Analysis of Health Budgets with a Special Focus on RCH and MCH components of National Health Mission in

Bihar and Rajasthan and Tamil Nadu

FINAL REPORT

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Abbreviations

ASHA	Accredited Social Health Activist
CAG	Comptroller and Auditor General
CBR	Crude Birth Rate
CHC	Community Health Centre
DNHP	Draft National Health Policy
GDP	Gross Domestic Product
GSDP	Gross State Domestic Product
IMR	Infant Mortality Rate
MDG	Millennium Development Goals
MMR	Maternal Mortality Rate
NCMH	National Commission on Macroeconomics and Health
NHM	National Health Mission
NRHM	National Rural Health Mission
NUHM	National Urban Health Mission
PHC	Primary Health Centre
PIP	Program Implementation Plan
PMNCH	Partnership for Maternal, Newborn and Child Health
RKS	Rogi Kalyan Samithi
RMNCH	Reproductive Maternal Newborn and Child Health
SC	Sub Centre
SHS	State Health Society
TFR	Total Fertility Rate
VHSC	Village Health and Sanitation Committee

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Executive Summary

The research has demonstrated that investment in early childhood care and education is very critical and can fetch high returns of 7-10 percent per annum by way of better outcomes in education, health, economic productivity and reduced crime. The World Bank group, Governments of Canada, United States and Norway announced the creation of Global Financing Facility (GFF) for supporting developing countries to bring an end to preventable maternal and child deaths by 2030. Draft National Health Policy 2015 (DNHP) highlights the country's progress towards achievement of MDGs, with Maternal Mortality Rate (MMR) and Under Five Mortality Rate (U5MR) expected to reach 141 and 42 respectively by end of 2015.

The total health expenditure stands at 4.1 percent of GDP, while that of public health expenditure is at 1.04 percent of GDP. Considering the National Commission on Macroeconomics and Health (NCMH)'s observations and the need for achieving the MDGs, Government of India launched the National Rural Health Mission (NRHM) in 2005 with an aim to increase the public expenditure to 2-3 percent of GDP by the end of the year 2011-12 through an annual increase of 30 percent in budgetary outlays every year. Though NRHM was not successful in increasing the public expenditure to 2-3 percent of GDP, it brought the much needed focus on the critical issues of the health sector in the country. It was also successful in increasing the allocations of state health budget every year by 10 percent.

The fiscal capacity of Tamil Nadu is more than that of Rajasthan and Bihar and, therefore, it has the higher potential to fund health needs of the state. The higher fiscal capacity and higher capital expenditure help improve efficiency of revenue expenditure as well as the utilisation of funds from GOI. The average annual health expenditure was highest in Tamil Nadu followed by Rajasthan and Bihar. The health expenditure of Bihar was less than half of Tamil Nadu while the health expenditure with NRHM funds was about 55 percent of health expenditure in Tamil Nadu. The per capita expenditure was highest in Tamil Nadu followed by Rajasthan and Bihar.

The NRHM expenditure was highest in both absolute terms (Rs. 1328 crore) and its share (47 percent) in total expenditure in Bihar, followed by Rajasthan and Tamil Nadu. The share of NRHM decreased from 64 percent to 44 percent in Bihar, 36 percent to 26 percent in Rajasthan while it increased from 17 percent to 21 percent in Tamil Nadu during the period 2010-11 to 2013-14.

The state share of expenditure on health in total health expenditure increased from 64 percent to 69 percent in Bihar, 68 percent to 81 percent in Rajasthan and 86-87 percent during the period 2010-11 to 2013-14. This indicates that the expenditure on health by the state has increased significantly in Rajasthan while it had increased marginally in Bihar. The share of HR expenses was highest in Rajasthan at 63 percent

followed by Bihar at 58 percent and Tamil Nadu at 53 percent. The share of contractual payments under HR expenditure was highest in Bihar at 20 percent followed by Rajasthan (8 percent) and Tamil Nadu (4 percent). This also reflects upon the availability of health personnel in terms of permanent staff.

The utilisation under RCH, MCH and CH was 74 percent, 85 percent and 56 percent respectively in Rajasthan while it was 68 percent, 73 percent and 34 percent in Bihar respectively. The lower utilizations under MCH and CH especially in Bihar highlight the complementary nature of the program expenses which are dependent on the availability of personnel and health facilities.

Public investments are critical and are the first step in improving healthcare system especially in rural areas or where the concentration of poor population is higher. This is critical to ensure the demand side financing (such as JSY) to work effectively. Investments on infrastructure (physical and human), healthcare facilities and behavior change communication are critical for the improvement in utilisation of healthcare facilities especially by rural poor and marginalized sections. Improvement the fiscal capacity of state can contribute significantly for the investment on healthcare given the increased demand for healthcare created through NRHM.

Analysis of Health Budgets with a Special Focus on RCH and MCH components of National Health Mission in Bihar and Rajasthan and Tamil Nadu

1.Introduction

1.1 Rationale for investment on maternal and child health

Investing in quality early childhood development from birth through age 5 will help prevent achievement deficits and produces a 7 to 10 percent return, per child, per year'- Prof. Heckman[1].

While it is well recognized that the economic development would lead to better health outcomes by way of improved access to nutrition, health, education, water and sanitation, the impact of health on the economic development was not highlighted as much until the Commission on Macroeconomics and Health (http://www.who.int/macrohealth/en/) demonstrated that the causality runs in both directions and that 'healthier is wealthier'. Millennium Development Goals (MDGs) especially 4 (reducing child mortality) and 5(improving maternal health and achieving universal access to reproductive health) makes it clear that health of women, mothers and children is essential for development.

An econometric study by Arshia Amiri and Ulf-G-Gerdtham (2013) on the impact of maternal and child health on economic growth indicated that the causality between the GDP and maternal and child health runs both ways. The effect of reductions in child mortality on GDP was found to be higher among high income and upper middle income countries and relatively lower among lower middle income countries and low income countries. The differences in the impact are attributed to the difference in human capital and infrastructure. Boston University School of Public Health in their study conducted (2013) for Partnership for Maternal, Newborn and Child Health (PMNCH) analysed the benefits of investing on maternal, newborn and child health. The returns on investment in maternal, newborn and child health showed cost benefit ratios of 2.5-4.2 even with conservative assumptions and shorter time frame of 5 years. The study concluded that investment in Reproductive Maternal Newborn and Child Health (RMNCH) not only brings significant returns in economic terms but also in terms of human capital development.

The researches by Prof. Heckman[2] and his colleagues have demonstrated that investment in early childhood care and education is very critical and can fetch high returns of 7-10 percent per annum by way of better outcomes in education, health, economic productivity and reduced crime. Heckman's research also demonstrates that gap in ability and knowledge between children denied of early childhood care and education and their peers with better access begins much before kindergarten and persists for life time and is very difficult and

[1] Nobel Laureate in Economics.
[2] For more see www.heckmanequation.org

costlier to bridge. The long term health benefits due to early nutrition and health among disadvantaged children include significantly lower risk of suffering from serious cardiovascular and metabolic diseases.

The investment case (IC) launched by development partners in Asia-Pacific region to support more equitable outcomes for MNCH indicated that in places (rural areas, poor and sparsely populated areas) where there are few incentives for private service providers, public investments in getting the public health care system right is the first step. Without such investments, innovative strategies like demand side financing may not work effectively. In such conditions enforcing the national policies also may not be appropriate.

The Partnership for Maternal, Newborn and Child Health (PMNCH) is clear about the need of improving the health of women and children beyond MDG target date of 2015 by way of mobilizing additional resources for the cause and by creating evidence for the same. Estimation and demonstration of returns to society from the investment on health of women and children therefore becomes critical to influence investment decisions especially of parliamentarians, multilateral and bilateral donors, and global and regional development banks.

In September 2014, the World Bank group, Governments of Canada, United States and Norway announced the creation of Global Financing Facility (GFF) for supporting developing countries to bring an end to preventable maternal and child deaths by 2030. The GFF backed 'Every woman, Every Child' aims at supporting countries to mobilize domestic and international resources to scale up and sustain RMNCH as the estimated investment needs indicate an additional 5 USD percapita per year in high burden countries to end preventable maternal and child deaths by 2030. About 4 billion USD is estimated to be channeled for this purpose through International Development Association (IDA) including the commitment of Norway and Canada of $600 million and $200 million respectively, for developing countries by way of low interest loans and grants.

1.2 Public expenditure on health in India

India is committed towards achieving the Millennium Development Goals (MDGs) and acknowledges the need to increase the public expenditure towards healthcare. The Draft National Health Policy 2015 (DNHP) highlights the country's progress towards achievement of MDGs, with Maternal Mortality Rate (MMR) and Under Five Mortality Rate (U5MR) expected to reach 141 and 42 respectively by 2015. The policy also points out that while the achievements are noteworthy considering that MMR and U5MR were 47 percent and 40 percent above the international average, it could have been better. India, the third largest economy (in terms of PPP) with potential to grow larger, is still facing huge gaps in health outcomes despite having the required knowledge and technology to address the diverse healthcare needs of its people. As DNHP sums up '*The power of existing interventions is not matched by the power of health systems to deliver them to those in greatest need, in a comprehensive way and on an adequate scale'*.

For providing the accessible and affordable healthcare in a comprehensive way, increasing the expenditure on healthcare is very vital. As DNHP indicates, the total health expenditure stands at 4.1 percent of GDP, while that of public health expenditure is at 1.04 percent of GDP. The government expenditure on health constitutes less than 30 percent of the total health expenditure in the country which is lower compared to other BRICS countries that have the share of Government expenditure of more than 45 percent. The High Level Expert Group constituted in 2010 by Planning Commission of India to develop a framework for providing accessible and affordable healthcare to all Indians also recommended the increase of the public expenditure (Union and State Governments together) on healthcare to 2.5 percent of GDP by the end of the 12^{th} plan and to at least 3 percent of GDP by the year 2022.

To understand the public expenditure on healthcare, its adequacy, efficiency in its totality, understanding the role of Union and State Governments provides the useful framework to analyze the commitment through policies and budgets. Constitution of India places health as a subject of State Government with responsibility of public health and sanitation, hospitals and dispensaries. The role of Union Government covers the subjects such as port quarantine, marine hospitals, agencies of professional training and research. Subjects such as family welfare, population control, medical education, prevention of food adulteration and quality control in the manufacture of drugs are placed under concurrent list indicating the shared responsibilities between Union and State Governments. The role of Union Government also lies in defining guiding framework and broad policies for the health sector.

1.3 Brief historical perspective of health policy and health expenditure in India

The Bhore Committee report on 'Health Survey and Development' in 1946 was the first attempt to prepare a comprehensive health policy in India. However, after independence, focus was on large economic projects. In the fifties and sixties the focus of the health sector was to manage epidemics like malaria, smallpox, tuberculosis, leprosy, trachoma and cholera. The first National Health Policy (NHP) in 1983 focused on the expansion of reach by setting target of one Primary Health Centre (PHC) for every 30000 population, and one Sub Centre (SC) for every 5000 population, while the NHP of 2002 recognized the importance of health systems architecture and recommended the need for convergence of all health programmes under single administration as well as convergence of health inputs to achieve the health goals. The National Commission on Macroeconomics and Health (NCMH) 2005 noted that the public expenditure on health declined from 1.3 percent of GDP in 1990 to 0.9 percent of GDP during 1999 and the declining trend continued till 2004-05. In terms of spending the Union Government spent 15 percent while the State Governments spent 85 percent of the public expenditure on health.

1.4 National Rural Health Mission

Considering NCMH observations and the need for achieving the MDGs, Government of India launched the National Rural Health Mission (NRHM) in 2005 with an aim to increase the public expenditure to 2-3 percent of GDP by the end of the year 2011-12 through an

annual increase of 30 percent in budgetary outlays every year. The NRHM implementation was a multi pronged approach with focus on community involvement and decentralized local planning with untied funds. The NRHM integrated all existing reproductive and child health programs as well as national disease control programs under one broad umbrella. State Governments were expected to increase the health care expenses by at least 10 percent every year throughout the mission period (2005-12).

With the launch of National Urban Health Mission (NUHM) in January 2014 along with the existing National Rural Health Mission (NRHM), under an apex programme National Health Mission (NHM) the focus has just got widened in providing the health coverage, especially, to the poor. The NHM aims to increase the public expenditure on health to 1.87 percent of GDP by the end of 12th plan 2017 March. State Governments are required to contribute 25 percent of the funds while the share is 10 percent for the north eastern states and special category states. State Governments are required to commit a minimum of 10 percent annual increase in the budgetary outlay to the health sector. The funding pattern for NRHM was 85:15(GoI: state) till 2011-12 and it changed to 75: 25 from 2012-13. National Urban Health Mission (NUHM) with funding pattern of 75: 25 (GoI : State) except for 3 special category states (J&K, HP and Uttarakhand where it is 90:10) and north eastern states aimed at covering urban areas with an estimated cost of Rs 22,507 crore and project period till March 2017. All cities above the population of 50000 are covered under NUHM while the towns with population less than 50000 are covered under NRHM.

The NHM has outlined its 11 point agenda which is identical to that of the Twelfth Five Year Plan. Important among them are reducing the IMR and MMR to 25 and one per 1000 live births respectively and also achieving the reduction of anemia among women aged 15-49 years. Focus is also on reducing the morbidity and mortality rates through communicable and non communicable diseases. NHM has 6 components viz.

a. NRHM-RCH flexi pool
b. NUHM flexi pool
c. Flexible pool for communicable disease
d. Flexible pool for non communicable disease including injury and trauma
e. Infrastructure maintenance and
f. Family welfare central sector component

The NHM (RCH flexi pool) addresses the child health care comprehensively with recognition of factors that result in infant and child mortality. The health of mother which cannot be dealt separately from the child survival is well recognized. In 2013, the new Reproductive, Maternal, Newborn, Child and Adolescent health strategic approach (RMNCH+A) was started to introduce the concept of continuum care. This continuum approach starts during the pregnancy period with the antenatal checkups, undertaking the precautions for risk pregnancies, nutritional supplements for ensuring iron and folic acid levels, ensuring safe delivery and continues with care for the newborn and attending to the special care

requirements of the newborn child, steps to avert malnutrition, respiratory infections and immunization. Several schemes leading to cash and non cash transfers to beneficiaries, incentivisation of personnel and upgrading the infrastructure are serially targeted to achieve the objective of reducing the maternal and child mortality.

Under NHM, funds available as resource envelope is indicated by GoI and Programme Implementation Plans (PIPs) are prepared by the states in a bottom up manner integrating the plans from the lower level. The national programme coordination committee (NPCC) approves the PIPs after review. The funds to state are released based on the PIPs, commitment made by the state regarding the health sector allocations, and previous year's progress. Fund flows under NHM follow both the State treasury route and State Health Society (SHS) route depending upon the components under it. Joint Review Missions and Common Review Missions are put in place to review the progress of the state under NRHM. Common review missions which has representatives from the Mission visit 10-15 states and review the progress every year while the Joint Review mission visit 5-6 states and the review is held jointly by the representatives of Union and State Governments.

2.Objectives, Scope and Methodology

2.1 Objectives

a. Analysis of NRHM, NUHM and NHM as a whole; the relevance and its specific focus in the states of Bihar, Rajasthan and Tamil Nadu along with the health policies of these States with special focus on Reproductive and Child Health (RCH) and Maternal and Child Health (MCH) services.

b. Analysis of health budget as a whole, various components of health budget with a special focus on maternal and child health related components of health budget in terms of allocation, release and expenditure.

c. Analyse the health expenditure of the State in relation to contribution of GOI under NHM towards health budget.

d. Analyse the norms of the healthcare with a focus on child care specified under NHM to understand the budgetary requirements in the State and compare it with its expenditure to identify the gaps in terms of health care investment.

e. Provide policy recommendations based on the analysis of policies and budget documents to improve the healthcare under NHM with a special focus on childcare.

2.2 Scope

The study analyses public expenditure for the period of 2009-10 to 2013-14 of Bihar and Rajasthan, which are among the 18 high focus states under NRHM, and Tamil Nadu.

2.3 Methodology

The analysis includes the study of budget documents (2010-11 to 2015-16), financial management reports of the state health societies (SHS), and progress reports published by the NRHM in the website. The reports of Comptroller and Auditor General (CAG) on state finances are also referred to crosscheck the calculations arrived at using the budget documents. The Program Implementation Plan (PIP) and Record of Proceedings (RoP) for NRHM were also used for analysis. Review of various studies and evaluations related to the implementation of NRHM was undertaken to understand different viewpoints and issues relating to health expenditure and NRHM expenditure in particular. Visits to the three states were undertaken to collect the data and to understand the flow of funds to State Health Societies (*Details of field visits in Annexure 1*).

2.4 Assumptions, Limitations, etc.

a. **Expenditure rather than budget taken for analysis**. While the ToR refers to 'budget' in the list of broad indicators for analysis, we understand that it is the actual expenditure that is meaningful to analysis of health expenditures. While term 'budget' usually refers to the estimates, actual expenditure indicates the amount spent against the estimated amount approved by the legislature. Allocations (budgeted) and expenditure are also analysed to understand the utilisation.

b. **What constitutes health expenditure?** As per budgetary practice in the states as also in the Union government, budget is presented to the legislature in groupings called 'demand for grants'. A grant typically covers one department and sometimes more than one department in the same sector. For example, Grant number 10 (in Karnataka) covers budget for Social Welfare, which may cover more than one department viz. Women and Child Welfare, Social Welfare, etc. Usually the budget for health and family welfare is presented as a separate Demand for Grant. E.g. Demand No 19 in Tamil Nadu; Demand No 20 in Bihar; and Demand No 26 - Rajasthan. However, this Demand for Grants for health may also include expenditures which are related to but not exactly health expenditure. To illustrate, the demand may include expenditure on water and sanitation (Major Head – 2215), overhead expenditure like the salaries of staff of health Department (M.H – 2251) and Social Security and Welfare (M.H 2235). On the other hand, expenditure on health (Major Heads 2210, 2211, 4210, 4211, 6210 and 6211) may be distributed across more than one Demand for Grants. For example, Capital outlay on Medical and Public Health (MH 4210) may be included in Demand for Grants of Public works department (as in Bihar and Tamil Nadu). Health expenditures may be split among many Demands for Grant say 26, 30 and 51 as in the state of Rajasthan. However, for the purpose of this study, health budget / expenditure is defined as the budget / expenditure incurred under the following Major Heads:

    - 2210 and 2211 - the revenue expenditures incurred under Medical and Public Health and Family Welfare respectively;

- 4210 and 4211 indicate the capital expenditure in medical health and family welfare; and
- 6210 and 6211 represent the loans given out by the state for health services to the state owned entities such as medical supplies corporation etc.

This definition of health expenditure is in line with the tool kit developed for National Health Accounts by National Health Systems Resource Centre (NHSRC). The classification of expenditures into primary, secondary and tertiary healthcare is also based on the same toolkit. The expenditures related to health such as secretariat services for social services (Major Head 2251) and social security and welfare (Major Head 2235- one or two minor heads under it) which are health related expenditures are not taken into consideration in order to enable comparison across the states.

c. **Health expenditure includes the expenditure incurred by the State Health Society (SHS).** The funds for SHS come in two routes.
   - The GoI funds (under NRHM/NHM) are transferred to SHS and come directly to SHS outside of the state budget.
   - The State share NRHM/NHM released to SHS and is indicated in the State budget

   While releases to State Health Society are booked as expenditures at the state level. The actual expenditures at the SHS occur with the funds from both GOI and state. The actual expenditures at SHS do not provide the breakup of use of GOI and state funds. Thus the expenditure of the State Health Society (SHS) is split into two (GOI and State) in the ratio of the releases (GOI and state) to the society. Similarly the expenditure on infrastructure maintenance incurred through state budget for which GOI contributes was not clearly available from the state budgets. The expenditure on infrastructure maintenance was taken from the NRHM progress reports (which coincided for all years in respect of Rajasthan, 2 years in respect of Bihar and 3 years in respect of Tamil Nadu).

d. The NUHM started in 2013-14 was officially flagged off only in January 2014. Thus the analysis period 2010-11 to 2013-14 largely refers to NRHM and that is being used in analysis and not NHM (NRHM + NUHM). *Therefore, in this report, we have used the term NRHM rather than NHM.*

3.National Rural Health Mission – a brief overview

The National Rural Health Mission (NRHM) was launched on 12 April 2005 which aimed at undertaking architectural correction comprising decentralization, communitization, organizational reforms in health sector, inter-sectoral convergence, mainstreaming of Ayurveda, Yunani, Unani, Sidha and Homeopathy (AYUSH), improvement in infrastructure, induction of management and financial professional into healthcare management and delivery system. The objective was to provide accessible, affordable and quality healthcare to rural

population throughout the country with a focus on vulnerable and underserved populations in the country including women and children.

Specifically, NRHM involved the following:

a. Eighteen states with weak public health infrastructure and poor health indicators were categorized as focus states.

b. The NRHM aimed at achieving an Infant Mortality Rate (IMR) of 30 per thousand live births, Maternal Mortality Rate (MMR) of 100 per lakh live births, and a Total Fertility Rate (TFR) of 2.1 by the year 2012. The other targets included providing the clean drinking water to all by 2009, reducing malnutrition of children of 0-3 years of age by 50 percent, reducing the anemia among girls and women by 50 percent and improving the sex ratio to 935 by 2011-12 and to 950 by 2016-17.

c. NRHM integrated the existed Reproductive and Child Health (RCH), Family Welfare Programmes and National Programmes for control of diseases like Malaria, Filaria, Encephalitis, Dengue, Kala-azar, Leprosy, Tuberculosis, Blindness, Iodine deficiency and Polio into one programme applying a funnel approach to ensure channeling of funds to State Health Society and District Health Society with an aim of making district as the unit for planning and implementing all health and family welfare services in the district.

d. Increase public spending on healthcare from 0.9 percent to 2-3 percent of GDP during the period 2005-2012.

e. Important strategies included
   - creation and upgrading of Sub Centres (SC), Primary Health Centre (PHC), Community Health Centre (CHCs);
   - conditional cash transfer such as Janani Suraksha Yojna (JSY);
   - use of Accredited Social Health Activists (ASHAs) as frontline service providers; and
   - promote community participation / decentralisation through Village Health and Sanitation Committee (VHSC), Rogi Kalyan Samithi (RKS) at PHCs, CHCs and District Hospitals.

Bottom-up planning was introduced and formulation of District Health Action Plan (DHAP) was made part of the planning process to ensure convergence with aspects of nutrition, sanitation and drinking water. Provision of untied funds for VHSC and RKS was made to enable them to use for local specific needs and facilitate decentralized planning for health activities. Against the planned outlay of Rs. 90000 crore for the 11th plan period (2007-12), Rs. 70030 crore was released indicating a shortfall of 22 percent.

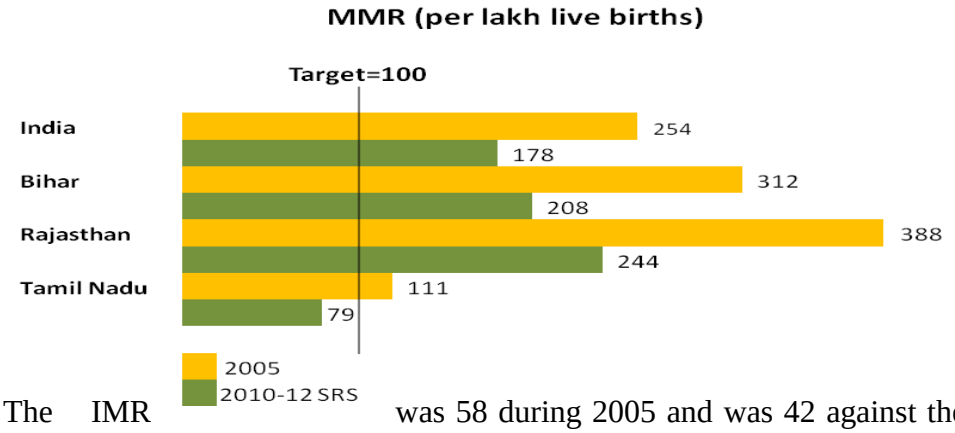
Table 1 : Fund flow under NHM (NRHM) Rs. in Crore

Year	Budget Estimates	Actual Expenditure	% expenditure
2005-06	7189	6284.28	87.41
2006-07	9000	7486.62	83.18

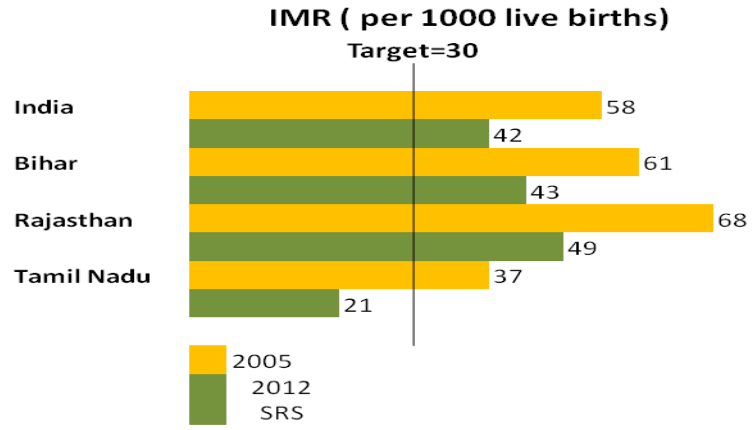
2007-08	10890	10380.40	95.32
2008-09	11930	11239.23	94.21
2009-10	13930	13305.75	95.52
2010-11	15440	14696.42	95.18
2011-12	17840	16509.45	92.54
2012-13	20542	16762.76	81.60
2013-14	20999	18266.48	86.99
Total	**127760**	**114931.40**	**89.96**

Compiled by CBPS from: Public Accounts Committee (71st report) and CAG report

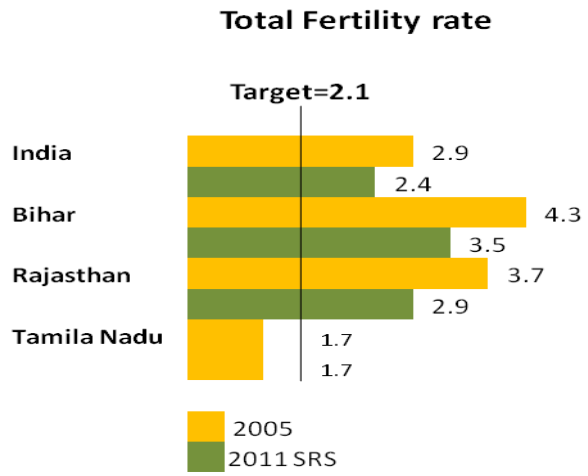
Among the important achievements, the MMR was reduced from 254 (SRS 2004-06) to 178 in 2012 in the country as a whole. States like Tamil Nadu and Kerala had achieved the target of MMR less than 100. Even states like Bihar and rajasthan had reduced MMR significantly.



