CHAPTER – III

HEALTH CARE SYSTEM IN INDIA

Chapter III

3. Health Care System in India

3.1 Demographic and Socio-Economic Profile

3.1.1. Demographic Profile

As second most populous country in the world, with over 1.21 billion people (2011 census), India houses more than a sixth of world's population. Already containing 17.5% of the world's population, India is projected to be the world's most populous country by 2025, surpassing China, with its population reaching 1.6 billion by 2050[40]. India has more than 50% of its population below the age of 25 and more than 65% below age of 35. It is expected that in 2020, the average age of an Indian will be 29 years, compared to 37 for China and 48 for Japan; and, by 2030, India's dependency ratio should be just over 0.4.

Table 3.1	Demographic changes in India[41]							
Period	Live Births	Deaths	Natural Change	CBR	CDR	Natural Change	TFR	IMR
	figures in '000 per year							
1950-55	16832	9928	6904	43.3	25.5	17.8	5.9	165
1955-60	17891	9686	8205	42.1	22.7	19.4	5.9	153
1960-65	19086	9358	9728	40.4	19.8	20.6	5.82	140
1965-70	20611	9057	11554	39.2	17.2	22	5.69	129
1970-75	22022	8821	13201	37.5	15	22.5	5.26	118
1975-80	24003	8584	15419	36.3	13	23.3	4.89	106
1980-85	25577	8763	16814	34.5	11.8	22.7	4.47	95
1985-90	26935	9073	17862	32.5	10.9	21.6	4.11	85
1990-95	27566	9400	18166	30	10.2	19.8	3.72	76
1995-2000	27443	9458	17985	27.2	9.4	17.8	3.31	69
2000-05	27158	9545	17613	24.8	8.7	16.1	2.96	61
2005-10	27271	9757	17514	23.1	8.3	14.8	2.73	53

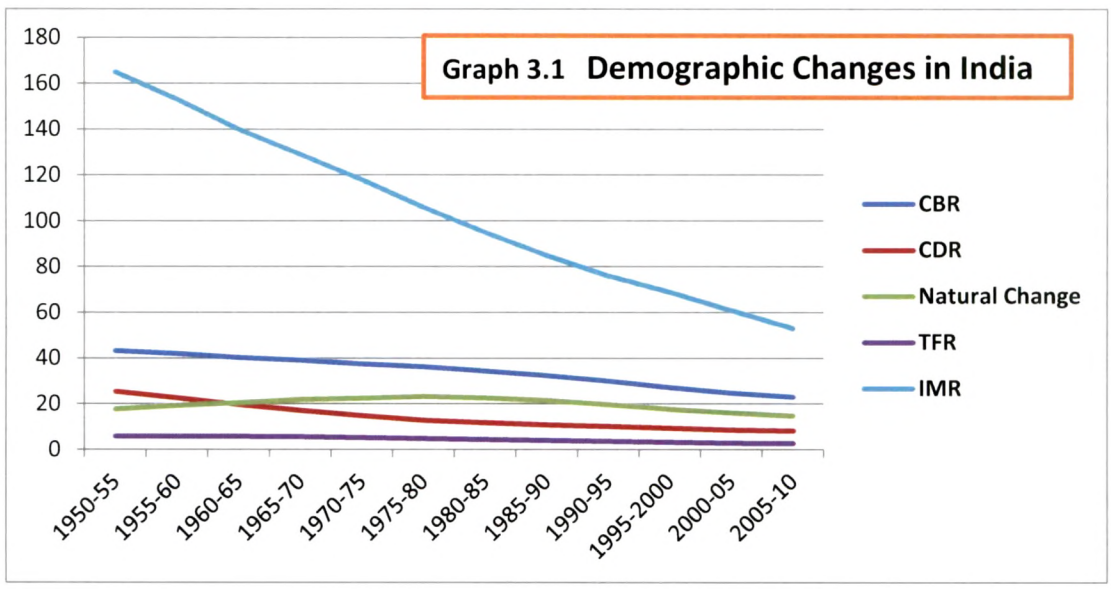
Source: World Population Prospects

The demographic pattern of India over last few decades has witnessed steady fall in crude birth rate and crude death rate from 39.3% and 18.9% in 1961 to 22.5% and 7.3% in 2009 (Table 3.1 & 3.2). IMR, TFR, CPR and MMR have consistently decreased during this period as can be observed from Table 3.2. The annual exponential population

[40]Birth Rate, Death Rate, Infant Mortality Rate & Total Fertility Rate: India & States-National Commission on Population, Govt of India. 2010.

[41]World Population Prospect: United Nations, Department of Socio-Economic Affairs, Population Division, Population Estimates and Projections Section, 2010.

growth rate which reached a peak of 2.22% in 1981 has begun declining since then and has reached 1.64% as per 2011 census. Rate of decline in birth rate and population growth is likely to further accelerate in the next decade.



The life expectancy level has been improving over these decades for both male and female population. The improvement among female is better than male population. Sex ratio has improved from 930 in 1961 to 940 in 2011 which is an appreciable improvement but still below the international levels. The country has a long way to go before attaining the levels achieved by developed countries and many developing countries. There are also indicators which show deterioration during the last decade. CPR has declined from 45.6% in 2001 to 41.1% in 2011. Hence, while ensuring that the health indicators continue to improve, the health care system should also consolidate the improvements already made through these decades.

