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### WHO 2011 report on India

Life expectancy: Male: 63.8 Female: 67.3 Total: 65.5

World Rank: 133
Causes of Death In

India
Death due to coronary
heart disease: 13.88%

Lung disease: 11% World Rank: 1

world Rank: 37

Diarrhoeal disease: 12.06% World Rank 11

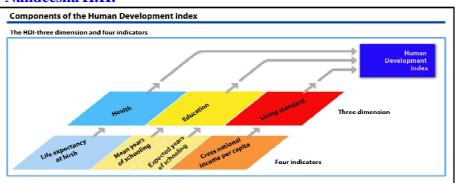
Liver diseases: 2.31 World Rank: 27

Low birth weight: 2.74 World Rank: 47

HIV/AIDS: 2.05% World Rank: 67

## Life Expectancy as an Indicator for HD

-Nandeesha H.K.



Human development is measured in three dimensions: Health, Education and Livingstandard. these dimensions further have four sub indicators like life expectancy at birth, mean year of schooling, expected year of schooling and Gross National Income Per capita. Life expectancy is the most fundamental indicator of the condition of life, reflecting not just on health but also stability and human security. It is also an indicator of inequality across societies. It effectively summarise mortality at all ages, and also as an indicator of the quality of

Hence, Inter-country variations in life expectancy rates can also provide some indication of the extent of international inequality. There has been some global convergence in terms of life expectancy rates betw-

een developed and less developed regions. While life expectancy rates have improved in the less developed regions on an average and have improved their positions somewhat relative to the higher rates of the developed countries.

Life expectancy at birth is widly used and analyzed component among the demographic data for the countries in the world. Life expectancy can fall due to problems like famine, war, disease and poor health. Improvements in health and welfare increase life expectancy. As seen from the table

Life Expectancy in Developed, Developing and Underdeveloped Countries.

	1950-55	1960-65	1970-75	1980-85	1990-95	2000-05	2005-10
Developed	66	69.8	71.3	72.9	74.1	75.8	77.1
Developing	41.7	48.6	56.6	61	63.9	66.6	67.7
Under Developed	36.4	40.6	44.4	48	50.4	54	55.9
World	46.6	52.4	58.2	61.7	64	66.4	67.6

life. Studies have found significant positive correlation between income and life expectancy rates. In addition life expectency also reflects human security and stability in societies, the degree of conflict and the condition of health services in a country. the higer the life expectency the better is the country's prosperity.

life expectency has improved considerably over the years. Improvements in incidence of poverty, nutrition, adult literacy, access to safe drinking water, burden of diseases, and sanitation have contributed and impacted positively over the years on improving life expectancy.

Source: The Hindu Business Line August 19, 2013

# Life Expectancy of India up by 5 years

### -Arjun .R, Mahamadmusstaf .P.S & Deepa T.M.

Statistics released by the Indian Union Ministry of Health and Family Welfare shows that life expectancy in India has gone up by five years, from 62.3 years for males and 63.9 years for females in 2001-2005 to 67.3 years and 69.6 years respectively in 2011-2015. Experts attribute this to better immunization and nutrition, coupled with prevention and treatment of infectious diseases.

In India, average life expectancy which used to be around 42 in 1960 steadily climbed to 48 in 1980, 58.5 in 1990 and around 62 in 2000. The overall health indicators have also shown significant improvement across the country in the past 10 years. Infant mortality ra-

ister Survey, reveals that there is a remarkable increase in life expectancy at birth. The female expectation of life at birth in general, is higher than male expectation. The life expectancy at birth for male was 64.6 years as compared to females, 67.7 years for females according to SRS Based

**Table 1: India Life Expectancy History** 

Year				World Rank				
	Male	Female	All	M	F	All		
1960	43.2	41.3	42.3	121	145	135		
1970	50.1	48.5	49.3	119	136	124		
1980	55.9	55.5	55.7	117	129	124		
1990	59.3	60.0	59.7	125	134	130		
2000	61.4	63.6	62.5	121	126	126		
2011	63.8	67.3	65.5	135	137	137		

Abridged Life Tables 2003-07 to 2006-10. Urban Male (68.0 years) and Urban Female (71.4 Years) have longer life span as compared to their rural counter parts.