The IMR was 58 during 2005 and was 42 against the target of 25 (SRS 2012) for the year 2012.



TFR was reduced to 2.4 during 2011 while the target was 2.1.



With respect to infrastructure, NRHM aimed at strengthening public health delivery system at all levels as per the IPHS standards. About 27400 new constructions have been initiated since the beginning of NRHM of which 14880 have been completed as on December 2013. Around 29700 health facilities have been renovated and upgraded during the same period. The number of First Referral Units (FRUs) increased from 940 in 2005 to 2653 in 2013-14. The number of 24X7 PHCs has increased from 1263 in 2005 to 2653 in 2013-14.

Augmentation of human resources (HR) is one of the key thrust areas under NRHM. The total number of technical HR supported under NRHM increased to 1.49 lakh which included 23079 doctors, 35172 staff nurses and 70891 ANMs. Programme management staffs were also recruited. The number of ASHAs has increased to 8.9 lakh in 2013.ASHA have been provided with Home Based Newborn Care (HBNC) kits and have been trained on HBNC. ASHA have been given preference in ANM and GNM schools. The cost norms have been increased from Rs 10000 to Rs 16000 per ASHA apart from revising several performance based incentives.

Free supply of essential drugs, mobile medical units, ambulance services, increase in the untied funds to RKS, VHSC is also being undertaken under NHM. By July 2011, of the 16.61 lakh total habitations, the number of habitations with 100 percent coverage in clean drinking water facility reached to 70 percent while 2.6 lakh habitations had clean drinking water coverage of 50-75 percent and about 0.7 lakh habitations had no drinking water facilities. The malnutrition among children below three years continues to be at a higher rate of 40.4 percent (NFHS 3) while the sex ratio had dropped from 927 to 914 at all India level.

3.1. National Rural Health Mission – a brief critique

The Draft National Health Policy 2015 noted that NRHM added over 9 lakh community health workers (ASHA) and over 1.7 lakh skilled personnel in bringing improving public health services to poor along with filling up critical infrastructure gaps. However, 80 percent

of the increased health services are provided by 20 percent of public facilities. DNHP also noted that although NRHM envisaged strengthening of health systems for overall improvement of public health facilities, it was largely confined only to achieve national objectives of the scheme. Much of increase in facilities was related to Reproductive and Child Health (RCH) and national disease control programmes and not to overall health infrastructure. Social determinants of health were largely ignored in the process. The NRHM expenditure in relation to the envisaged program outlay was found to be 40 percent. DHNP noted that larger gaps in terms of infrastructure and human resources especially among the focus states at the baseline level impacted fund utilisation as well as the impact on indicators. States with better capacity in terms of human resources and infrastructure could absorb more funds while the focus states had to develop capacity to utilize the funding. Building infrastructure or human resources would require larger investment in a sustained manner be it interms of medical and nursing colleges or health centres and recruitments which depends on fiscal ability of the state.

Zakir Husain (2011) analysed the NRHM's achievements against the stated objectives in 7 states of India which corroborated the results of evaluations done by Planning Commission and Ministry of Health and Family Welfare, which had indicated that achievements in quantitative goals and qualitative service were far from the envisaged outcomes. He highlighted the point acknowledged by Ministry of Health and Family Welfare that although NHRM was not successful in realizing of envisaged expenditure and outcomes, *it did enough to put public health on top of the government agenda and increased resources to health by state governments* (emphasis added). NRHM had significant impact in terms of increasing the institutional deliveries, immunization and antenatal healthcare. In sum, given the diversity and variation across Indian states in terms of political will, administrative ability and fiscal capacities, NRHM's envisaged plan of creating the essential workforce and infrastructure to about 75 crore rural population in less than a decade (2005-2012- 7 years) seemed too ambitious . In the process NRHM ignored the complexities across rural mass in terms of gender disparities, caste and micro politics which proved to be a limitation.

CAG had conducted a performance audit of NRHM during the April to December 2008 in all states except Goa and Nagaland and union territories. The performance of NRHM for the period April 2005 to March 2008 was considered for audit purposes. The CAG Audit Report noted that the District Health Society and District Health Mission were constituted in many of the states. Baseline household surveys and facility surveys which were initial steps to facilitate the District Health Action Plan (DHAP) were not conducted in many states *including Bihar and Rajasthan* while it was conducted in Tamil Nadu. Facility survey was conducted at the level of sub centre in Tamil Nadu. The perspective plans for the period 2005-12 were to be prepared at district and state level. Only seven states prepared it and *Bihar, Rajasthan and Tamil Nadu did not prepare the same*. The Health Management Information System (HMIS) which was supposed to be started by December 2005 did not

happen till October 2008. This resulted in poor reporting and monitoring and linking of fund utilisation with performance was delayed. Absence of baseline surveys, perspective plans which were envisaged to feed into Programme Implementation Plans (PIPs) rendered PIPs less effective.

NRHM grants were supposed to be allocated across the states based on a comprehensive index developed using population, disease burden, health indicators and state of health infrastructure. However, no such index was evolved and grants were released based only on population as criteria. States with poor health indicators and poor health infrastructure received less as compared to states with better health indicators and better infrastructure. This was largely due to the lower absorption capacities of these states which resulted in low utilisation rates while better states could spend the allotted amount and seek additional funds. Bihar was estimated to have lost Rs. 548 crore during the period 2005-08 while Tamil Nadu had got excess funding of Rs. 156 crore during the same period.

District was envisaged as the basic unit for all purposes of NRHM. Surveys, Integrated District Health Action Plans (IDHAP) and perspective plans of district were supposed to guide the formation of PIPs and subsequent implementation. Ministry of Health and Family Welfare had indicated that state and district level targets cannot be laid out centrally under NRHM and that the baseline and perspective plans of district and state would describe the pathway of targets and outcomes which would be more realistic one.

Under Janani Suraksha Yojna the delays in paying the beneficiaries were found to the tune of 8 days to 730 days across states. The delay in payments coupled by irregularities in payment resulted in denial of benefits to eligible beneficiaries. In Bihar, 298 sample beneficiaries from 14 PHCs were found to have been paid the incentives two to five times the required amount. Records of JSY cards were not available at PHCs. It was also observed that prescribed meetings of ANMs and ASHA for efficient JSY implementation were not conducted at PHCs.

Family planning schemes were concentrating only on female sterilization while the focus on spacing and delaying age of marriage for females were very less. The untied grants for sub centre, PHC and CHC were found to be underutilized owing to lack of absorptive capacities; about Rs. 132 crore in 8 states it was diverted to other purposes like buying furniture, equipment, stationery etc.

There were wide discrepancies between the funds released by ministry and funds received by State Health Societies which was largely due to the release of funds during the month of March from the ministry which was accounted as funds for the current year (letter of release) while the receipt of the funds to SHS would be in April which would reflect for the receipt in the coming year. Similar situation was observed in fund transfer between SHS and DHS. This release of funds in March reflected the poor financial management while NRHM envisaged the second tranche release in October/ November. Several SHS funds and DHS funds were

not maintained in interest bearing accounts despite the stipulation of keeping funds in interest bearing account. In Bihar SHS and DHS Bhojpur deposited Rs. 106 crore in current account in 2007 and lost an interest of around Rs. 37 lakh. Proper accounting (double entry accounting system) and bank reconciliation were found to be absent in most of the SHS and DHS across states.

A comparative study of NRHM in Karnataka and Rajasthan indicated that the State's contribution to NRHM is being channeled through more than one head. In the state of Rajasthan expenditure on state schemes similar to those of NRHM viz. insurance, referral transport, CM's fund for critical health expenditure, etc. was is being reported as the state share of NRHM. It was found that state share was less than 15 percent if state schemes were taken out (ambulance, insurance) in Rajasthan. (2008-09 to 2010-11). It was found that untied funds were utilized for ineligible items of expenditure such as repairs and maintenance, consumables and buying of fixtures (cots, chairs, stabilizers, etc). The low expenditure under untied funds was due to lack of clarity in guidelines during the initial period and lack of capacity and incentive to spend the discretionary funds. The utilisation was highest during the month of March (32 percent).

The NRHM evaluation in 2011 found that ASHA was not recruited till date in Tamil Nadu. Village Health Nurse performed activities similar to ASHA (more of RCH activities). The evaluation also found that despite lower levels of doctors/specialists in position, diagnostic facilities, emergency services, obstetric care, surgical interventions, sick child care on 24 hrs basis and delivery care were found to be alright. All the PHCs were providing IPD and OPD services, ANC and new born care services. Availability of electricity, drinking water and medicines at PHCs was to the tune of 95-100 percent. VHSC were working satisfactorily though their presence and working was not perceived by the GPs. ASHA/VHN was critical in influencing the health care seeking behaviour among the people especially among pregnant who seek obstetric care, immunization and family planning services. The ASHA also influenced the importance of safe drinking water and sanitation at house level.

Evaluation of NRHM in states of Andhra Pradesh, Bihar, Rajasthan and Uttar Pradesh looked into the utilisation of NRHM funds for the period 2005-06 and 2006-07. It was found that unspent money was higher in Bihar (35.1 percent and 40.7 percent) and in Rajasthan (41.6 and 34.9) as compared to AP. Vacancies of nurse position at PHCs /CHCs were highest in Bihar followed by Rajasthan; the same was true for doctors (OBG) at PHC and CHC level (none in Bihar). Financial records for using of untied funds were available to extent of 50 percent in Rajasthan and 33 percent in Bihar. Average waiting time to see health personnel was 136 minutes in Bihar while it was 21 minutes Rajasthan. The rate of satisfaction was found to be 23 percent in Bihar and 39 percent in Rajasthan.

The report of working group on NRHM for 12th Five Year Plan indicated that RKS and VHSC were concentrating on the activities/utilisation of untied funds while the overall objective of looking into health centre / public health at villages seemed to be absent. It was

also found that the states spent their share of 15 percent of NRHM cost and have made contribution in this regard. Almost all the states had increased their health budgets by more than 10 percent every year indicating the priority towards health. One of the issues related to low level of absorption of funds below district level was due to allocation of funds on a per facility basis and not according to utilisation of funds by facility.

NRHM was successful in drawing attention towards health sector in terms of investment by forcing the states to allocate their share (15 percent till 2011-12 and 25 percent since 2012-13). However, as various reviews indicate the difference in preparedness among the states in terms of having health personnel and health infrastructure reflected in their absorption capacities of NRHM funds from GoI. Absence of state level assessment and state specific planning and assessment of growth trajectory resulted in comparison of progress in the health indicators with that of the national level goals/averages.

Initiation of bottom up planning and district as unit for micro planning, implementation and reporting was supposed to have benefitted the health sector in its entirety while the activity of District Health Society largely confined to NRHM activities.

The working group for 12th five year plan on NRHM observed that the expansion of management systems, structures and institutions had not kept pace with the requirements and fund flow and this had resulted in slowing down the pace of the programme. It was also found that despite efforts to expand the human resources, efforts towards reforms in recruitment, training and rationalized deployment keeping a long term framework in mind was found to be lacking.

4. Profile of Sample States (Bihar, Rajasthan and Tamil Nadu)

4.1 Bihar

Bihar is the second largest state in terms of population has an area of 94163 sq km. The population of Bihar according to 2011 census was 10.4 crore with the population density of 1106 per square km and 34 percent of households having 6-8 members. Agriculture forms the backbone of the economy and about 34 percent of population is considered to be below poverty line (2012 estimates). The literacy rate is 63.82 percent which is lower than the All India average of 72.99 percent. The female literacy in the state is 53.33 percent against all India average of 64.64 percent. The Total Fertility Rate at 3.6 is highest in the country. The urbanization is lowest in the country at 11.3 percent. The census 2011 shows that only 16.4 percent of the households have electricity as the source of lighting against all India average of 67.2 percent. The state is in the last position in the use of clean cooking fuel (LPG, electricity) and toilet facilities. (See *Table 2 and Annexure 2*)

Table 2: Demographic characteristics of sample states

SL. No	Particulars	Tamil Nadu	Bihar	Rajasthan
1	Area (sq Km)	130058	94163	342239
2	Population	72138958	104099452	68548437
3	Population density per sq Km	555	1106	200
4	Decadal growth rate (2001-2011) in percent	15.6	25.4	21.3
5	SC percent	20.01	15.9	17.9
6	ST percent	14.21	1.3	13.5
7	Percent BPL population (2011-12) (Tendulkar Committee)	11.28	33.74	14.71
8	Literacy rate (percent)_	80.33	63.82	67.06
9	Male literacy rate (percent)_	86.81	73.39	80.51
10	female literacy rate (percent)_	73.86	53.33	52.66
11	Work participation rate Total (percent)_	45.6	33.4	43.6
12	Male WPR (percent)_	59.3	46.5	51.5
13	Female WPR (percent)_	31.8	19.1	35.1
14	Percent Households with access to Lighting (electricity)	93.4	16.4	67
15	Percent Households with access to drinking water (Tap/Tube Well/Hand Pump)	92.5	94	78.1
16	Percent Households with access to Tap water (treated)	55.8	3.1	32
17	Percent Households with access to latrine	48.3	23.1	35
18	Percent Households with sewer connections	14.4	1.8	7.2
19	Percent Households with access to Banking services	52.5	44.4	68
20	Clean cooking fuel (LPG/Bio Gas/electricity)	48.3	8.5	22.9
21	GSDP 2013-14 (2004-05 prices) crore	480618	174734	244997
22	Primary	37297	33015	49658
23	Secondary	137159	32106	69933
24	Tertiary	306162	109613	125406
25	Per capita income (2013-14) Rs.	58360	14904	29244

The GSDP grew at a rate of 10.2 percent per annum for the period 2005-06 to 2009-10 and at a rate of 10.4 percent from 2010-11 to 2013-14. This growth rate of GSDP was highest in the country exceeding the estimations of the tenth and eleventh plan period. The GSDP grew from Rs. 78000 crore in 2004-05 to Rs. 3.43 lakh crore in 2013-14. The percapita income of the state (2013-14) stood at Rs. 15650 accounting for 39.2 percent of all India average of Rs. 39904.

Health Profile

The latest 8th Common Review Mission of NRHM in 2014 indicates that number of PHCs, Sub centres and CHCs in the state are inadequate. Against the norm of a sub centre for a population of 5000, a sub centre serves 9464 persons. Similarly the population served by PHC and CHC is 68200 and172750 against the norm of 30000 and 120000 persons respectively. The utilisation of untied funds is low. The reporting, record maintenance and the use of database are yet to be streamlined. Evaluations also indicate poor infrastructure, lack of maintenance of infrastructure especially at PHCs, inadequate ancillary staff and shortage of drugs. The Crude Birth Rate (CBR) declined from 31.9 in 2000 percent to 27.6 in 2013. The percentage of institutional deliveries increased from 22.4 to 41.4 during the period 2006 to 2011. The building of health infrastructure was also taken up in a big manner under NRHM. Bihar has 36 district hospitals, 70 referral hospitals, 533 PHCs and 9729 sub centres. Bihar Medical Services and Infrastructure Corporation Limited (BMSICL) were established to enable drug procurement and supplies to all public health institutions in the state. Additionally, the corporation is also entrusted with building infrastructure (buildings) in the state.

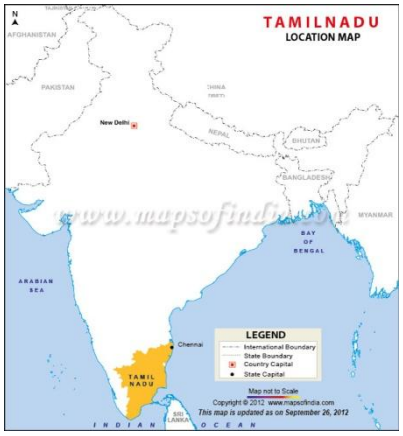
The Manav Vikas Mission 2013-17 has been initiated to undertake focused activities in social sectors. Bihar has received recognition among Empowered Action Group (EAG) states/focus states for its efforts in bringing down under 5 mortality rate and IMR, improvements in ANC check up and institutional deliveries as well as increased utilisation of services by inpatients and outpatients at health centres. Various UN agencies, international NGOs, have been working in Bihar. Bill and Melinda Gates Foundation have been working in Bihar since 2010 with multi-sectoral funding to health and family welfare, water and sanitation sector. The programme is named Ananya leading to specific approaches in the targeted 8 districts aimed at reducing maternal and child mortality rates. DFID, European Commission, United Nations Population Fund, United Nations Children's Fund (UNICEF) and Norway India Partnership Initiative (NIPI) are working on various issues related to health sector.

4.2 Rajasthan

This is the largest state in terms of area with 3.42 lakh sq km accounting for 10.42 percent of total area of the country. The population of the state is 6.85 crore which amounts to 5.66 percent of total population of the country with a population density of 200 per sq km. The urbanization is 24.87 percent in the state. The decadal growth of population was 21.3 percent against the all India average of 17.7 percent. The sex ratio was 928 and is much less compared to all India average of 943. About 14.71 percent of population lives below poverty line (2012). Nearly 33 percent of households have 6-8 members in the family. The literacy rate in the state is 67.06 percent which is below the all India average. While male literacy rate is almost equal to national average, the female literacy rate is significantly lower than national average by over 12 percentage points. The GSDP of the state was Rs. 2.44 lakh crore in 2013-14 with a per capita income of Rs 29244.

The health scenario of the state is on a progressive path. The state has 23 medical college hospitals, 34 district hospitals, 16 sub divisional hospitals, 376 CHCs, 1600 PHCs and 11500 sub centres. The Rajasthan Health Systems project funded by World Bank in 2004 (up to 2009) helped in strengthening of health systems in the state. The state has made concerted efforts to utilize the NRHM funds available to the state more effectively. The state has formed the Rajasthan Medical Services Corporation on the lines of Tamil Nadu Medical Supplies Corporation. Supply of essential drugs for free and conducting health tests for free (Nishulk Dava Yojna and Nishulk Jaanch Yojna for BPL/poor) have led to significant improvement in the outpatients as well as inpatients in the public health centres and is a significant move towards universal health care. The innovative efforts like using of 'ASHAsoft' for payments to ASHA for their services has resulted in the streamlining the payments for ASHA. The MMR and IMR have reduced significantly during the period 2000-2012. MMR reduced from 388 to 255 while the IMR has reduced from79 to 47 during the same period.

4.3 Tamil Nadu



Tamil Nadu state is the southernmost part of the country with an area of 1.3 lakh sq km and a population of 7.21 crore. It is the most urbanized state in the country with 48.5 percent of population living in urban areas. Tamil Nadu state ranked 6th among the states in Human Development Index in the year 2011[3]. The literacy rate is 80.33 percent while that of the female literacy was 73.86 percent. About 12 percent of the population lives in BPL category. The state has 93 percent of houses connected with electricity against the national average of 67 percent. The share of households using clean cooking fuel as well as having treated water connections is much higher than the national average. The Gross State Domestic Product (GSDP) for the year 2013-14 was Rs 480618 crore (at constant prices 2004-05) with primary, secondary and tertiary sectors contributing for 7.8 percent, 28.5 percent and 63.7 percent respectively. The per capita income of the state was Rs. 58360 and occupied 4th place in the country. The GSDP growth rate for the eleventh five year plan period 2007-12 was 7.7 percent against the target of 8.5 percent. Tamil Nadu state ranks first in the country in terms of industrial growth and employment. The urbanization has augured well with the industrial growth of the state. The state has a good road network of 2.4 lakh km (2014) of which 82 percent is surfaced.

[3] http://www.in.undp.org/content/dam/india/docs/inequality_adjusted_human_development_index_for_indias_state1.pdf

Health Profile

The successive governments of Tamil Nadu have given importance to the healthcare, nutrition and health facilities. It is the first state in India to enact Public Health Act 1939 which got amended in 1958 and 1970. The Danish International Development Agency (DANIDA) supported health programmes for two decades from 1981 to 2003 and health systems strengthening got importance with steps to improve human resource development, drug supplies and Health Management Information Systems (HMIS). The Tamil Nadu Medical Services Corporation (TNMSC) was established in 1994 to enable drug procurement and supply to all public health institutions in the state became a success and this model is being emulated by other states. Tamil Nadu embarked on strengthening of health systems in comprehensive manner under The World Bank aided Tamil Nadu Health Systems Project (TNHSP) in 2004. This specifically addressed the issues of utilisation of health services by poor, disadvantaged and tribal groups apart from strengthening the monitoring and reporting systems. All these concerted efforts resulted in significant drop in MMR and IMR. MMR which was 450 in 1971 dropped to 111 in 2004. Similarly the IMR also dropped to 44 during the same period. By the time NRHM was launched, the state of Tamil Nadu got a new impetus to accelerate the health programmes that was already in place. The indicators like the crude birth rate (CBR), Total Fertility Rate (TFR), MMR and IMR were lower than the all India averages in Tamil Nadu even before the launch of NRHM. The institutional deliveries increased from 76 percent in 2006 (All India 66.6 percent) to 92.4 percent in 2012 only second to Kerala state (99.7 percent).

Along with the political will and conducive policies, Tamil Nadu had effects of social movement led by E V Ramasamy Naicker[4] which focused on moving away from superstitions and dispelling ignorant practices. This had a significant effect on the behavioural change and communication programmes of public health. This also focused on encouraging women not to marry before the age of 22 years and exercise birth control methods. Dr Muthulakshmi Reddy, who was the first woman admitted to Madras Medical College, fought for gender equality and this had effects on abolishing the devadasi system. Dr Muthulakshmi Reddy maternity benefit scheme provides financial assistance to BPL pregnant woman to the tune of Rs. 12000 (Rs 4000 for registration of pregnancy, Rs 4000 for getting antenatal care and Rs 4000 for availing postnatal care) to meet nutrition expenses, compensate for loss of income during delivery and to avoid low birth weight babies. An amount of Rs. 450.16 crore was disbursed during 2013-14 to 6.64 lakh beneficiaries. Chief Minister's Comprehensive Health Insurance Scheme launched in 2012 provides insurance coverage of Rs. 1 lakh (covering 1016 life saving procedures) to all families with annual income of less than Rs. 72000. This has been very successful and 6.17 lakh persons benefited with an expenditure of Rs. 617 crore till 2013-14. Tamil Nadu state with robust growing

[4] Founded self respect movement in 1925 and Dravidar Kazhagam

economy has moved significantly from the issues of allocation and access to improvements in quality of healthcare.

The Rapid survey of Children (RSOC) was conducted jointly by UNICEF and Ministry of Women and Child Development in 2013-14 which provides a comparison after NFHS 3 in 2007-08. Dipa Sinha (2015) analysed the findings of the RSOC and the progress between the period 2007-08 and 2013-14 across states. The overall picture indicate a very good progress in terms of delivery care, proportion of births assisted by health professional and proportion of births at medical facilities. The progress in terms of number of Ante Natal Care (ANC) check-ups and Post Natal Care (PNC) check-ups by pregnant women and lactating mothers however has shown smaller level of improvement (Table 3).

Table 3 Progress in Child Health Indicators (All India)

Indicators	2005-06 (NFHS 3)	2013-14(RSOC)
More than 3 ANC visits (in percent)	52	63
Birth at medical facilities (in percent)	41	79
Birth assisted by health professional (in percent)	49	81
Full immunization coverage (in percent)	44	65

The progress in Bihar and Rajasthan is significant given their indicator levels in 2005-06. Progress in proportion of children immunized as well as the health personnel assisted deliveries is noteworthy (Table 4).

