Public Expenditure on Health in Rajasthan

Public Expenditure Analysis Series 6 of 8
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Executive Summary

I. Introduction

Rajasthan is the largest state in India in area and houses about 5.6% of the nation's population. It has 33 districts and 7 revenue units, with cities accommodating about 25% of the state's population. More than nine million people or 13.5% of the state population belong to the Scheduled Tribes (ST), accounting for nine% of India's total tribal population (Census 2011). Rajasthan's social indicators are amongst the poorest in India with only 887 female children per 1000 males at birth, only 25% women completing at least 10 years of education, and 26% of women aged 21-25 years married before the age of 18 years ((National Family Health Survey [NFHS]–4). However, the state has seen an improvement in its maternal and child health indicators in recent years (NFHS–3 [2005-06, NFHS–4 [2015-16]) thanks to the National Rural Health Mission (NRHM). However, these indicators are not reflective of those of the tribal people in the state or the inhabitants of the desert in Western Rajasthan, and there are wide inter-district variations in health indices.

Rajasthan is also one of the few states in the country to supply free of cost medicines and diagnostic tests in its public health facilities. It remains to be seen whether this expenditure is adequate and can be met by Rajasthan, an Empowered Action Group (EAG) state that has poor socio-demographic indicators and high fertility rates. But the state has progressed in tax collections and there is scope for improving the non-tax revenue. The fiscal deficit which shot up to 9.2% of Gross State Domestic Product (GSDP) in 2015-16 had been brought down to 3% by end of 2017-18. Hence, it was important to understand the current areas of expenditure in health in the state to see how the progress on the fiscal front is being reflected in the health expenditure.

The main objective of the study was to review patterns in public health expenditure in Rajasthan to the state's healthcare needs. The public expenditure review (PER) included the analysis of Rajasthan state budget documents (2012-13 to 2017-18), National Health Mission (NHM) budget (2013-14 to 2017-18) and related documents, and Gram Panchayat Development Plan (GPDP) budget documents accessed through a small fieldwork in Jaisalmer, Dungarpur, and Tonk districts between April-June 2019, in addition to other relevant literature. A total of 204 key person interviews were conducted and 39 health facilities were visited. The National Health Accounts (NHA) Guidelines (National Health Accounts Technical Secretariat, 2016) were used for defining what is included within healthcare expenditure.

The study strived to answer the following specific questions

a. Is the health expenditure in line with its health needs? What is the role/share of NHM in health expenditures? How do the changes introduced by the 14th Finance Commission (FC) translate to changes in policy and health expenditures?

b. How participatory and responsive is the development of the GPDP at the Gram Panchayat (GP) level, particularly from the perspective of health?

Here, we present the major findings of the study with respect to these research questions.

II. Major Findings

A. Major Health and Health Care Challenges

1. **Increase in the Non-Communicable Diseases (NCDs) while higher prevalence of Communicable Diseases (CDs) continues:** The top five causes of death in Rajasthan in 2016 were, Chronic Obstructive Pulmonary Disease (COPD), ischaemic heart disease, lower respiratory diseases, diarrhoeal diseases, and tuberculosis[1]. Both COPD and ischaemic heart disease and its associated NCDs (diabetes, stroke, hypertension, etc.) are chronic illnesses and require significant expenditure on treatment. Diarrhoea, lower respiratory tract infections, and other infectious causes still claim the highest number of deaths in children aged 0-14 years old.

2. **Continued low level of Maternal and Child health (MCH) indicators and high inter-district variations**: MCH indicators have improved in the last decade but still have a long way to go. While the number of institutional births increased from 29.6% to 54.8% (NFHS–3 [2005-06, NFHS–4 [2015-16]), its Maternal Mortality Ratio (MMR) and Infant Mortality Rate (IMR) improved from 288 to 199 per 100,000 live births and 65 to 41 per 100 live births, respectively. Adolescent health also requires focus where 26% women aged (20-25 years) were married before the age of 18 years, and 46% women aged (15- 49 years) are anaemic (NFHS-4). Maternal and Child Health Index (MCHI) shows wide inter-

[1] Indian Council for Medical Research (ICMR), Public health Foundation of India (PHFI), & The Institute for Health Metrics and Evaluation (IHME). (2017). India: Health of the Nation's States- The India State-level Disease Burden Initiative. https://www.healthdata.org/sites/default/files/files/policy_report/2017/India_Health_of_the_Nation%27s_States_Report_2017.pdf.

district differences: the poorest performing district is Banaswara (0.24) and the best indicators are seen in Ganganagar (0.80).