According to the projections made by the Technical Group on Population Projections, life expectancy at birth in the case of male population is likely to reach 68.8 years by 2016-20 and further go up to 69.8 by 2021-25 from the present level. In the case of female

trend has reversed. This change in the size of the aging population is reflect in the emergence of various healthcare issues associated with the elderly such as diabetes, heart disease, diseases related to the nervous system and mental health. With this greying of the population likely to increase over the next decade, geriatric care must become part of the focus of public healthcare systems.

Kerala has the highest Life expectancy at birth among all the states of India. The life expectancy of Keralites, both men and women has never come down below 70 years since 1999 and the projection by the Technical Group on Population Projections will be the highest in the history of Kerala measuring 73.2 and 77.6 for male & female respectively. The life expectancy at birth in Karnataka shows lot of variations since 1999 ranging from 62.9 and 66.4 for male

Table 2: Table 2: Life Expectancy at Birth in India & Major States 1999- 2003 to 2011-2015

SL. No.	States	1999.	-2003	2003   2000-2004		2001-2005 2002-200		2006	6 2006-2010		2011-2015(Projected)		
	Gender	M	F	M	F	M	F	M	F	M	F	M	F
1	Karnataka	62.9	66.4	63.1	66.7	63.4	66.9	63.6	67.1	66.5	71.1	68.0	72.3
2	Gujarat	62.5	64.6	62.7	64.8	62.8	65.0	62.9	65.2	67.2	71.0	69.2	72.5
3	Kerala	70.9	76.0	71.0	76.1	71.3	76.3	71.4	76.3	72.0	76.8	73.2	77.6

Source: Compendium of India's Fertility and Mortality Indicators, based on SRS, Registrar General of India.

tio has come down to 42 in 2012 from 58 per 1,000 live births in the 2005. "Maternal mortality ratio has declined from 301 per 100,000 live births in 2001-03 to 212 in 2007-09" (Health Ministry of India).

Statistics on life expectancy by sex for India and its constituent states from 1970-75 to 2006-10 by the Sample Reg-

population, it is likely to reach 71.1 by 2016-20 and 72.3 by 2021-25 (Table 2).

### Kerala- Karnataka- Gujarat Trend

Karnataka has seen a consistent improvement in life expectancy at birth (LEB) since 1971. Male life expectancy in Karnataka was higher than female life expectancy up to 1981, and thereafter the

& female respectively to 68.0 and 72.3 for male - female respectively for 2011-2015. Gujarat has maintained a steady position on graph since 1999.

**Source:** UNDP Reports, WHO, ministry of health and family welfare, India and KSHR 2005

# The Concept of Life Expectancy

### -Shivaprasad B.M

Life Expectancy is one of the major indicators in Human Development that shows how long a person can expect to live on average given prevailing mortality rates. Technically, it is the average number of years of life remaining to a person at a specified age, assuming current age-specific mortality rates continue during the person's lifetime.

It was after the first Human Development Report that life expectancy became a thrust indicator. A new way of measuring development by combining indicators of life expectancy, educational attainment and income into a composite human development index, the HDI was introduced. The breakthrough for the HDI was the creation of a single statistic which was to serve as a frame of reference for

both social and economic development. The HDI sets a minimum and a maximum for each dimension, known as goalposts, and then shows where each country stands in relation to these goalposts, expressed as a value between 0 and 1. In India, the life expectancy at birth component of the HDI is calculated using a minimum value of 25 years and maximum value of 85 years. This is the observed maximum value of the indicators of the countries in the time series, 1980–2012. A country with longevity component where life expectancy at birth is 55 years would be 0.551. It is important to note that life expectancy is an average value. In many cultures, particularly before the advent of modern medicine and its wide spread acce- ssibility, the combination of factors like high infant mortality and deaths in young adult- hood from accidents, epidemics, plagues, wars, and childbirth, significantly lowered the overall life expectancy. But for someone who survived past these early hazards, living into their sixties or seventies would not be uncommon. In countries with high infant mortality rates, life expectancy at birth is highly sensitive to the rate of death in the first few years of life. Because of this sensitivity to infant mortality, simple life expectancy at age zero can be subjected to gross misinter pretation, leading one to believe that a population with a low overall life expectancy will necessarily have a small proportion of older people.