Table 3.2	Demographic Transition of India			
Parameter	**1961**	**1991**	**2001**	**2011**
Crude Birth Rate	39.3	29.5	25.4	22.5 (SRS 2009)
Crude Death Date	18.9	9.5	8.4	7.3 (SRS 2009)
Total Fertility rate	6 (1969)	4.1 (SRS 1990)	3.5 (SRS 2000)	2.6 (SRS 2008)
Couple Protection Rate	10.1 (1970-71)	43	45.6	41.1
Infant Mortality Rate	138	80	66	50 (SRS 2009)
Maternal Mortality Rate	-	327 (SRS 1999-01)	301 (SRS 2001-03)	212 (SRS 2007-09)
Sex Ratio	930	927	933	940
Urbanization	17.97	25.71	27.8	31.15
Life Expectancy at Birth, Male	41.89	59.4	61.6 (SRS 2002)	65.8 (SRS 2008)
Life Expectancy at Birth, Female	40.55	60.4	60.3 (SRS 2002)	68.1 (SRS 2008)

Source: Sample Registration System and Census of India

Referred to as demographic transition by demographers, this phenomenon is witnessed by change from population with high fertility and mortality to a new stability in population due to low fertility and mortality. Demographic transition occurs in four phases in which the first three phases are characterized by population growth. In the first phase there is fall in death rate and improvement in longevity; this leads to population growth. In the second phase there is a fall in birth rate but fall is less steep than fall in death rates and consequently there is population growth. In the third phase death rates plateau and replacement level of fertility is attained but the population growth continues because of the large size of population in reproductive age group. The fourth phase is characterized by fall in birth rate to below replacement level and reduction in proportion of population in reproductive age group; as a result of these changes, population growth ceases and population stabilizes. India is currently moving towards the third phase of demographic transition[42]. Though the changes in the population growth rates in India have been relatively slow, but the change has been steady and sustained.

[42] Strategies to meet the unmet needs for maternal and child health, Report of the working groups, National Commission of Population, March, 2001.

Table 3.3	Demographic Profile of India		
Area	sq.km	3287263	
Demography		**2001**	**2011**
Population, 2001	crores	102.86	121.01
Sex Ratio, All		933	940
Sex Ratio, children < 7 yrs		934	944
Decadal Growth	%	21.53	17.64
Literacy, 2001			
All	%	64.84	74.04
Male	%	75.26	82.14
Female	%	53.67	65.26

Source: Census of India

During the last decade, the rate of growth in population has declined following the similar trend as in previous decades. Alongwith this, it can be seen that the literacy rate has jumped up by nearly 10% in this decade alone. The female literacy rate has shown tremendous rise of 12% which can be a key catalyst to bring about significant socio-economic changes in the country. The urbanization in the country is increasing in a steady manner but likely to accelerate in coming decades. Sex ratio has improved marginally for the whole population and considerably for population below 7 years of age (Table 3.3).

3.1.2 Socio-Economic Profile

During 2005 to 2010, the GDP and per capita income increased by 49% and 40% respectively. Human development index, which is a global index of relative level of human development across countries, has increased from 0.482 to 0.547. The multi-dimensional poverty index estimated on the basis of income, consumption, access to resources etc has improved from 0.313 to 0.283. These indexes are estimated periodically by United Nations Development Programme[43]. However, the level of poverty in the country has declined only marginally from 28.6% in 2004-05 to 27.5% in 2010. The period has also witnessed a modest increase in public expenditure in health and education from 3.8% to 4.2% and 4.1% to 4.2% (Table 3.4).

[43] Human Development Reports: 2005, 2006, 2007-08, 2010 & 2011, United Nations Development Program.

Table 3.4	Socio-Economic Profile of India			
Indicator		**2004-05**	**2009-10**	Change (%)
GDP	'000 crore	2922	4351	49%
Per capita income	Rs	24143	33731	40%
GDP, PPP	$ Billion	3078	3356	9%
Per capita income, PPP	$	3159	3296	4%
Human Development				
Human Development Index		0.482	0.547 (2011)	
Gender Inequality Index			0.617 (2011)	
Multi-Dimensional Poverty Index		0.313	0.283 (2011)	
National Poverty Line	%	28.6	27.50	
Public Exp. on Education	% of GDP	3.80	4.2(2009)	
Public Exp. on Health	% of GDP	4.10	4.2(2009)	

Source: Socio-Economic Survey of Gujarat

Study of different sectors of Indian economy shows a clear shift in the composition of the economy from agrarian to industrial and service economy. The average holding of agricultural land has continued to decrease from 2001-02 to 2008-09[44], from 1.41 ha to 1.32 ha. Within primary sector also, growth is witnessed in livestock and milk production which indicates the changing pattern of food products in the economy.

Table 3.5	Indian Economy: A Profile			
Agriculture		**2000-01**	**2008-09**	**Change (%)**
Average Landholding	Ha	1.41	1.32	-6%
		2003	**2007**	
Livestock population	000	485002	529698	9%
		2004-05	**2007-08**	
Milk Production	Million Tonnes	91	104.8	15%
Industries		**2001-02**	**2006-07**	
Employment	000	7750	10328	33%
Value of Output	Rs. Cr	962457	2407658	150%
Unemployment, %	Rural	2.00	10.1	
	Urban	4.50	7.3	
Commerce		**2005**	**2009**	
Banks		68116	79933	17%
Credit-Deposit ratio		66.04%	70.30%	6%

Source: Socio-Economic Review of Gujarat

[44] Socio-Economic Review, Gujarat State: 2005-06 & 2010-11- Directorate of Economic and Statistics, Government of Gujarat, February, 2006

In the industrial sector remarkable growth has been achieved in terms of increase in value of industrial output and employment generation from industries. At the same time unemployment in the country has been rising fast both in urban and rural areas, especially in rural areas. Stagnancy in agriculture and lack of alternate employment opportunities in rural areas is a major challenge before the country. Banking sector, which is key part of services sector has grown in terms of network and healthy improvement in credit-deposit ratio during the period (Table 3.5).

