5**	**25.4**	**22.5 (2009)**
2	**Crude Death Rate (per 1000 population)**	**25.1**	**12.5**	**9.8**	**8.4**	**7.3 (2009)**
3	**Total Fertility Rate**	**6.0**	**4.5**	**3.6**	**3.1**	**2.6(2009)**
4	**Maternal Mortality Ratio (per 100,000 live births)**	**NA**	**NA**	**398 SRS (1997-98)**	**301 (2001-03)**	**212 SRS (2007-09)**
5	**Infant Mortality Rate (per 1000 live births)**	**146 (1951-61)**	**110**	**80**	**66**	**50(2009)**
6	**Child Mortality Rate (0-4 yrs.) per 1000 children**	**57.3 (1972)**	**41.2**	**26.5**	**19.3**	**14.1(2009)**
7	**Couple Protection Rate (%)**	**10.4 (1971)**	**22.8**	**44.1**	**45.6**	**40.4(2011)**
8	**Expectation of life at birth (in years) -Male -Female**	**37.1 36.1 (1951)**	**54.1 54.7**	**60.6 61.7 (1991-96)**	**61.8 63.5 (1999-03)**	**62.6 64.2 (2002-06)**

Source: Office of Registrar General of India, except 7 above which is based on estimation done by statistics Division of Ministry of Health and Family Welfare. NA – Not available

30.4.2 The estimated birth rate declined from 25.8 in 2000 to 22.1 in 2010 , while the death rate declined from 8.5 to 7.2 per 1000 population over the same period . consequently the natural growth rate declined from 17.3 in 2000 to 14.9 in 2010. Amongst the states with population more than 1 crore, 2010 Assam recorded highest birth rate (22.0) followed by Karnataka (20.5) whereas Rajasthan & West Bengal recorded lowest birth rate (11.5). Amongst major states, Chhattisgarh, Kerala, MP, Odisha, Rajasthan , Tamil Nadu, UP & West Bengal had death rates higher than all India average of 5.8.



Source SRS Bulletin December 2011, Registrar General of India

30.4.3 Life expectancy at birth has been increasing since 1911-20 when it hovered around 20 both for male and female to the present range of 65-70 years, both for male & females.

EXPECTATION OF LIFE AT BIRTH

Census Year		Male	Female
1		2	3
1901-10		22.6	23.3
1911-20		19.4	20.9
1921-30		26.9	26.6
1931-40	(a)	32.1	31.4
1941-50		32.4	31.7
1951-60		41.9	40.6
1961-70		46.4	44.7
1970-75		50.5	49.0
1976-80	(b)	52.5	52.1
1981-85		55.4	55.7
1986-90		57.7	58.1
1991-96		60.6	61.7
1996-01	(c)	62.3	65.3
2001-05		63.8	66.1
2006-10		65.8	68.1
2011-15	(d)	67.3	69.6
2016-20		68.8	71.1
2021-25		69.8	72.3

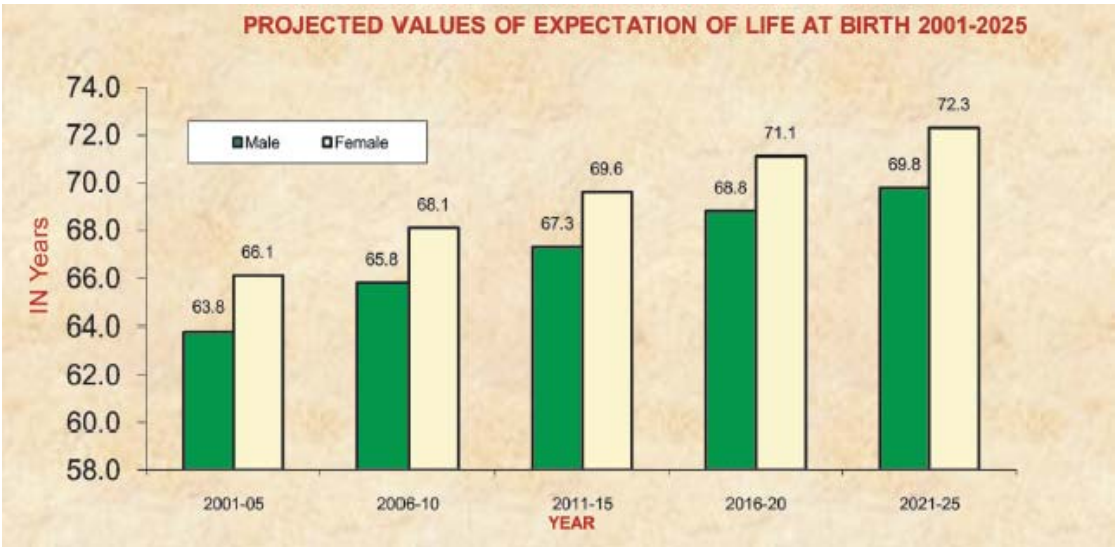
Source:

(a)Office of the Registrar General, India.