Source: Dean Kooontz (2005) Life expectancy Bantam Dell Newyork publication.

### Kerala tops in Life Expetency at Birth

### -Venugopal Gowda M.K.

Life expectancy at birth has increased from 59.7 in 1991-95 to 62.6 in 2002-06. Table: 1 shows the expectation of life at birth of selected 16 states. Kerala is in highest position 71.8 for males and 76.2 for females during 2002-06 from 71.3 and 76.3 for males and females during 2001-05. Where we can see the life expectancy is decreased. Next to Kerala is Punjab; 68 for males and 70.4 for females during 2002-06 from 68.1 for males 70.1 for females during 2001-05 which shows raise in life expectancy in Punjab state, next to Punjab is Himachal Pradesh 66.5 for male and 67.3 for females during 2002-06 and 66.3 for males and 67.1 or females during 2001-05 which shows decrease in male life expectancy and increase in female life expectancy. Karnataka ranks sixth rank among above 16 states 63.6 for male and for females 67.1 during 2002-06 whereas Table: 1. Life Expectancy at Birth in India & Major States 2001-2005 to 2011-2015

Indian Major States		2001-05		200	02-06	2011-2015 (Projected)		
		M F		M	F	M	F	
India		62.3 63.9		62.6	64.2	67.3	69.6	
1	Andhra Pradesh	62.7	65.2	62.9	65.5	66.9	70.9	
2	Assam	58.3	59.0	58.6	59.3	63.6	64.8	
3	Bihar	62.0	60.1	62.2	60.4	68.6	68.7	
4	Gujarat	62.8	65.0	62.9	65.2	69.2	72.5	
5	Haryana	65.6	66.0	65.9	66.3	68.9	71.3	
6	Himachal Pradesh	66.3	67.1	66.5	67.3	-	-	
7	Karnataka	63.4	66.9	63.6	67.1	68.0	72.3	
8	Kerala	71.3	76.3	71.4	76.3	73.2	77.6	
9	Madhya Pradesh	57.8	57.5	58.1	57.9	64.5	65.3	
10	Maharashtra	65.8	68.1	66.0	68.4	68.9	72.5	
11	Orissa	59.2	59.2	59.5	59.6	67.3	66.3	
12	Punjab	68.1	70.1	68.4	70.4	72.8	70.7	
13	Rajasthan	61.2	62.2	61.5	62.3	70.7	68.6	
14	Tamil Nadu	64.8	67.1	65.0	67.4	68.6	71.8	
15	Uttar Pradesh	60.1	59.3	60.3	59.5	66.0	66.9	
16	West Bengal	63.9	65.5	64.1	65.8	69.2	72.1	

63.4 and 66.9 respectively during 2001-05, *Source:* Report of the Technical Group on Population Projections May 2006, that shows increase life expectancy of both National Commission on Population/MOHFW

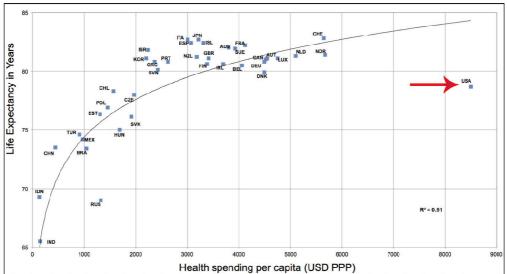
(continued page-8)

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### Health Expenditure is High in Developed Countries

### -Gayathri .R

The diversity healthcare of systems across countries is explicitly reflected in the degree of public health expenditure. Health spending in general and public health spending in particular vary widely among countries. Spending on Healthcare systems inc-



expenditure on public health does have a direct impact certain health indicators, it was evident from survey that the richer states had higher per capita spending, and generally low IMRs, greater Incidence of full antenatal care and safe deliveries, and better nutrition

lude both preventive and intervention services and is distributed through service delivery systems that vary. Many factors contribute to public health outcomes of a country, including "biology, environment, lifestyles, and the health care system" each of which is in turn affected by the country's development, egalita rianism, socioeconomic level, political system, and other factors(Elola,et al, 2005).