Table 3.6	**Infrastructure in India**			
Indicator		**2004**	**2008**	**Change (%)**
Railway Length	km	63221	63273	0%
Electricity Generation	MKWH	552655	627077	13%
Per capita power consumption	KWH	411	672	64%
		2002	**2008**	
Road Length	km	2456647	3174620	29%
		2002	**2006**	
Motor vehicles	000	58863	89618	52%
Vehicle Density		18	27	50%

Source: Socio-Economic Review of Gujarat

Table 3.7	**Trend of Health Indicators of India**[45]			
Indicator		**2000**	**2005**	**2010**
Crude Birth Rate	%	25.80	23.80	22.1
Crude Death rate	%	8.4	7.6	7.2
Decadal Pop. Growth	%	21.2	16.3	14.9
		1999-2001	**2004-06**	**2009**
Maternal Mortality Rate	per lakh	327	254	212
		1996-98	**2002-04**	**2007-08**
Total Fertility Rate		3.3	2.9	2.6
Infant Mortality Rate	Per 1000	68	58	47
Institutional Delivery	%	33.6	40.5	47
Full ANC	%	43.8	44.2	50.7
Full Immunization	%	42	45.8	53.5
Contraceptive use	%	48	53	54
Life Expectancy at Birth	Male	61.3	61.6	63.3
	Female	63	65.8	68.1

Source: Sample Registration System & National Family Health Survey

[45] Sample Registration System: Registrar General of India, Vital Statistics Division- October 2006 and December 2011 bulletins.

Physical infrastructure of the country has shown general improvement in the areas of electricity generation and per capita consumption, length of roads, number & density of vehicles. However, the railways network has remained stagnant during the period 2004 to 2008 (Table 3.6).

3.2 Health Profile

Analysis of RCH indicators in the last 10 years shows the trend before and after the launch of NRHM (Table 3.7). The improvement in RCH indicators during the 5 years period before and 5 years period after the launch of NRHM can be ascertained from the data. Decline can be seen in CBR, CDR and decadal population growth. However, the rate of improvement has slowed down in last five years in some indicators. This can be observed in MMR and TFR, whereas decline in IMR has accelerated after NRHM. While the institutional delivery has improved at a steady level, improvement in full ante-natal check up and full immunization has accelerated. Contraceptive use has shown only marginal improvement which is the reason for decline in couple protection rate.

Improvement in life expectancy is much more among female than male population both before and after NRHM. In case of male population, life expectancy which was almost static before the launch of NRHM, has improved after the launch.

3.2.1 Health care Performance across States

Table 3.8	Health Indicators - Comparison of States I											
State	Crude Birth Rate				Crude Death Rate				Total Fertility Rate			
	1971	1981	1999	2009	1971	1981	1999	2009	1971	1981	1999	2009
Andhra Pradesh	34.8	31.7	21.7	18.3	14.6	11.1	8.2	7.6	4.6	4	2.4	2
Assam	38.5	33	27	23.6	17.8	12.6	9.7	8.4	5.7	4.1	3.2	2.6
Bihar		39.1	30.4	28.5		13.9	9.1	7.0		5.7	4.3	4
Gujarat	40	34.5	25.4	22.3	16.4	12	7.9	6.9	5.6	4.3	3	2.8
Karnataka	31.7	28.3	22	19.5	12.1	9.1	7.9	7.2	4.4	3.6	2.4	2.2
Kerala	31.1	25.6	18	14.7	9	6.6	6.4	6.8	4.1	2.8	1.8	1.7
Maharashtra	32.2	28.5	21.1	17.6	12.3	9.6	7.5	6.7	4.6	3.6	2.7	2.1
Punjab	34.2	30.3	21.5	17	10.4	9.4	7.4	7.0	5.2	4	2.6	2
Tamil Nadu	31.4	28	19.3	16.3	14.4	11.8	8	7.6	3.9	3.4	2	1.7
Uttar Pradesh	44.9	39.6	32.1	28.7	20.1	16.3	10.5	8.2	6.6	5.8	4.6	4
West Bengal		33.2	20.7	17.2		11	7.1	6.2		4.2	2.4	2.1
India	36.9	33.9	26.1	22.5	14.9	12.5	8.7	7.3	5.2	4.5	3.2	2.9

Source: Population Commission of India

Availability and utilisation of RCH services is a critical determinant of performance of these initiatives and achievements in terms of reduction in IMR, TFR and CBR. However, it can be noted that achievement in all the States is not uniform[46] (Table 3.8).

For example, though both Punjab and Tamil Nadu have good primary health care system and the former has higher per capita income, IMR and TFR are higher in Punjab at 38 and 2 compared to 28 and 1.7 in Tamil Nadu. Till 1980s, Tamil Nadu had higher IMR compared to Punjab. Uttar Pradesh and Bihar have similar socio-economic development. However, IMR is lower in Bihar at 52 compared to 63 in Uttar Pradesh in 2009. The same can be observed in other indicators like MMR and CDR also. A comparison of Assam and Bihar shows that, Bihar has an IMR of 52 and TFR of 4 whereas Assam has a higher IMR of 61 and a lower TFR of 2.6.

Table 3.9	**Health Indicators - A comparison of States II**							
	Infant Mortality Rate				**Maternal Mortality Rate**			
	1971	**1981**	**1999**	**2009**	**1987-96**	**2001-03**	**2004-06**	**2007-09**
Andhra Pradesh	106	86	66	49	283	195	154	134
Assam	139	106	76	61	964	490	480	390
Bihar	118	69	66	52	513	371	312	261
Gujarat	144	116	63	48	596	172	160	148
Karnataka	95	69	58	44	480	228	213	178
Kerala	58	37	14	12		110	95	81
Maharashtra	105	79	48	31	380	149	130	104
Punjab	102	81	53	38		178	192	172
Tamil Nadu	113	91	52	28	195	134	111	97
Uttar Pradesh	167	150	84	63	737	517	440	359
West Bengal	91	71	52	33	458	194	141	145
India	129	110	70	50	479	301	254	212