(b)Occational Paper SRS No. 3 of 1995

(c)Report of the Technical Group on Population Projections, 1996-2016(Registrar General, Ind

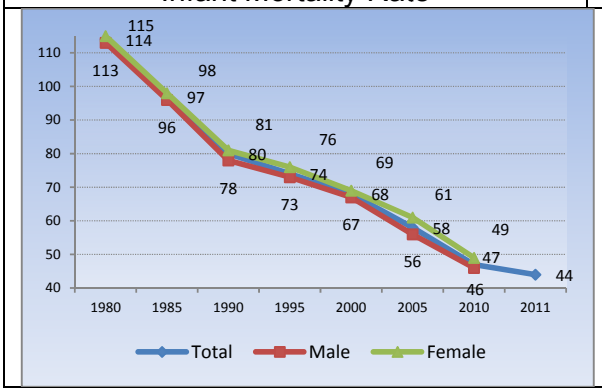
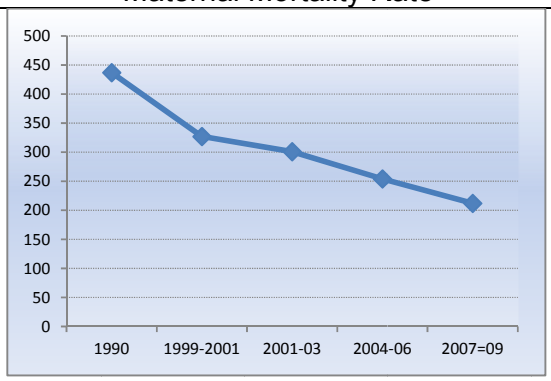
(d)Report of the Technical Group on Population Projections, 2001-2026 : M/O Health & Family Welfare



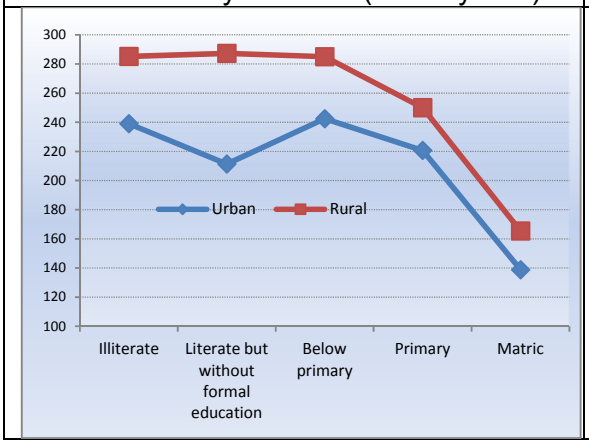
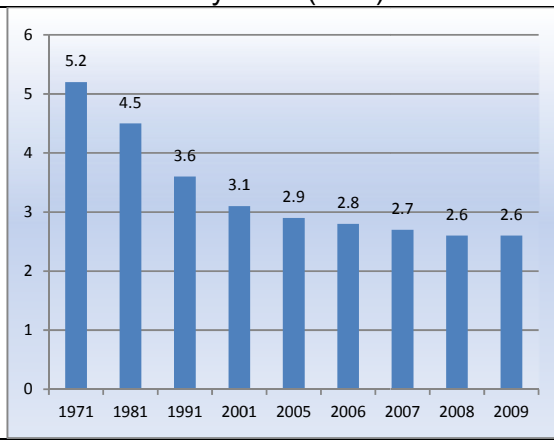
Source : report of Technical Group on Population Projections May 2006 , National Commission on Population , Ministry of Health & Family Welfare.

30.4.4 India has accepted targets for reduction in **child & maternal mortality** under MDGs & considerable progress has been made though it is likely to miss both the targets as per historical trend. Infant mortality rate has declined significantly (44 per

1000 live births in 2011), however urban (29) – rural (48) differentials and those between male & female infants death are still high .

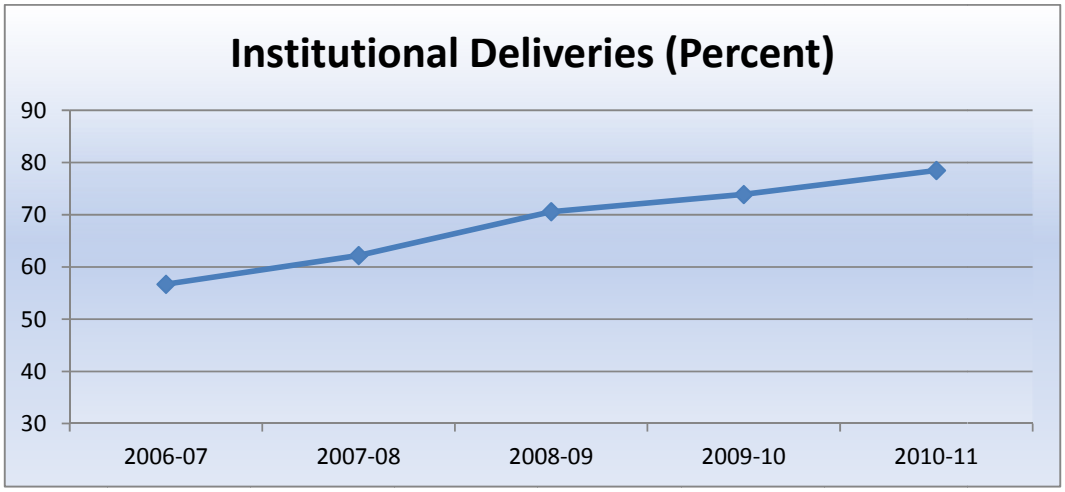
Infant Mortality Rate	Maternal Mortality Rate
	