Table 4: Progress of Child Health Indicators among sample states

State	Year	Percent of children who survive to age 5	Percent of children who are fully immunized	Percent of children who are not underweight	Percent of deliveries assisted by health personnel
Bihar	2005-06	91.5	32.8	44.1	29.3
	2013-14	94.6	60.4	61.5	68.4
	Change	**3.39**	**84.15**	**39.46**	**133.45**
Rajasthan	2005-06	91.5	26.5	60.1	41
	2013-14	94.3	60.7	68.5	85.8
	Change	**3.06**	**129.06**	**13.98**	**109.27**
Tamil Nadu	2005-06	96.4	80.9	70.2	90.6
	2013-14	97.7	76.3	76.7	99.5
	Change	**1.35**	**-5.69**	**9.26**	**9.82**
All India	2005-06	92.6	43.5	57.5	46.6
	2013-14	95.1	81.1	70.6	81.1
	Change	**2.70**	**86.44**	**22.78**	**74.03**

5. Analysis and Findings

The analysis of health budgets is presented in two sections. Section one outline major findings of the study and provides a comparative picture of the three sample states while the second section would provide the detailed analysis of health budgets of individual states Bihar, Rajasthan and Tamil Nadu in a sequence.

5.1 Comparative analysis of three sample states.

Among the three states, Tamil Nadu's average annual expenditure (2010-11 to 2013-14) both in capital and revenue expenditure is the biggest and also significantly higher than that of Bihar and Rajasthan (Table 5). The capital expenditure of Bihar is higher than Rajasthan while the total expenditure is lowest among three states. The size of expenditure also represents the size of the economy and government machinery. The higher expenditure indicates the higher fiscal capacity of the state government. The detailed table (for 4 years) is presented in Annexure 6.

Table 5: Average total expenditure 2010-11 to 2013-14 (Rs. in Crore)

Expenditure	Bihar	Rajasthan	Tamil Nadu
Capital	14710	10328	18824
Revenue	50415	59375	90912
Total	**65124**	**69703**	**109736**

Compiled by CBPS from: State budgets and FMR

Note: *Table for the above graph is given in the Annexure 6 (Tables1-3)*

The average annual health expenditure of the state (from state budget- which excludes the expenditure outside of the state budget) is higher in Tamil Nadu state followed by Rajasthan and Bihar (Table 6). The health expenditure of Bihar is less than half (44 percent) that of Tamil Nadu. Similarly the health expenditure of Rajasthan is about three-fourths of that of Tamil Nadu. The capital expenditure is highest in Bihar followed by Tamil Nadu and Rajasthan. *This is due to the fact that releases to state health society (SHS) in Bihar were made under few capital heads (4210) which inflated the capital expenditure account.* The revenue expenditure which largely comprises of personnel expenditure is significantly higher in Rajasthan than that of Bihar but less than Tamil Nadu.

Table 6: Average Health Expenditure 2010-11 to 2013-14 (Rs. in Crore).

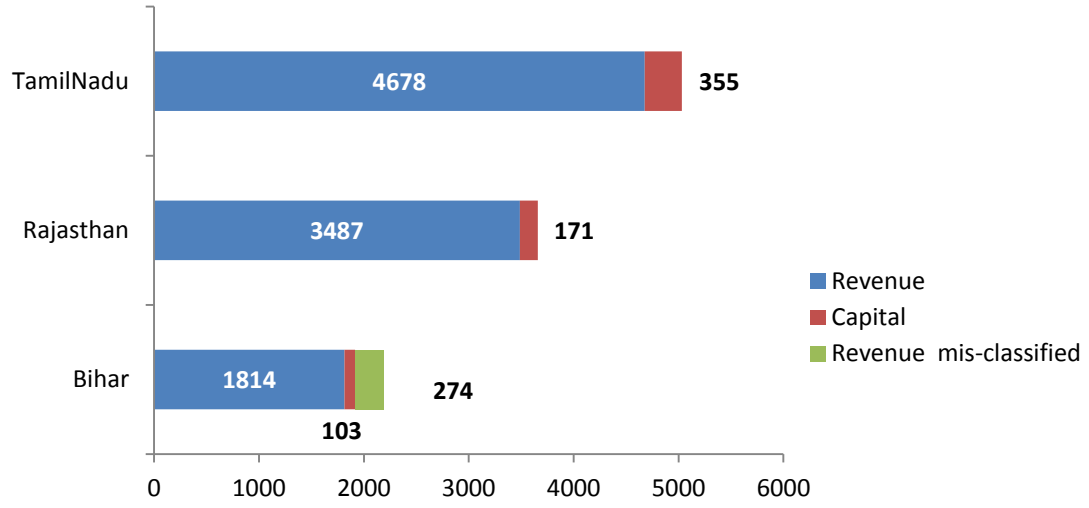
Expenditure	Bihar	Rajasthan	Tamil Nadu
Capital	377	171	355
Revenue	1814	3487	4678
Total	**2191**	**3658**	**5033**

Compiled by CBPS from: State budgets and FMR

While the average health expenditure was highest in Tamil Nadu, the expenditure as a proportion of total health expenditure was highest in Rajasthan followed by Tamil Nadu and Bihar. Given that the state of Bihar and Rajasthan has similar total expenditure (Rs 65000 and 69000 crore respectively), the proportionate expenditure on health is higher in Rajasthan than in Bihar. Capital expenditure of Tamil Nadu is higher. Capital expenditure of Bihar includes

revenue misclassified as capital expenditure. The misclassification arises due to the accounting of transfers to SHS as capital expenditure[5].

Figure 1: Average Health Expenditure and its Share in 3 states



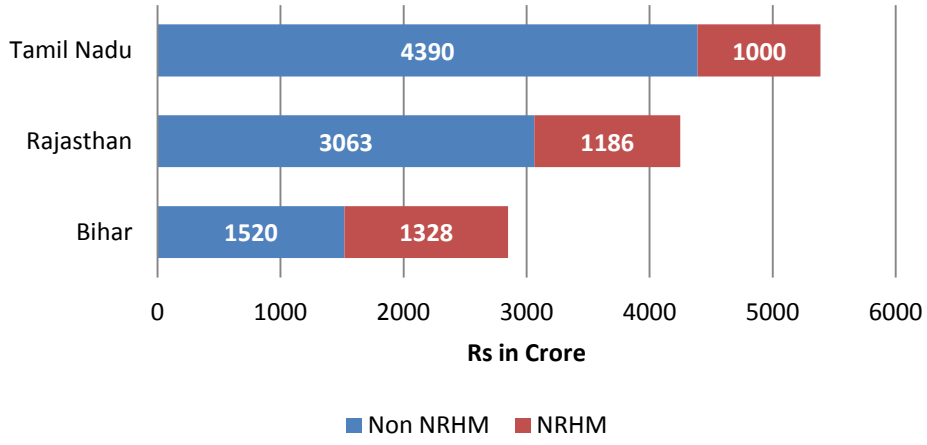
The health expenditure including both state budget and the expenditure incurred through State Health Society (SHS) was found to be higher in Tamil Nadu followed by Rajasthan and Bihar (Table 7 and Figure 2). The share of NRHM is highest in Bihar followed by Rajasthan and Tamil Nadu also indicating the importance of NRHM in the state.

Table 7: Average Health Expenditure (including NRHM) for 2010-11 to 2013-14 (Rs. in Crore)

Expenditure	Bihar	Rajasthan	Tamil Nadu
Expenditure excluding NRHM[6]	1520	3063	4390
NRHM	1328	1186	1000
Total	**2848**	**4249**	**5390**
Share of NRHM %	**47**	**28**	**19**

Compiled by CBPS from: State budgets and FMR

Figure 2: Average Health Expenditure (including NRHM)

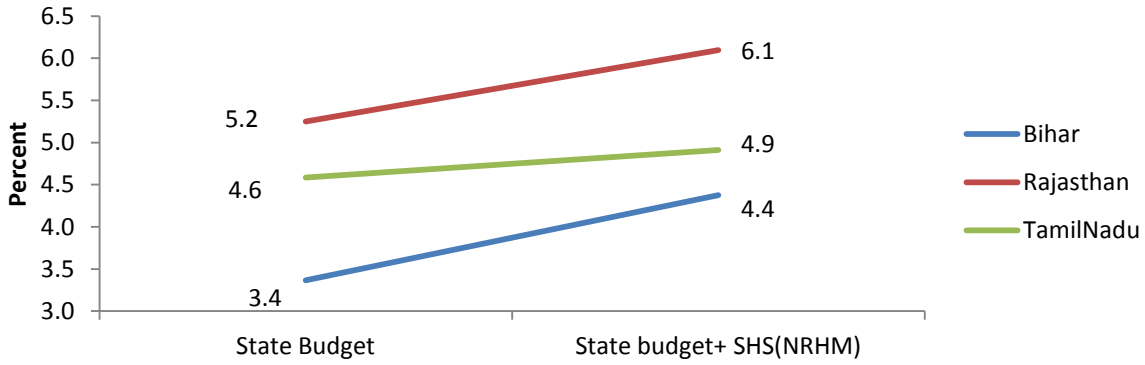


[5] Details of the Heads of Account was obtained from accountant - health department

[6] *This is less than the total expenditure from state budget (in Table 3) since it excludes GOI funds (under NRHM for Infrastructure Maintenance) and state releases to SHS.*

Rajasthan spent higher proportion of its total expenditure on health compared to the other two states of Bihar and Tamil Nadu (Figure 3). The NRHM expenditure through SHS increased the share of health expenditure in total expenditure by one percent in Bihar (from 3.4 percent to 4.4 percent) which is very significant (Figure 3). The similar increases in health expenditure to total expenditure were 0.9 percent and 0.3 percent in Rajasthan and Tamil Nadu.. This also signifies the fact that given similar total expenditure of the state in Rajasthan and Bihar, Rajasthan incurred higher health expenditure.

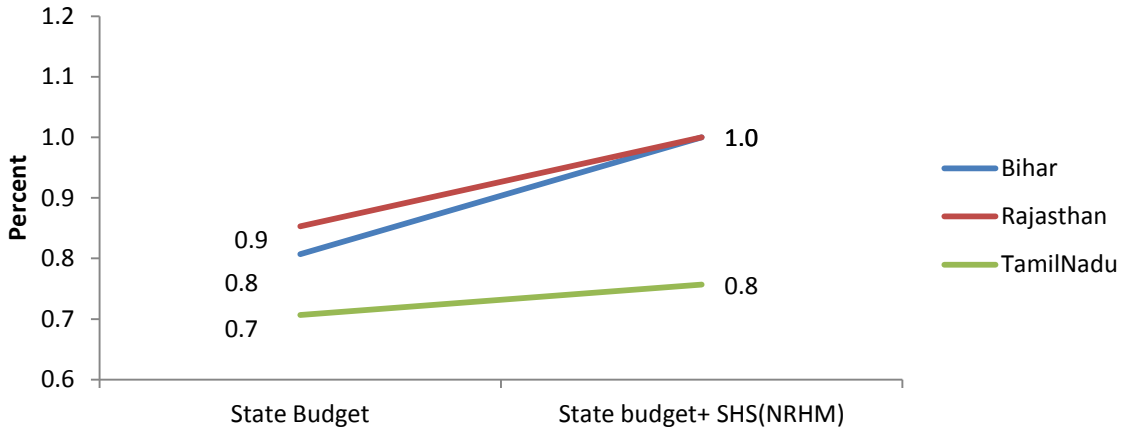
Figure 3: Average Health Expenditure (State budget and including SHS) as % of Total Expenditure



Note: *Table for the above graph is given in the Annexure 6 (Table 4)*

Similarly the health expenditure as a percent of Gross State Domestic Product (GSDP) was highest in Rajasthan followed by Bihar and Tamil Nadu which is an indicative of the higher priority being given to health by way of expenditure. The increase in health expenditure with including NRHM from SHS was significant in Bihar which increased the share of health expenditure by 0.2 percent of GSDP (0.8 to 1.0 percent) while the increase was 0.1 percent in other Rajasthan and Tamil Nadu.

Figure 4: Average Health Expenditure (State budget and including SHS) as a percent of GSDP



Note: *Table for the above graph is given in the Annexure 6 (Table 5)*

The average per capita health expenditure was highest in Tamil Nadu followed by Rajasthan and Bihar. The per capita expenditure under NRHM was highest in Rajasthan (Table 8 and

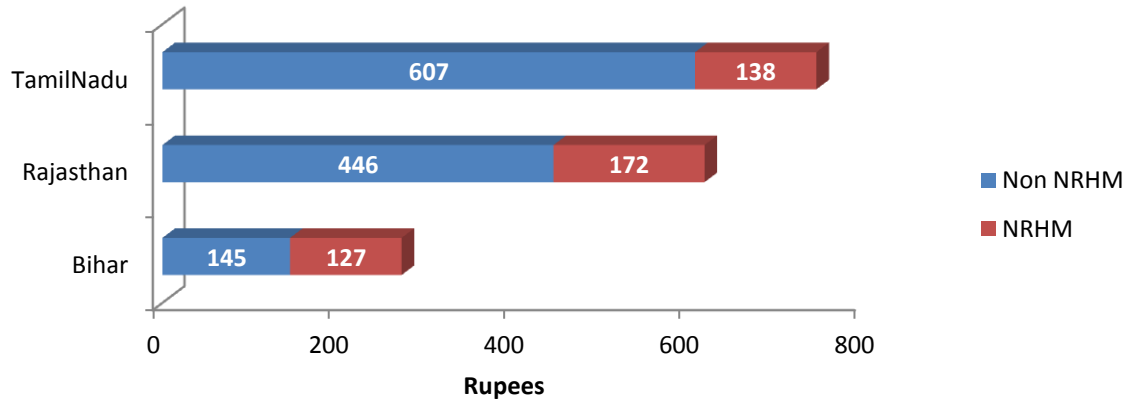
Figure 5). Though the percapita expenditure of Rajasthan is lower than Tamil Nadu by over hundred rupees, the percapita expenditure is more than double that of the Bihar. Given that the IMR for Bihar, Rajasthan and Tamil Nadu (SRS 2013) stands at 42, 47 and 21 respectively and the MMR for Bihar, Rajasthan and Tamil Nadu (SRS 2011-13) is 208, 244 and 79 respectively, the higher percapita expenditure may be required for few more years to make significant dent on the indicators.

Table 8: Average per capita Health Expenditure of Bihar, Rajasthan and Tamil Nadu (2010-11 to 2013-14)

Expenditure	Bihar	Rajasthan	Tamil Nadu
Total(with NRHM)	273	618	745
Share of NRHM in %	47	28	19

Compiled by CBPS from: State budgets and FMR

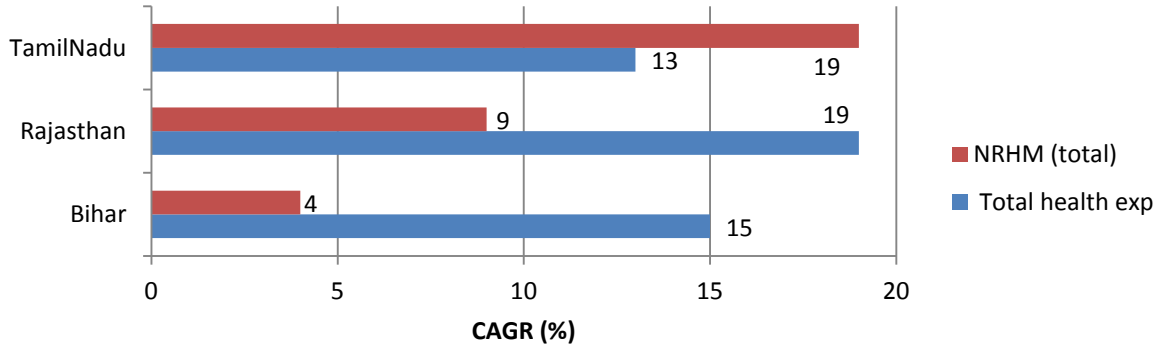
Figure 5 : Average Percapita Health Expenditure (2010-11 to 2013-14)



Note: *Table for the above graph is given in the Annexure 6 (Table 6)*

The growth of total health expenditure for the period 2010-11 to 2013-14 was highest in Rajasthan while the growth of NRHM expenditure was highest in Tamil Nadu (Figure 6).

Figure 6: Growth rates of total health expenditure and NRHM expenditure



Note: *The detailed tables for growth rates of Bihar, Rajasthan and Tamil Nadu are given in the analysis of respective states section below.*

The growth of NRHM expenditure was lowest in Bihar despite higher volume of expenditure among the three states. This may be partly due to the higher investments in physical

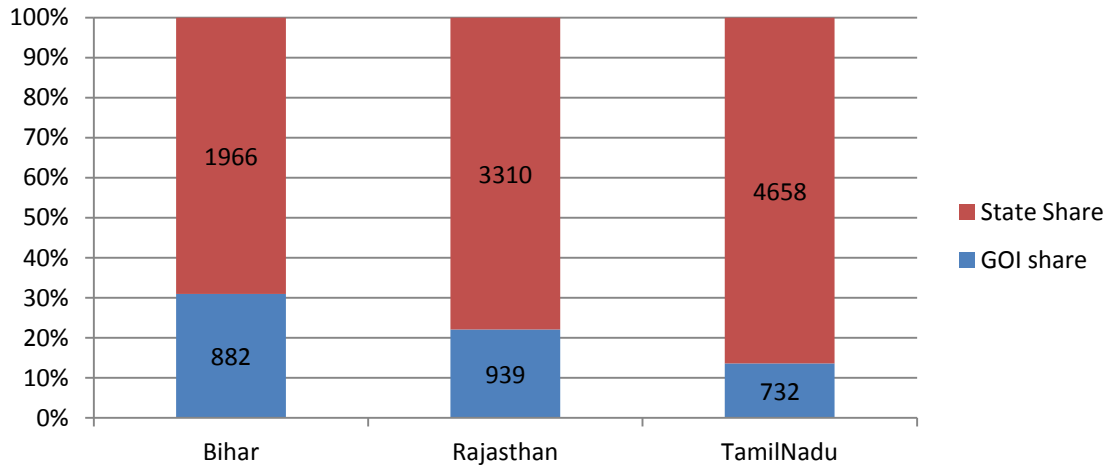
infrastructure and personnel recruitment which is time consuming and does not happen as planned. The growth of expenditure on health is significantly contributed by NRHM in the states of Bihar and Rajasthan. The higher growth of NRHM expenditure in Tamil Nadu can be attributed to the existence of infrastructure (physical and personnel) which can effectively increase the program expenditure and the higher growth is also partly because of lower base to start with.

The health expenditure incurred in state comprises of the expenditure incurred by funds from GOI through state budget as well as outside of the state budget through State Health Society (SHS). The share of GOI was highest in the state of Bihar followed by Rajasthan and Tamil Nadu (Table 9 and Figure 7). The GOI share includes the NRHM funds for infrastructure maintenance and other schemes routed through state budget apart from its share of expenditure incurred at SHS. The relatively higher share of GOI in Bihar indicates the higher dependency of the state on incurring the health expenditure in the state compared to that of Rajasthan and Tamil Nadu.

Table 9: Share of GOI and State in average annual health expenditure (2010-11 to 2013-14)

Expenditure	Bihar	Rajasthan	Tamil Nadu
Expenditure (Rs. In crore)	2848	4249	5390
GOI share (%)	31	22	14
State Share (%)	69	78	86

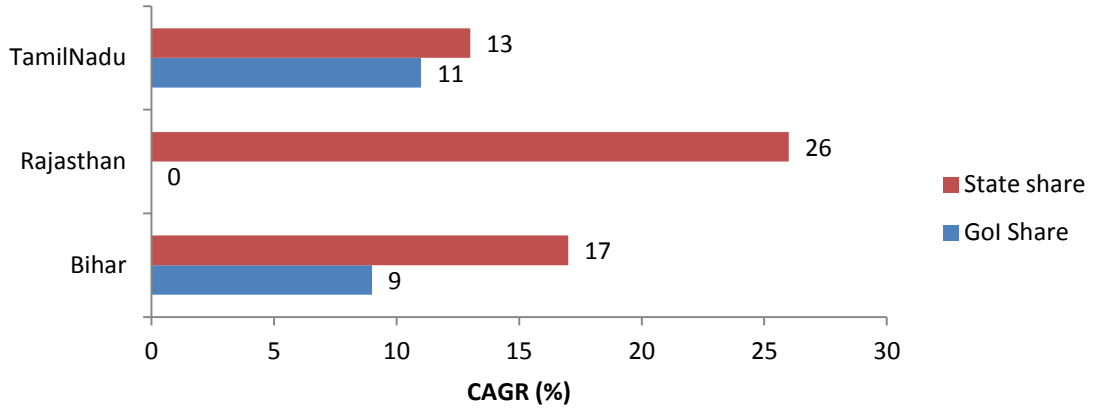
Figure 7: Share of Government of India and State in average health expenditure (2010-11 to 2013-14)



Note: *Table for the above graph is given in the Annexure 6*

The growth of GOI share and state share was analysed for the period 2010-11 to 2013-14. It was found that the growth rate of GOI share was highest in Tamil Nadu followed by Bihar (Figure 8). The growth in GOI share of funds to Rajasthan health expenditure reduced/remained constant. The growth rate of state share of health expenditure was highest in Rajasthan followed by Bihar and Tamil Nadu.

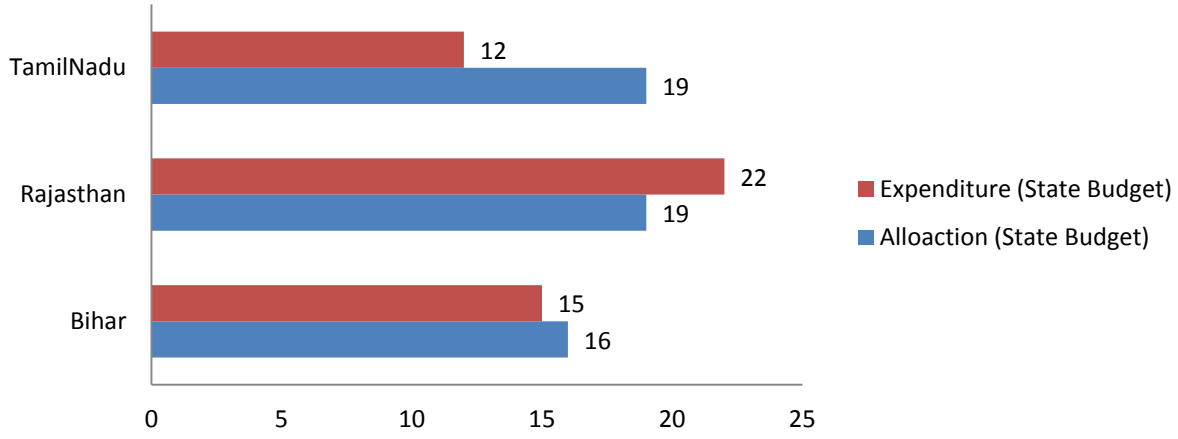
Figure 8: Growth rates of State and GOI share in total health expenditure



Note: *The detailed tables for growth rates of Bihar, Rajasthan and Tamil Nadu are given in the analysis of respective states section below.*

As discussed earlier, the health expenditure is incurred through state budget as well as state health society. The growth of allocation, expenditure with respect to state budget as well as the State Health Society (SHS) was compared across three states. The compound annual growth rate (CAGR) for the period 2010-11 to 2013-14 with respect to allocation under state budget was higher in Tamil Nadu and Rajasthan while the growth of expenditure was highest in Rajasthan followed by Bihar and Tamil Nadu (Figure 9). All three states increased the allocation by more than the stipulated 10 percent increase (under NRHM).

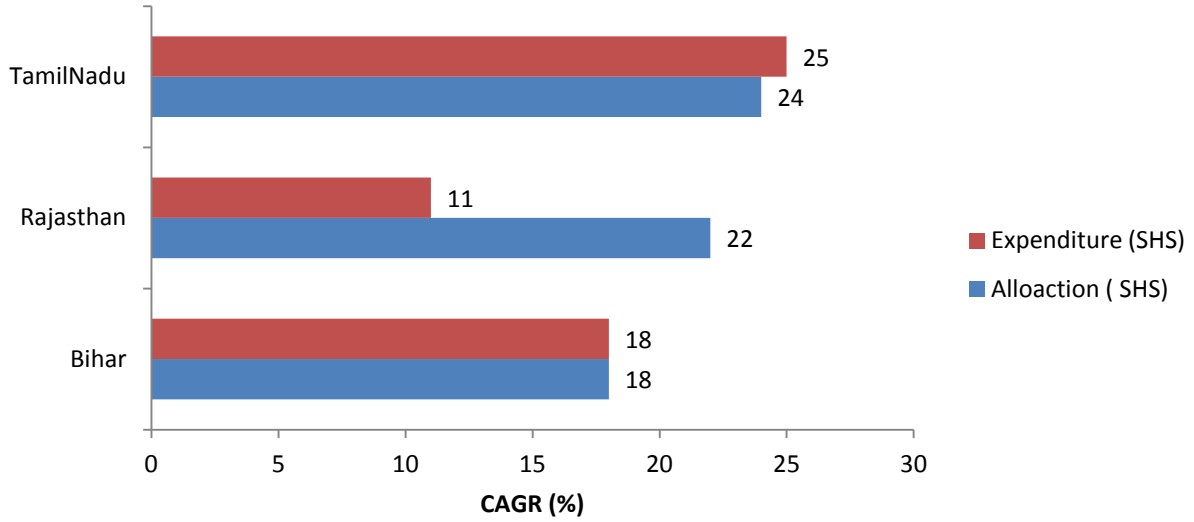
Figure 9: Growth rates of allocation and expenditure (state budget)



Note: *The detailed tables for growth rates of Bihar, Rajasthan and Tamil Nadu are given in the analysis of respective states section below.*

The growth rates for allocation and expenditure for the period 2010-11 to 2013-14 under SHS was found to be highest in Tamil Nadu. While the growth of allocation was higher in Rajasthan compared to Bihar, the growth of expenditure was higher in Bihar (Figure 10).