Source: Sample Registration System & Population Commission

The relative performance of different States in various indicators also shows high level of variation. Gujarat which had a CDR of 16.4 in 1971 achieved a level of 6.9 in 2009. As against this, Karnataka which had a lower CDR of 12.1 in 1971 attained 7.2 in 2009. But in TFR, Karnataka achieved a lower level of 2.2 in 2009 from 4.4 in 1971 compared to 2.8 from 5.6 in Gujarat. It is required to identify factors responsible for poor

[46] Population growth trends, projections, challenges and opportunities - Working Papers on Health, Planning Commission of India, 2001.

achievements and specific remedial measures have to be undertaken in the States. In case of MMR, Gujarat reached a level of 148 in 2007-09 compared to 596 in late 80's as compared to 178 from 480 in Karnataka. Kerala has maintained a consistent and steady improvement in all the indicators during the last 4 decades (Table 3.9).

In last 4 decades, across the country, Kerala, Tamil Nadu and Andhra Pradesh achieved a steep fall in CBR. In case of CDR, Uttar Pradesh, Bihar and Tamil Nadu achieved significant decline. High decline in TFR is witnessed in Punjab and Assam. Decline in IMR was significantly high in Gujarat, Bihar and Tamil Nadu. Assam, UP and Gujarat has high decline in MMR during the period.

Similar pattern can be observed in the differences between districts within the same State. Under the Reproductive Child Health program efforts are made to improve the quality and coverage of these services in all states. In each state, the success achieved by better performing districts can be replicated in other districts; in addition, efforts will have to be made to achieve incremental improvement in performance in all districts so that the performance in the State improves.

States like Kerala and Tamil Nadu have achieved low CBR and IMR at relatively low cost[47]. On the other hand, States like Haryana and Punjab have not achieved any substantial reduction in CBR in spite of higher expenditure per eligible couple. In States like Bihar and Uttar Pradesh the expenditure level and performance is low. In between these extreme categories are States like Orissa and Andhra Pradesh with average expenditure and moderate performance in RCH or family planning.

3.3 Healthcare Infrastructure in India

At the national level, Ministry of Health and Family Welfare plays a key role in the effort to enable citizens to lead a healthy life by promoting policies and programs to cover preventive, promotive and curative health care. Maternal and Child Health comes under the Department of Family Welfare. The Ministry is headed by Cabinet Minister and the executive head of the department is Secretary to Government of India. Various technical divisions functioning in the department are technical operations, maternal and child health, evaluation and intelligence, information, education and communication, supply, universal immunization, projects and rural health.

Under the constitution, main responsibility of providing health services to people lies with the State Government through hospitals, dispensaries, health centres and clinics.

[47] Berman, Peter and Ravi Ahuja: Government Health Spending in India, Economic & Political Weekly, June 28, 2008.

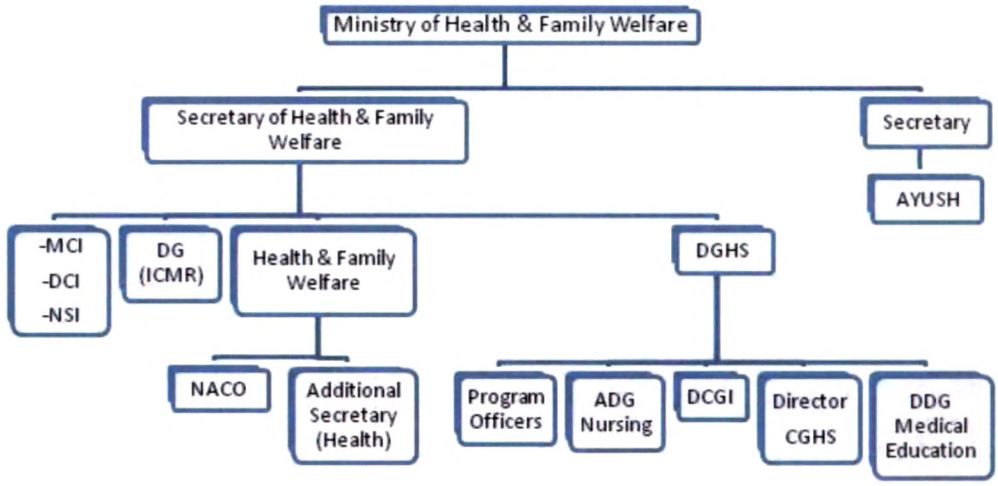
The Ministry of Health and Family Welfare at the State level has the responsibility of delivering primary health care services including maternal and child health services. Like Central Government, the ministry is headed by Cabinet Minister and the departments of Health and Family Welfare are headed by Principal Secretary to State Government. The Commissioner or Director of health is responsible for the organization and implementation of all health services including family welfare services.

