



## Impact of NrhM on Health Status in Karnataka: a Marco Level Analysis.

### KEYWORDS

Health Indicators in Karnataka .Health Infrastructure in Karnataka

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**ABSTRACT** According to the Karnataka Human Development Report, 2005, "the health scenario of Karnataka today is a combination of achievements and challenges". While Karnataka has achieved consistent improvement in the life expectancy at birth since 1971 (from 50.6 years in 1971 to 66.1 in 2001) and key health indicators like IMR and MMR are lower in the state than the national averages, the state lags behind the other south Indian states. Further, persistent regional imbalance in health indicators has been a troubling reminder of the inequities in access and provision of health care services within the state This paper focuses on to examine the Status of the health care before and after implementation of NRHM programme and health centers functioning under NRHM, another one important thing is to study the status of health diseases under NRHM in Karnataka . This paper is based on complete secondary data and using simple statistical tools like average and percentages. This paper find out the health status in Karnataka in the period of 2000-01 to 2013-14. IMR, MMR, TFR and CBR, CDR are also declining trends in the period of 2001-02 to 2013-14.

### Introduction:

According to the Karnataka Human Development Report, 2005, "the health scenario of Karnataka today is a combination of achievements and challenges". While Karnataka has achieved consistent improvement in the life expectancy at birth since 1971 (from 50.6 years in 1971 to 66.1 in 2001) and key health indicators like IMR and MMR are lower in the state than the national averages, the state lags behind the other south Indian states. Further, persistent regional imbalance in health indicators has been a troubling reminder of the inequities in access and provision of health care services within the state. However, Karnataka is one of the forerunners in the country in bringing reforms in the health sector. Furthermore, Karnataka's health sector is endowed by multiple initiatives like KHS DRP, UNICEF's Projects, 12th Finance Commission grants and other schemes which provide the financial resources for implementing public health related activities in the state. The Karnataka State Integrated Health Policy 2004 states that the mission of the Karnataka Government's Department of Health and Family Welfare is to provide quality health care which is equitable, locally responsive, participatory, accountable and transparent.

National Rural Health Mission was first implemented in Karnataka in 2005 (although the full fledged activities began in full swing in 2007-08), along with the other states and union territories. In Karnataka, the implementation plan for NRHM has been developed by integrating different strategies suggested by the state health policy as well as core strategies of NRHM. The district health action plans from all the districts of the state are integrated to form the state Program Implementation Plan (PIP) with a focus on the backward districts and high focused districts. The program implementation plan mainly gives an overview of the present health status, situational analysis of the infrastructural facilities of the state and the plan of implementation for the current year. It highlights the strategies and activities to be undertaken by different components of the program in detail so as to meet the goals and objectives of the program. As evident in the next sections, the mission has been able to improve the health status of the

state in terms of the health indicators such as decreased MMR, IMR, increased number of institutional deliveries etc.

### Review of Literature

A study by Agarwal (2005) Found that the NRHM represents a renewal, convergence and heightening of attention to diseases prevention, communicable diseases control prevention, health protection and promotion NRHM approach reflects the growing realization among public health professionals that continued investment in clinical care bringing diminishing returns with ailments and problems. Mehrotra (2008) found that Uttar Pradesh there could be a similar turnaround in Uttar Pradesh health system as well, given that in terms of health infrastructure it is in most cases better endowed than Bihar. A study by Ashtekar (2008) found that states that NRHM programme was unsuccessful due to failure of decentralization, lack of inter-sectoral co-operation and weakness in traditional health supports

The literature above reviewed focuses on budget for health with regard to NRHM, States of Northern in India and district level spending on NRHM in Karnataka and indicators of health which covering very limited period by taking particular aspects. No study have been come across the macro issues of NRHM in Karnataka and health status under NRHM, that's why this paper concentrates on Impact of NRHM on health status in Karnataka.

### Objective of the study

To analyse the health indicators under NRHM programme in Karnataka.

To study the Health infrastructure and health diseases under NRHM in Karnataka.

### Research Methodology

The study is based on secondary data collected from National Health Mission, Government of Indian; NRHM Document 2005, and government reports like Performance Evaluation Study of NRHM in Karnataka Draft Analytical Report 2012, and www.NRHM.nic .in website. Study purpose used

simple statistical tools like percentage average.

## Result and Discussions

### Health status under NRHM in Karnataka

#### Crude Birth Rate in Karnataka

The below the table no 1 indicates the Crude Birth Rate in Karnataka. Total crude birth rate in Karnataka It had declining trend from 22.2 per 1000 population in the year 2001 to 18.3 in 2014. It is going on declining continuously. But in rural area crude birth rate had declining trend from 23.6 in the year 2001 to 19 in the year 2014 but its higher than when compared to the urban crude birth rate having 19.5 in the year 2001 to 16.7 in the year 2014. Both rural and urban area crude birth rate it had declining trends but rural area crude birth rate is higher when compared to urban and India's average crude birth rate; but rural crude birth rate declined 4.4 points it's higher than urban crude birth rate declined points with 2.8 points during the period of 2001-2014.