Figure 10: Growth rates of allocation and expenditure (State health society)



Note: *The detailed tables for growth rates of Bihar, Rajasthan and Tamil Nadu are given in the analysis of respective states section below.*

The NRHM expenditure incurred in the states of Bihar, Rajasthan and Tamil Nadu indicate that the average expenditure was higher in Bihar followed by Rajasthan and Tamil Nadu. The expenditure was higher than releases by nine percent in Bihar and four percent in Rajasthan while it was four percent savings against releases in Tamil Nadu (Table 10).

Table 10: Average Releases and Expenditure under NRHM for 2010-11 to 2013-14(Rs. in Crore)

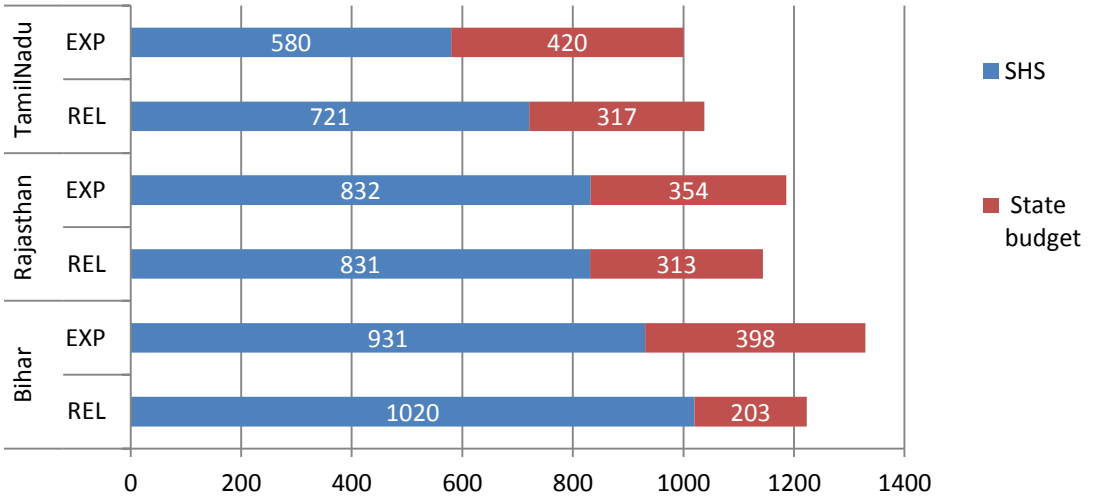
NRHM Expenditure	Bihar	Rajasthan	Tamil Nadu
Releases (State + SHS)	1223	1144	1038
Expenditure (State+ SHS)	1329	1186	1000
Excess/Savings	-106	-42	39
Excess (-)/Savings (+) %	**-9**	**-4**	**4**

Compiled by CBPS from: State budgets and FMR

Note: *The detailed year wise tables for Bihar, Rajasthan and Tamil Nadu are given in the analysis of respective states section below.*

The expenditure was higher than the releases under state budget component of NRHM. (The release under state budget component of NRHM is the releases by GOI for infrastructure maintenance.) It can be seen that all the three states have spent more than the releases for infrastructure maintenance (Figure 11). The expenditure under SHS component was found to be less than releases for both Tamil Nadu and Bihar while it was higher in Rajasthan. Rajasthan expenditure indicates better monitoring and utilisation of funds under NRHM. The savings in Bihar and Tamil Nadu indicate the need for improving the expenditure levels in SHS.

Figure 11: Average Annual Releases and Expenditure under NRHM (Rs. in Crore)



Note: *Table for the above graph is given in the Annexure 6 (Table-6)*

Apart from the state budget component of NRHM which is for infrastructure maintenance, the NRHM expenses through SHS were found to be higher in Bihar, followed by Rajasthan and Tamil Nadu (Table 11). The share of expenses for Human Resources (HR) was found to be highest in Bihar followed by Rajasthan and Tamil Nadu (Figure 12). The higher proportion of the expenses on HR also indicates possible initial stage deficits that were made good through NRHM. In Tamil Nadu, recruitment of ASHAs took place only after 2009 and even then on a small scale. The state had full time staff nurses and therefore did not rely on ASHAs. The Janani Suraksha Yojana (JSY) expenditure forms a significant portion of SHS expenses in Bihar (31 percent) followed by Rajasthan (20 percent). The others category include the program expenses of RCH and National Disease Control Programme.

Table 11: Average component-wise expenditure of NRHM (SHS) (2010-11 to 2013-14)

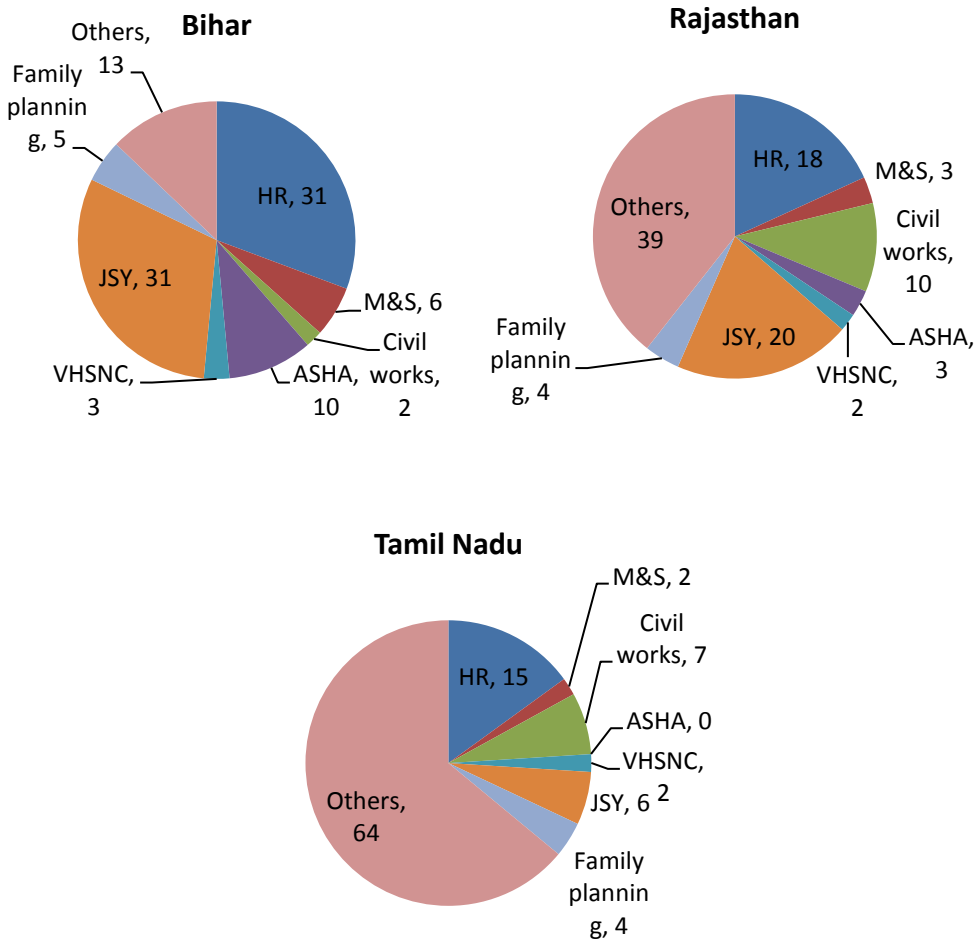
Rs. in Crore

Expenditure	Bihar	Rajasthan	Tamil Nadu
Human Resources	289	149	86
Material & Supplies	56	26	12
Civil works	18	85	39
ASHA	91	28	2
VHSNC	25	14	14
JSY	289	170	32
Family planning	44	35	25
Others	119	325	371
Total	**931**	**832**	**580**

Compiled by CBPS from: FMR

This also indicates that the health personnel are recruited under NRHM (who are contractual staff) and any delays in recruitment also alter the implementation and expenditure incurred through SHS. This also partly explains the reason for the savings under NRHM in Bihar SHS.

Figure 12: Share of components of NRHM expenditure (SHS) in Bihar



The expenditure under Reproductive Child Health component (which includes Maternal and Child Health and Child Health) was found to be highest in Bihar followed by Rajasthan and Tamil Nadu (Table 12).

Table 12 Average Expenditure on RCH, MCH and CH components under NRHM (SHS)

Rs. in Crore

Expenditure	Bihar	Rajasthan	Tamil Nadu
Total Expenditure (TE)	931	832	580
RCH	560	392	220
MCH	328	229	87
CH	30	22	14
Others (NRHM Additionalities, etc)	202	141	119
NDCP, etc.	371	440	360
RCH (as % TE)	60	47	38
MCH (as % TE)	35	27	15
CH (as % TE)	3	3	2

Compiled by CBPS from: FMR

The expenditure under maternal and child health component also followed the similar trend while the child health component was almost same proportion across states. This also indicate the focus of NRHM which is largely RCH oriented, family planning focused (through institutional deliveries and Janani Suraksha Yojana and compensation for sterilizations) in Bihar and Rajasthan while it is of less focus in Tamil Nadu.

5.2 Analysis of Health Expenditure of BIHAR

The growth of health expenditure through state budget has decreased on a year on year basis during the period 2010-11 to 2013-14 though the total expenditure has increased from Rs. 1667 crore to 2574 crore (Table 13). The capital expenditure was highest in 2012-13 and decreased during 2013-14. The NRHM stipulates that the allocation to health has to be increased by 10 percent every year which would eventually translate into increase in expenditure. While the expenditure growth during the year 2013-14 over the previous year was less than 10 percent, on average growth rate has been of the order of 15.8 percent during the four year period.

Table 13 : Change in Health Expenditure over previous year

Expenditure (Rs. In crore)	2010-11	2011-12	2012-13	2013-14	Average
Capital	165	321	563	460	377
Revenue	1502	1804	1836	2113	1814
Total	**1667**	**2125**	**2398**	**2574**	**2191**
% Change (YoY)		**27.43**	**12.89**	**7.31**	**12**

Compiled by CBPS from: State Health Budget data

The total health expenditure incurred at the state level comprises expenditure through state budget as well as the state health society (SHS). The expenditure through the state budget includes the state share of NRHM released to SHS and the expenditure on infrastructure maintenance (for which the funds are received from GOI under NRHM). While the releases to state health society are treated as actual expenditure in the books of the state government, it can be treated as actual expenditure only when SHS spends the money. Thus, the actual expenditure under NRHM comprises state spending on infrastructure maintenance (through state budget) and the expenditure incurred by SHS[7] under NRHM.

The total health expenditure including that of NRHM has increased consistently during the period 2010-11 to 2013-14 (Table 14). However, the rate of increase was highest during 2011-12 at 29.3 percent. While the expenditures under SHS and state budget health expenditure excluding infrastructure maintenance increased consistently, the expenditure under infrastructure maintenance decreased during years 2011-12 by more than 50 percent of the previous year. The share of NRHM was significant during 2010-11(64 percent). It has reduced to 44 percent during 2013-14 (Figure 13).

[7] SHS also incur expenditure from funds other than NRHM as well.

Table 14: Change in Health Expenditure (including NRHM)

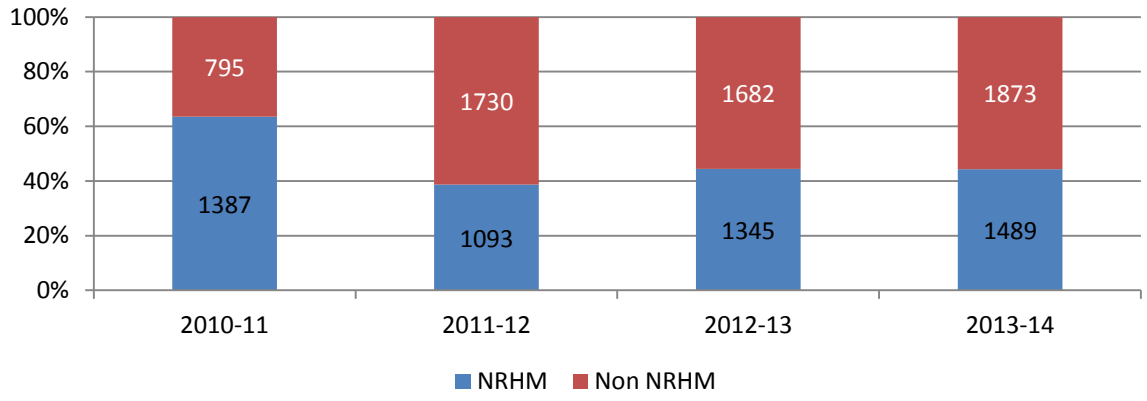
Expenditure (Rs. in crore)	2010-11	2011-12	2012-13	2013-14	Average
a. Total expenditure	1667	2125	2398	2574	2191
b. Less: State share of NRHM (Transfer to SHS)	188	146	399	364	274
c. Expenditure of the State (a-b)	1479	1978	2000	2210	1917
d. NRHM expenditure for infrastructure maintenance[1]	687	248	318	337	398
e. State health expenditure (excluding NRHM) c-d	792	1730	1682	1873	1519
f NRHM expenditure (SHS)	699	844	1027	1152	931
g External funding exp (SHS)[2]	3	0	0	0	1
Total Health Expenditure (d+e+f+g) including NRHM	**2182**	**2823**	**3027**	**3362**	**2848**
% Change (YoY) in health expenditure		**29.39**	**7.23**	**11.08**	**12**
NRHM expenditure(d+f)	1387	1093	1345	1489	1328
Health expenditure (excluding NRHM) (e+g)	795	1730	1682	1873	1520
Share of NRHM expenditure	64	39	44	44	47
Share of Health expenditure (excluding NRHM)	36	61	56	56	53

1 This is obtained from progress report of NRHM

2. this is outside of NRHM expenditure incurred by State Health society

Compiled by CBPS from: FMR and State Health Budget data

Figure 13: Share of NRHM in total expenditure



The health expenditure at the state includes the expenditure incurred from both state's own fund as well as the funds received from GOI. The funds from GOI come in two parts one (for the infrastructure maintenance-NRHM) which is routed through state budget[8] while the other component is routed through the SHS which is outside of the state budget. The GOI share of health expenditure in the state is calculated by adding the funds released through state budget with the GOI share of expenditure incurred at SHS (SHS expenditure is done using funds from both GOI and state share). The GOI share of expenditure is calculated using the proportion of releases of GOI and State shares to SHS. The change in the net state

[8] This comprises of funds for NRHM and other health schemes as well.

contribution (excluding foreign funding projects) was significant during the years 2011-12 and 2012-13 while the change was less than one percent during the year 2013-14 (Table 115). The share of foreign funding in the total expenditure increased from 0.16 percent to 7.3 percent during the period 2010-11 to 2013-14.

Table 15: Change in state's own contribution to state health expenditure over previous year

(Rs. In crore)

Expenditure (Rs. In Crore)	2010-11	2011-12	2012-13	2013-14	Average
Total Health expenditure including NRHM	2182	2823	3027	3362	2848
GOI releases to state budget (Infrastructure Maintenance)	207	182	198	224	203
GOI share of expenditure (SHS)	568	661	682	808	680
Total GOI share of expenditure	776	842	880	1032	883
Total State Share	1406	1981	2150	2330	1966
External Aided Project(SWASTH) & NIPI[2]	3	173	87	247	128
Net State Contribution	1403	1807	2063	2083	1839
% Change (YoY)		**28.85**	**14.17**	**0.97**	**11**
GOI share (%)	**36**	**30**	**29**	**31**	**31**
State Share (%)	**64**	**70**	**71**	**69**	**69**
Share of Foreign funding3	**0.16**	**6.14**	**2.87**	**7.33**	**4**

1 includes NRHM expenditure share and the releases to state government (both NRHM and non NRHM)

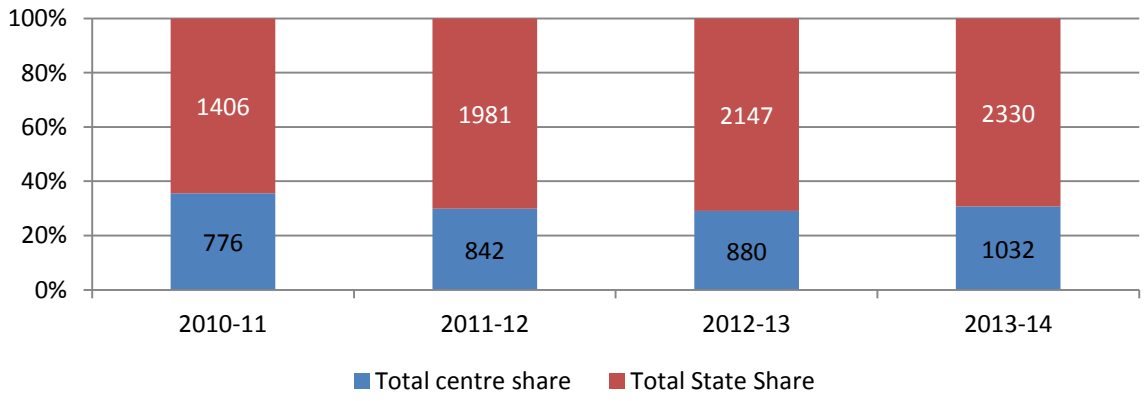
2 includes expenditure from state budget and state health society

3 Sector Wide Approach for Strengthening Health and Norway Indian Partnership Initiative project

Compiled by CBPS from: FMR and State Health Budget data

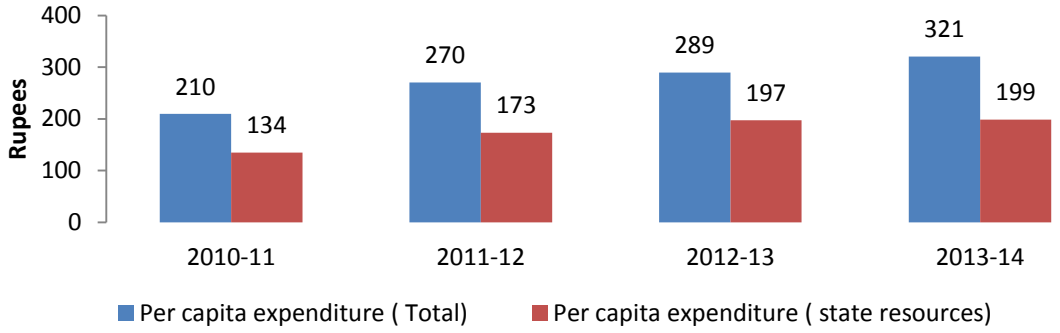
While the GOI share of expenditure increased from Rs.776 crore to Rs. 1032 crore during the period 2010-11 to 2013-14, its share in the total health expenditure in the state decreased from 36 percent to 31 percent while the state's share increased from 64 percent to 69 percent during the same period (Figure 14).

Figure 14: Share of GOI and state in total health expenditure



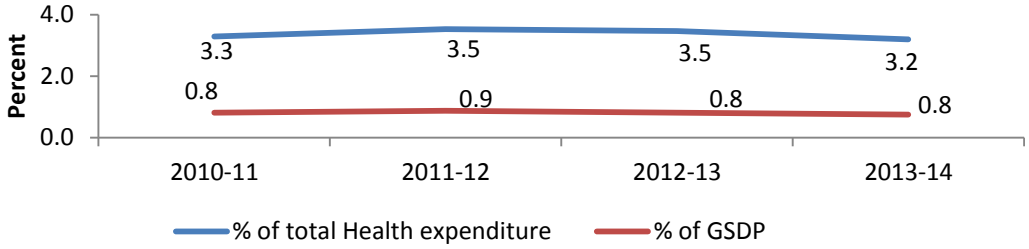
The per capita health expenditure increased from Rs 210 to Rs 321 during the period 2010-11 to 2013-14 while the per capita health expenditure from state's own resources increased from Rs. 134 to Rs. 199 during the same period (Figure 15).

Figure 15: Per capita health expenditure



The health expenditure as a percent of total expenditure increased from 3.3 to 3.5 percent and again decreased to 3.2 percent during 2013-14 (Figure 16). Similarly the health expenditure as percent of GSDP hovered around 0.8 percent.

Figure 16: Health expenditure as percent of total expenditure and as percent of GSDP



Note: *Table for the above graph is given in the Annexure 6*

The share of plan expenditure in the total expenditure has increased marginally from 41percent to 49 percent during 2011-12 and 2012-13 while it reduced to 46 percent during 2013-14 (Table 16). The plan expenditure increased by 55 percent in 2011-12 and it increased by 5 percent in the years 2012-13 and 2013-14.

Table 16: State plan expenditure on health as a proportion of state health expenditure

Expenditure (Rs. In crore)	**2010-11**	**2011-12**	**2012-13**	**2013-14**
Plan	898	1395	1469	1541
Non Plan	1284	1428	1558	1821
Total Health expenditure (including NRHM)	2182	2823	3027	3362
% share of Plan	**41**	**49**	**49**	**46**
Change in Plan (YoY)%		**55**	**5**	**5**

Compiled by CBPS from: FMR and State Health Budget data

The health expenditure of the state including the NRHM expenditure through the SHS is classified into primary, secondary and tertiary healthcare. This is based on the classification that the NHSRC toolkit used for analysis. The expenditures are classified into five categories. Apart from primary, secondary and tertiary healthcare, expenditures are also classified as administration and education expenses. The classification is done at the level of minor head and group head. Primary expenditure refers to the health services available close to people and this includes, PHCs, control of diseases etc while the secondary healthcare is Hospitals

and dispensaries, First Referral Units etc. Tertiary healthcare includes teaching hospitals. Administration includes direction and administration while the education includes expenses on education, training, research and grant in aid. The administration and education expenses are added with the tertiary healthcare in our analysis as the expenses were similar to that of tertiary healthcare and cannot be clubbed with primary or secondary healthcare. All the NRHM expenses under the SHS is classified as primary because of its main focus on primary healthcare. .

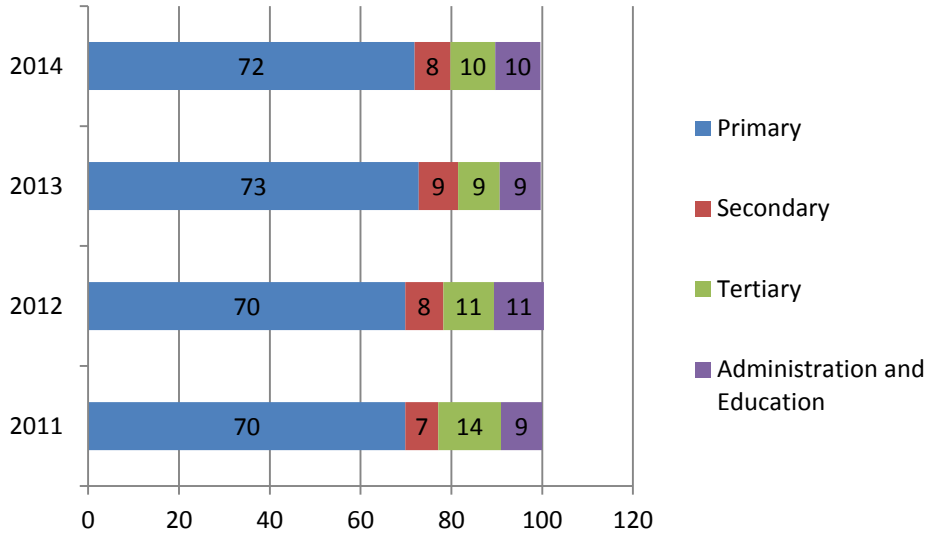
Table 17: Primary, Secondary and Tertiary healthcare in Total Health Expenditure

Expenditure	2010-11	2011-12	2012-13	2013-14
Primary	1524	1971	2204	2416
Secondary	158	237	261	266
Tertiary	302	315	279	331
Administration	52	63	63	73
Education	146	237	219	276
Total	**2182**	**2822**	**3026**	**3361**

Compiled by CBPS from: FMR and State Health Budget data

The share of primary healthcare was highest and accounted for about 71 percent of the total health expenditure. The tertiary health expenditure (the administration and education expenditure included) is the second highest share followed by the secondary healthcare (Table 17).