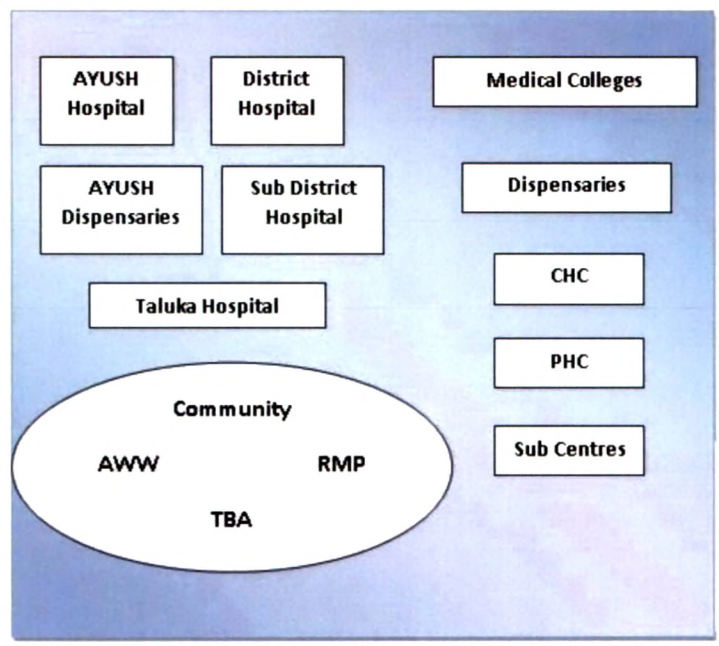
Table 3.10	**Health Care Infrastructure in India**			
Indicator		**2004**	**2009**	**Change (%)**
No of Doctors		643964	793305	23%
No of Nurses		865135	1073638	24%
Doctors in PHC		21974	23982	9%
Specialists in CHC		3953	5789	46%
Health Workers	Male	60756	57439	-5%
	Female	138906	190919	37%
Sub Centres		142655	145894	2%
PHC		23109	23391	1%
CHC		3222	4510	40%
Allopathic Medical Colleges		229	289	26%

Source: Central Bureau of Health Intelligence

District is the vital link between the State and the network of primary health centres and sub-centres. The Chief District Health Officer is responsible for implementing health and family welfare programs according to the policies of the Government. Under him, Reproductive and Child Health Officer is responsible for implementation of RCH initiatives in the district. The 3-tier of health centres at the district level covers the functional and spatial needs of health delivery. At the top is Community Health Centre (CHC) which is established at taluka/block level which functions as first level referral institution.

Chart 3.1: Health Care Structure in India





MCI - Medical Council of India
DCI – Dental Council of India
NCI – Nursing Council of India
DG – Director General
DDG – Deputy Director General
ADC – Asst. Director General
DGCI – Director Controller General of India

Delivery of primary health care at rural level is the principal objective of network of PHC and sub-centres. One PHC covers a population of 30000 and provides comprehensive essential health care including maternal and child health. Sub-Centres are the peripheral outposts of health care delivery system which cover a population of approximately 5000. They provide preventive and promotive health care. Female Health Worker is crucial in providing MCH services in rural areas supporting multipurpose health workers, village health guides, traditional birth attendants and Anganwadi workers.

The health care infrastructure in terms of hospitals and manpower has improved between 2004 and 2009 in the country. During this period, the number of doctors and nurses improved by 23% and 24% respectively. However, at the PHC level, availability of doctors improved only by 9%. Number of male health workers has declined by 5% whereas number of female health workers has increased by 37% respectively. The number of sub-centres and PHC has become almost stagnant whereas number of CHC has increased by 37%. New medical colleges have come up during the period with an increase of 26%. (Table 3.10)

Non-Governmental Sector

Private sector, voluntary organizations and indigenous medical practitioners play an important role in health delivery system. Private sector and practitioners have a dominant presence in the health care system providing nearly 60% of the health care services in the country with predominant focus and presence in curative health care. The role of NGO has been undergoing sea change in recent years towards equal partnership to support the Government efforts to implement various programs like school health program, pulse polio program, strengthening women organizations, control of STD/HIV and family planning programs. Indigenous medical practitioners including registered and non-registered medical practitioners have good rapport with the community and can be of great help in promoting preventive aspects of health

It is estimated that at the time of independence private sector in India had only 8% of health care facilities. But at present 93% of all hospitals, 64% of beds, 80-85% of doctors, 80% of outpatients and 57% of inpatients are in the private sector[48]. Non-profit health institutions account for 1.32% of all health care enterprises. Their spread is erratic in different states. Uttarakhand and Punjab have 43% and 15% of health care establishments run by NGOs. States like Bihar, Karnataka, Jharkhand and Goa have negligible presence of NGOs accounting for less 1% of total health care establishments[49].

Though there is no restriction for the participation of the private sector in all areas of health activities – primary, secondary or tertiary, looking to the past experience, it can reasonably be expected that its contribution would be substantial in the urban tertiary sector, and moderate in the secondary sector. Presence of large poor population in the

[48] Health Care in India: Emerging Market Report – PricewaterhouseCoopers, 2007.
[49] Venkata Raman, A: Private Sector Health Care Delivery in India – Faculty of Management Studies, Delhi University, 2005.

country necessitates the primary role of Government mechanism to provide primary health care.

3.4 Health Care Organizations in India

1. Medical Council of India

The Medical Council of India (MCI) is the statutory body for maintenance of quality and high standards of medical education in India[50]. The Council grants recognition of medical qualifications, gives accreditation to medical colleges, grants registration to medical practitioners, and monitors medical practice in India. Established in 1934 under the Indian Medical Council Act, 1933, the Council was later reconstituted under the Indian Medical Council Act, 1956. The main functions of the Medical Council of India are: recognition of medical qualifications granted by medical institutions of India; recognition of foreign medical qualifications in India; accreditation of medical colleges; maintenance of uniform standards for undergraduate medical education and; regulation of postgraduate medical education in medical colleges accredited by it.

At present there are 229 recognized medical colleges permitted under the Indian Medical Council Act, 1956. Approximately 33528 graduates pass out every year from these colleges. After completing compulsory rotating internship, they are required to be registered with State Medical Council or Medical Council of India to practice medicine in the country.

2. Indian Medical Association

Indian Medical Association (IMA) is a national organization of doctors of modern scientific system of medicine, which looks after the interest of doctors and the well being of the community at large. It has Branches in 23 States and 9 Union Territories with over 178000 doctors as its members through over 1700 local branches spread all over the country[51]. The main objectives of the organization are: promotion and advancement of medical and allied sciences in all their branches; improvement of public health and medical Education in India and; maintenance of honour and dignity of medical profession.