3. **Poor health indicators among urban poor and poor health infrastructure in urban areas**: According to Rajasthan's economic survey 2019-20, almost 25% of its population lived in urban cities in 2011. The urban statistics, especially those for the urban poor, remain almost non-existent in the present scenario. Looking at NFHS-4 data for Jaipur, Jodhpur, Kota, and Ajmer (i.e., cities with largest urban populations), we see that urban areas in Jaipur lag behind its rural counterparts in terms of MCH indicators. Kota and Ajmer do not show this trend, and the gap between the urban and rural indices there is not as high as that seen in the state average. In terms of health care infrastructure, there seem to be adequate health facilities in the rural areas of the state; however, urban areas lack sufficient health facilities for the poor. Statistics show a lack of adequate numbers of health personnel in both urban and rural areas of the state.

4. **Poor heath indicators in tribal areas:** Six of the ten districts with the poorest MCHI are under the tribal scheduled areas. The needs of the tribal population are different from that of the general due to high illiteracy and remoteness of locations.

5. **Trust deficit for public health facilities:** We see a preference to seek treatment in private hospitals and dispensaries in Rajasthan—this is more evident in urban areas as compared to rural areas. This follows the national trend for preference for private facilities, (65.8% for all-India, and 52.4% for Rajasthan) although it is at a much lower percentage in Rajasthan. This is despite the high cost of treatment in private facilities. **Chapter 3** of the report discusses this in detail.

B. Major Trends in Health Expenditure in Rajasthan

1. **Health expenditure witnessed increasing trend but still lower than desired:** The analysis of state budget documents shows that the health expenditure across all departments[2] increased from Rs 3,951 crores in 2012-13 to Rs 10,883 crores in 2017-18, registering a Compounded Annual Growth Rate (CAGR) of 18% in nominal terms. The real expenditure (2011-12 prices) also increased from Rs 3,639 crores to Rs 8,252 crores during the same period. The health expenditure as a percentage of GSDP increased from 0.8% to 1.3% for the same period. This is indeed a very encouraging development though this is still lower than the

[2] Public Health Department, Medical Education and Drugs Department, Tribal Development Department, Public Works, Districts and Other Departments.

suggested healthcare expenditure of 1.87% of Gross Domestic Product (GDP) (combined expenditure of union and states in a particular state) by end of 2016-17 by the 12th five-year plan[3]. The total expenditure on health as a percentage of total state expenditure increased from 4.9% in 2012-13 to 5.7% in 2017-18, which is also much lesser than the 8% recommended by the National Health Policy, 2017. Wages consisted of an average of 57% of health expenditure in the state. **Chapter 4** of the report discusses this in detail.

2. **Low utilization of Child Expenditure despite increasing trends in allocation:** The proportion of Child Health (CH) expenditure increased from 14.4% of total Reproductive Child Health (RCH) in 2012-13 to 23% in 2017-18, with an average six-year utilization ratio of 55%. Allocation categories under CH includes Immunisation (30.6%), Incentives to Accredited Social Health Activist (ASHA) (22.5%) National Iron Plus Initiative (NIPI) (9.6%), Rashtriya Bal Swasthya Karyakram (RBSK) (8.4%), Janani Shishu Suraksha Karyakram (JSSK) (7.5%), Drugs & supplies (6.7%), Rashtriya Kishore Swasthya Karyakram (5.6%), Information Education Communication (IEC)/Behaviour Change Communication (BCC) activities (3.3%), Facility Based Newborn Care (1.9%), Care of Sick Children and Severe Malnutrition (1.6%), Other Intervention (1.5%) and Child Health Training (1.4%). Utilization of allocations under immunisation was only 63.2% whose consequence can be seen in the poor immunisation record of the state. Also, to be noted is that ASHA incentives within immunisation have a utilization of only 50%. Expenditure on adolescents through Rashtriya Kishori Swasthya Karyakram (RKSK) expenditure is only about 3.1% of total CH and has been declining consistently since 2015-16 from Rs 5.97 crores to Rs 1.50 crores in 2017-18. **Chapter 5** of the report discusses this in detail.