Health expenditure both in terms of percentage of GDP spent on health and per capita health expenditure, is much higher in the developed countries. The share of GDP spent on health ranges from a low of 1 per cent in Pakistan with a life expectancy of 60.4 to 13.9 per cent in the USA with the life expectancy of 76.9. Similarly there is a very wide variation of per capita health expenditure across countries, which is typically extremely low in developing countries compared with most of the developed countries. The graph below shows the correlation between public expenditure on health in developed countries as against Life expectancy. It clearly states that public spending and Life expectancy are positively correlated. Higher the health expectancy higher is the life expectancy; Vice versa.

In India it is observed that the health expenditure by state has declined. In the latter half of previous decade, i.e. 1998-99 to 2002-03, the rate of growth of such spending declined compared to the earlier period 1993-94 to 1997-98, in 9 states of India (except the states of Andhra Pradesh, Assam, Kerala, Maharashtra and Orissa). In this sub-period there were absolute decline as well, in Gujarat, Haryana, Madhya Pradesh, Rajasthan, Tamil Nadu and Uttar Pradesh.

Furthermore the data obtained from Public Finance documents, SRS (sampling registration system) and Report on Macroeconomics and Health of the year 2001 indicates that the

indicators. However, it is not the case that all richer states have higher per capita health expenditure rather, some of them, such as Gujarat and Haryana; have among the lowest per capita expenditure on health. Conversely, Rajasthan, with relatively low per capita income have relatively higher per capita government spending on health.

Across states, the per capita spending was seen to be strongly correlated with various indicators including not only life expectancy at birth, infant mortality and child mortality, but also with the extent of antenatal care provided., proportion of safe deliveries and the spread of immunisation. The decline in per capita spending on health of constant 1993-94 price terms in three of these states was linked to the actual decline in the extent of full immunisation among children in the age group 12 to 23 months. This pointed starkly to the negative public health implications of reduced real health spending by state governments.

Allocation of Union Government on Health has increased to Rs. 25,154 crore in 2010-11 from Rs. 22,614 crore in 2009-10. This is an eleven percent increase compared to previous year. Out of this, external contribution (Externally Aided Projects, EAP) is Rs. 3986 crore, which is 16% of total Union Government's Budget on health. In the previous year, EAP contribution was Rs. 3,192.71 crores. It is understood that initiative and investment on Health from the Government definitely has an impact on the Life expectancy. However it has to be noted that the success of all the programmes undertaken by the Government depends on the implementation done by the authorities incharge.

**Source:** Government Health Expenditure in India, Economic Research foundation, New Delhi, August 2006

-Govt. health expenditur and Public Health outcomes-A comparitive study of 17 countries-by Tal Kuen Kim

## Life Expectancy of Women Improved to 67.1 Years

-Vagdevi H.S.

Women comprise 49% of population and they play a central role in familial set up as well as, shoulders economic responsibilities thus, become an active member in participatory development process. Women comprise nearly half of the population in Karnataka. According to the 2011 Census, women comprise 49.14% of the total state population. The average life expectancy for women in India is 67.74 and in Karnataka 67.1.

This means that Karnataka is on par with national status.

Table 1. show that the life expectancy women has shown an improvement from 63.2 in 1991 to 67.1 in 2012. It is notable that life expectancy women is higher than men. This improved condition can be attributed to many programmes introduced by gove(IMNCI), New Born Stabilization Units (NBSUs) in Hospitals and Community Health Centres, Special Neo-natal Care Units (SNCUs) and such other facilities have been established in all District Level Hospitals. Table 2 shows IMR has been brought down from 69 to 32 per 1000 live births in the year 2012, more than half the number in span of two decades. However, the Infant Mortality Rate (IMR) of about 32 in 2013 is far higher than the eleventh

services facilities are given in selected Primary Health Centres and many other programmes. But after all these also MMR is not reducing. There is a serious lacuna either in implementation or in awareness.