30.4.5 Fertility Indicators : Age Specific Fertility Rates (ASFR) & Total Fertility Rates(TFR) : Throughout the period 2004-2009 , the age group 20-24 continued to have peak fertility rates in urban & rural areas, with the values being lower in urban areas as compared to rural areas . ASFR increased to 227.8 in 2009 from 218.6 in 2008 for the age group 20-24 whereas ASFMR (Age Specific Marital Fertility Rate) increased to 326 from 303 during the same period. Data on ASFR reveals that the fertility rate in 15 to 19 years age group has moderately declined in 2009(38.5) as compared to 2008 (41.6) . Lower fertility rates are observed in UP & Bihar only after attaining the age 40 years while in Kerala, Tamil Nadu , Andhra Pradesh,, Maharashtra, Karnataka, Himachal Pradesh & Punjab this stage is reached in the earlier age groups namely 30-34 and 35-39. TFR for the country remained constant at 2.6 during 2008 and 2009 with Bihar reporting the highest TFR in 2009 at 3.9 while kerala & Tamil Nadu continued their outstanding performance with the lowest TFR of 1.7 . TFR in case of rural women was higher (2.9) as compared to the urban women (2.0)

Level of Literacy & ASFR (20-24 years)	Total Fertility Rate (TFR)
	

Chapter on Millennium Development Goals & Population may also be seen for Mortality & Fertility related information.

30.4.6 Maternal & Child Health : During 2010-11, 28.30 million women got registered for ante natal care (ANC) check up and more than 20 million underwent 3 check ups during the pregnancy period. The institutional deliveries to total deliveries (Institutional + home) increased from 56.7 % in 2006-07 to 78.5% in 2010-11 . Kerala & Tamil Nadu (99.8%) were the best performing states in the country during 2010-11. Even with the increase in deliveries attended by skilled personnel, the targeted universal coverage might still be elusive. As per District Level Health Survey (DLHS) 2007-08 about 49.8 % of Indian mothers received three or more ante natal check ups , 47 % deliveries were conducted in medical institution while total safe delivery was 52.7 %.