It plays key role with involvement in the formulation and implementation of National Health Programs like Family Welfare, Maternal and Child Health, Universal Immunization Programme, Oral Rehydration Therapy, and AIDS Prevention, Control and

---

[50] Annual Report 2009-10: Medical Council of India, New Delhi, 2010.
[51] Indian Medical Association: http://www.ima-india.org/IMA_history.html

Management[52]. The IMA and its branches have been running many community service projects and a number of branches have established Family Welfare Clinics, Immunization Centres, Ambulance Services, Blood Banks, Polio Eradications and RCH programs.

3. Nursing Council of India

Indian Nursing Council is an autonomous regulatory body under the Ministry of Health & Family Welfare, Government of India, constituted under the Indian Nursing Council Act, 1947. The functions of Indian Nursing Council are: to establish and monitor a uniform standard of nursing education; to prescribe syllabus and regulations for nursing programs; to withdraw the recognition of qualification and; to advise the State nursing councils, examining boards, State Governments and Central Government in important issues regarding nursing education. In 2010, there were 2028 general nurse midwives and 676 auxiliary nurse midwives institutions which had admission strength of 80332 and 15335 students respectively.

4. Dental Council of India

The Dental Council of India was incorporated under The Dentists Act, 1948 to regulate dental education and profession in India. The council is entrusted with the functions of maintenance of uniform standards of dental education and to prescribe standard curricula for the training and examination.

In consonance of the provisions of the Act, Dental Council of India is entrusted with the following objectives: Maintenance of uniform standards of Dental Education – both at undergraduate and postgraduate levels; to prescribe a standard curricula for the training of dentists, dental hygienists, dental mechanics and the conditions for such training; to prescribe the standards of examinations and other requirements required to secure recognition under the Act. In 2010, there were 289 dental colleges which gave admission to 21547 under-graduate and 2783 post-graduate students.

5. Pharmacy Council of India

Pharmacy education and profession in India is regulated by Pharmacy Council of India (PCI), a statutory body governed by the provisions of the Pharmacy Act, 1948. The objectives of the council are: to regulate the profession and practice of pharmacy; to prescribe minimum standard of education; to ensure uniform implementation of standards; to approve courses of study and examination and to maintain central register of

[52] Journal of Indian Medical Association, May, 2010

pharmacists. In 2010, there were 608 pharmacy colleges which provided admission to 36115 students.

6. Indian Council of Medical Research

The Indian Council of Medical Research (ICMR) founded in 1911 is the apex body for formulation, coordination and promotion of biomedical research in India. Funded by the Government of India, the council's research priorities are based on national health priorities such as control and management of communicable diseases, fertility control, maternal and child health, control of nutritional disorders, developing alternative strategies for health care delivery, containment within safety limits of environmental and occupational health hazards, research on major non-communicable diseases and drug research.

ICMR's research effort has a special focus on changing public health scene especially when resources are severely limited, which is a typical problem encountered in the management of medical research, particularly in developing countries.

7. Quality Council of India

Quality Council of India (QCI) was set up in 1997 jointly by the Government of India and the three industry associations i.e. Associated Chambers of Commerce and Industry of India (ASSOCHAM), Confederation of Indian Industry (CII) and Federation of Indian Chambers of Commerce and Industry (FICCI), to establish and operate national accreditation structure and promote quality through National Quality Campaign. QCI is registered as not-for-profit society with its own Memorandum of Association and Rules & Regulations. The Department of Industrial Policy & Promotion, Ministry of Commerce & Industry, is the nodal ministry for QCI.

National Accreditation Board for Hospitals & Healthcare Providers (NABH) is a constituent board of Quality Council of India, set up to establish and operate accreditation program for healthcare organisations. The board is structured to cater to much desired needs of the consumers and to set benchmarks for progress of health industry. The board while being supported by all stakeholders including industry, consumers, government, have full functional autonomy in its operation. Some States like Gujarat have initiated the process of NABH accreditation for public hospitals. The mission of Gujarat government is to enhance patients' quality of life by providing specialized medical treatment and preventive health care at free/affordable cost.

8. Public Health Foundation of India

Public Health Foundation of India (PHFI) is a public-private initiative of Central and State Governments, academia, multilateral agencies and civil society groups. PHFI was launched in 2006 to strengthen training, research and policy development in the area of Public Health. As an independent foundation, PHFI adopts a broad, integrative approach to public health, tailoring its endeavours to Indian conditions. It focuses on broad dimensions of public health that encompass promotive, preventive and therapeutic services.

The main purposes of PHFI[53] are assisting the growth of public health training institutions/ departments to facilitate their evolution into major institutes of public health; establishing a strong national research network of public health and allied institutions which would undertake policy and program relevant research that will advance public health goals in priority areas; engaging public health expertise to collectively undertake analytical work for generating policy recommendations related to public health action and; developing a vigorous advocacy platform to communicate these recommendations to policy makers and other relevant stake holder groups.

9. National AIDS Control Organization (NACO)

NACO is a division of the Ministry of Health and Family Welfare that provides leadership to HIV/AIDS control program in India through 35 HIV/AIDS Prevention and Control Societies. The vision of NACO is that every person living with HIV has access to quality care and is treated with dignity. Effective prevention, care and support for HIV/AIDS is possible in an environment where human rights are respected and where those infected or affected by HIV/AIDS live a life without stigma and discrimination.

NACO strives to improve access and accountability of services by fostering collaboration with NGOs, women's self-help groups, faith-based organisations, people's networks and communities. NACO aims to contain the spread of HIV in India by building an all-encompassing response reaching out to diverse populations and provide accurate, complete and consistent information about HIV, promote use of condoms for protection, and emphasise treatment of sexually transmitted diseases.

---

[53] La Forgia, Gerard and Krishna D. Rao: India Health Beat – Policy Notes- Public Health Foundation of India, New, 2006-12.