#### Crude Death Rate in Karnataka

The below the table no 1 indicates the Crude Death Rate in Karnataka. total crude birth rate in Karnataka It had declining trend from 7.6 in the year 2001 to 7 in 2014. It is declining continuously. But in rural area crude death rate had declining trend from 8.2 in the year 2001 to 8 in the year 2014 but its higher than when compared to the urban crude death rate with 6.4 in the year 2001 to 5.1 in the year 2014. Both rural and urban area crude birth rate had declining trends but rural area crude birth rate is lower when compared to urban and total average crude death rate in Karnataka. But rural average crude death rate 7.9 percent in the time of NRHM implementation in 2005 then it's increased to 8.3 percent in the year 2008 at present it has declined to 8 percent in the year 2014.

#### Infant and Maternal mortality Rates in Karnataka

Infant mortality Rates (IMR) in Karnataka is also in declining trend and also the below table no 1 shows that the IMR has declined from 58 deaths per 1000 live births in 2001. It has declined to 31 in the year 2014. But in rural area IMR had declined 69 in the year 2001 to 35 in the year 2014, it's higher when compared to urban IMR with have 47 in the year 2001 to 24 in the year 2014. Rural IMR declined 34 points from 2001 to 2014 it is higher compared to urban with declining to 23 points from the period of 2001 to 2014 after implementation of NRHM programme Rural IMR declined very effectively.

The maternal mortality rate (MMR) is the annual number of female deaths per 100,000 live births from any cause related to or aggravated by pregnancy or its management (excluding accidental or incidental causes). The MMR includes deaths during pregnancy, childbirth, or within 42 days of termination of pregnancy, irrespective of the duration and site of the pregnancy, for a specified year. The chart 4 shows the MMR indicators in health sector. After 2000 MMR has reduced in an impressive way. It's declined from 228 per 100000 live births in 2001 to 144 per 100000 live births in 2014, a reduction of 84 points over a 14 year period or 6 points per year on an average.

#### Total Fertility rate in Karnataka

The below the Table no 1 indicates the Total Fertility rate in Karnataka. total It had declining trend from 2.4 in the year 2001 to 1.7 in 2014. It is declining continuously. But in rural area Fertility rate had declining trend from 2.8 in the year 2001 to 1.9 in the year 2014 but it's higher when compared to the urban Fertility rate with 2.1 in the year

2001 to 1.5 in the year 2014. Both rural and urban area Fertility rate it had declining trends but rural area Fertility rate is higher when compared to urban and Karnataka's average Fertility rate, but rural average Fertility rate declined 0.9 percent in the period of 2001 to 2014 its higher when compared to urban average Fertility rate of 0.6 percent during the same period.

#### Life Expectancy in Karnataka

Table no 1 represents the Life Expectancy in Karnataka under NRHM had increasing trend it was increased from 64.5 years in the year 2001 to 65.25 in the time of NRHM programme implementation after that its increased to 65.35 year in the year of 2014. Because government spent more amounts for health care facilities. In rural area life expectancy it had continuously increased from 62.8 in the year 2001 to 63.6 in the year 2014 but when compare to urban area life expectancy it was lower, urban life expectancy was increased 66.2 in 2001 to 67.1 in the 2014 but interesting issue is rural life expectancy increasing rate is higher compared to urban in the period of 2001 to 2014. This has revealed decrease in death rate and the better improvement of quality health services in Karnataka. However, there are inter-state, male-female and rural-urban differences in life expectancy at birth due to low literacy, differential income levels and socio-economic conditions and beliefs.

#### Health Centers Building Position in Karnataka

Table 1 indicates the Health infrastructure facilities in Karnataka. It's very less when compared to other states before implementation of NRHM government expenditure on health is less than 1 percent of GSDP in this time total number of health centers functioning like SCs 8143, PHC 1676, and CHCs 301 functioning in the year 2001-02. After the government implemented NRHM programme under this programme health's centers increased to 8143 SCs, 1681 PHC and CHCs decreased to 254 in the year 2005-06. After implementing NRHM Health centers increased to 8871 SCs and 2310 PHC but CHCs again decreased to 180 in the year 2013-14.

#### Beds per lakh population in Karnataka

Bed per lakh population in Karnataka 79 beds per lakh population in the year of 2001 then in the year 2005, after the implementation of NRHM programmes, strength of beds increased to 102 per lakh population, after that NRHM programme its increased to 106 in the year 2010 now 112 beds are available per lakh population in Karnataka. See the table no 1.