Figure 13: Share of Primary, Secondary, tertiary and others in HE



The share of capital expenditure increased from 8 percent to 14 percent during the period 2010-11 to 2013-14 with an exception during 2012-13 during which it was 19 percent (Table18).

Table 18: Capital health expenditure as percentage of total public health expenditure

Expenditure (Rs. In crore)	2010-11	2011-12	2012-13	2013-14
Capital expenditure	165	321	563	460
Total Expenditure (including NRHM)	**2182**	**2823**	**3027**	**3362**
Capital Expenditure (percent)	**8**	**11**	**19**	**14**

Compiled by CBPS from: FMR and State Health Budget data

The per capita expenditure on medicine and drugs increased from Rs. 13 to Rs. 19 during the period 2010-11 to 2013-14 (Table 19). The share of medicine and drugs in total health expenditure hovered around 7 percent during the same period (Table 20)

Table 19: Per capita expenditure on medicine and drugs

Medicine and Drugs expenditure (Rs. in Crore)	2010-11	2011-12	2012-13	2013-14
Through State budget	89	114	125	135
Under NRHM	47	39	69	66
Total exp on Medicine and drugs	**136**	**154**	**194**	**201**
Population (2011)	104099452	104363865	104268949	104894706
Per capita expenditure (Rs)	**13**	**15**	**19**	**19**

Compiled by CBPS from: FMR and State Health Budget data

Table 20: Medicine and drugs expenditure as percent of total health expenditure (revenue expenditure)

Expenditure (Rs. In Crore)	2010-11	2011-12	2012-13	2013-14
Medicine and drugs expenditure	136	154	194	201
Total Health expenditure(Revenue) including NRHM	2017	2502	2464	2902
% share	**7**	**6**	**8**	**7**

Compiled by CBPS from: FMR and State Health Budget data

The maintenance expenditure is the expenses incurred for the maintenance of the medical equipment and facilities both under state budget as well as the SHS. The lower maintenance expenditure is often clubbed with the other heads and it is difficult to identify the exact expenditure. (Example: Repair and maintenance is often clubbed with upgradation of health facilities which includes capital investments) This formed a miniscule percent of 0.3 to 0.2 percent of the total revenue expenditure on health (Table 21).

Table 21: Maintenance expenditure as percent of total health expenditure (revenue expenditure)

Expenditure (Rs. In Crore)	2010-11	2011-12	2012-13	2013-14
Maintenance Exp	6	8	6	5
Total health exp(Revenue) including NRHM	2202	2648	2863	3266
% share	**0.29**	**0.32**	**0.21**	**0.17**

Compiled by CBPS from: FMR and State Health Budget data

Conditional Cash Transfer (CCT) is the demand side financing aimed at improving the maternal and child health services. The CCT is provided for the eligible beneficiaries who avail benefits from the public health facilities/ authorized by public health facility. This is also to ensure that the facilities are provided as well as availed by the eligible persons. Janani Suraksha Yojna is one such CCT which is aimed at registering pregnancies, following up with the required immunization schedule leading up to institutional delivery. An amount of

Rs 1400/- per delivery (BPL and for 2 children only) is being paid for the mother after giving birth in a hospital/under the supervision of trained birth attendant. The other CCT is for undergoing sterilization (male / female) after delivering two children. The CCT expenditure for beneficiaries of Janani Suraksha Yojna (JSY) and for the sterilizations has increased over years. However, their share in the total health expenditure has been hovering around 12 percent (Table 22).The expenditure on CCT as a percent of NRHM (SHS) expenditure decreased from 39 percent to 37 percent except for the year 2012-13. About one third of the expenditure from SHS is on CCT indicate the higher focus on the increasing the institutional deliveries and family planning measures.

Table 22: Conditional cash transfers as percent of health expenditure

Conditional Cash transfers	2010-11	2011-12	2012-13	2013-14
JSY and compensation for sterilizations	271	271	290	425
Total Expenditure	2182	2823	3027	3362
NRHM expenditure(SHS)	699	844	1027	1152
CCT (as percent of health exp)	**12**	**10**	**10**	**13**
CCT (as percent NRHM exp)	**39**	**32**	**28**	**37**

Compiled by CBPS from: FMR and State Health Budget data

The share of Human Resources (HR) expenses increased consistently from 2010-11 to 2013-14. The increase in the share was significant during the period 2010-11 to 2011-12 at nine percent (Table 23). The share of contractual payments in the total HR expenditure also increased from 16 percent to 22 percent during the same period (Table 24).

Table 23: Expenditure on Human Resources (Salary, wages and contractual payments) as percent of total health expenditure

HR expenditure (Rs. In Crore)	2010-11	2011-12	2012-13	2013-14	Average
Salaries	891	1315	1467	1631	1326
Contractual payments and wages	**30**	**91**	**34**	**17**	**46**
NRHM- HR	137	235	337	448	289
Total HR expenditure	**1059**	**1640**	**1837**	**2096**	**1658**
Total Health expenditure	2182	2823	3027	3362	2848
HR expenditure (% of total health exp)	**49**	**58**	**61**	**62**	**58**

Compiled by CBPS from: FMR and State Health Budget data

Table 24: Expenditure on contractual payments as percent of total HR expenditure

HR expenditure (Rs. In Crore)	2010-11	2011-12	2012-13	2013-14
Contractual payments and wages	168	326	371	465
Total H R expenditure	1059	1640	1837	2096
% contractual payments in HR total	**16**	**20**	**20**	**22**

Compiled by CBPS from: FMR and State Health Budget data

The expenditure on procurement of medicine and equipments increased from Rs. 194 crore to Rs 278 crore during the period 2010-11 to 2013-14 which however remained at around 8 percent of the total health expenditure during the same period (Table 25).

Table 25: Procurement expenses as percent of health expenditure

Expenditure (Rs. In Crore)	2010-11	2011-12	2012-13	2013-14
Total Health budget	2182	2823	3027	3362
NRHM expenditure	699	844	1027	1152
Expenditure on Procurement	194	197	269	278
As % of total health expenditure	9	7	9	8
As % of NRHM expenditure	28	23	26	24

Compiled by CBPS from: FMR and State Health Budget data

The HR expenses, expenses on ASHA and other expenses show consistent increase during the period 2010-11 to 2013-14. The other expenses which include program expenditure such as JSY and others (Table 26) accounted for 49 percent during the same period. The share of untied funds provided to the health centres hovered around 2-6 percent (Table 27).

Table 26: Share of different components of NRHM expenditure (State Health Society)

Expenditure (Rs. In Crore)	2010-11	2011-12	2012-13	2013-14	Total	%Share
HR	137	235	337	448	1157	**31**
Materials & Supplies	49	39	69	66	224	**6**
Civil works	23	22	16	10	70	**2**
ASHA	42	59	95	169	365	**10**
VHSNC	10	39	34	17	99	**3**
Others	438	451	476	442	1808	**49**
Total	**699**	**844**	**1027**	**1152**	**3724**	**100**

Compiled by CBPS from: FMR `

Table 27 : Share of untied funds as percentage of NRHM expenditure

Expenditure	2010-11	2011-12	2012-13	2013-14	Total
Total	**699**	**844**	**1027**	**1152**	3724
Untied funds	22.37	47.02	41.56	21.79	133
% share of untied funds	**3**	**6**	**4**	**2**	**4**

Compiled by CBPS from: FMR and State Health Budget data

The analysis of trends of budget allocation and expenditure on health from state budget indicated that the allocation grew at 16 percent per annum during the period 2010-11 to 2013-14 while the expenditure grew by 15 percent (Table 28). The unspent amount also increased every year by 20 percent. The rate of utilisation decreased marginally from 79 percent to 77 percent during the same period.

Table 28: Trend Analysis of allocation, expenditure and under-expenditure (Rs. in Crore)

State budget	2010-11	2011-12	2012-13	2013-14	CAGR (%)
Allocation	2105	2705	3068	3339	16
Expenditure	1667	2125	2398	2574	15
unspent	437	580	669	766	20
Utilisation (%)	**79**	**79**	**78**	**77**	

Compiled by CBPS from: State Health Budget data

The health expenditure through SHS grew by 18 percent while the unspent monies grew by 17 percent. The utilisation against allocation hovered around 60 percent (Table 29).

Table 29: Trend analysis of allocation expenditure and under-expenditure (Rs. in crore)

SHS	2010-11	2011-12	2012-13	2013-14	CAGR
Allocation	1179	1374	1909	1830	18
Expenditure	702	844	1027	1152	18
unspent	477	530	882	678	17
Utilisation (%)	**60**	**61**	**54**	**63**	

Compiled by CBPS from: FMR

The state's share in the NRHM resource envelope was 25 percent during the year 2013-14(as stipulated by GOI since 2012-13). The state share during the years 2010-11 and 2012-13 was lesser by two and one percent respectively (Table 30).

Table 30: State's own share in NRHM resource envelope (allocation) in percent

Allocation (Rs. In Crore)	2010-11	2011-12	2012-13	2013-14
Resource envelope [a]	1277	1345	2008	1862
State share[b]	168	198	474	466
State's share (%)	**13**	**15**	**24**	**25**

Compiled by CBPS from: FMR and State Health Budget data

a: Amount approved for the year by GOI (Record of Proceedings)

b: indicated in Record of Proceedings

The allocation and expenditure under Reproductive Child Health (RCH), Maternal and Child Health (MCH) and Child Health (CH) grew up to 2012-13 and decreased in 2013-14. RCH includes MCH and CH components. The utilizations were highest under MCH followed by RCH and CH components (Table 31).

Table 31 Allocation and Expenditure of RCH, MCH and CH for 2010-11 to 2013-14(Rs. in lakh)

SHS expenditure	2010-11	2011-12	2012-13	2013-14	Total
RCH (Allocation)	66483	62425	101788	99809	330505
RCH(expenditure)	42595	47021	61660	72520	223796
Utilization (%)	**64**	**75**	**61**	**73**	**68**
MCH (Allocation)	32641	29729	52130	64719	179218
MCH(expenditure)	25131	25151	37046	43917	131244
Utilization (%)	**77**	**85**	**71**	**68**	**73**
CH (Allocation)	6417	7553	14421	7611	36002
CH(expenditure)	2976	1985	2143	4985	12089
Utilization (%)	**46**	**26**	**15**	**65**	**34**

Compiled by CBPS from: FMR

The Child Health components such as school health programme, IMNCI, procurement of Drugs for School Health, Facility based new born care, care of sick children and child health training saw utilisation less than 50 percent. Only JSSK was spent more than the allocated amount (Table 32). This also indicate the complementary nature of these programme expenditure which are dependent on the availability of personnel and accessibility of the health centre.

Table 32 Expenditure under different components of Child Health (Rs. in lakh)

CHILD HEALTH	Allocation	Expenditure	Utilization (%)
IMNCI	607	78	12.79
Facility Based Newborn Care (FBNC, SNCU, NBSU, NBCC)	5193	2498	48.09
Home Based Newborn Care	0	26	
School Health Programme	7407	997	13.46
Infant and Young Child Feeding (IYCF)	0	1	
Care of Sick Children and Severe Malnutrition (NRC, SDNC)	4566	2166	47.43
Management of Diarrhoea, ARI and micronutrient malnutrition	2809	1445	51.45
Other Strategies / Activities	3615	4	0.10
Infant Death Audit	0	0	
Incentive to ASHA under child health	1876	417	22.24
JSSK for sick neonates up to 30 days	36	116	321.05
Child Health Training	6074	2769	45.59
Routine Immunization	2471	1445	58.47
Procurement of Drugs for School Health (IFA, Medicines -- under Procurement)	848	110	12.99
Drugs and Consumables (Other than those reflected in Procurement)	500	19	3.72
Total	**36002**	**12089**	**33.58**

Compiled by CBPS from: FMR

5.3 Analysis of Health expenditure of RAJASTHAN

The growth of health expenditure through state budget on a year on year basis decreased during year 2012-13 while it increased during the years 2011-12 and 2013-14 over the previous year (Table 33). The loan component includes the loans to state agencies involved in health supplies. The capital expenditure increased significantly during 2012-13 and 2013-14.

Table 33: Change in health expenditure over previous year

Expenditure (Rs. In Crore)	2010-11	2011-12	2012-13	2013-14	Average
Capital	36	96	214	337	171
Revenue	2525	3271	3678	4414	3472
Loans	0	5	54	4	16
Total	**2562**	**3371**	**3946**	**4755**	**3658**
% Change (YoY)		**32**	**17**	**21**	**17**

Compiled by CBPS from: State Health Budget data

The total health expenditure comprises expenditure through state budget and the state health society (SHS). The expenditure through the state budget includes the state share of NRHM released to SHS and the expenditure on infrastructure maintenance. While the releases to state health society are treated as actual expenditure in the books of the state government, it can be treated as actual expenditure only when SHS spends the money.

Table 34: Change in health expenditure over years including NRHM (in percent)

Expenditure (Rs. in crore)	2010-11	2011-12	2012-13	2013-14	Average
a. Total expenditure through State Budget	2562	3371	3946	4755	3658
b. State share of NRHM (to state health society)	154	407	358	429	337
c. Expenditure of the State (a-b)	2407	2965	3587	4326	3321
d NRHM expenditure for infrastructure maintenance	298	333	371	405	352
e state budget health expenditure (excluding NRHM) c-d	2110	2632	3216	3922	2970
f NRHM expenditure (SHS)	870	619	798	1041	832
g Other exp including external funds(SHS)[1]	8	146	54	175	96
Total Health expenditure (d+e+f+g)including NRHM	**3285**	**3729**	**4440**	**5543**	**4249**
% Change (YoY) in health expenditure		**14**	**19**	**25**	**14**
NRHM expenditure(d+f)	1168	952	1169	1446	1186
Health expenditure (excluding NRHM)(e+g)	2117	2778	3271	4097	3063
Share of NRHM expenditure (%)	36	26	26	26	28
Share of Health expenditure (excluding NRHM) (%)	64	74	74	74	72

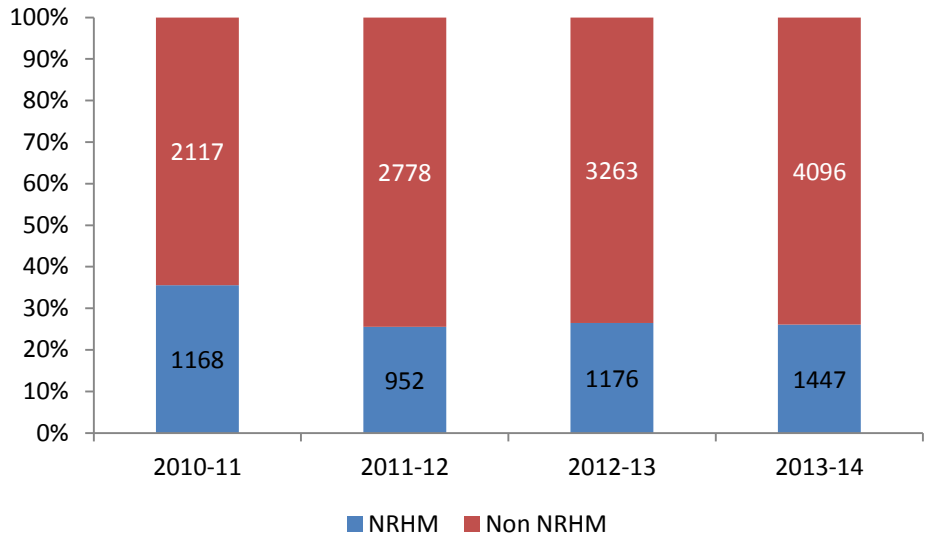
1 *this is outside of NRHM expenditure incurred by State Health society*

Compiled by CBPS from: FMR and State Health Budget data

Thus, the actual expenditure under NRHM comprises state spending on infrastructure maintenance (through state budget) and the expenditure incurred by SHS[9] under NRHM. The health expenditure including the NRHM component increased consistently on year on year basis during the period 2010-11 to 2013-14 (Table 34). The SHS expenditure also included the external funded projects other than NRHM. The total health expenditure increased from Rs. 3285 crore to Rs. 5543 crore during the same period. The expenditure through SHS dipped during the year 2011-12 and 2012-13 but increased over previous year during 2013-14. The share of NRHM in total health expenditure decreased from 36 percent to 26 percent during the period2010-11 to 2013-14 (Figure 17) while share of health expenditure other than NRHM increased from 64 percent to 74 percent.

9 *SHS also incur expenditure from funds other than NRHM as well.*

Figure 17: Share of NRHM in total health expenditure



The health expenditure at the state includes the expenditure incurred from both state's own fund as well as the funds received from GOI. The funds from GOI come in two parts one (for the infrastructure maintenance-NRHM) which is routed through state budget[10] while the other component of NRHM is routed through the SHS which is outside of the state budget. The GOI share of health expenditure in the state is calculated by adding the funds released through state budget with the GOI share of expenditure incurred at SHS (Expenditure at SHS is done using funds from both GOI and State). The GOI share of expenditure is calculated using the proportion of releases of GOI and State to SHS. The net state expenditure excluding the external funding increased from Rs 2219 crore to Rs 4481 during the period 2010-11 to 2013-14 (Table 35).

Table 35 Change in State's own contribution to state health expenditure over previous year (in percent)

Expenditure (Rs. In Crore)	**2010-11**	**2011-12**	**2012-13**	**2013-14**	**Average**
Total Health expenditure including NRHM	**3285**	**3729**	**4440**	**5543**	**4249**
GOI releases to state budget (Infrastructure Maintenance and others)[1]	318	407	303	326	338
GOI share of expenditure(SHS)	740	418	529	713	600
Total GOI share of expenditure	1058	825	832	1039	939
Total State Share (Rs. In crore)	2227	2904	3608	4504	3310
External Aided Project[2]	8	18	14	23	16
Net State Contribution (Rs. In Crore)	2219	2886	3594	4481	3295
% Change (YoY)		**30**	**25**	**25**	**20**
GOI share (%)	**32**	**22**	**19**	**19**	**22**
State Share (%)	**68**	**78**	**81**	**81**	**78**

[10] This comprises of funds for NRHM and other health schemes as well.

Share of Foreign funding3(%)	**0.24**	**0.49**	**0.31**	**0.42**	**0.4**

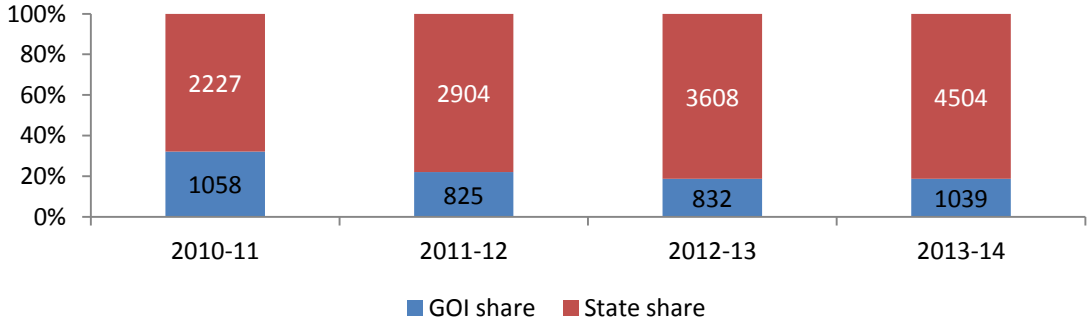
1 includes NRHM expenditure share and the other releases to state government (non NRHM)

2 spent through SHS

Compiled by CBPS from: FMR and State Health Budget data

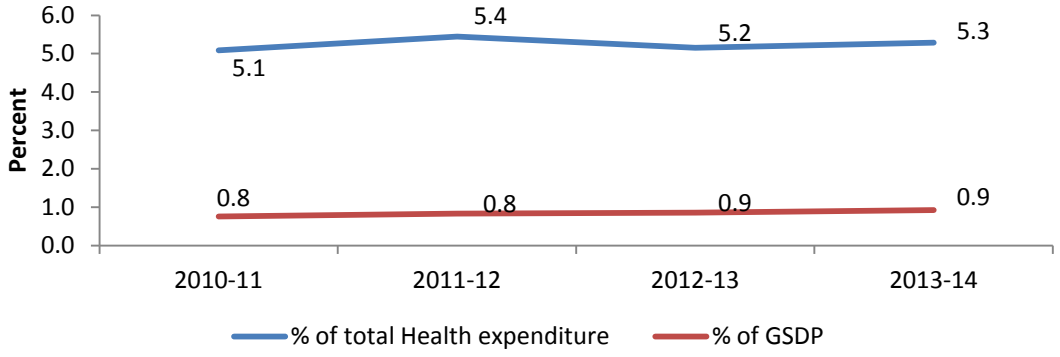
The year on year increase of state share of health expenditure was highest during 2011-12. The GOI share of health expenditure decreased in absolute terms from Rs. 1058 crore in 2010-11 to Rs. 825 crore in 2011-12 before increasing to Rs.1039 crore in 2013-14. The share of state in total health expenditure increased from 68 percent to 81 percent during the period 2010-11 to 2013-14 while that of Government of India decreased during the same period (Figure 18). External aided projects focused on improving health systems (Rajasthan Health Systems Project) as well as the institutional deliveries (NIPI- Yashoda).The share of external funding increased from 0.24 percent to 0.42 percent during the same period.

Figure 18: Share of GOI and state in total health expenditure



The health expenditure as a proportion of total state expenditure increased marginally from 5.1 percent to 5.3 percent 2010-11 to 2013-14. The health expenditure of state as percent of GSDP also increased marginally from 0.76 percent to 0.93 percent during the same period (Figure 19).

Figure 19: Health expenditure as percent of total health expenditure and as percent of GSDP



Note: *Table for the above graph is given in the Annexure 6*

The percapita expenditure on health increased from Rs. 324 to 654 during the period 2010-11 to 2013-14. The percapita health expenditure including NRHM has increased from Rs. 479 to 803 during the same period (Table 36. 37 and Figure 20).

Table 36: State, percapita Government health expenditure

Expenditure (Rs. In Crore)	2010-11	2011-12	2012-13	2013-14
Total Health expenditure including NRHM	3285	3729	4440	5543
Population 2011	68548437	68694445	68840764	68987395
Per capita Health expenditure (Rs.)	**479**	**543**	**645**	**803**

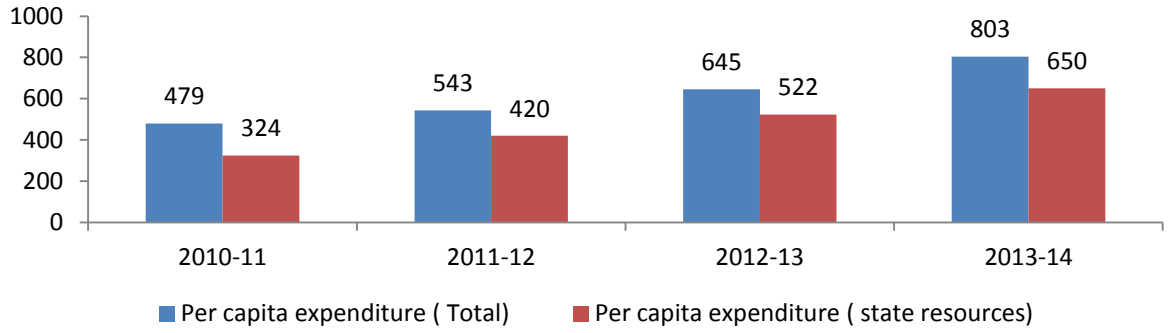
Compiled by CBPS from: FMR and State Health Budget data

Table 37: Per capita health expenditure by state's own resources

Expenditure (Rs. In Crore)	2010-11	2011-12	2012-13	2013-14
Expenditure of State (own resources) (Rs. In crore)	2219	2886	3594	4481
Population 2011	68548437	68694445	68840764	68987395
Per capita Health expenditure (Rs)	**324**	**420**	**522**	**650**

Compiled by CBPS from: FMR and State Health Budget data

Figure 20: Per capita health expenditure



The share of plan expenditure in total state expenditure increased from 45 percent to 52 percent during the period 2010-11 to 2013-14 (Table 38. The year on year growth of plan expenditure was highest during 2013-14 (Table 39). The Share of foreign funding has increased marginally from 0.24 percent to 0.42 percent during same period

Table 38: State's plan expenditure on health as proportion of state health expenditure

Expenditure (Rs. In crore)	2010-11	2011-12	2012-13	2013-14
Plan	1489	1781	2082	2858
Non Plan	1796	1949	2357	2685
Total Health expenditure (including NRHM)	3285	3729	4440	5543
% share of Plan	**45**	**48**	**47**	**52**

Compiled by CBPS from: FMR and State Health Budget data

Table 39 Change in state's plan expenditure on health (in percent)

Expenditure (Rs. In crore)	2010-11	2011-12	2012-13	2013-14
Plan	1489	1781	2082	2858
Non Plan	1796	1949	2357	2685
Total Health expenditure (including NRHM)	3285	3729	4440	5543
Change in Plan (YoY)%		**20**	**17**	**37**

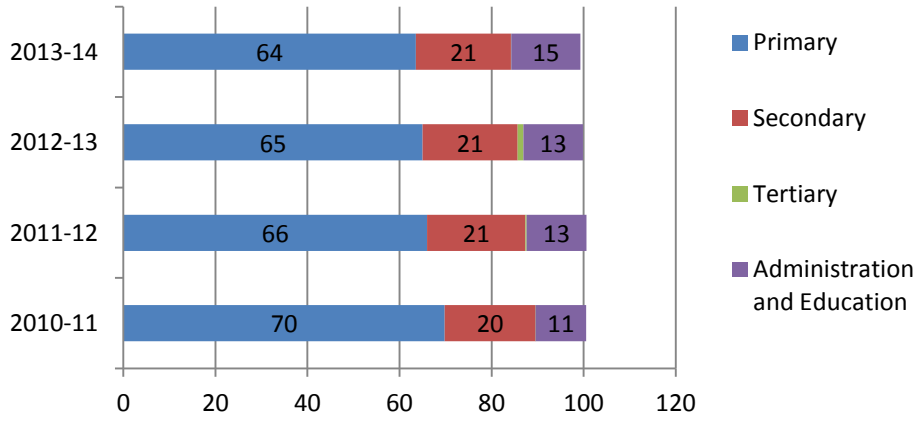
Compiled by CBPS from: FMR and State Health Budget data

The health expenditure of the state including the NRHM expenditure through the SHS is classified into primary, secondary and tertiary healthcare. This is based on the classification that the NHSRC toolkit used for analysis. The expenditures are classified into five categories. Apart from primary, secondary and tertiary healthcare, expenditures are also classified as administration and education expenses. The classification is done at the level of minor head and group head. Primary expenditure refers to the health services available close to people and this includes, PHCs, control of diseases etc while the secondary healthcare is Hospitals and dispensaries, First Referral Units etc. Tertiary healthcare includes teaching hospitals. Administration includes direction and administration while the education includes expenses on education, training, research and grant in aid. The administration and education expenses are also presented in our analysis as the expenses cannot be clubbed with primary or secondary healthcare. All the NRHM expenses under the SHS as well as expenses under family welfare (Major Head 2211) are classified as primary because of its main focus on primary healthcare. The share of expenditure on Primary healthcare decreased from 70 percent to 64 percent while expenditure on secondary care increased from 20 percent to 21 percent during the period 2010-11 to 2013-14 (Figure 21). The expenditure on tertiary healthcare was marginal compared to others while the expenditures on education and administration rose consistently from 2010-11 to 2013-14(Table 40).