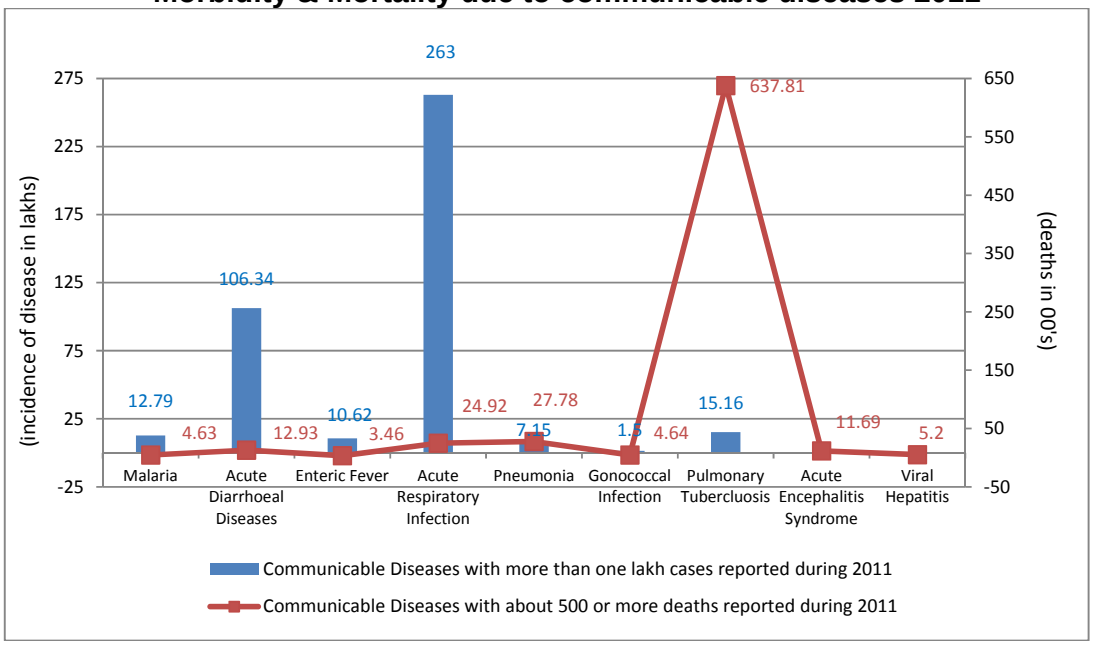


30.4.7 Immunization: In India, under Universal Immunization Programme (UIP) vaccines for six vaccine-preventable diseases (TB, diphtheria, pertussis, tetanus, poliomyelitis and measles) are provided free of cost to all. During 2010-11 , 80.7 % vaccination , of the estimated need for vaccinating 29.68 million expectant mothers, for tetanus immunization, was achieved vis a vis 83.8 % during 2009-10 . During 2010-11 , DPT vaccination was to be administered to 25.54 million children but only 91.2 % vaccination could be achieved as against the achievement of 99.0 % in 2009-10. More than 90.5 % children received the third dose of Polio vaccine in 2010-11 but the percentage dropped from 98.6 % in 2009-10. 25.54 million children below one year age were targeted for administering BCG vaccine during 2010-11 as against 25.19 million in 2009-10. The achievement for BCG vaccination , in 2010-11 was 95.8% as against 101.6 % in 2009-10. 22.64 children below one year age received measles vaccine during 2010-22 as against 25.54 million children, accounting for an achievement of 88.7 % as against 94.8% in 2009-10.Vaccination against tetanus was administered to 10.2 million (Target 25.1 million) children of 5 year age , 14.91 million children of 10 year age (target 26.06 million) and 13.0 million children of 16 year age (target 26.01 million) during 2010-11. The achievement as against the target set for the age groups works out to be 40.7 % , 57.2 % & 52.3 % respectively. As per District Level Health Survey (DLHS) 2007-08 54% of children in India received all vaccinations.

30.4.8 Disease burden indicators: Communicable, non communicable diseases

30.4.8.1 Among the various communicable diseases reported by the States/UTs during the year 2011, while taking a cut off of one lakh or more cases; the following communicable diseases accounted for the maximum number of cases & fatalities reported.

Morbidity & Mortality due to communicable diseases 2011



Data in case of deaths due to pulmonary TB pertains to 2010 and deaths in case of gonococcal infection actually refers to deaths due to meningococcal meningitis

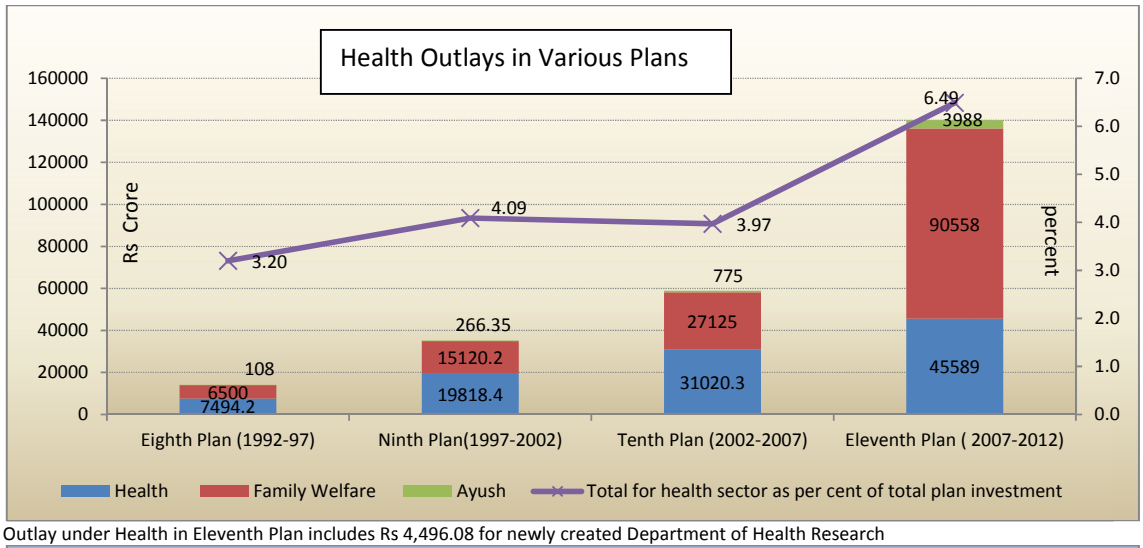
30.4.8.2 During 2011, highest fatality rate was observed in case of rabies (100%) followed by acute encephalitis syndrome (14.17%) and H1N1(Swine Flu) 12.44 %) . Both morbidity & mortality due to cholera has reduced significantly . Annual cases and deaths due to cholera in 1991 were 7088 and 150 , respectively which reduced to 2341 and 10 respectively during 2011. According to National AIDS Control Organisation (NACO) 853616 patients have ever started anti retroviral therapy (ART) in the country till March, 2012. As per the database maintained by HIV Sentinel Surveillance , trend reversal in prevalence of HIV/AIDS continues since 2005 even though the reduction in prevalence has become less noticeable after 2007 with HIV prevalence among pregnant women aged 15-24 years (in %) since 2004 to 2008 being 0.86, 0.89, 0.57, 0.49 and 0.48 respectively .