#### Status of Health diseases under NRHM in Karnataka

Table no 2 explains the Status of health diseases in Karnataka before implementation of NRHM; total deaths due to health diseases is very high in the year 2001, total deaths due to health diseases 36 then it's fluctuation up to 2005-06. In the time of 2005-06 NRHM implementation total deaths due to health diseases is very high with numbers 49 after that its declined continuously up to 2 in the year 2013-14. Death due to different diseases under NRHM in Karnataka, deaths due to malaria it had increased from 77.78 percent out of total deaths due to health diseases to 100 percent in the year 2006-07 then in upcoming year it's declined but still NRHM programme is not able to control the deaths due to malaria. And before and after NRHM programme there is no death due to kala azar and Chikangunya during the period of 2001-02 to 2013-14. But in the case of dengue NRHM is not able to control the deaths of dengue before implementing NRHM 22.22 percent deaths due to dengue, after implementation it comes

to near 100 percent death due to dengue diseases,

**Table No: 1 Health Status in Karnataka**

| Health Indicators                | 2001-02                                               |       |       | 2005-06                                               |       |       | 2013-14                                               |       |       |
|----------------------------------|-------------------------------------------------------|-------|-------|-------------------------------------------------------|-------|-------|-------------------------------------------------------|-------|-------|
|                                  | Total                                                 | Rural | Urban | Total                                                 | Rural | Urban | Total                                                 | Rural | Urban |
| CBR                              | 22.2                                                  | 23.6  | 19.5  | 20.6                                                  | 22.1  | 17.9  | 18.3                                                  | 19    | 16.7  |
| CDR                              | 7.6                                                   | 8.2   | 6.4   | 7.1                                                   | 7.9   | 5.6   | 7                                                     | 8     | 5.1   |
| IMR                              | 58                                                    | 69    | 47    | 50                                                    | 54    | 46    | 31                                                    | 35    | 24    |
| MMR                              | 228                                                   |       |       | 213                                                   |       |       | 144                                                   |       |       |
| TFR                              | 2.4                                                   | 2.8   | 2.1   | 2.2                                                   | 2.5   | 1.8   | 1.7                                                   | 1.9   | 1.5   |
| Life Expectancy                  | 64.5                                                  | 62.8  | 66.2  | 65.25                                                 | 63.5  | 67    | 65.35                                                 | 63.6  | 67.01 |
| Health Centers Building Position | Total Number of health centers functioning in 2001-02 |       |       | Total Number of health centers functioning in 2005-06 |       |       | Total Number of health centers functioning in 2013-14 |       |       |
| CSs                              | 8143                                                  |       |       | 8143                                                  |       |       | 8871                                                  |       |       |
| PHC                              | 1676                                                  |       |       | 1681                                                  |       |       | 2310                                                  |       |       |
| CHCs                             | 301                                                   |       |       | 254                                                   |       |       | 180                                                   |       |       |
| Beds Per Lack Population         | 72                                                    |       |       | 102                                                   |       |       | 112                                                   |       |       |

Source: SRS Bulletin and RHS various years

**Table No: 2 Status of Health diseases under NRHM in Karnataka**

| Year    | Total deaths due to Major health diseases | Death Due to Malaria | Death Due to kala azar | Death Due to Dengue | Death Due to Chikangunya |
|---------|-------------------------------------------|----------------------|------------------------|---------------------|--------------------------|
| 2001-02 | 36                                        | 77.78                | 0                      | 22.22               | 0                        |
| 2002-03 | 28                                        | 78.57                | 0                      | 21.43               | 0                        |
| 2003-04 | 47                                        | 85.11                | 0                      | 14.89               | 0                        |
| 2004-05 | 28                                        | 92.86                | 0                      | 7.14                | 0                        |
| 2005-06 | 49                                        | 65.31                | 0                      | 34.69               | 0                        |
| 2006-07 | 18                                        | 100                  | 0                      | 0                   | 0                        |
| 2007-08 | 11                                        | 72.73                | 0                      | 27.27               | 0                        |
| 2008-09 | 8                                         | 0                    | 0                      | 100                 | 0                        |
| 2009-10 | 18                                        | 61.11                | 0                      | 38.89               | 0                        |

| Year    | Total deaths due to Major health diseases | Death Due to Malaria | Death Due to kala azar | Death Due to Dengue | Death Due to Chikangunya |
|---------|-------------------------------------------|----------------------|------------------------|---------------------|--------------------------|
| 2010-11 | 5                                         | 0                    | 0                      | 100                 | 0                        |
| 2011-12 | 21                                        | 0                    | 0                      | 100                 | 0                        |
| 2012-13 | 17                                        | 29.41                | 0                      | 70.59               | 0                        |
| 2013-14 | 2                                         | 100                  | 0                      | 0                   | 0                        |

Source: [www.nrhm.nic.in](http://www.nrhm.nic.in) MIS Report

**Suggestions and conclusions**

Government of Karnataka gives the importance to health expenditure but in the present situation it is very less compared to other states. Percentage of health expenditure in GSDP term is only near 1.2 percent, government should try to increase at least 4 percent of health expenditure in GSDP term. And increase the per capita health expenditure also. It is helpful to increase the people saving of income. Government gives more funds for health care sector because of Health infrastructure facilities it's also very less, and it is helpful to achieve the 2002 population policy objectives and it will encourage human standard of living.

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