3. **Decreasing maternal health expenditures:** Allocations under maternal health (include programmes like Janani Suraksha Yojana (JSY) (53%), JSSK (38%), Procurement of equipment (5%), IEC/BCC activities (2%), Other activities (1%), Maternal Health Training (1%) and Drugs and supplies (1%). Janani Suraksha Yojana (JSY) comprised of 62% of MH expenditure in 2012-13 and decreased to 51% in 2017-18, driving the proportional decrease in MH expenditure. Expenditure on JSSY comprised the second largest expenditure and averaged at 36% of MH, at Rs 104 Crores (2012-13 to 2017-18). The increase in institutional deliveries appears to be a direct consequence of JSY and JSSK. However,

[3] http://www.nhm.gov.in/images/pdf/publication/Planning_Commission/12th_Five_year_plan-Vol-3.pdf (last accessed on15 May 2019)

improvement in indicators has not been uniform across districts and there is rural/urban divide in uptake of the JSY scheme. **Chapter 5** of the report discusses this in detail.

4. **Increased allocation for Tribal sub-plans yet the share is lower than respective population percentage:** The share of the Tribal Sub-Plan (TSP) in total state health expenditure consistently increased from 6.7% in 2014-15 to about 8% in 2017-18 of the total health expenditures of the state at Rs 875 crores. Allocations on tribal population should be proportionate to the tribal population in the state, i.e.,13.5% according to the Tribal Health Report, 2018, and should be an addition to state's expenses on health. More than 50% of the TSP was spent on central and state-led health schemes (NHM, Mukhya Mantri Nishulk Jaanch Yojana [MMNJY], Mukhya Mantri Nishulk Dava Yojana [MNDY], and Health Insurance scheme), with little evidence of expenditure on tribal specific schemes. Visit to ten Primary Health Centres (PHCs) in the tribal district of Dungarpur revealed that a lack of staff (pharmacists, lab technicians and accountants) was a major challenge faced by them, even in Adarsh clinics. Despite these constraints, the recent free medicine and diagnostics schemes have increased the number of patients utilizing PHCs. **Chapter 6** of the report discusses this in detail.
5. **Increase in absolute allocations for urban health but the proportionate share in total health expenditure declining:** Expenditure on urban health care services increased from Rs 1,343 crores in 2012-13 to Rs 2,633 crores in 2017-18. However, its share in the total health expenditure consistently decreased over years from 34% to 24.2%. State-run hospitals and dispensaries took up 60% of all expenditure under urban health, a large portion of which includes capital expenditures. The urban expenditure on health is geared mainly towards infrastructure and maintenance of secondary and tertiary health facilities. National Urban Health Mission (NUHM) is still in its infancy and formed a miniscule part (1.67% in 2017-18) of total urban expenditure and 3.5% of total NHM. Expenditure on NRHM continues to include urban expenditures like that for JSY, JSSK or diseases suggesting underestimation of NUHM expenses. **Chapter 7** of the report discusses this in detail.
6. **Reducing share of expenditure on human resources**: The expenditure on Human Resource (HR) or wages as a percentage of total health expenditure in the state budget reduced over the years from 65% to 54%. This expenditure has increased in absolute terms but not in proportion to total state health expenditure. Under NHM, the NRHM-RCH Flexipool (FP), consists of 95% of HR

expenditure (it does not include Infrastructure Maintenance). The expenditure on HR has also seen a decline from 10.4% to 9.3% within NRHM-RCH. Fifty-three per cent of this expenditure, on an average, was made on ASHA, which saw an increase over the six-year period, while contractual services (all other contractual employees) expenditure saw a decrease from 76% to 46%. **Chapter 9** of the report discusses this in detail.