30.4.8.3 Amongst non communicable diseases coronary heart disease, diabetes, hypertension, blindness and mental disorders were the major ones. The number of cases of coronary heart disease was estimated to be nearly 3.6 crore during 2005 and the same is expected to reach about 6.1 crore by 2015 whereas that of diabetes is expected to increase from 3.1 Crore to nearly 4.6 Crore during the same period. Prevalence of hypertension in India among adults is nearly about 159.46 per

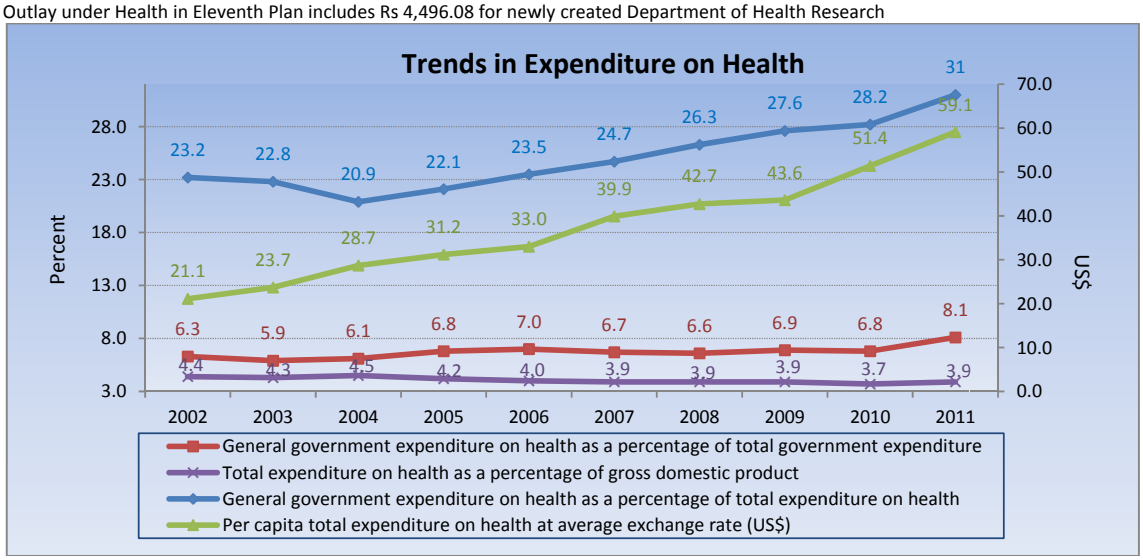
thousand and the case load ratio in respect of major mental disorders has been calculated to be about 1% of population whereas the same is about 5% in case of minor mental disorders.

30.4.9 Family Planning: The Year 2010-11ended with 36.0 million total family planning acceptors at national level comprising of 5.1 million sterilizations , 5.7 million IUD insertions, 16.1 million condom users and 8.3 million oral pill users against 35.3 million total family planning acceptors in 2009-10 . During 2002-03 to 2007-08 the number of total family planning acceptors was more than 40 million with maximum number of about 49 million acceptors recorded during 2007-08.

30.4.10 Health Finance Indicators: Percentage of allocation for the health sector against the total planned investment in the country by the central government has increased to some extent in the Eleventh Plan when the Health Research Development was created and the National Rural Health Mission (NRHM) Schemes were started.



Outlay under Health in Eleventh Plan includes Rs 4,496.08 for newly created Department of Health Research



Data Source : WHO Database

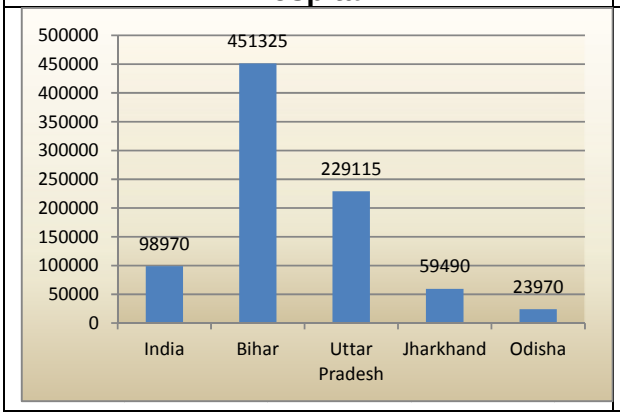
30.4.11 Infrastructure Indicators: As per National Health Profile 2011 published by CBHI the developments in health infrastructure in terms of educational & service infrastructure are as follows:

30.4.12 Educational Infrastructure: Medical education infrastructures in the country have shown rapid growth during the last 20 years. The country has 335 medical colleges , 291 colleges for BDS courses and 140 colleges for MDS courses. Total admission of 39,474 in 318 medical colleges & 23,800 in BDS was reported during 2011-12 . There were 2028 Institution for General Nurse Midwives with admission capacity of 80,332 and 608 colleges for pharmacy (diploma) with an intake capacity of 36,115 as on 31st March 2010.