Table 40: Primary, secondary and tertiary health care in total health expenditure

Expenditure (Rs. in Crore)	2010-11	2011-12	2012-13	2013-14
Primary	2294	2461	2887	3522
Secondary	648	796	916	1146
Tertiary	1	11	55	4
Administration	83	64	66	78
Education	260	398	516	793
Total	3285	3730	4439	5543

Figure 21: Share of Primary, Secondary and Tertiary healthcare in total expenditure



The capital health expenditure increased from 1 percent to 6 percent during the same period (Table 41). The state share in NRHM resource envelope increased from 15 percent to 20 percent during 2013-14 (Table 42).

Table 41: Capital health expenditure as percent of total health expenditure

Expenditure (Rs. In crore)	2010-11	2011-12	2012-13	2013-14
Capital expenditure	36	96	214	337
Total Expenditure (including NRHM)	**3285**	**3729**	**4440**	**5543**
% capital expenditure	**1**	**3**	**5**	**6**

Compiled by CBPS from: FMR and State Health Budget data

Table 42: State's own share in NRHM resource envelope (allocation)

Allocation (Rs. In Crore)	2010-11	2011-12	2012-13	2013-14
Resource envelope [a]	1208	1022	1462	1632
State share[b]	180	145	327	333
State's share (%)	**15**	**14**	**22**	**20**

Compiled by CBPS from: Record of Proceedings

a: Amount approved for the year by GOI (Record of Proceedings)

b: indicated in Record of Proceedings

The percapita expenditure on medicine and drugs increased from Rs 6 to Rs 18 during the period 2013-14(Table 43) while the share of expenditure on medicine and drugs increased from 1 to 2 percent during the same period (Table 44).

Table 43 Per capita expenditure on medicine and drugs

Medicine and Drugs expenditure (Rs. In Crore)	2010-11	2011-12	2012-13	2013-14
Through State budget	36	48	56	87
Under NRHM	5	16	7	77
Total exp on Medicine and drugs	**41**	**64**	**63**	**164**
Population (2011)	68548437	68694445	68840764	68987395
Per capita expenditure (Rs)	**6**	**9**	**9**	**24**

Compiled by CBPS from: FMR and State Health Budget data

Table 44: Medicine and drugs as percent of total health expenditure (revenue expenditure)

Expenditure (Rs. In Crore)	2010-11	2011-12	2012-13	2013-14
Medicine and drugs expenditure	**41**	**64**	**63**	**164**
Total Health expenditure(Revenue) including NRHM	3249	3634	4226	5206
% share	**1**	**2**	**1**	**3**

Compiled by CBPS from: FMR and State Health Budget data

The maintenance expenditure is the expenses incurred for the maintenance of the medical equipment and facilities both under state budget as well as the SHS. The lower maintenance expenditure is often clubbed with the other heads and it is difficult to identify the exact expenditure. The maintenance expenditure as percent of total health expenditure (revenue expenditure) decreased marginally from 0.36 percent to 0.35 percent during the period 2010-11 to 2013-14 (Table 45).

Table 45: Maintenance as percent of total health expenditure (revenue expenditure)

Expenditure (Rs. In Crore)	2010-11	2011-12	2012-13	2013-14
Maintenance Exp	12	14	13	18
Total health exp(Revenue) including NRHM	3249	3634	4226	5206
% share	**0.36**	**0.39**	**0.31**	**0.35**

Compiled by CBPS from: FMR and State Health Budget data

Conditional Cash Transfer (CCT) is provided for the eligible beneficiaries who avail benefits from the public health facilities/ authorized by public health facility. This is also to ensure that the facilities are provided as well as availed by the eligible persons. Janani Suraksha Yojna is one such CCT which is aimed at registering pregnancies, following up with the required immunization schedule leading up to institutional delivery. An amount of Rs 1400/- per delivery (BPL and for 2 children only) is being paid for the mother after giving birth in a hospital/under the supervision of trained birth attendant. The other CCT is for undergoing sterilization (male / female) after delivering two children. The CCT expenditure for beneficiaries of Janani Suraksha Yojna (JSY) and for the sterilizations has increased over years. The Conditional Cash Transfers (CCT) has decreased from 6 percent to 3 percent during the period 2010-11 to 2013-14. The CCT as percent of NRHM (SHS) also decreased from 24 percent to 17 percent during the same period (Table 46).

Table 46: Conditional cash transfers as percent of total health expenditure

Conditional Cash transfers (Rs. In Crore)	**2010-11**	**2011-12**	**2012-13**	**2013-14**
JSY and compensation for sterilizations	212	172	173	179
Total Expenditure	3285	3729	4440	5543
NRHM expenditure(SHS)	870	619	798	1041
CCT (as percent of health exp)	**6**	**5**	**4**	**3**
CCT (as percent NRHM exp)	**24**	**28**	**22**	**17**

Compiled by CBPS from: FMR and State Health Budget data

The HR expenditure as percent of health expenditure decreased from 51 percent to 47 percent during the period 2010-11 to 2013-14(Table 47). The share of contractual payments in total HR expenditure increased from 2 percent to 11 percent and again decreased to 9 percent (Table 48).

Table 47: Total expenditure on HR (salary, wages contractual payments) as percent of total health expenditure

HR expenditure (Rs. In Crore)	**2010-11**	**2011-12**	**2012-13**	**2013-14**	**Average**
Salaries	2057	2263	2548	2957	2546
Contractual payments and wages	16	37	56	84	48
NRHM- HR	25	197	195	179	149
Total HR expenditure	**2098**	**2497**	**2799**	**3219**	**2653**
Total Health expenditure	3285	3729	4440	5543	4249
HR expenditure (% of total health exp)	**64**	**67**	**63**	**58**	**63**

Compiled by CBPS from: FMR and State Health Budget data

Table 48: Total expenditure on contractual payments as percent of total HR (salary, wages and contractual payments)

HR expenditure (Rs. In Crore)	**2010-11**	**2011-12**	**2012-13**	**2013-14**
Contractual payments and wages	41	234	251	262
Total H R expenditure	**2098**	**2497**	**2799**	**3219**

% contractual payments in HR total	**2**	**9**	**9**	**8**

Compiled by CBPS from: FMR and State Health Budget data

The share of expenditure on procurement of medicine and equipment as a percent of total health expenditure increased from 0.4 percent to 2.46 percent during the period 2010-11 to 2013-14 while share of expenditure on procurement as percent of NRHM (SHS) increased from 1.52 percent to 13.1 percent during the same period (Table 49).

Table 49: Procurement (medicine and equipment) as percent of total health expenditure

Expenditure (Rs. In Crore)	**2010-11**	**2011-12**	**2012-13**	**2013-14**
Total Health expenditure	3285	3729	4440	5543
NRHM expenditure (SHS)	870	619	798	1041
Expenditure on Procurement	55	91	75	300
As % total health expenditure	1.7	2.4	1.7	5.4
As % NRHM expenditure	6.3	14.8	9.5	28.8

Compiled by CBPS from: FMR and State Health Budget data

The share of different components of NRHM (SHS) indicated that the program expenditure had the highest share followed by HR expenses and civil works (Table 50). The share of untied funds in NRHM (SHS) expenditure decreased from 5 percent to 2 percent (Table 51).

Table 50: Share of different components of NRHM expenditure (State Health Society)

Expenditure (Rs. In Crore)	**2010-11**	**2011-12**	**2012-13**	**2013-14**	**Total**	**%Share**
HR	25	197	195	179	595	**18**
Materials & Supplies	5	16	7	77	106	**3**
Civil works	150	6	175	8	339	**10**
ASHA	30	25	22	36	112	**3**
VHSNC	23	14	10	8	55	**2**
Others	637	360	390	734	2121	**64**
Total	**870**	**619**	**798**	**1041**	**3328**	**100**

Compiled by CBPS from: FMR

Table 51: Expenditure on untied funds as percent of total NRHM expenditure (SHS)

Expenditure (Rs. in crore)	**2010-11**	**2011-12**	**2012-13**	**2013-14**	**Total**
Total	**870**	**619**	**798**	**1041**	**3328**
Untied funds	43	30	23	21	117
% share of untied funds	**5**	**5**	**3**	**2**	15

Compiled by CBPS from: FMR and State Health Budget data

The trend analysis of budget indicated that allocation increased at the rate of 18 percent per annum while the expenditure increased at the rate of 22 percent during the period 2010-11 to

2013-14. The utilisation improved significantly from 87 percent to 95 percent during the same period (Table 52). The allocation and expenditure of NRHM (SHS) increased at the rate of 22 percent and 11 percent respectively during the 2010-11 to 2013-14. While the utilisation against allocation decreased from 90 to 70 percent, the unspent monies increased at rate of 77 percent during the same period (Table 53).

Table 52: Trend analysis of allocation expenditure and under-expenditure (Rs. in crore)

State budget(Rs. in crore)	2010-11	2011-12	2012-13	2013-14	CAGR (%)
Allocation	**2928**	**3655**	**3869**[a]	**5028**	**18**
Expenditure	**2562**	**3371**	**3946**	**4755**	**22**
Unspent	367	283	-76	273	
Utilisation (%)	**87**	**92**	**102**	**95**	

Compiled by CBPS from: State Health Budget data

a: Revised estimate was 4012 crore and utilisation was 98 %

Table 53: Trend analysis of allocation, expenditure and under-expenditure (Rs. in crore)

State Health Society (Rs. in crore)	2010-11	2011-12	2012-13	2013-14	CAGR (%)
Allocation	969	962	1315	1702	22
Expenditure	870	746	838	1193	11
Unspent	99	216	477	509	77
Utilisation (%)	**90**	**78**	**64**	**70**	

Compiled by CBPS from: FMR

The utilisation of MCH was highest followed by RCH and CH cumulative for the period 2010-11 to 2013-14. The utilisation rates decreased for RCH and MCH during the period 2010-11 to 2013-14 while it increased marginally for CH during the same period (Table 54).

Table 54: Allocation and Expenditure of RCH, MCH and CH for 2010-11 to 2013-14(Rs. in lakh)

SHS expenditure	2010-11	2011-12	2012-13	2013-14	Total
RCH (Allocation)	32910	47640	62220	68775	**211545**
RCH(expenditure)	28690	37818	44156	46024	**156689**
Utilization (%)	87	79	71	67	74
MCH (Allocation)	15460	24134	32682	34707	**106984**
MCH(expenditure)	18495	19798	25804	27369	**91467**
Utilization (%)	120	82	79	79	85
CH (Allocation)	5657	4761	9668	7646	**27733**
CH(expenditure)	3055	3008	4937	4603	**15603**
Utilization (%)	54	63	51	60	56

Compiled by CBPS from: FMR

The expenditure under Child Health components indicate the lower rates of under utilisation in almost all of the heads except for home based new born care (Table 55). The utilisation under immunization is a cause for serious concern. The utilisation under school health program, IYCF, and infant death audit were less than 25 percent. While lower utilization is a concern, it also raises the issues of estimation and releases. The lower utilisation under incentives to ASHA indicated that the estimated progress on child health is not made be it in immunization, or etc.

Table 55: Expenditure under different components of Child Health (Rs. in lakh)

CHILD HEALTH	Allocation	Expenditure	Utilization (%)
IMNCI	8	0	0.00
Facility Based Newborn Care (FBNC, SNCU, NBSU, NBCC)	769	358	46.58
Home Based Newborn Care	41	40	98.70
School Health Programme	202	43	21.19
Infant and Young Child Feeding (IYCF)	575	134	23.38
Care of Sick Children and Severe Malnutrition (NRC, SDNC)	912	338	37.09
Management of Diarrhoea, ARI and micronutrient malnutrition	10	1	11.80
Other Strategies / Activities	263	191	72.83
Infant Death Audit	35	6	17.13
Incentive to ASHA under child health	2050	195	9.53
JSSK for sick neonates up to 30 days	1606	784	48.81
Child Health Training	1453	896	61.62
Routine Immunization	18510	12357	66.76
Procurement of Drugs for School Health (IFA, Medicines -- under Procurement)	254	160	63.02
Drugs and Consumables (Other than those reflected in Procurement)	1046	99	9.50
Total	**27733**	**15603**	**56.26**

5.4 Analysis of Health Expenditure of TAMIL NADU

The year on year growth of the health expenditure was highest for the year 2012-13 followed by the year 2013-14. The capital expenditure decreased in the years 2011-12 and 2012-13 as compared to 2010-11 and increased significantly during 2013-14. The revenue expenditure showed a consistent increase during the period 2010-11 to 2013-14(Table 56).

Table 56: Change in health expenditure over previous year

Expenditure (Rs. In crore)	2010-11	2011-12	2012-13	2013-14	Average
Capital	326	200	304	589	355
Revenue	4076	4220	4986	5431	4678
Total	**4401**	**4420**	**5290**	**6020**	**5033**
% Change (YoY)		**0.4**	**19.7**	**13.8**	**8**

Compiled by CBPS from: State Health Budget data

The total health expenditure incurred at the state level comprises expenditure through state budget as well as the state health society (SHS). The expenditure through the state budget includes the state share of NRHM released to SHS and the expenditure on infrastructure maintenance (for which the funds are received from GOI under NRHM). While the releases to state health society are treated as actual expenditure in the books of the state government, it can be treated as actual expenditure only when SHS spends the money. Thus, the actual

expenditure under NRHM comprises state spending on infrastructure maintenance (through state budget) and the expenditure incurred by SHS[11] under NRHM.

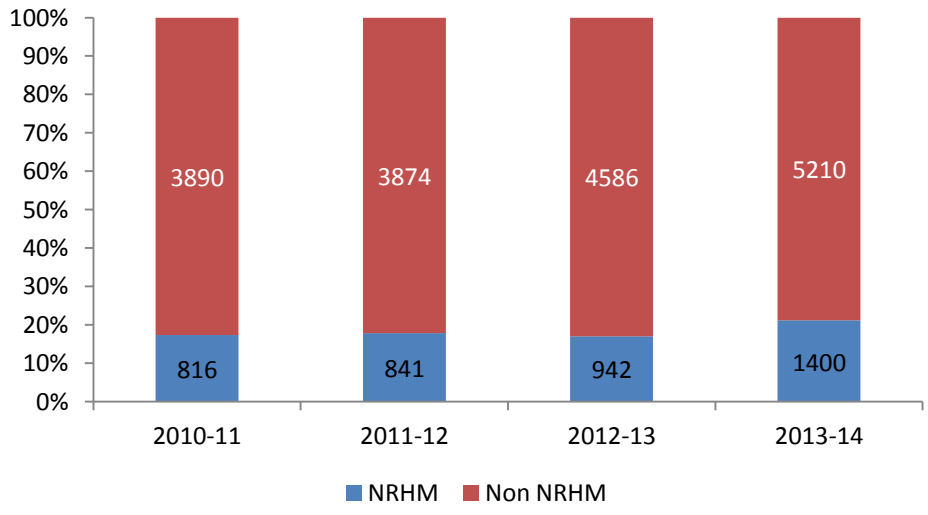
Table 57: Change in health expenditure over previous year including NRHM

Expenditure (Rs. in crore)	2010-11	2011-12	2012-13	2013-14	Average
a. Total expenditure through State Budget	4401	4420	5290	6020	5033
b. State share of NRHM (to state health society)	162	118	287	327	223
c. Expenditure of the State (a-b)	4239	4302	5003	5693	4810
d NRHM expenditure for infrastructure maintenance[1]	349	428	418	483	419
e state budget health expenditure (excluding NRHM) c-d	3890	3874	4586	5210	4390
f NRHM expenditure (SHS)	467	413	525	917	580
Total Health expenditure (d+e+f)including NRHM	**4706**	**4715**	**5528**	**6610**	**5390**
% Change (YoY) in health expenditure		**0.19**	**17.74**	**19.57**	**9**
NRHM expenditure(d+f)	816	841	942	1400	1000
Health expenditure (excluding NRHM)(e+g)	3890	3874	4586	5210	4390
Share of NRHM expenditure	17	18	17	21	18
Share of Health expenditure (excluding NRHM)	83	82	83	79	82

Compiled by CBPS from: FMR and State Health Budget data

The health expenditure including NRHM increased consistently during the period 2010-11 to 2013-14. Higher year on year increase was recorded during the year 2013-14(Table 57). The share of NRHM in the total health expenditure increased from 17 percent to 21 percent during the period 2010-11 to 2013-14 (Figure 22).

Figure 22: Share of NRHM in total health expenditure



[11] *SHS also incur expenditure from funds other than NRHM as well.*

The health expenditure at the state includes the expenditure incurred from both state's own fund as well as the funds received from GOI. The funds from GOI come in two parts one (for the infrastructure maintenance-NRHM) which is routed through state budget[12] while the other component is routed through the SHS which is outside of the state budget.

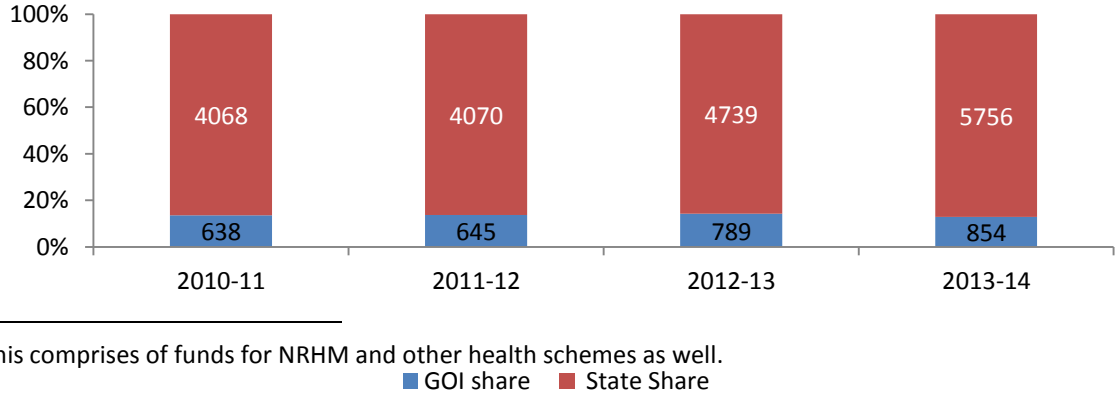
Table 58: Change in State's own contribution to health expenditure over previous year

Expenditure (Rs. in Crore)	2010-11	2011-12	2012-13	2013-14	Average
Total Health expenditure including NRHM	4706	4715	5528	6610	5390
GOI releases to state budget (Infrastructure Maintenance+ others)	305	322	458	236	330
GOI share of expenditure(SHS)	333	323	331	617	401
Total GOI share of expenditure	638	645	789	854	732
Total State Share (Rs. in crore)	4068	4070	4739	5756	4658
External Aided Project TNHSP	167	84	63	98	103
Net State Contribution (Rs. In Crore)	3901	3986	4676	5658	4555
% Change (YoY)		**2**	**17**	**21**	**10**
GOI share (%)	**14**	**14**	**14**	**13**	**14**
State Share (%)	**86**	**86**	**86**	**87**	**86**
Share of Foreign funding3	**4**	**2**	**1**	**1**	**2**

Compiled by CBPS from: FMR and State Health Budget data

The GOI share of health expenditure in the state is calculated by adding the funds released through state budget with the GOI share of expenditure incurred at SHS (SHS expenditure is done using funds from both GOI and state share). The GOI share of expenditure is calculated using the proportion of releases of GOI and State shares to SHS. The share of state in the total health expenditure increased from 86 percent to 87 percent during the period 2010-11 to 2013-14(Table 58 and Figure 23). The net contribution of the state excluding external aided project increased from Rs. 3901 crore to Rs. 5658 crore during the period 2010-11 to 2013-14. The year on year change was highest for the year 2013-14 at 21 percent. The share of centre in total health expenditure decreased marginally from 14 percent to 13 percent though the expenditures increased from Rs.638 crore to Rs. 854 crore during the period 2010-11 to 2013-14. The share of foreign funding in total health expenditure of the state decreased from 3.54 percent to 1.49 percent during the period 2010-11 to 2013-14.

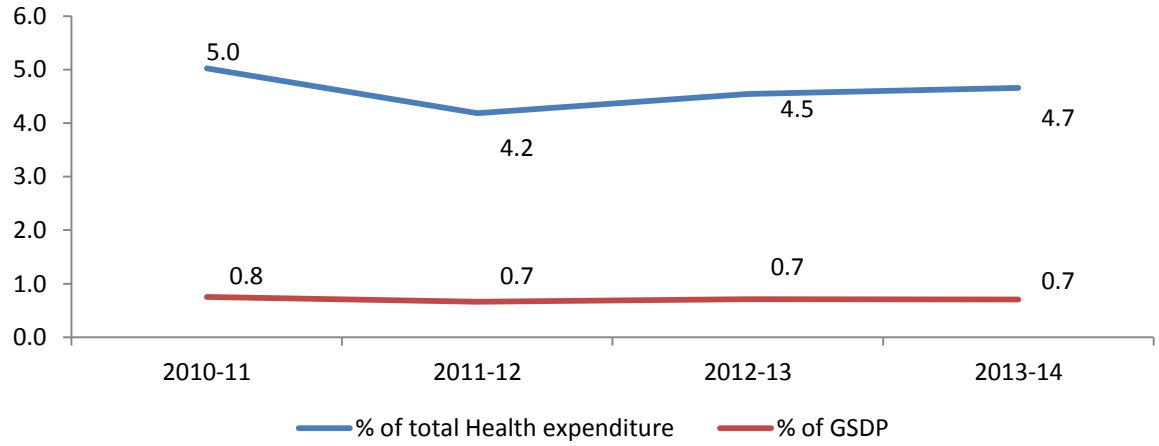
Figure 23: Share of GOI and state in total health expenditure



[12] This comprises of funds for NRHM and other health schemes as well.

The share of health expenditure in total expenditure of the state hovered around 5 percent during the period 2010-11 to 2013-14. The state health expenditure as percent of GSDP decreased from 0.75 percent to 0.7 percent during the same period (Figure 24).

Figure 24: State health expenditure as percent of total state expenditure and as percent of GSDP



Note: *Table for the above graph is given in the Annexure 6*

The per capita health expenditure by state's own resources increased from Rs 541 to Rs 784 during the period 2010-11 to 2013-14 while the percapita total health expenditure in the state increased from Rs 652 to Rs. 916 for the same period (Table 59. 60 and Figure 25).