Most health indicators for women are associated only with fertility and motherhood, thereby, reducing women to just having a womb. This needs to change significantly through recognition of indicators of general health of women, and

Table: 1 - Average Life Expectancy of India (in years)

Indicator		1981	1991	2008	2009	2011	2012
Average Life Expectanc (in years)	y Male	NA	61.0	63.6	63.6	63.6	63.6
	Female	NA	63.2	67.1	67.1	67.1	67.1

**Table 2: Infant Mortality Rate (per 1000 Live births)** 

Indicator	1981	1991	2008	2009	2010	2011	2012
Infant Mortality Rate (per 1000 Live births)	69	77	45	41	38	35	32

Table 3: Maternal Mortality Rate (for every 1, 00,000 live births)

Indicator	1981	1991	2008	2009	2010	2011	2012
Maternal Mortality Rate (for every 1,00,000 live births)	NA	266	213	178	-	178	178

Source: Office of Registrar General of India. All the above data are based on SRS.

rnment of Karnataka. But, what makes the situation be bothered is the fact that though the life expectancy is higher the deaths caused due various reasons cannot be neglected. The major causes for death are; Post- partum haemorrhage, Anaemia, Pre eclampsia toxaemia, Sepsis, Obstructed labour and others to mention a few. In Karnataka, as per census 2001-02, Belgaum saw the highest life expectancy with 67.7 years, while, Dharwad got the lowest with 61.9 years.

The IMR in the state has improved over a period of time. Thanks to programmes like, Integrated Management of Neonatal and Childhood Illnesses five year plan target of 24 set for the year 2012. There is a herculean task in front of the sate and this requires utmost attention to meet the planned target. The MMR in Karnataka is recorded at 178 for every 100000 live birth, though the situation is better but there is stagnation.

Table 3 MMR has been reduced from 266 to 178 for 100000 live births in 2012. There are a lot of programmes run by government of Karnataka; Provision of Antenatal Card (ANC) card, Supply of 100 Iron Folic acid (IFA) Tablets, Two TT injections, A cash benefit of Rs.1000 is given under *Prasuthi Araike* programme for supplementing nutrition, 24x7 health

through impact of various development processes/policies on women's health. The state can take a lead in developing these indicators and bring a change in perspective nationwide.

Source: Planning.kar.nic.in



The life expectancy is much longer today than it was when Social Security was created.

-Virginia Foxx, US Politician

# **Government Initiative and Budget Outlay**

-Srinivasa .D

According to an official data, what used to be 62.3 years for male and 63.9 years for female in 2001-2005 is now 67.3 years for male and 69.6 years for female in 2011-2015, reduction in new HIV cases by as much as 57 %. Infant Mortality Rate has come down to 42 in 2012 from 58 per 10,000 live births in the year 2005. Maternal Mortality Ratio declined from 301 per 100,000 live births in 2001-03 to 212 in 2007-09. The Government increased budget outlay by 335 % to Rs. 3 lakh crore in 12th Plan for healthcare to achieve universal and inclusive healthcare for all citizens. This was possible as Government initiated an integrated National Programme for Prevention and Control of Cancers, Diabetes, Cardiovascular Diseases and Stroke.



The National Urban Health Mission (NUHM) envisages to meet health care needs of the urban population with the focus on urban poor, by making available to them essential primary health care services and reducing their out of pocket expenses for treatment. In the 12th Plan an allocation of Rs. 15,143 crores has been made for National Urban Health Mission.

NRHM launched by the Government over eight years ago and substantial progress has been achieved under it. More than Rs. 1, 11, 000 crores has been released by the Health Ministry to 35 State Governments and Union Territories. Nearly 51,000 new health infrastructures have been created, including new construction and up-gradation works to improve health facilities. More than 70,000 beds have been added in Government health institutions for provision of essential and emergency services across the country. Addition of nearly 1.6 lakh human resources that include specialists, doctors, nurses, ANMs and para-medics and nearly 9 lakh community health workers called ASHAs have been appointed in villages to facilitate interface between the communities and health system. Under NRHM National Ambulance Services, free ambulance services are provided for patients transportation in every nook and corner of the country connected with a toll free number. Over 15,000 basic and emergency patient transport vehicles have been provided. NRHM also provides for institutional delivery among the poor pregnant women under the Janani Suraksha Yojna (JSY). Substantial increase in institutional deliveries has resulted in the steep decline of the IMR and MMR. The scheme is operationalized in all the States with more than 12 million beneficiaries.