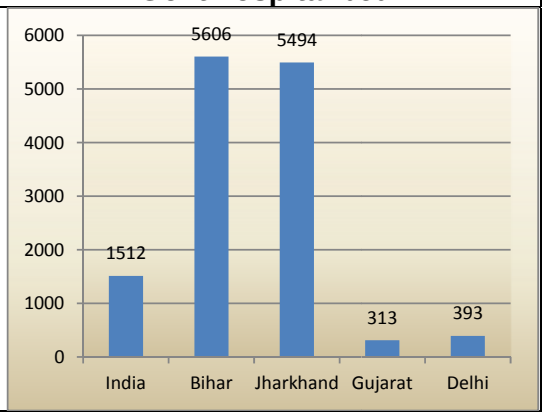
30.4.13 Services Infrastructure: As per National Health Profile 2011, there are 11,993 hospitals having 7,84,940 beds in the country . Out of them, 7,347 hospitals are in rural area with 1,60,862 beds and 4,146 hospitals in urban area with 6,18,664 beds. There are 1,48,124 Sub Centers, 23,887 Primary Health Centres and 4,809 Community Health Centres in India as on March 2011. 24,280 dispensaries and 3,193 hospitals were providing medical care facilities under AYUSH as on 1.4.2011 and the total number of licensed blood banks in the country as on July 2011 was 2,517 whereas the number of eye banks as on 31st December 2011 was 666.

There is large disparity in the health care infrastructure indicators across the Indian states when compared to the national average .

Average Population Served per Govt. Hospital

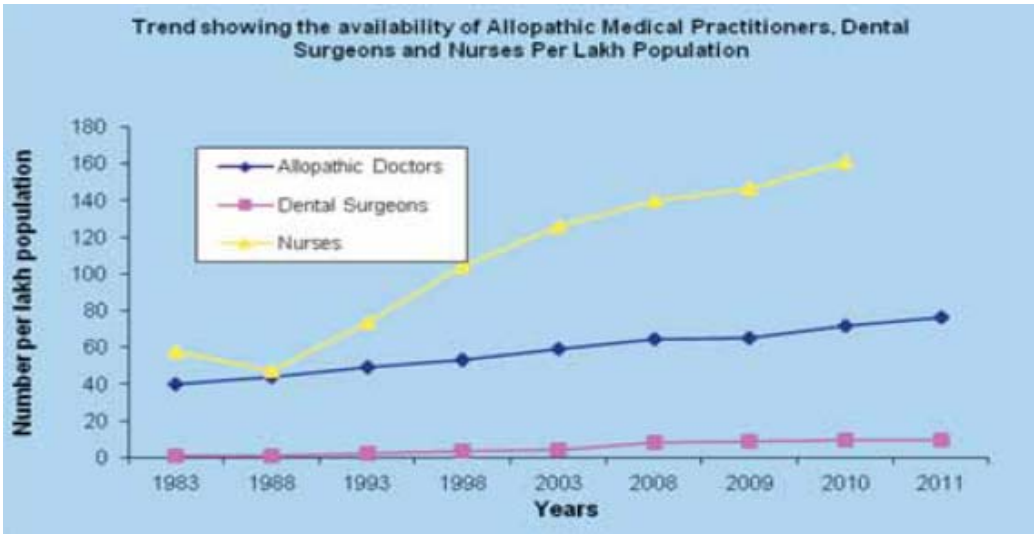


Average Population Served per Govt hospital bed



30.4.14 Human Resource indicators : Number of allopathic doctors possessing recognized medical qualifications (Under MCI Act) and registered with State medical councils for the year 2010 & 2011 were 846172 & 921877 respectively whereas the number of Dental Surgeon registered with Central/State Dental Council of India upto 31.12.2011 were 117825 .The number of registered Ayush doctors in India as on 1.1.2011 was 712121 with about 60 % dealing with Ayurveda & 31 % with

Homeopathy. There is an increase in availability of Allopathic Medical Practitioners, Dental Surgeons & Nurses per lakh population over the years.



30.5 Financing Mechanisms: Funds flow to health sector is maximum by private funds at 71.62 % as per 2008-09 estimates and only 26.70 % is by public funds.