Table 59: State's per capita Govt. Health Expenditure

Expenditure	2010-11	2011-12	2012-13	2013-14
Total Health expenditure (Rs. In crore)	4706	4715	5528	6610
Population (2011)	72138958	72251495	72364207	72477095
Per capita Health expenditure (Rs)	**652**	**653**	**764**	**912**

Compiled by CBPS from: FMR and State Health Budget data

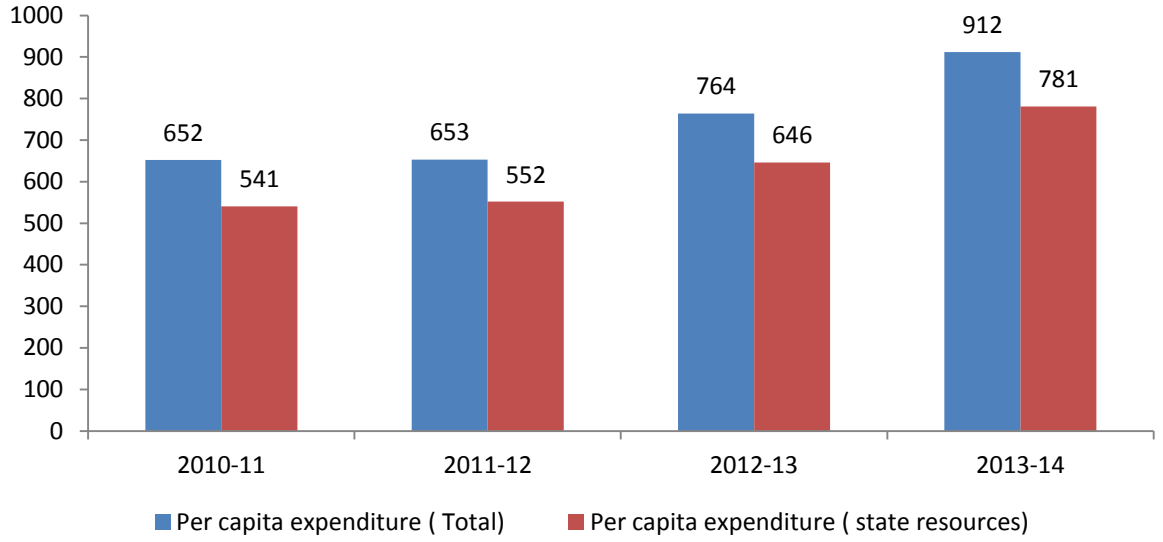
Table 60: Per capita health expenditure by State's own Resources

Expenditure	2010-11	2011-12	2012-13	2013-14
Expenditure of State (own resources) (Rs. In crore)[1]	3901	3986	4676	5658
Population 2011	72138958	72251495	72364207	72477095
Per capita Health expenditure (Rs)	**541**	**552**	**646**	**781**

Compiled by CBPS from: FMR and State Health Budget data

1 excluding GoI share and external funds

Figure 25: Per capita health expenditure



The share of plan expenditure on health decreased during the year 2011-12 to 39 percent and again increased to 47 percent in 2013-14. The year on year change was highest during the year 2012-13 which recorded 33.5 percent increase in plan expenditure over the previous year(Table 61 and 62).

Table 61: State Plan Expenditure on Health as proportion on State Health Expenditure

Expenditure (Rs. In crore)	2010-11	2011-12	2012-13	2013-14
Plan	2250	1852	2473	3124
Non Plan	2456	2863	3055	3486
Total Health expenditure (including NRHM)	**4706**	**4715**	**5528**	**6610**
% share of Plan	**48**	**39**	**45**	**47**

Compiled by CBPS from: FMR and State Health Budget data

Table 62: Change in State's Plan Expenditure on Health (in percent)

Expenditure (Rs. In crore)	2010-11	2011-12	2012-13	2013-14
Plan	2250	1852	2473	3124
Non Plan	2456	2863	3055	3486
Total Health expenditure (including NRHM)	**4706**	**4715**	**5528**	**6610**
Change in Plan (YoY)%		**-17.68**	**33.50**	**26.34**

Compiled by CBPS from: FMR and State Health Budget data

The health expenditure of the state including the NRHM expenditure through the SHS is classified into primary, secondary and tertiary healthcare. This is based on the classification that the NHSRC toolkit used for analysis. The expenditures are classified into five categories. Apart from primary, secondary and tertiary healthcare, expenditures are also classified as administration and education expenses. The classification is done at the level of minor head and group head. Primary expenditure refers to the health services available close to people and this includes, PHCs, control of diseases etc while the secondary healthcare is Hospitals and dispensaries, First Referral Units etc. Tertiary healthcare includes teaching hospitals.

Administration includes direction and administration while the education includes expenses on education, training, research and grant in aid. The administration and education expenses are presented our analysis as the expenses cannot be clubbed with primary or secondary healthcare. All the NRHM expenses under the SHS as well as the family welfare expenses (2011) are classified as primary because of its main focus on primary healthcare.

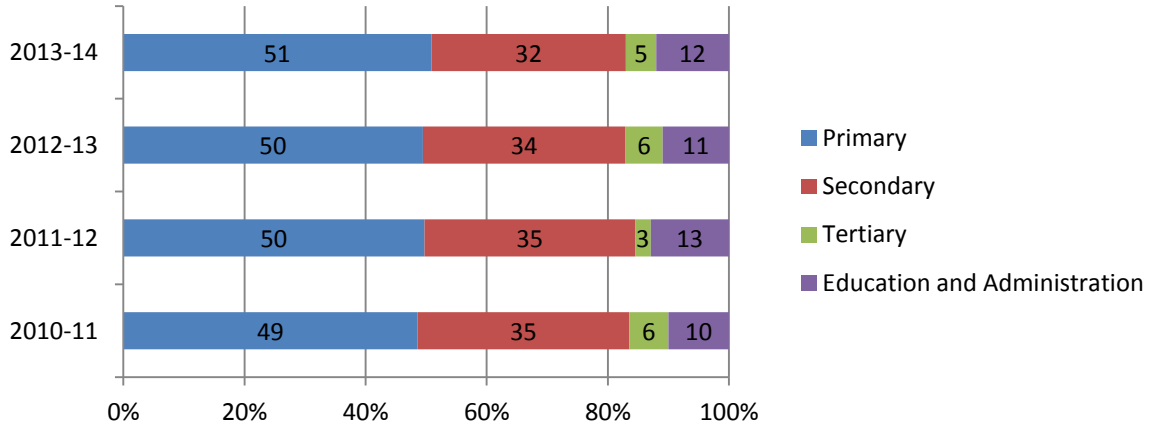
The primary healthcare expenditure increased from Rs 2292 crore to Rs. 3369crore in absolute terms while its share in total health care expenditure increased marginally from 49 percent to 51 percent during the period 2010-11 to 2013-14. The share of tertiary healthcare expenditure increased marginally from 16 percent to 17 percent during the same period (Table 63).

Table 63: Proportion of Primary, secondary and tertiary healthcare in total expenditure

Expenditure (Rs. in Crore)	2010-11	2011-12	2012-13	2013-14
Primary	2292	2365	2753	3369
Secondary	1650	1653	1862	2128
Tertiary	305	124	343	333
Administration	435	546	541	744
Education	25	27	29	36
Total	4706	4715	5528	6610

Compiled by CBPS from State Health Budget Data and FMR

Figure 26: Share of Primary, Secondary, tertiary and others in HE



The share of capital expenditure increased from 6.9 percent to 8.9 percent during the same period (Table 64).

Table 64: Capital health expenditure as percentage of total public health expenditure

Expenditure (Rs. in crore)	2010-11	2011-12	2012-13	2013-14
Capital expenditure	326	200	304	589
Total Expenditure (including NRHM)	**4706**	**4715**	**5528**	**6610**
% capital expenditure	**6.92**	**4.25**	**5.50**	**8.91**

Compiled by CBPS from: FMR and State Health Budget data

The share of state in NRHM resource envelope increased from 13 percent to 22 percent during the period 2010-11 to 2013-14 (Table 65).

Table 65: State's own share in NRHM resource envelope (allocation) in percent

Allocation (Rs. In Crore)	2010-11	2011-12	2012-13	2013-14
Resource envelope [a]	871	901	1364	1320
State share[b]	116	135	289	295
State's share (%)	**13**	**15**	**21**	**22**

Compiled by CBPS from: FMR and State Health Budget data
a: Amount approved for the year by GOI (Record of Proceedings)
b: indicated in Record of Proceedings

The percapita expenditure on medicine and drugs increased from Rs. 7 to Rs 39 during the period 2010-11 to 2013-14 while the expenditure on medicine and drugs as a percent of total health expenditure increased from 1 percent to 4 percent during the same period (Table 66 and 67).

Table 66: Per capita expenditure on Medicines and Drugs

Medicine and Drugs expenditure (Rs. in Crore)	2010-11	2011-12	2012-13	2013-14
Through State budget	50	212	138	260
Under NRHM	3	14	8	22
Total exp on Medicine and drugs	**53**	**226**	**146**	**282**
Population (2011)	72138958	72251495	72364207	72477095
Per capita expenditure (Rs)	**7**	**31**	**20**	**39**

Compiled by CBPS from: FMR and State Health Budget data

Table 67: Expenditure on medicines and drugs as percent of total health expenditure (revenue expenditure)

Expenditure (Rs. In Crore)	2010-11	2011-12	2012-13	2013-14
Medicine and drugs expenditure	**53**	**226**	**146**	**282**
Total Health expenditure(Revenue) including NRHM	**4706**	**4715**	**5528**	**6610**
% share	**1**	**5**	**3**	**4**

Compiled by CBPS from: FMR and State Health Budget data

The maintenance expenditure as percent of total health expenditure increased for three years from 2010-11 to 2012-13 and dipped during 2013-14(Table 68). The share of CCT accounted for 7 to 9 percent of the total health expenditure which is a significant amount (Table 69). The CCT under JSY (which is payment of Rs 1400 per beneficiary) is less while the state scheme Muthulakshmi Reddy scheme (pays Rs.12000 per beneficiary) is not part of NRHM. Though this is a core maternal health care expenditure it is being spent under social security head[13].

Table 68: Maintenance as percentage of total health Expenditure (revenue expenditure)

Expenditure (Rs. In Crore)	2010-11	2011-12	2012-13	2013-14
Maintenance Exp	13	16	30	16
Total health exp(Revenue) including NRHM	4706	4715	5528	6610
% share	**0.27**	**0.33**	**0.54**	**0.24**

[13] This is not included in our calculation of health expenditure

Compiled by CBPS from: FMR and State Health Budget data

Table 69: Conditional Cash Transfers as percentage of total health Expenditure

Conditional Cash transfers	2010-11	2011-12	2012-13	2013-14
JSY and compensation for sterilizations	55	49	47	56
Muthulakshmi Reddy scheme[1]	264	390	444	450
Total CCT	**319**	**439**	**492**	**507**
Total Expenditure	4706	4715	5528	6610
NRHM expenditure(SHS)	467	413	525	917
CCT (as percent of health exp)	**7**	**9**	**9**	**8**
CCT (as percent NRHM exp)	**68**	**106**	**94**	**55**

1This is a CCT but spent under social security and welfare (2235) though expenses are maternal related.
Compiled by CBPS from: FMR and State Health Budget data

The share of HR expenditure in the total health expenditure increased marginally from 48 percent to 52 percent during the period 2010-11 to 2013-14. The share of contractual payments in the total HR expenditure increased from 2.8 percent to 4.1percent during the same period (Table 70 and 71).

Table 70: Total expenditure on HR (salary, wages, contractual payments) as percent of total health expenditure

HR expenditure (Rs. In Crore)	2010-11	2011-12	2012-13	2013-14	Average
Salaries	2256	2632	2755	3288	2733
Contractual payments and wages	14	18	17	32	20
NRHM- HR	52	91	91	111	86
Total HR expenditure	**2322**	**2741**	**2862**	**3432**	**2839**
Total Health expenditure	4706	4715	5528	6610	5390
HR expenditure (% of total health exp)	**49**	**58**	**52**	**52**	**53**

Compiled by CBPS from: FMR and State Health Budget data

Table 71: Total expenditure on contractual payments as percentage of total HR (salary, wages, contractual payments)

HR expenditure (Rs. In Crore)	2010-11	2011-12	2012-13	2013-14
Contractual payments and wages	65	109	107	143
Total H R expenditure	**2322**	**2741**	**2862**	**3432**
% contractual payments in HR total	**2.82**	**3.98**	**3.75**	**4.18**

Compiled by CBPS from: FMR and State Health Budget data

The procurement expenditure as percent of total health expenditure decreased during years 2011-12 and 2012-13 and increased to 5 percent during 2013-14. The share of program expenses was highest followed by HR expenditure among the expenditures from SHS (Table 72 and 73).

Table 72: Procurement (equipment and medicines/drugs) as percentage of total health expenditure

Expenditure (Rs. In Crore)	2010-11	2011-12	2012-13	2013-14
Total Health budget	4706	4715	5528	6610
NRHM expenditure	467	413	525	917

Expenditure on Procurement	77	242	154	328
As % total health budget	2	5	3	5
As % NRHM expenditure	17	59	29	36

Compiled by CBPS from: FMR and State Health Budget data

Table 73: Share of different components of NRHM expenditure (State Health Society)

Expenditure (Rs. in Crore)	2010-11	2011-12	2012-13	2013-14	Total	%Share
HR	52	91	91	111	345	15
Materials & Supplies	3	14	8	22	47	2
Civil works	19	47	28	64	158	7
ASHA	0	1	2	4	8	0
VHSNC	16	13	14	11	54	2
Others	377	246	382	704	1710	74
Total	**467**	**413**	**525**	**917**	2321	100

Compiled by CBPS from: FMR

The share of untied funds decreased from 2.9 percent to 1.5 percent during the period 2010-11 to 2013-14 (Table 74).

Table 74: Expenditure on untied funds as percent of total NRHM expenditure

Expenditure (Rs. in crore)	2010-11	2011-12	2012-13	2013-14	Total
Total Expenditure	**467**	**413**	**525**	**917**	2321
Untied funds	14	15	15	14	58
% share of untied funds	**2.92**	**3.63**	**2.92**	**1.56**	**2.51**

Compiled by CBPS from: FMR

The expenditure against the allocation for health in state budget indicates higher utilisation over the years (Table 75). (The allocation for health other than in Demand 19 was not available). The utilisation under SHS was highest during the year 2013-14 at 47 percent while it was lowest in 2012-13 at 36 percent (Table 76).

Table 75: Trend analysis of allocation, expenditure and under-expenditure (State Budget)

(Rs. in crore)

State budget	2010-11	2011-12	2012-13	2013-14	CAGR (%)
Allocation	**3437**	**3814**	4750	5691	19
Expenditure	**4401**	**4420**	**5290**	**6020**	**12**
Unspent	-964	-606	-540	-329	
Utilisation (%)	**128**	**116**	**111**	**106**	

Table 76: Trend analysis of allocation, expenditure and under-expenditure (State Health Society)

(Rs. in crore)

SHS	2010-11	2011-12	2012-13	2013-14	CAGR (%)
Allocation	1035	1110	1472	1948	24
Expenditure	467	413	525	917	25
Unspent	568	697	948	1031	23
Utilisation (%)	**45**	**37**	**36**	**47**	

6. Healthcare and Utilisation of Public Health Expenditure - Issues

Understanding of the issues with the access and utilisation of maternal and child health care services becomes critical for improving the strategies. While it is noteworthy that health infrastructure is being improved and several health initiatives are implemented, ensuring that health services are delivered to people is equally important. This is more so in case of maternal and child health issues. Apart from improving the health care facilities and recruiting healthcare personnel, it is also important to focus on the issues of the access and utilization of healthcare services. The access and utilisation of services largely depends on the certainty of availability of services (by way of availability of personnel and facilities) as well as the reach of the services. The infrastructure like the good roads, availability of electricity, running water and clean toilets becomes equally important in determining the access to healthcare particularly maternal and child healthcare services.

People prefer to go to health centres where the availability of facilities and health personnel are more certain. As the NRHM evaluation by the Planning Commission (2009) notes that many 24X7 facilities fail to become effective because of poor access and fewer personnel and facilities. The availability of connectivity (roads) results in villagers preferring well equipped facilities with full complement of health officials even though they may be a little far way compared to nearby single doctor PHCs or single nurse sub centres. A study by Kritika Goel and Reetika (2015) indicated basic infrastructure of electricity; running water and clean toilets were found only in 14 percent of PHCs in Bihar where as it was found in 71 percent of PHCs in Rajasthan and 80 percent in Himachal Pradesh. The Draft National Health Policy 2015 points out that the 80 percent increase in the public health services (increase in outpatient and inpatient services, institutional deliveries) were through 20 percent of public health facilities which signifies the importance of positioning of the health facilities, equipping them with adequate human resources, infrastructure and consumables in ensuring of higher utilisation of public health services. The efforts by Rajasthan state in terms of ensuring essential drugs for free and conducting essential medical investigations for free has scaled up the utilisation of health services into manifold. The DANIDA intervention in Tamil Nadu gave a big push for health information systems which resulted in the identification of locale specific issues further leading to specific interventions. Tamil Nadu was successful in positioning the PHCs and upgrading them in to CHCs based on need. Tamil Nadu made significant strides in reducing MMR and IMR because of its ability to identify the critical gaps which were unique in nature for certain areas, and tackle them in a comprehensive manner. Tamil Nadu found shortage of anesthetists and provided training to regular doctors on anesthesia. Staff nurse willing to work in rural areas were given additional incentive, bonus as well as higher performance incentives. Investment in roads and transport helped to ensure the target of reaching referral hospital within one hour in case of emergency.

The other important issue in improving the access to healthcare particularly the maternal and child health is to understand the role of behavioral change communication (BCC) in ensuring

the maternal and child health services from public institutions. The efforts in early 20th century in Tamil Nadu proved to be very helpful in changing the health seeking behaviour of the people. Be it self-respect marriages or bangle ceremonies[14] done by the PHCs have had significant impact on the health seeking behaviour.

Pratilekha Chatterjee (2013) found that marriages among females below legal age varied from 3.0 percent in Uttarakhand to 21.9 percent in Rajasthan. She found that in rural areas, every 4th marriage among females in Rajasthan and every 5th in Bihar and Jharkhand took place below the legal age. This early marriage resulted in early pregnancies, higher morbidity and mortality rates. The study also pointed out need for integration of efforts and activities of health, social and development sectors to tackle these issues in holistic manner.

As the NIPI report (2011) indicated, in the states of Bihar and Rajasthan, the process of child bearing, birth and postpartum is seen as a normal process that does not require any intervention from medical doctor or any medical facility unless there is an emergency. Women have found it to be comfortable at home using services of a dai rather than having deliveries at hospital. The NIPI report(2011) indicated that surveyed women in Rajasthan felt that they would feel exposed to male doctors, nurses and ward boys in the healthcare facility and also newborn babies would be vulnerable to *nazar* which is harmful to mother and child. As a part of NIPI initiative, Yashoda was launched in Rajasthan (2 districts) and in Odisha (1 district) to ensure that the pregnant women feel safe, secure and confident in obtaining the medical facilities at PHCs and follow up with post natal care which was successful in changing the behavior of the pregnant women. Yashodas were positioned at health facilities to be mother's aides. As the NIPI initiative demonstrates, the solutions have to be location specific and interventions should be informed of socio-cultural issues. A study in Jharkhand revealed that the utilisation of Janani Suraksha Yojana was largely due to improvement in the facilities at PHCs and availability of ANM /Trained Birth Assistant rather than the monetary benefits. PRACHAR[15] – an initiative in Bihar to provide health education to adolescents, young couples had significantly impacted on increasing the marriage age of girls, decreasing total fertility rates and spacing between births as well as the use of health services from the public institutions.

An effort for provisioning of basic health infrastructure and facilities is only the first step towards ensuring efficient public health services. Electricity supply and availability of running water, clean environment at the health centre as well as provision of all weather roads and availability of public transport play critical role in utilisation of public health services. The investment in BCC and health education is critical for ensuring the increased access and utilisation of maternal and child health services from public hospitals. This also

[14] Bangles are given for pregnant women (in odd month) by holding a ceremony. PHCs conduct it in mass and also ensure the ante natal check- ups (of late -food is also provided to pregnant woman during her visits to PHC)

[15] **P**romoting **C**hange in Reproductive Behavior of Adolescents- initiative of Pathfinder International (2001-2012)- http://www.pathfinder.org/publications-tools/pdfs/PRACHAR_Advancing_Young_Peoples_Sexual_and_Reproductive_Health_and_Rights_in_India.pdf

highlights the need for a multipronged approach with location specific interventions. As the study by Pratilekha Chatterjee (2013) endorses, health outcomes are the result of good governance in many sectors, not just healthcare. It is important to have inter-sectoral action for health so that resources that are invested in the coming years yield proportionate benefits

The study on determinants of public expenditure on health in India by Shailender Hooda (2015) indicated that fiscal capacity of state is critical and has a very positive effect in increasing the public expenditure on health. Every one percent increase in fiscal capacity of state would result in 0.13 percent increase in public expenditure on health. This also indicate the importance of augmenting the resources of state which becomes crucial for enhancing the health infrastructure both physical and human resource in a consistent manner.

7. Conclusions

The fiscal capacity of Tamil Nadu is more than that of Rajasthan and Bihar and therefore has the higher potential to fund to the health needs of the state. This is also reflected in higher capital expenditure incurred by Tamil Nadu as compared to the other two states for the period 2010-11 to 2013-14. The higher fiscal capacity and higher capital expenditure would help in improvement of efficiency of revenue expenditure as well as the utilisation of funds from GOI.

The share of health expenditure as a percent of total expenditure of the state was highest in Rajasthan followed by Tamil Nadu and Bihar. The share of health expenditure as percent of GSDP was 1 percent in Bihar and Rajasthan while it was 0.9 percent in Tamil Nadu. This indicates the higher focus being given by the states of Rajasthan and Bihar towards health sector. Given that the average total expenditure of Bihar and Rajasthan is at similar levels, the health expenditure incurred by Rajasthan is relatively much higher than Bihar. The latest SRS surveys indicate higher IMR, MMR and U5 MR (SRS 2013) in Rajasthan than Bihar which is above the all India average. This justifies the need for higher expenditure on health.

The average annual health expenditure was highest in Tamil Nadu followed by Rajasthan and Bihar. The health expenditure of Bihar was less than half of Tamil Nadu while the health expenditure with NRHM funds was about 55 percent of health expenditure in Tamil Nadu. The per capita expenditure was highest in Tamil Nadu followed by Rajasthan and Bihar. The difference was three times between Bihar and Tamil Nadu. The per capita expenditure by GOI funds was highest (owing to higher utilisation under SHS) in Rajasthan followed by Tamil Nadu and Bihar. While all the three states spent more than releases by GOI on infrastructure maintenance, the expenditure under SHS was highest in Rajasthan while Bihar and TamilNadu had savings against releases to SHS.

The growth rates of allocation and expenditure under state health budget was highest in Rajasthan while the growth rates of allocation and expenditure under SHS was highest in Tamil Nadu. The utilisation was higher in Rajasthan (94 percent) than in Bihar (78 percent)

under state budget. Similar trend was observed in under SHS where in utilisation was 72 percent in Rajasthan and 59 percent in Bihar.

The NRHM expenditure was highest in both absolute terms (Rs. 1328 crore) and its share (47 percent) in total expenditure in Bihar, followed by Rajasthan and Tamil Nadu. The share of NRHM decreased from 64 percent to 44 percent in Bihar, 36 percent to 26 percent in Rajasthan while it increased from 17 percent to 21 percent in Tamil Nadu during the period 2010-11 to 2013-14. This also reflects the state health priorities which indicate that focus of NRHM was large in Bihar while its focus was little less in Rajasthan and Tamil Nadu.

The share of State expenditure in total health expenditure of state increased from 64 percent to 69 percent in Bihar, 68 percent to 81 percent in Rajasthan and 86-87 percent in Tamil Nadu during the period 2010-11 to 2013-14. This indicates that the expenditure on health by the state has increased significantly in Rajasthan while it had increased marginally in Bihar.

The share of HR expenses was highest in Rajasthan at 63 percent followed by Bihar at 58 percent and Tamil Nadu (53 percent). The share of contractual payments under HR expenditure was highest in Bihar at 20 percent followed by Rajasthan (8 percent) and Tamil Nadu (4 percent). This also reflects upon the availability of health personnel in terms of permanent staff. Similar trend was found in the HR expenditure under State Health Society.

The share of Conditional Cash Transfers (CCT) expenses was highest in Bihar (34 percent of SHS expenses) followed by Rajasthan (23 percent) and Tamil Nadu (10 percent). This also reflects higher focus of the expenditure on Maternal and Child health (institutional deliveries and sterilizations) in Bihar. The CCT by way of a state scheme in Tamil Nadu (Muthulakshmi Reddy scheme) during the year 2011-12 was Rs 390 crore while the expenditure under SHS was Rs. 413 crore.

The utilisation under RCH, MCH and CH was 74 percent, 85 percent and 56 percent respectively in Rajasthan while it was 68 percent, 73 percent and 34 percent in Bihar respectively. The lower utilizations under MCH and CH especially in Bihar highlight the complementary nature of the program expenses which are dependent on the availability of personnel and health facilities. The utilisation under the child health components was 34 percent in Bihar while it was 56 percent in Rajasthan.