### The National Programme for the Health Care of Elderly

addresses health related problems of elderly people. The basic aim of the NPHCE programme is to provide separate, specialized and comprehensive health care to the senior citizens at various levels of state health care delivery system including outreach services. Government of India initiated an integrated National Programme for Prevention and Control of Cancers, Diabetes, Cardiovascular Diseases and Stroke. The Government has launched some of new vaccines like indigenously developed JE Vaccine in 2013. Also, Hepatitis B vaccine and second dose of measles vaccine are now part of the Universal Immunization Programme. Pentavalent, a combination vaccine, which includes DPT + Hep-B + Hib has been introduced in eight states: Kerala, Tamil Nadu in December 2011 and Pondicherry, Goa, Haryana, Gujarat, Karnataka and Jammu and Kashmir in 2012-13. This ensures complete immunization against five diseases and also reduces the chances of an adverse event following immunization due to less injection load. Government of India earlier provided only one JE dose and now has introduced two doses of JE vaccine under Routine Immunization with first dose at 9-12 months and 2nd dose at 16-24 months with effect from 1st April 2013.

### **National AIDS Control Organization, Department of AIDS**

NACO aims to prevent HIV infection as well as offering support to HIV/AIDS patients. Its mission is accomplished by educating, counselling and testing services. Latest reports indicate that the number of new HIV infections has fallen by 50-60% and the current HIV/AIDS population, in India, is approximately 2 to 3.1 million (3.4-9.4 million in 2002). However, infection rates continue to be high or increasing among certain subsets of the Indian population, that is, males (60%), those aged 15-49 years (89%), drug abusers (9%), homosexual males (6%) and female sex workers (5%). The Indian government is making a serious attempt to ensure the robust health of its citizens by implementing a variety of programs and schemes. The long-term success is eagerly awaited though difficult to predict.

**Source:** National Health Mission Ministry of Health and Family Welfare, Government of India

# Role of Media in Health Programs

-Kiranbabu .P

When we take a glance at the world, some facts stand out and one of these is the low life expectancy rates and their relation to the development of the country. Even though the life expectancy has actually risen all over the world in the twentieth century due to advancement in technology and medicines, the Scenario seems to be a little different in the case of developing countries where the rate is gradually decreasing. The key problem is how people can be compelled to combine sound lifestyle with a good state of mind into their normal routine lives therefore, much more attention than ever before should be paid in this approach especially, the role of media is crucial because it the media that can take the information to all the section of the people.

### Successful Programs and Role of Media

WHO Director-General Margaret Chan says "India's success is arguably its greatest public health achievement and has provided a global opportunity to push for the end of polio". According to UNICEF Executive Director Anthony Lake, "The key to India's remarkable progress in the fight against polio has been the strong leadership of the Government of India and state governments, which launched a comprehensive polio eradication programme that has enabled sustained high immunization coverage in states like Uttar Pradesh and Bihar with high rates of poverty, high population density and poor sanitation and infrastructure, conditions in which disease like polio can thrive".

The awareness advertisement campaign of Pulse Polio "Doo Boondh", with Amitabh Bachchan as the goodwill ambassador in 2005 for Polio UNICEF campaign was very successfull. Here media has played an important role in publishing the programme through print, reel cinemas and television that reached both rural and urban India.

On 19 November 2012 President Shri Pranab Mukherjee launched a Nationwide Information, Education and Communication Campaign against Malnutrition. The aim was creating increased public awareness on different dimensions of malnutrition and the need to spread awareness about different programmes separately and concurrently. The campaign would create an enabling social as well as media environment that would enable families and communities and other stakeholders to not only understand malnutrition but also to take informed collective action.

Amir Khan one of the popular celebrity, was the ambassador of this campaign and worked in-depth with the team of officials from the Ministry and UNICEFF for two years. He connected with people and spread awareness on impact of malnutrition and simple ways of preventing and reducing it. The messages on infant and young child feeding and caring practices, was communicated through several creatives in the form of ads

on TV, radio, print media etc in 18 different Indian languages. Through advertisements and short films to make people aware of the perils of malnourishment are successful

perils of malnourishment are successful programs. Now the question is wheather the programm was sucess because of the

ambassador or the Media Coverage.