3.5 Health Care Legislations

1. Constitutional Provisions

Health care as envisaged in the Constitution of India as outlined in the Directive Principles of State Policy in Articles 42 and 47 of Chapter IV. As per Article 42, the State shall make "Provision for just and humane conditions of work and maternity relief". And according to Article 47, it is the "Duty of the State to raise the level of nutrition and the standard of living and to improve public health". Thus both the Articles feature a universal health care system run by the Centre and States.

2. Public Health Act

Few States like Kerala and Tamil Nadu have separate law for public health, the Travancore-Cochin Public Health Act, 1955 and Madras Public Health Act, 1939 respectively. Key public health functions are transferred to Panchayats and Municipal bodies under the Act. Some key functions transferred under the Act are sanitation, disposal of solid and liquid wastes, vector control, immunization and other preventive measures, management of dispensaries, and management of child welfare centres and maternity homes.

3. Medical Termination of Pregnancy Act, 1971

As an important legislation for maternal and child health in India, this law provides for abortion services on a woman in an approved clinic or hospital under stipulated conditions. The Medical Termination of Pregnancy (MTP) Act of India clearly states the conditions under which a pregnancy can be ended or aborted, the persons who are qualified to conduct the abortion and the place of implementation. According to Consortium on National Consensus for Medical Abortion in India[54], an average of about 11 million abortions take place annually and around 20,000 women die every year due to abortion related complications. Most abortion-related maternal deaths are attributable to illegal abortions.

Voluntarily 'causing miscarriage' to a woman with child – other than in 'good faith for the purpose of saving her life' is a crime under Section 312 of the Indian Penal Code. The MTP Act is an empowering legislation, which if adhered to completely, offers protective umbrella allowing clinicians to offer legal safe abortion services within well-defined limits.

---

[54] Radhakrishnan, Prathima: Referral for Abortion, Indian Journal of Medical Ethics: 2009, Oct-Dec: 6(4)

4. Pre-Natal Diagnostic Techniques (PNDT) Act, 1994

Female infanticide was prohibited in the country even before independence, by way of penal provisions in Indian Penal Code, 1860. However, the provisions were toothless as a result of which there is prevalence of high rates of infanticide and foeticide. With the advent of technologies[55] for sex determination during pregnancy, female foeticide became rampant resulting in decline in sex ratio. In 1994, the parliament enacted The Pre-Natal Diagnostic Techniques (Regulation and prevention of misuse) Act to regulate and prevent misuse of diagnostic techniques and to provide strict penal action.

The Act was further amended in 2003 to make it more comprehensive and renamed as Pre-Conception and Pre-Natal Diagnostic Techniques (Prohibition of Sex Selection) Act, 1994. It has explicit provisions for use, regulation and monitoring of ultra sound machines to curb their misuse for determination of sex of the foetus.

5. Food Safety and Standards Act, 2006

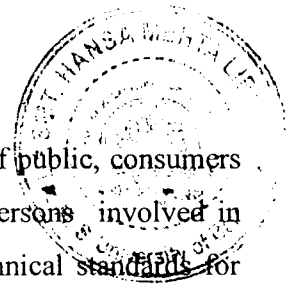
Various central Acts like Prevention of Food Adulteration Act, 1954, Fruit Products order, 1955, Meat Food Products Order, 1973, Vegetable Oil Products (Control) Order, 1947, Edible Oils Packaging (Regulation) Order 1988, Solvent Extracted Oil, De-Oiled Meal and Edible Flour (Control) Order, 1967, Milk and Milk Products Order, 1992 etc were repealed with the enactment of this law.

The Act aims to establish a single reference point for all matters relating to food safety and standards by establishing an independent statutory authority – the Food Safety and Standards Authority of India (FSSAI) to enforce various provisions of the Act. Ministry of Health & Family Welfare is the administrative ministry for the implementation of laws for food safety and standards. It lays down standards for articles of food and to regulate their manufacture, storage, distribution, sale and import to ensure availability of safe and wholesome food for human consumption.

FSSAI has been mandated by the FSS Act, 2006 to: frame regulations to lay down the standards and guidelines in relation to articles of food; lay down mechanism and guidelines for accreditation of certification bodies; lay down procedure and guidelines for accreditation of laboratories; provide scientific advice and technical support to Government; collect and collate data regarding food consumption, incidence and prevalence of biological risk, contaminants in food, identification of emerging risks and

---

[55] Annual Report on implementation of Pre-Conception and Pre-Natal Diagnostic Techniques (Prohibition of sex selection) Act, 1994, PNDT Division, Ministry of Health and Family Welfare, Govt. of India, 2005.



introduction of rapid alert system; creating an information network of public, consumers and panchayats across the country; provide training programs for persons involved in food businesses; contribute to the development of international technical standards for food, sanitary and phyto-sanitary standards and; promote general awareness about food safety and food standards.

6. Drugs and Cosmetics Act, 1940

The manufacture and sale of drugs is a licensed activity under the Drugs and Cosmetics Act, 1940. It has provisions to check production of spurious and sub-standard drugs in the country and to take penal action against the offenders. Regulatory control over manufacture and licensing is exercised by the State licensing authorities appointed by State Governments. The prevalence of spurious drugs is a major public health concern and hence the Government has taken many initiatives to enforce the law which include whistleblower scheme, strengthening drug testing laboratories and good manufacturing practices.

7. Environmental Legislations

Pollution of environment in different forms has a direct impact on the public health of the people. There are legislations on water, air and other forms of pollution in the form of Water (Prevention and Control of Pollution) Act, 1974; Air (Prevention and Control of Pollution) Act, 1981, Environment (Protection) Act, 1986, Hazardous Waste (Management & Handling) Rules, 1989 and Bio-medical Waste (Management & Handling) Rules, 1998. These laws are implemented through the State pollution control boards under the guidance of central pollution control board.