8.Recommendations

a. Public investments are critical and are the first step in improving healthcare system especially in rural areas or where the concentration of poor population is higher. This is critical to ensure the demand side financing (such as JSY) to work effectively.

b. State level planning based on assessment of health sector needs and fixing of targets at district level is important for realistic allocation of funds and their utilisation.

c. USAID defines health systems strengthening as 'a process that concentrates on ensuring that people and institutions, both public and private, undertake core functions of the health system (i.e. 1. governance, 2. financing, 3. service delivery, 4. health workforce, 5. information, and 6. medicines/vaccines/other technologies) in a mutually enhancing way, to improve health outcomes, protect citizens from catastrophic financial loss and impoverishment due to illness, and ensure consumer satisfaction, in an equitable, efficient and sustainable manner.' Investing on strengthening of health systems as in Tamil Nadu is an important step towards ensuring the improved healthcare services especially for poor and marginalized sections. System strengthening includes financial management which becomes critical in planning and utilisation of funds.

d. The Muthulakshmi Reddy scheme in Tamil Nadu is operated entirely online with no scope for corruption and facilitates accurate accounting. The process of this scheme could be emulated.

Muthulakshmi Reddy Maternity Benefit Scheme (MRMBS) in Tamil Nadu

Muthulakshmi Reddy Maternity Benefit Scheme (MRMBS), named after Tamil Nadu's first woman doctor and social activist, was started in 1987. It is a a childbirth assistance scheme where a cash assistance of Rs. 300 was given to Below Poverty Line (BPL) beneficiaries to cover the expenses of child birth and this was increased to Rs. 500 in 1995. In 2006, the cash assistance to pregnant woman was increased to Rs. 6000 with an objective of preventing low birth weight in babies (<2.5 kg) by compensating mother's wage loss during pregnancy and for consuming nutritious food. The cash assistance was doubled to Rs. 12000 from year 2011. The scheme runs on an online system with no scope for manipulation.

This conditional cash transfer is disbursed in three equal installments to support for nutrition of pregnant woman, loss of wage and for availing the transport. Clear conditions are stipulated for the release of each of the three installments. After the registration of pregnant woman in the concerned PHC, an ID (PICME) is issued in her name. First installment of Rs. 6000 is released after the pregnant woman has availed minimum of 3 ANCs after registration along with stipulated tests (blood grouping, Hemoglobin, BP and weight recorded every visit, etc). Second installment is released after the delivery in government hospitals (health centres/medical college hospitals) and the third installment is released after the third dose of DPT/Hepatitis B and polio vaccine.

Beneficiary has to open a bank account in nationalized bank. Fund transfer is directly done to the beneficiary's bank account. All the details of health check-ups, delivery and the immunizations are to be entered by the health officials against the unique ID online for the beneficiary to get the monetary benefit. This has helped the department to understand the service availing pattern across different locations apart from achieving the transparency in the disbursement of the cash assistance.

e. Increasing the facilities at health centres like the free medicines/free testing in Rajasthan would not only help in early detection of health problems of poor but also encourages the demand and use of public facilities. The ASHASoft implementation for ensuring transparent and regular payment of incentives to ASHA has been a model worth emulation by other states.

ASHASoft in Rajasthan

Accredited Social Health Activist (ASHA) is an important interface between community and health services which was introduced with National Rural Health Mission (NRHM) in 2005-06. ASHA forms the large part of the health care workers. In Rajasthan ASHA is referred to as ***ASHA Sahayoginis*** who work jointly between Health and Women & Child Development Departments. ASHAs are selected by Gram Panchayats and works with the help of Anganwadi Centres. The roles of ASHA include the functions of a health care facilitator, a service provider and a health activist.

In Rajasthan approximately 52000 (2014-15) ASHA workers are working and offering various healthcare services to the community. ASHA Sahayoginis are paid incentives against 26 different types of services offered at different points of time and from different channels. Complex fund flows for ASHA payment from multiple budget heads caused delays and lack of transparency in payments.

ASHASoft is web-based software launched in December 2014 with key objectives of ensuring timely and transparent online payment to ASHAs and to improve the system of monitoring. ASHASoft was developed by the State health Mission in collaboration with National Informatics Center, Rajasthan State Unit. The ASHA fills in the Monthly Claim Form for submission to the ANM on the 26th of every month which is verified by ANM and entered into ASHASoft by supervisor at PHC. Payment to ASHA is sanctioned by the concerned medical officer of the PHC which is finally approved by 4th of every month. The payment is then transferred into the ASHA's bank account directly from state headquarters by 7th of every month (from a separate account that has been opened for ASHA incentives) followed by an SMS alert to ASHA Sahayogini. ASHASoft also captures beneficiary wise details of services given by ASHA to the community and generates various reports to monitor the progress of the program. ASHAsoft has led to fixed day payment of ASHA incentives, reducing delays and establishing transparency in the payment process. It has also improved entry of beneficiaries in Pregnant-Child Tracking System (PCTS) as both data bases are interlinked for payment verification. This software has also enabled programme managers to capture the performance of ASHAs based on incentives earned for a range of activities and maintain detailed database of ASHAs and their activities which is also used to fine tune the services of ASHA. Since all incentives are drawn from single account through core banking system, it has resulted in avoiding balances in various bank accounts meant for ASHA incentives at different locations and also by helping in optimal use of funds for ASHA incentives. The accounting of expenses has also become easier and faster.

http://ashasoft.raj.nic.in/

f. Tamil Nadu strategically upgraded selected PHCs into CHCs based on the assessment of need instead of uniform upgradation of block level PHCs which paid off well. Similarly recruitment strategies for hilly areas and other areas which needed higher attention were different from rest of the areas. The personnel were provided with additional incentives, more training were provided to deal with the emergencies.

g. Investing on behavioural change communication (BCC) through community oriented programmes which were followed up by VHN yielded good results in Tamil Nadu. Initiatives like providing food for the attendant along with pregnant woman who had turned up for ANC has been welcomed very well.

h. Focusing on the integrated approach for health sector is the need of the hour. Better roads, public transport, hygienic conditions at health centres by way of proper maintenance, availability of running water and electricity along with the availability of health personnel, equipments and medicines can be more productive (DNHP indicates that 80 percent of increased services provided by 20 percent of the utilities) than provision of health centres by population norms with little efforts to increase utilisation of services.

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Annexure 1: Field Visits to Bihar, Rajasthan and Tamil Nadu

Place	Dates	Offices visited
Patna, Bihar	June 14-19, 2015	Department of Finance, Department of Health and Family Welfare, State Health Society, Bihar
Jaipur, Rajasthan	June 9-13, 2015	Department of Finance, State Health Society, Rajasthan and Treasury department, Government of Rajasthan
Chennai, TamilNadu	August 28-30, 2015	Department of Finance, Government of TamilNadu, State Health Society, TamilNadu

Annexure 2 Basic Demographic characteristics of Sample States

Particulars	Tamil Nadu	Bihar	Rajasthan
Area (sq Km)	130058	94163	342239
Population	72138958	104099452	68548437
Population density per sq Km	555	1106	200
Decadal growth rate (2001-2011) in percent	15.6	25.4	21.3
SC percent	20.01	15.9	17.9
ST percent	14.21	1.3	13.5
Percent BPL population (2011-12) (Tendulkar committee)	11.28	33.74	14.71
Literacy rate (percent)_	80.33	63.82	67.06
Male literacy rate (percent)_	86.81	73.39	80.51
female literacy rate (percent)_	73.86	53.33	52.66
Work participation rate Total (percent)_	45.6	33.4	43.6
Male WPR (percent)_	59.3	46.5	51.5
Female WPR (percent)_	31.8	19.1	35.1
Percent Households with access to Lighting (electricity)	93.4	16.4	67
Percent Households with access to drinking water (tap/tube well/hand pump)	92.5	94	78.1
Percent Households with access to Tap water (treated)	55.8	3.1	32
Percent Households with access to latrine	48.3	23.1	35
Percent Households with sewer connections	14.4	1.8	7.2
Banking services	52.5	44.4	68
clean cooking fuel (LPG/Bio Gas/electricity)	48.3	8.5	22.9
GSDP 2013-14 (2004-05 prices) crore	480618	174734	244997
Primary	37297	33015	49658
Secondary	137159	32106	69933
Tertiary	306162	109613	125406
Per capita income (2013-14) Rs.	58360	14904	29244

Annexure 3: Status of Health Indicators in Sample States

Health Indicators	Tamil Nadu	Bihar	Rajasthan	All India
Sex ratio	995	918	928	943
CBR (SRS 2013)	15.6	27.6	25.6	21.4
CDR (SRS 2013)	7.3	6.6	6.5	7
percent live births receiving medical attention at delivery 2011	92.4	41.4	76.6	66.6
IMR (SRS 2013)	21	42	47	40
MMR (SRS 2011-13)	79	208	244	167
TFR (SRS 2012)	1.7	3.5	2.9	2.4
Neo Natal Mortality (SRS 2012)	15	28	35	29
U5MR (SRS 2012)	24	57	59	52
Mothers who had ANC in Ist trimester	92.28	49.48	56.25	59.2
Mothers who had 3 or more ANC	99.71	59.98	71.69	73.96
percent children underweight (0-3 years) NFHS3	25.9	55	36.9	40.4
percent fully immunized (NFHS 3)	80.9	32.8	26.5	43.5
percent institutional Deliveries (NFHS3)	90.4	22	32.2	40.7
percent Home deliveries (HMIS 2014-15)	0.11	21.81	5.25	10.81
No of DH	31	36	34	755
No of PHC	1369	1883	2082	25020
No of CHC	385	70	567	5363
No. of Sub centres	8706	9729	14407	152326
24X7 facilities	1850	907	1659	16834
No. of ASHA	3905	84860	52173	901895
VHSNC	15064	8316	43440	512417
No of Sick Newborn Care Unit (SNCU)	64	12	36	548
No. of New Born Stabilization Unit (NBSU)	156	22	113	1810
No. Of New Born Care Corner(NBCC)	1764	496	1003	14135
Children under 3 years breastfed within one hour of Birth (percent)	77.5	16.2	41.9	40.2
Children 0-5 months age exclusively breastfed (percent)	64	38.4	65.5	46.4
No of Districts IMNCI implemented	31	38	33	592

Annexure 4: Physical Outcomes: Targets & Achievements under NRHM

Physical Outcomes : Targets & Achievements under NRHM		
Sl. No.	**Targets (2005-12)**	**Achievements (up to 2012)**
1	IMR reduced to 30/1000 live births	IMR reduced from 58 in 2005 (SRS) to 42 in 2012 (SRS).
2	Maternal Mortality to reduce to 100/100,000 live births	MMR reduced from 254 in 2004-06 (SRS) to 178 in 2010-12 (SRS).
3	TFR reduced to 2.1	TFR reduced from 2.9 in 2005 (SRS) to 2.4 in 2012 (SRS).
4	Malaria Mortality reduction to 60%	70% Malaria mortality reduction- (Reduced from 1707 in 2006 to 519 in 2012).
5	Kala Azar Mortality reduction to 100%	85% Kala Azar mortality reduction- (Reduced from 187 in 2006 to 29 in 2012).
6	Filaria / Microfilaria Reduction Rate to 80%	60% Filaria / Microfilaria Reduction (Reduced from 1.02 in 2005 to 0.41 in 2012)
7	Dengue Mortality reduction by 50%	8% reduction- Dengue Mortality has reduced from 184 in 2006 to 169 in 2011.
8	Cataract operations- increasing to 46 lakhs per year	Cataract operations of more than 63.49 lakhs per year have been reported in 2012.
9	Leprosy Prevalence Rate reduction to less than 1 per 10,000	Leprosy Prevalence Rate reduced from 1.34 per 10,000 in 2005 to 0.68 per 10,000 in 2012.
10	Tuberculosis Control - over 70% case detection & 85% cure rate	Tuberculosis is having 71% case detection and 88% Cure rate in 2012.

Annexure 5: Achievements during XII Plan

Physical Outcomes: Targets & Achievements for NHM/12th FY Plan		
Sl. No.	**Targets (2012-17)**	**Achievements**
1	Reduce IMR to 25/1000 live births	IMR reduced from 42 in 2012 (SRS) to 40 in 2013 (SRS).
2	Reduce MMR to 1/1000 live births	MMR has reduced to 167 in 2011-13 (SRS).
3	Reduce TFR to 2.1	TFR has reduced to 2.3 in 2013 (SRS).
4	Reduce annual incidence and mortality from Tuberculosis by half	Tuberculosis is having 171 incidence (per lakh population) and 19 mortality (per lakh population) in 2013.
5	Reduce prevalence of Leprosy to <1/10000 population and incidence to zero in all districts	Leprosy Prevalence Rate is < 1/ 10,000 population
6	Annual Malaria Incidence to be <1/1000	Annual Malaria Incidence is <1/1000
7	Less than 1% microfilaria prevalence in all districts	Out of 255 districts, 222 have reported mf rate of less than 1%
8	Kala-Azar Elimination by 2015, <1 case per 10000 population in all blocks	Out of 611 block PHCs, 454 have reported < 1 case per 10000

Annexure 6: Tables

Table 1: Total Expenditure of the State (Bihar) Rs. in Crore

Expenditure	2010-11	2011-12	2012-13	2013-14	Average
Revenue	38215.91	46499.49	54466.15	62477.24	50415
Capital	12488.61	13681.94	14740.42	17927.94	14710
Total	**50704.52**	**60181.43**	**69206.57**	**80405.18**	65124

Table 2: Total Expenditure of the State (Rajasthan) Rs. in Crore

Expenditure	2010-11	2011-12	2012-13	2013-14	Average
Revenue	44873	53654	63462	75510	59375
Capital	5513	8228	13095	14476	10328
Total	**50386**	**61882**	**76557**	**89986**	**69703**

Table 3: Total Expenditure of the State (Tamil Nadu) Rs. in Crore

Expenditure	2010-11	2011-12	2012-13	2013-14	Average
Revenue	72916	83838	97067	109825	**90912**
Capital	14726	21819	19337	19415	**18824**
Total	**87642**	**105657**	**116404**	**129240**	**109736**

Table 4: Share of health expenditure in total expenditure(percent)

Expenditure	Bihar	Rajasthan	Tamil Nadu
Total Health Expenditure	2191	3658	5033
Total Health Expenditure with NRHM(SHS)	2848	4249	5390
Total Expenditure of State	65124	69703	109736
Percent of Total Exp	3.4	5.2	4.6
Percent of Total Exp	4.4	6.1	4.9

Table 5: Share of health expenditure in GSDP (percent)

Expenditure	Bihar	Rajasthan	Tamil Nadu
Total Health Expenditure	2191	3658	5033
Total Health Expenditure with NRHM(SHS)	2848	4249	5390
Total GSDP of State	271508	428668	712230
Percent of Total Exp	0.8	0.9	0.7
Percent of Total Exp	1.0	1.0	0.8

Table 6: Per capita health expenditure under NRHM and Non –NRHM

Health Expenditure	Bihar	Rajasthan	Tamil Nadu
Non NRHM	145	446	607
NRHM	127	172	138
Total	273	618	745

Table 7: Average Annual Release and Expenditure under NRHM (Rs. In crore)

State		SHS	State budget
Bihar	REL	1020	203
	EXP	931	398
Rajasthan	REL	831	313
	EXP	832	354
Tamil Nadu	REL	721	317
	EXP	580	419

Table 4. Allocation and Expenditure under Child Health Components in Bihar (SHS) Rs. in Lakhs

CHILD HEALTH	2010-11		2011-12		2012-13		2013-14		Total		% Utilisation
	Allocation	Expend	Allocation	Expend	Allocation	Expend	Allocation	Expend	Allocation	Expend	
IMNCI	36.00	6.51	543.01	63.56	13.00	7.59	15.00	0.00	607.01	77.66	12.79
Facility Based Newborn Care (FBNC, SNCU, NBSU, NBCC)	40.00	64.67	310.00	21.37	734.80	154.52	4108.69	2257.02	5193.49	2497.58	48.09
Home Based Newborn Care				0.61		0.69	0.00	24.57	0.00	25.87	
School Health Programme	1274.56	602.82	1756.28	191.90	4376.53	47.50	0.00	155.11	7407.37	997.33	13.46
Infant and Young Child Feeding (IYCF)							0.00	0.63	0.00	0.63	
Care of Sick Children and Severe Malnutrition (NRC, SDNC)	774.90	21.54		16.58	1903.73	959.71	1887.44	1167.88	4566.07	2165.71	47.43
Management of Diarrhea, ARI and micronutrient malnutrition	114.62	19.91	1388.85	451.96	100.74	60.61	1205.11	912.84	2809.32	1445.32	51.45
Other Strategies / Activities		0.52		5.01	3220.43	1.76	394.34	-3.52	3614.77	3.77	0.10
Infant Death Audit							0.00	0.00	0.00	0.00	
Incentive to ASHA under child health		221.72			1875.79	192.91	0.00	2.62	1875.79	417.25	22.24
JSSK for sick neonates up to 30 days					36.00	1.37	0.00	114.21	36.00	115.58	321.05
Child Health Training	1706.60	1055.00	2,207.03	1,105.05	2160.32	375.11	0.00	234.10	6073.95	2769.26	45.59
Routine Immunization	2470.81	983.76				341.72	0.00	119.27	2470.81	1444.75	58.47
Procurement of Drugs for School Health (IFA, Medicines -- under Procurement)			847.77	110.10					847.77	110.10	12.99
Drugs and Consumables (Other than those reflected in Procurement)			500.00	18.62					500.00	18.62	3.72
Total	**6417.49**	**2976.45**	**7552.94**	**1984.76**	**14421.34**	**2143.49**	**7610.59**	**4984.72**	**36002.36**	**12089.42**	**33.58**
Utilisation (percent)		**46.38**		**26.28**		**14.86**		**65.50**		**33.58**	

Table 5: Allocation and Expenditure under Maternal Health Components in Bihar (SHS) Rs. in Lakhs

	2010-11		2011-12		2012-13		2013-14		Total	
	Allocation	**Expenditure**	**Allocation**	**Expenditure**	**Allocation**	**Expenditure**	**Allocation**	**Expenditure**	**Allocation**	**Expenditure**
MATERNAL HEALTH									0.00	0.00
Operationalise Facilities (Only Dissemination, Monitoring, and Quality)	267.12	46.14	209.36	34.97	293.08	91.59	809.35296	674.72081	1578.91	847.42
Integrated Outreach RCH Services	218.43	34.42	560.52	80.77	323.10	126.07	177.49	99.45856	1279.54	340.72
Janani Suraksha Yojana / JSY	#######	24185.09	26352.86	24502.84	45189.02	35570.31	38777.9566	31514.2906	140796.80	########
Other Strategies/Activities	70.00	0.15	100.00	9.33	4035.04	549.84	146.4625	73.6837	4351.50	633.00
Maternal Health Training	627.72	182.64	657.17	275.05	769.24	346.25	734.63772	333.18954	2788.77	1137.13
Procurement of Equipment	104.33	393.93	1018.86	154.87	1187.82	274.42	41.712	2.24835	2352.72	825.47
Drugs & Supplies for MH:-	876.39	288.21	829.78	93.33	332.58	87.33	105.96964	0.6579	2144.72	469.53
JSSK							23925.5012	11218.3922	23925.50	11218.39
	#######	25130.58	29728.55	25151.16	52129.88	37045.81	64719.08	43916.64	179218.46	########
Total (Rs in crore)	326.41	251.31	297.29	251.51	521.30	370.46	647.19	439.17	1792.18	1312.44
Utilisation (percent)		**76.99**		**84.60**		**71.06**		**67.86**		**73.23**

Table 6. Allocation and Expenditure under Child Health Components in Rajasthan (SHS) Rs. in Lakhs

Child Health Components	2010-11		2011-12		2012-13		2013-14		ALL	
	Allocation	Expend	Allocation	Expend	Allocation	Expend	Allocation	Expend	Allocation	Expend
IMNCI		0	0.08						0.08	0.00
Facility Based Newborn Care (FBNC, SNCU, NBSU, NBCC)	1.15	0.65	1.37	0.68	1.46	1.05	3.71	1.20	7.69	3.58
Home Based Newborn Care		0.00			0.41	0.40			0.41	0.40
School Health Programme	2.02	0.43							2.02	0.43
Infant and Young Child Feeding (IYCF)	5.35	1.34					0.40	0.00	5.75	1.34
Care of Sick Children and Severe Malnutrition (NRC, SDNC)	0.94	0.32	0.95	0.61	3.94	1.00	3.28	1.45	9.12	3.38
Management of Diarrhoea, ARI and micronutrient malnutrition	0.10	0.01							0.10	0.01
Other Strategies / Activities			0.20	0.17	2.15	1.57	0.27	0.17	2.63	1.91
Infant Death Audit			0.10	0.00	0.10	0.04	0.15	0.02	0.35	0.06
Incentive to ASHA under child health					20.50	1.86	0.00	0.09	20.50	1.95
JSSK for sick neonates upto 30 days					5.61	2.16	10.45	5.68	16.06	7.84
Child Health Training	6.07	5.11	5.71	3.40	2.01	0.36	0.74	0.09	14.53	8.96
Routine Immunisation	40.94	22.68	26.19	22.62	60.51	40.94	57.46	37.34	185.10	123.57
Procurement of Drugs for School Health (IFA, Medicines -- under Procurement)			2.54	1.60					2.54	1.60
Drugs and Consumerables (Other than those reflected in Procurement)			10.46	0.99					10.46	0.99
	56.57	**30.55**	**47.61**	**30.08**	**96.68**	**49.37**	**76.46**	**46.03**	**277.33**	**156.03**
Utilisation (percent)		**54.00**		**63.17**		**51.07**		**60.20**		**56.26**

Table7. Allocation and Expenditure under Maternal Health Components in Rajasthan (SHS) Rs. in Lakh

	2010-11		2011-12		2012-13		2013-14		Total	
	Allocation	Expenditure	Allocation	Expenditure	Allocation	Expenditure	Allocation	Expenditure	Allocation	Expenditure
Operationalise facilities (only dissemination, monitoring, and quality)	0.75	0.07	0.03	0.02	0.17	0.03	0.00	0.01	0.95	0.13
Referral Transport	1.50	0.34	0.00	0.00	0.00	0.00		0.04		0.38
Integrated outreach RCH services	1.69	0.98	0.48	0.37	0.00	0.00		0.00		1.35
Janani Suraksha Yojana / JSY	143.00	180.13	184.06	158.79	181.42	161.81	216.74	179.82	725.22	680.55
Maternal Dealth Audit	0.68	0.10	0.00	0.00	0.31	0.13	0.40	0.18	1.39	0.42
Other Activities	0.00	0.00	0.57	0.49	0.00	0.00	0.10	0.00	0.67	0.49
JSSK for pregnant women	0.00	0.00	52.01	36.22	141.89	95.42	127.44	90.64	321.34	222.29
Maternal Health Training	6.98	3.33	4.18	2.09	3.04	0.65	2.39	3.00	16.60	9.06
Total	**154.60**	**184.95**	**241.34**	**197.98**	**326.82**	**258.04**	**347.07**	**273.69**	**1069.84**	**914.67**
Utilisation (percent)		**119.63**		**82.03**		**78.95**		**78.86**		**85.50**

Table 8: Expenditure under Child Health Components in Tamil Nadu (SHS) Rs. in Lakhs

Child Health	2010-11	2011-12	2012-13	2013-14
IMNCI				
Facility Based Newborn Care (FBNC, SNCU, NBSU, NBCC)			404.15	197.8
Home Based Newborn Care				
School Health Programme				
Infant and Young Child Feeding (IYCF)				
Care of Sick Children and Severe Malnutrition (NRC, SDNC)				
Management of Diarrhea, ARI and micronutrient malnutrition				
Other Strategies / Activities	5.81			7.92
Infant Death Audit			3.52	5.68
Incentive to ASHA under child health		0.55	3.55	0.13
JSSK for sick neonates up to 30 days			10.35	370.42
Child Health Training	227.46	474.29	279.99	
Routine Immunization	1003.95	769.96	1667.78	
Procurement of Drugs for School Health (IFA, Medicines -- under Procurement)				
Drugs and Consumables (Other than those reflected in Procurement)				
	1237.22	**1244.8**	**2369.34**	**581.95**
Child Health (Rs in Crore)	**12.4**	**12.4**	**23.7**	**5.8**

Table 9: Expenditure under Maternal Health Components in Tamil Nadu (SHS) Rs. in Lakhs

Maternal Health	2010-11	2011-12	2012-13	2013-14
Operationalise facilities (only dissemination, monitoring, and quality)			2.02	1139.49
Referral Transport				
Integrated outreach RCH services		4.14	0.54	1.15
Janani Suraksha Yojana / JSY	3561.94	2529.98	2946.16	3594.26
Maternal Death Audit			1.19	88.89
Other Activities		371.56	61.37	13.47
JSSK for pregnant women			7743.06	8025.46
Maternal Health Training	525.74	628.9	155.11	286.64
BCC	8.63	68.27		
procurement of equipment	1617.78			985.04
Drugs and supplies	125.31	95.14		123.87
	5839.4	**3697.99**	**10909.45**	**14258.27**
Maternal Health (Rs. in Crore)	**58.39**	**36.98**	**109.09**	**142.58**