7. **The share of expenditure for free drugs/diagnostics report mixed trends alongside increasing expenditure on state health insurance:** The expenditure on the free drug and free diagnostics increased from 2012-13 to 2017-18, with the share of free drugs scheme being larger in the state budget. The share of the free drug/diagnostic services as a proportion of total health expenditure had decreased from 5.19% in 2012-13 to 2.33% in 2016-17 before increasing to 3.32% in 2017-18 (Revised Estimate [RE]). The people's insurance scheme has also shown increased expenditure over the years and insurance (including Employee's State Insurance Scheme [ESIS]) formed 13.19% of total health expenditure in 2017-18. **Chapter 9** of the report discusses this in detail.
8. **Decreasing share of disease specific health expenditure and low focus on NCDs:** The share of total health expenditure on diseases decreased from 2.68% in 2012-13 to 2.07% in 2017-18 as seen from state budget documents. The share of expenditure on CDs averaged at 85.3% as compared to NCDs. Revised National Tuberculosis Control Programme (RNTCP) consists of 59% of the expenditure under CD, followed by 21.9% for National Vector Borne Disease Control Programme (NVBDCP). The National Programme for Prevention & Control of Cancer, Diabetes, Cardiovascular Diseases & Stroke (NPCDCS) and National Programme for Control of Blindness (NPCB) together accounted for 70% average expenditure from 2015-16 to 2017-18. There is no programme focusing on prevention of COPD, which is the highest cause of death in the state. **Chapter 8** of the report discusses this in detail.

C. Trends in the NHM expenditures

The NHM accounted for a significant 20.43% of the total expenditure on health (2014-15 to 2017-18) in the state. The largest chunk of NHM expenditure was on the NRHM-RCH FP, which accounted for an average of 60.6% from 2012-13 to 2017-18. This was followed by average proportional expenditure on IM at 23.4%, and Additional State Share (ASS) at 11.3%. Average spending under NUHM was 3.5%, followed by CDs at 1.6%, and NCDs at 1.3%. Proportional expenditure under RCH

as well as IM showed a consistent decline from 2012-13 to 2017-18. However, during the same period, expenditure under the ASS (consisting of Shubhlaxmi and Rajshree yojana) component increased from 3.3% to 14.9%. **Chapter 4** of the report discusses this in detail.

D. The impact of the 14th Finance Commission (FC) recommendation regarding transfer of tax share to state governments

The 14th FC made a significant recommendation of enhancing the tax share of states from 32% to 42% in the union tax collections, and also made provisions of compulsory transfers of Untied Funds (UF) to local governments, i.e., GP based on population and area, also known as basic grants, for augmenting the basic services of water supply, public safety, sanitation, and roads. The transfers from the Government of India (GoI) through Centrally Sponsored Schemes (CSS) were reduced as a result of increase in the transfer of UF. However, the expenditure analysis indicate that the state has increased expenditure despite the reduced share of GoI on CSS. **Chapter 4** of the report discusses this in detail.

E. GPDP processes and priorities

Field visits showed that there was very little co-ordination between the health department and the members of the Panchayati Raj Institutions (PRI). The Village, Health, Sanitation, And Nutrition Committees (VHSNCs), which come under the health department (NHM), do not have regular meetings due to disinterest of the sarpanch and the UF go under-utilized. Similarly, when members of the PRI take part as members of the Rajasthan Medicare Relief Society (RMRS), especially at the district and block levels, there are complaints of politicising of meetings which also leads to challenges in usage of funds. The interviews regarding development of Apna Gaon Apna Vikas showed that many were unaware of need to focus on health care needs of women and children.

An analysis of the issues taken up in the GPDP, where the plans were made available, revealed improving infrastructure as the main priority and no activity was planned exclusively for women and children. This included construction of the connecting roads, building water tanks, boundary walls, burial and cremation sites (community specific), cleaning of drains, toilets, ensuring regular water supply, electrification of areas without power supply, and removing encroachments. Infrastructure works taken up by the GP like repairing Anganwadi centres, building toilets in schools, ensuring space for playgrounds were seen to be benefitting women and children. Given their limited role in health, the expenditures of GP on water

supply and sanitation infrastructure, especially in anganwadis, schools, and the village as a whole, can be seen as expenses complementing the core health expenditures. **Chapter 4** of the report discusses this in detail.

F. Gender concerns

Another observation emerging from the analysis was that schemes were not necessarily geared towards gender equality. There is a high dependence on cash transfers as a means to address gender inequalities that are deeply rooted in highly patriarchal social norms. For instance, the most popular scheme for maternal care is the JSY, which is a cash transfer scheme. Welfare schemes like Shubhlaxmi and Rajshree are meant to prevent female foeticide as well as child marriage, but these schemes still encourage the notion that cash can reverse the attitude towards the girl-child even though gender-related biases are present in all economic quintiles.