Avenues for healthcare funding in India

Private	Public	Others
Debt financing - long term bank loan	Annual govt budget for rural health	Foreign donations
Foreign direct investment	Annual govt budget for urban health	PPP project funding
External commercial borrowing	Govt. funding for community programmes	
Private equity funds	Incentives and subsidies	
Individual investors	Govt. sponsored schemes	
Foreign institutional investors	Community based schemes	
Venture capital funds		

30.6 Sources of Health Statistics in India: Health-related data provides insights into following areas:

(a) Demographic data: population by age and sex, rural/urban classification, geographical distribution, occupational classification, literacy, religion, marital status, migration, etc.;

(b) Vital statistics: birth and death rates, infant mortality rates, life tables, general fertility rates, etc.;

(c) Diseases: mortality rates by age and cause of death, morbidity data by age, sex, prevalence of communicable diseases, deliveries and statistics of anti-natal and post-natal care.;

(d) Facilities: hospitals, dispensaries, clinics, nursing homes, diagnostic centres, laboratories, equipments-X-ray and other diagnostic equipments, ambulances, beds, etc.;

(e) Manpower : doctors, specialists and practitioners in allopathic , homeopathy and other Indian systems of medicines, nurses , pharmacists, lab technicians other supporting staff (their number, qualification, geographical distribution, availability per unit o f population);

(f) Finance: GNP, Government Revenue and Expenditure, allocation for health, budget estimates, sources of health finance, expenditure on health by voluntary agencies and other NGOs, private expenditure on health, etc.

30.6.1 Ministry of Health & Family Welfare(MoHFW): 30.6.1.1 **MoHFW** is the chief agency involved in Health sector schemes & statistics for monitoring them and situation assessment. It consists of following Departments :

- Department of Health & Family Welfare
  – Directorate General of Health Services(DGHS)
  –Central Bureau of Health Investigation (CBHI)
- Department of AYUSH
- Department of Health Research
- Department of AIDS Control

30.6.1.2 Directorate General of Health Services (DGHS) an attached office of **Department of Health & Family Welfare** renders technical advice on all medical and public health matters and is involved in the implementation of various health services. To coordinate and advise on the development of **health information** in the country, at the national level, a small Bureau existed since 1937. This bureau was organized in 1961 into the **Central Bureau of Health Intelligence** (CBHI) in the **Directorate General of Health Services**(DGHS) an attached office of **Department of Health & Family Welfare,** Ministry of Health & Family Welfare. At the national level, it is the sole organization dealing with collection, compilation, analysis and dissemination of health data for the country as a whole. Since 2005, CBHI disseminates this information regularly in a form of regular publication "**National Health Profile** (NHP), besides bringing out several other occasional publications. National Health Profile provides country overview on demographic, socio economic, health status and health finance status indicators besides that on human resources in health sector and health infrastructure . CBHI is also responsible for Health Sector Policy Reform Options Database (HS-PROD), inventory & GIS mapping of Govt. health facilities in India , reviewing the progress of Health sector Millennium Development Goals(MDG) in India etc. Apart from CBHI, the Rural Health Division of DGHS compiles and publishes **Rural Health Statistics in India** . This is a six-monthly bulletin, containing information on Government health infrastructure and manpower deployment in the rural areas. This publication also presents data at State and UT level.

30.6.1.3 The **National AIDS Control Organisation (NACO)** under **Department of Aids Control** collects data on cases and deaths due to AIDS/STD and publishes these in its Annual Update.

30.6.1.4 The **Department of Health & Family Welfare** is responsible for implementing programmes for population control and maternal and child health now renamed as Reproductive and Child Health. The Family Welfare programme is a Centrally- sponsored programme implemented by the respective States and UTs. The information flow starts from the peripheral level where the service delivery takes place. In the sub-centers, ANMs are responsible for the maintenance of records in respect of acceptance of family planning methods, services to pregnant women and immunization for vaccine preventable diseases in respect of infants. The information flows to PHCs, and from PHCs to districts where it is consolidated for the district. From the district, the information in the prescribed form is expected to flow to the State and Centre through NICNET. While in general, data on **medical and health infrastructure** (education and treatment) and manpower information are generated as a **by-product** of **administrative and regulatory procedures**, a source for morbidity data is the notification of Communicable Diseases, which is primarily meant for preventive control. Presently, data are also collected from selected surveillance centres in the country on the prevalence of HIV positive rate from random blood samples in the adult population. The hospital returns are analysed according to the list of diseases provided in the International Classification of Diseases (ICD) and a number of case-finding programmes for detection of cases on specified diseases like malaria, filarial, trachoma, goitre and leprosy are also available. **Family Welfare Statistics In India** is a publication being regularly brought out by Department of Health & Family Welfare**.** It contains information on vital statistics, immunization, family Planning , findings of DLHS, NFHS ,Facility Survey , Annual Health survey & Coverage Evaluation Survey (UNICEF) infrastructural facilities and outlay & expenditure on family welfare.

30.6.1.5 Department of Ayurveda, Yoga & Naturopathy, Unani, Siddha & Homeopathy (AYUSH) maintains information on infrastructure, manpower**,** College / Institutions, expenditure etc related with these systems of medicine as an ancillary activity of promoting them & monitoring the progress of various schemes.