8. Other Laws

There are many other statutes which are relevant in the context of health care management in the country. The important statutes are the Drugs (Control) Act, 1948, Maternity Benefit Act, 1961, the Registration of Birth and Death Act, 1969, Dangerous Machines (Regulation) Act, 1983, Narcotic Drugs and Psychotropic Substance Act, 1983, Consumer Protection Act, 1986, Epidemic Diseases Act, 1987, The Mental Health Act, 1987 and Transplantation of Human Organs Act, 1994.

3.6 Health Programs in the Country

1. Reproductive and Child Health Program

The second phase of RCH program i.e. RCH II commenced from 1st April, 2005 under NRHM after the end of Phase I[56]. The main objective of the program is to bring about a change mainly in three critical health indicators i.e. reducing total fertility rate, infant mortality rate and maternal mortality rate with a view to achieve the outcomes envisioned in the NPP, NHP, MDG, Tenth Plan Document and India Vision 2020.

Salient features of RCH - II Program are: adoption of sector-wide approach; building State ownership by involving States from the beginning of the program; decentralization through development of District and State level need based plans and; capacity building at the district, state and the central level to ensure improved program implementation. In particular, the emphasis is on strengthening financial management systems and monitoring and evaluation capabilities at different levels.

2. National Vector Borne Disease Control Program

Directorate of National Vector Borne Disease Control Program (NVBDCP) is the central nodal agency for prevention and control of vector borne diseases i.e. Malaria, Dengue, Lymphatic Filariasis, Kala-azar, Japanese Encephalitis and Chikungunya in India. It is one of the technical departments of Directorate General of Health Services, Government of India. The program provides detailed guidelines for control of these diseases, information, education and communication activities and capacity building.

3. Revised National Tuberculosis Control Program (RNTCP)

India has adopted WHO- recommended Directly Observed Treatment (DOT) under RNTCP program in 1997. The main components are: case detection by sputum smear microscopy examination among symptomatic patients; administration of anti-TB drugs under the direct observation of the health care provider/community DOT provider; regular and uninterrupted supply of anti-TB drugs; systematic recording and reporting that allows assessment of treatment result of each patient and: finally, political commitment to control TB. In 2006, a new stop strategy for TB with the following components was adopted: to pursue high quality DOT expansion; to address TBHIV, MDR-TB and other challenges; contribute to health system reengineering and; to promote research.

---

[56]Meeting people's health needs in rural areas, National Rural Health Mission – Framework of Implementation 2005-12, Ministry of Health and Family Welfare, Government of India.

4. Integrated Disease Surveillance Project (IDSP)

IDSP was launched in November 2004 under Ministry of Health and Family Welfare[57]. It is a decentralized, State based surveillance program intended to detect early warning signals of impending outbreaks and help initiate an effective response in a timely manner. Major components of the project are : (1) Integrating and decentralization of surveillance activities; (2) Strengthening of public health laboratories; (3) Human Resource Development – Training of State Surveillance Officers, District Surveillance Officers, Rapid Response Team, other medical and paramedical staff; and (4) Use of Information Technology for collection, collation, compilation, analysis and dissemination of data.

New areas in the project are Non-Communicable Diseases Risk Factor Survey currently being conducted in the states of Andhra Pradesh, Tamil Nadu, Kerala, Maharashtra, Madhya Pradesh, Uttarakhand and Mizoram. The survey is to be repeated every 3 years to cover all states in phases.

5. National Leprosy Eradication Program

The National Leprosy Eradication Program is a centrally sponsored health scheme of Ministry of Health and Family Welfare. The program is also supported by WHO, International federation of anti-leprosy association and NGO. The strategy for elimination of leprosy includes decentralization to states and districts, integration of leprosy with general health care system, training, early diagnosis, prevention of disability and medical rehabilitation. The prevalence at the national level has declined from 5.9 in 1991 to 0.69 in 2011 per 10000 populations.

6. Rogi Kalyan Samiti (RKS)

RKS (Patient Welfare Committee) is a management structure which is a registered society to manage the affairs of hospitals. It consists of representatives of local bodies, NGOs, local elected representatives and is responsible for proper functioning and management of hospitals and quality of services.

The functions include identifying problems faced by the patients, procuring equipments and furniture, arrangements for maintenance of hospitals, involve private partners for cleaning, laundry, diagnostic and ambulance services and encourage community participation.

---

[57] Annual Report, Integrated Disease Surveillance Project, Ministry of Health and Family Welfare, Govt. of India, 2008

7. Rashtriya Swastha Bhima Yojna (RSBY)

RSBY, introduced in 2007 is a new health insurance scheme for the Below Poverty Line (BPL) families in the unorganized sector. The objective of RSBY is to provide the insurance cover to below poverty line households from major health shocks that involve hospitalization. In terms of funding, 75% is provided by the centre while the remainder is borne by the state government. The scheme is being implemented in phased manner covering 20% of districts every year. Under the scheme, BPL families are entitled to more than 700 in-patient medical procedures with a cost of up to 30,000 rupees per annum for a nominal registration fee of 30 rupees. Pre-existing medical conditions are covered and there is no age limit. Coverage extends to the head of household, spouse and up to three dependents.

8. Janani Surakhsha Yojna (JSY)

JSY is a safe motherhood intervention under the NRHM implemented with the objective to reduce maternal and neo-natal mortality by promoting institutional delivery among the poor pregnant women. The scheme launched in 2005, is being implemented in all states with special focus on low performing states. The scheme integrates cash assistance with delivery and post-delivery care. Each beneficiary registered under this program is tracked with a MCH card and an ASHA/AWW/ any other identified link worker under the overall supervision of the ANM, and the medical officer of the concerned PHC, should prepare a micro-birth plan. This will effectively help in monitoring Antenatal check-up, improve institutional delivery and the post delivery care.