III. Major conclusions and recommendations

Rajasthan indeed emerges as a state that has tried to spend more on health, especially from the perspective of making attempts to address the issue of health of the low-income group. Also, certain changes are on the right direction: the health expenditure has been increasing in real terms and its proportion, both in GSDP as well as in total public expenditure, has also increased. However, what also emerges is that this has perhaps failed to yield full results as all the interventions are not fully coordinated. The fact that any enhanced expenditure on one aspect of the delivery also needs complementary expenditure on the other to be able to make the system accountable, increase the uptake, and then, in turn, make public health care service a reliable delivery mechanism is not always recognised in making budgetary choices. For instance, the free drug delivery and diagnostic tests schemes showed lower uptake because of the lack of necessary personnel especially lab technicians and other necessary facilities like delays in medicine delivery due to lack of transport. The interviews in the field also revealed that repeated such experiences lead to erosion of trust on public services. Greater inter-departmental and intra-departmental coordination and adequate complementary expenditure on all related heads are critical for better utilization and in turn, better outcomes.

The PER exercise also revealed that CH expenditures had poor utilization and there is a need to prioritise adolescent health expenditures. Tribal health care required heightened focus with inclusion of tribal specific measures based on cultural and behavioural contexts. Similarly, urban poor require higher investments in primary care in cities, which, in turn, requires streamlining of current urban health

expenditure pathways. Expenditure patterns on specific diseases revealed the need to concentrate on NCDs, especially COPD. As stated earlier, although Rajasthan has set an example amongst states by providing free medicines, drugs and health insurance, but a shortage in human resources decelerates its progress towards a more Universal Health Coverage and achievement of sustainable development goals (see table). The third level governance structures (Panchayats and municipalities) call for increased and sustained engagement for capacity enhancement and a shift in attitude among both the panchayat and department functionaries to enable substantive decentralisation in health planning State Health Expenditures against Sustained Development Goals (SDG) for Rajasthan (2012-13 to 2017-2018).

Sr no	**Activity**	**Baseline (as on 1 January 2016)**	**SDG Target by 2030**	**Gaps in expenditure**
1	Maternal Mortality Ratio (MMR) per 100,000 live births.	244	70	Stagnant maternal health expenditures. Improving utilization of Maternal Health (MH) services for tribal areas and urban poor areas.
2	Births assisted by health personnel.	86.6%	95%	Improving infrastructure in rural areas and providing adequate specialists in Primary Health Centres (PHCs) and Community Health Centres (CHCs). Increasing allocations under adolescent programmes.
3	Neonatal mortality rate per 1,000 live births.	30	12	
4	Institutional Births	84%	95%	
5	Mothers who had at least four antenatal care visits.	38.50%	70%	
6	Under-5 mortality rate (U5MR) per 1,000 live births.	45	25	Improve utilization of allocations under immunisation under the National Health Mission (NHM). Increase the pace of Rashtriya Bal Swasthya Karyakram (RBSK) implementation.
7	Children aged 12-23 months who receive 3 doses of pentavalent vaccine before their first birthday.	81.34%	92%	
8	Tuberculosis incidence per 100,000 population	143	44 (in 2025)	Expenditure on expenditure. Revised National Tuberculosis

Sr no	Activity	Baseline (as on 1 January 2016)	SDG Target by 2030	Gaps in expenditure
				Control Programme (RNTCP) has increased from Rs 10.26 crores (2012-13) to Rs 21.69 (2017-18) crores.
9	Mortality rate attributed to cardiovascular disease, cancer, diabetes, or chronic respiratory disease	Cardiovascular disease at 26%, cancer at 7%, Diabetes Mellitus at 2%, and Chronic Obstructive Pulmonary Disease (COPD) at 13%.	28% Reduction of death due to Non-Communicable Diseases (NCDs)	Increasing the share of expenditure on non-communicable diseases vs communicable diseases. Investing in COPD programme
10	Achieving Universal Health coverage	Free drugs and diagnostics scheme. Publicly funded insurance scheme covering secondary and tertiary care.		Increase state's health expenditure to 8% of total expenditure as per National Health Policy (NHP), 2017. Fill gaps in human resource (especially pharmacists, lab technicians, specialists, etc.) and health infrastructure. Focus on providing primary and preventive care.