An ambassador himself

Celebrity

cannot be successful from his advertisment without media. It is the role of media that is making the programme reach the people from urban India to the people living in remote areas.

Media is showing its potentiality

"throughout the country in

in the above government programs in creating awareness among all the sections of the people. Newspapers, magazines, film, radio and television are diffusing health information

their own way. Attainment of health and family welfare needs the presence of informed, active and alive citizenry. Mass media can play a complementary role in facilitating health for all. Once in a while reports, articles, features, profiles and other healthcentered contents appear in the press. Occasionally some investigative reports about mismanagement of health sector also appear in the print media. Some professional journals carry serious write-ups on health management. Medium and small newspapers and magazines predominantly contain health-centered advertisements. On TV and Radio Talks, plays, quizzes, question and answer programs are popularly used in health broadcasting programs. Women and children welfare programs are also broadcasted to some extent with a focus on health care. Hence it is evidently seen that media has and is still playing a major role in bringing awarness of health across all the sections of the society irrespective of rural and urban areas.

Source: WHO, India Human Development Report 2011

### Kerala tops in Life Expetency at Birth

(continued from page 3)

genders. Demographically disadvantaged states such as Bihar, Madhya Pradesh and Orissa have lowest life expectancy at birth. Madhya Pradesh ranks last among 16 states but it has shown increase in life expectancy from 57.8 and 57.5 during 2001-05 and 58.1 to 57.9 during 2002-06. There are arguments by the Doctors and Social Thinkers that increasing life expectancy beyond 70 years mainly depends on supply of clean drinking water and better control of non-communicable diseases and environmental factors. Some experts still advocate

caution that with increased life expectancy, the disease burden would also increase. The projected statistics for 2011-15 for various states of India by National Commission on Population (Table 1) shows that the life expectancy will be very much improved in the states like Andhra Pradesh, Haryana, Madhya Pradesh, Tamil Nadu west Bengal and Maharashtra.

**Source-** Central Statistics Office Ministry of Statistics & Programme Implementation Government of India

# How 'WHO' Defines Life Expectancy

Arjun .R

Life Expectancy at birth reflects the overall mortality level of a population. It summarizes the mortality pattern that prevails across all age groups - children and adolescents, adults and the elderly.

#### **Definition**

Average number of years that a newborn is expected to live if current mortality rates continue to apply. A life table presents a set of tabulations that describe the probability of dying, the death rate and the number of survivors for each age or age group. Accordingly, life expectancy at birth is an output of a life table.

**Data sources :**Vital registration, census and surveys: Agespecific mortality rates required to compute life expectancy at birth.

**Methods of estimation:** WHO has developed a model life table based on about 1800 life tables from vital registration Judged to be of good quality. For countries with vital registration, the level of completeness of recorded mortality data in the population is assessed and mortality rates are adjusted accordingly. Where

vital registration data for 2003 were available, these were used directly to construct the life table. For countries where the information system provided a time series of annual life tables, parameters from the life table were projected using a weighted regression model, giving more weight to recent years. Projected values of the two life table parameters were then applied to the modified logit life table model, where the most recent national data provided an age pattern, to predict the full life table for 2003. In case of inadequate sources of age-specific mortality rates, the life table is derived from estimated under-5 mortality rates and adult mortality rates that are applied to a global standard using a modified logit model.

**Disaggregation :** By sex, location (urban/rural, major regions/ovinces). The lack of complete and reliable mortality data, especially for low income countries and particularly on ortality among adults and the elderly, necessitates the application of modelling (Based on data from other populations) to estimate life expectancy.

**Source:** World Health Organisation

University with Potential for Excellence of University Grants Commission was awarded to the University of Mysore in the disciplines of Science and Social Science. In Social Science, the focus area of study is 'Media and Social Development:

A Case Study of Karnataka'. The Newsletter ABHYUDAYA is an initiative to create awareness in the area of media and social development by encouraging Project Fellows to submit contributions in interdisciplinary areas of social sciences.

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