30.6.1.7 The license registers for various categories of doctors, dentists, pharmacists, nurses, health visitors, etc provide data about **manpower** and are consolidated by **statutory councils** such as the **Medical Council of India, Dental Council of India, Nursing Council** etc.

Note : The regularly reported data related to health & Family Welfare is by and large from Government Health Facilities, it may have limitations in terms of its completeness as private medical & healthcare institutions still need to strengthen their reporting to their respective government health units.

30.6.1.8 Besides the regular flow of Data from the administrative set up, information is also collected through surveys:

30.6.1.9 International Institute for Population Sciences (IIPS) has been declared as the nodal agency (for coordinating & providing technical guidance for the survey) by Ministry of Health & Family welfare for two important health surveys viz. **National Family Health Survey (NFHS) & District Level Household & Facility Survey (DLHS).**

30.6.1.10 The **National Family Health Survey (NFHS)** is a large-scale, multi-round survey conducted in a representative sample of households throughout India. Three rounds of the survey have been conducted since the first survey in 1992-93. The survey provides state and national information for India on fertility, infant and child mortality, the practice of family planning, maternal and child health, reproductive health, nutrition, anaemia, utilization and quality of health and family planning services. The funding for different rounds of NFHS has been provided by USAID, DFID, the Bill and Melinda Gates Foundation, UNICEF, UNFPA, and MOHFW, GOI. The first survey **($NFHS_1$)** was conducted in 1992-93, second **($NFHS_2$)** in 1998-88, third **($NFHS_3$)** in 2005-06 and the fourth one **($NFHS_4$)** is planned in 2014-15.

30.6.1.11 District Level Household & Facility Survey (DLHS) was initiated in 1997 with a view to assess the utilization of services provided by government health care facilities and people's perception about quality of services. $DLHS_3$ (2007-08) is the third in the series of district surveys, preceded by **$DLHS_1$** in 1998-99 and **$DLHS_2$** in 2002-04. Like tow earlier rounds $DLHS_3$ provides estimates on important indicators on maternal & child health, family planning & other reproductive health services . In addition it provides information on important interventions of National Rural Health Mission (NRHM) and interviewed ever married women (age 15-49) and never married women (age 15-24) besides currently married women(age 15-44), the only category of women interviewed in earlier rounds. **$DLHS_4$** was also planned in 26 states where Annual Health Survey (AHS) is not being done.

30.6.2 Besides Ministry of Health & Family Welfare, several other agencies / Ministries collect and disseminate health related statistics.

30.6.2.1 The **National Sample Survey Office, Ministry of Statistics & PI** also conducts demographic surveys, which have been providing information on some aspects of mortality and morbidity and **household expenditure on health services** and facilities.

30.6.2.2 Occasional surveys like **Coverage Evaluation Survey 2009 (CES-2009)** conducted by **UNICEF** also provide valuable insights. CES 2009 was a nationwide survey covering all States and Union Territories of India, conducted during November 2009 to January 2010. It was funded by IKEA Social Initiative and ORG – Centre for Social Research carried out the survey in the field. UNICEF had conducted the survey, at the request of Government of India, to assess the impact of NRHM strategies on coverage levels of maternal, newborn and child-health services including immunization among women and children.

30.6.2.3 Office of Registrar General of India, Ministry of Home Affairs provides much information on vital statistics through its system of **Civil Registration** (mandatory registration of births & deaths : latest report : 2009) **(CRS)** & **Sample Registration** (latest report 2010)**(SRS)-** dual record household panel survey with sampling units retained for about ten years . These provide information on fertility, mortality (infant & maternal mortality) , sex ratio at birth etc. However, only **state level estimates** are provided by **SRS** which constrained decentralized district based

health Planning in view of the large inter district variations . Consequently **Annual Health Survey** was conceived in 2005 with an aim to have “Survey of all districts which could be published/ monitored and compared against benchmarks” . The objective was to monitor the performance and outcome (at **district level**) of various health interventions of the Government including those under National Rural Health Mission (NRHM), Ministry of Health & Family Welfare at closer intervals through these benchmark indicators. AHS has been designed to yield benchmarks of core vital and health indicators at the district level on fertility and mortality; prevalence of disabilities, injuries, acute and chronic illness and access to health care for these morbidities; and access to maternal, child health and family planning services. AHS has been implemented by the Office of Registrar General, India in all the 284 districts (as per 2001 Census) in 8 Empowered Action Group States (Bihar, Jharkhand, Uttar Pradesh, Uttarakhand, Madhya Pradesh, Chhattisgarh, Orissa and Rajasthan) and Assam for a three year period during XI Five Year Plan period. The fieldwork for Baseline Survey was carried out during July, 2010 to March, 2011. The second round of AHS (2011-12) is to cover additional parameters through a separate questionnaire on on Clinical, Anthropometric & Biochemical (CAB) tests and measurement in addition to the indicators covered in AHS first round.

30.6.2.4 Report on **Medical Certification of Cause of death** based on Civil Registration System is also brought out by O/o Registrar General of India.

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