Source: Sustainable Development and Rajasthan SDG Status Report 2020, Government of Rajasthan state budgets, and Rajasthan NHM Financial Management Review (FMR) Analysis.

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List of Abbreviations

AE	Actual Expenditure
ANC	Ante Natal Care
ANM	Auxiliary Nurse Midwife
ASHA	Accredited Social Health Activist
ASS	Additional State Share
AWC	Anganwadi Centre
BCC	Behaviour Change Communication
BCMHO	Block Chief Medical Officer
BDO	Block Development Officer
BE	Budgeted Expenditure
BPL	Below Poverty Line
CAG	Comptroller Accountant General
CAGR	Compounded Annual Growth Rate
CD	Communicable Diseases
CH	Child Health
CHC	Community Health Centres
COPD	Chronic Obstructive Pulmonary Disease
CRM	Common Review Mission
CSS	Centrally Sponsored Schemes
DALY	Disability Adjusted Life Years
DCMHO	District Chief Medical Officer
DH	District Hospital
EAG	Empowered Action Group
ESI	Employee State Insurance
FC	Finance Commission
FMR	Financial Management Report
FP	Flexipool/Flexible Pool
GDP	Gross Domestic Product
GoI	Government of India
GP	Gram Panchayat
GPDP	Gram Panchayat Development Plan
GSDP	Gross State Domestic Product
GST	Goods and Services Tax
HIV/AIDS	Human Immunodeficiency Virus/Acquired Immune Deficiency Syndrome
HMIS	Health Management Information Systems

HR	Human Resources
IDSP	Integrated Disease Surveillance Programme
IEC	Information Education Communication
IFA	Iron and Folic Acid
IM	Infrastructure Maintenance
IMR	Infant Mortality Rate
ITDP	Integrated Tribal Development Project
JSSK	Janani Sishu Suraksha Karyakram
JSY	Janani Suraksha Yojana
LHV	Lady Health Visitors
MCH	Maternal and Child Health
MCHI	Maternal and Child Health Index
MFHW	Medical Health and Family Welfare Department
MH	Maternal Health
MMJRK	Mukhya Mantri Jan Rakshak Kosh
MMNJY	Mukhya Mantri Nishulk Jaanch Yojana
MMR	Maternal Mortality Ratio
MNDY	Mukhya Mantri Nishulk Dava Yojana
MO	Medical Officer
MOHFW	Ministry of Health and Family Welfare
MRS	Medical Relief Society
NCD	Non-Communicable Diseases
NFHS	National Family Health Survey
NHA	National Health Accounts
NHM	National Health Mission
NIDDCP	National Iodine Deficiency Diseases Control Programme
NIPI	National Iron Plus Initiative
NLEP	National Leprosy Eradication Programme
NMHP	National Mental Health programme
NPCB	National Programme for Control of Blindness
NPCDCS	National Programme for Prevention & Control of Cancer, Diabetes, Cardiovascular Diseases & Stroke
NPF	National Programme for Fluorosis
NPHCE	National Programme for the Healthcare of the Elderly
NRHM	National Rural Health Mission
NSS	National Sample Survey
NTCP	National Tobacco Control Programme

NUHM	National Urban Health Mission
NVBDCP	National Vector Borne Diseases Control Programme
OBC	Other Backward Classes
OOPE	Out of Pocket Expenditure
PCPNDT	Pre-Conception and Pre-Natal Diagnostic Techniques
PER	Public Expenditure Review
PHC	Primary Health Centre
PHD	Public Health Department
PIP	Programme Implementation Plan
PNDT	Prenatal Diagnostic Testing
PRI	Panchayati Raj Institutions
RBSK	Rashtriya Bal Suraksha Karyakram
RCH	Reproductive Child Health
RE	Revised Estimate
RKS	Rogi Kalyan Samiti
RKSK	Rashtriya Kishore Swasthya Karyakram
RKSY	Rashtriya Kishori Shakti Yojana
RMRS	Rajasthan Medicare Relief Society
RNTCP	Revised National Tuberculosis Control Programme
ROP	Record of Proceedings
SC	Scheduled Caste
SDG	Sustainable Development Goals
SDH	Sub District Hospital
SHG	Self Help Groups
SHS	State Health Society
SNP	Supplementary Nutrition Programme
SSE	Social Services Expenditure
ST	Scheduled Tribe
TB	Tuberculosis
TFR	Total Fertility Rate
TSP	Tribal Sub-Plan
U5MR	Under 5 Mortality Rate
UF	Untied Funds
UHC	Universal Health Coverage
UPHC	Urban Primary Health Centres
VHSNC	Village Health, Sanitation, Nutrition Community
WIFS	Weekly Iron and Folic Acid Supplementation

Chapter 1: Introduction

The World Health Organisation (WHO) Constitution (1946) declared that achieving the highest standard of health needs to be considered a fundamental right for all. Currently, in India, we have a vast network of public health facilities, augmented by mushrooming of the private health care sector. The National Health Mission (NHM), a centralised health scheme, from 2005 (earlier known as National Rural Health Mission [NRHM]), has been trying to bring about systematic improvements to the health care structure as well improve its outreach for improving Maternal and Child Health (MCH) indicators in the country. Some of its innovations include the Accredited Social Health Activist (ASHA) programme[4], which is the largest community health worker programme of its kind in the world. The use of conditional cash transfers to improve the number of institutional deliveries and also the introduction of free delivery care, medicines, and diagnostics for mother and child at all public health care facilities have improved MCH indicators all over India in the past decade (National Family Health Survey [NFHS] 3, 4). For instance, the number of institutional births has increased from 38.7% in 2005-06 to 78.9% in 2015-16. Similarly, the number of children aged 12-23 months who are fully immunised increased from 43.5% to 62% in the same period. However, these improvements in indicators vary by state. The number of institutional births in Rajasthan increased from 29.6% to 54.8% (2005-06 to 2015-16), but the same increased from 64.6% to 90.3% in Maharashtra, and it increased from 87.8% to 98.9% in Tamil Nadu, thus showing how some states lag behind the others in terms of health indicators (see Table 3.1).

The Government of India (GoI) is committed towards achieving the Sustainable Development Goals (SDGs) and acknowledges the need to increase public health expenditure towards healthcare, ultimately achieving universal coverage. In terms of provision of universal coverage, Rajasthan stands out as an exception. This state is part of the Empowered Action Group (EAG)[5] of states that show poor socio-economic indicators. Rajasthan has progressed in tax collections and there is scope

[4]Accredited Social Health Activist (ASHA) programme is a scheme that employs ASHA workers, who are trained female community health activists who work as an interface between the community and public health system.

[5] Empowered Action Group (EAG) States are the eight socio-economically backward states of India, namely Bihar, Chhattisgarh, Jharkhand, Madhya Pradesh, Orissa, Rajasthan, Uttarakhand, and Uttar Pradesh, which lag behind in the demographic transition and have the highest infant mortality rates in the country. States that are not classified as EAG are the Non-EAG states.

for improving the non-tax revenue. The fiscal deficit, which shot up to 9.2% of Gross State Domestic Product (GSDP) in 2015-16, came down to 3% by end of 2017-18. However, the expenditure on social services as a whole has taken a back seat and this needs to change. The fiscal management is back on track and this should aid to a higher and prudent investment in social services as a whole. Rajasthan is also one of the few states in the country to supply free of cost medicines and have free diagnostic tests in its public health facilities notwithstanding the fact that the continuity in availability of facilities remain a major concern. It remains to be seen whether this expenditure is adequate and can be met by an EAG state like Rajasthan, which could pose a fine example to other states. In this Public Expenditure Review (PER) of Rajasthan's health finances, we attempt to analyse where the state's priorities lie.

1.1. State Profile in Brief: Rajasthan

Rajasthan is the largest state in India by size and houses about 5.6% of India's population. It has 33 districts and 7 revenue units. Almost 25% of its people live in cities; 17% are Scheduled Castes (SC), and 13.5% (more than nine million people) are Scheduled Tribes (ST) who account for 9% of India's total tribal population (Census 2011). Rajasthan's social indicators are amongst the poorest in India (Table 1.1), with only 887 female children per 1000 males at birth, only 25% women completing at least 10 years of education, and 26% of women aged 21-25 years married before the age of 18 years (NFHS-4). Despite these figures, the state has seen an improvement in its MCH indicators thanks to NRHM. For example, the percentage of institutional births have jumped to 84% in 2015-16 from 29% in 2005-06 (NFHS 3 and 4). This is reflected in the improvement in the Maternal Mortality Ratio (MMR) and Infant Mortality Rate (IMR) in the state (Table 3.3). However, these indicators are not reflective of those of the tribal people in the state or the inhabitants of the desert in Western Rajasthan.

Dungarpur and Banswara districts as well as few areas from Udaipur, Chittorgarh, Pali, and Sirohi districts are all included under the scheduled areas[6]. A recent report on health of the tribal population indicates that 55% of the tribal population countrywide live outside the tribal blocks (Expert Committee on Tribal Health, 2018). According to a World Bank report, 40% of the ST population live below poverty line as compared to 15% of the general population in the state. Not only are they poor, but 90% practice open defecation and only 17% have access to clean drinking water (World Bank Group, 2016). Similarly, the districts of Jaisalmer and

[6] Scheduled areas designated as tribal areas with a preponderance of tribal population,

Barmer have the most amount of land under sand dunes and lack basic infrastructural facilities like transportation, educational and medical, which is worsened due to low population and scattered settlements (Sharma, 2016). Therefore, Rajasthan has to work harder to achieve its MCH goals as well as shift its attention to its large tribal population. We will look at Rajasthan's health profile in more detail in Chapter 3.

Table 0.1: Sociodemographic indicators for Rajasthan and India as per National Family Health Survey (NFHS) 2015-16.

Social Indicators	Rajasthan	India
Sex Ratio at Birth (females per 1000 males)	887	919
Sex Ratio (female per 1000 males)	973	991
Percentage of women who are literate	56.5%	68.4%
Percentage of women who have completed more than 10 years of schooling	25.1%	35.7%
Percentage of women married before 18 years of age	35.4%	26.8%

Source: State Fact Sheets NFHS-4

1.2. Rationale

An understanding of the health expenditure needs to be rooted in the financial architecture of the country and must consider few recent developments that have influenced the public health system and its functioning. Three important points in this regard are: (i) introduction of the NHM scheme, and (ii) implementation of the 14th Finance Commission's (FC) recommendations, and (iii) very recently the introduction of Goods and Services Tax (GST). These have had major implications for the delivery of services by the states and the local bodies vis-à-vis the ability to mobilise resources within the provisions of the Constitution.

National Health Mission (NHM) is the flagship scheme of GoI to improve the overall health status of the country by providing universal access to equitable, affordable, and quality health care services that are accountable and responsive to people's needs[7]. The Mission was first launched in 2005 as NRHM with a focus only on the rural areas of the country. However, in 2013, it was relaunched as NHM encompassing both sub-missions, the NHRM and the National Urban Health

[7] This has been extracted from https://mohfw.gov.in/sites/default/files/2201617.pdf

Mission (NUHM). Being a Centrally Sponsored Scheme (CSS), NHM is largely funded by the central government. Rajasthan with its EAG status, had a sharing pattern of 90:10 (GoI:State) till 2011-12, and it changed to 75:25 from 2012-13. However, after the recommendations of the 14th FC came into effect in April 2015, the share had been revised to 60:40 (GoI:State). The routing of the funds from the central government has also changed from 2015. Before 2014-15, the funds were routed directly to the designated state level implementing agency, State Health Society (SHS), directly. However, post 2014-15 the central funds have been routed through the state treasury to the SHS, along with the state government's share. Any health expenditure analysis in any state in India needs to take NHM funding into account in a major way.

The Finance Commission (FC) in India is a statutory body created every five years through an order of the President of India as per Constitutional provisions to determine the distribution of revenue between union, state, and local governments. It becomes important in view of the fact that revenue collection powers are majorly concentrated in the union government's hands. The 14th FC made a significant recommendation of enhancing the Untied-Fund (UF) share of states from 32% to 42% in the union tax collections, and also made provisions of compulsory transfers of UF to local governments, i.e., Gram Panchayats (GP). This resulted in states having a greater control over their resources and priorities while the union government reduced its allocation for CSS which are tied in nature, and with the argument that states with greater funds at their disposal can prioritise the sectors they need to; GPs also had greater scope to decide their priorities. The decision of the centre to devolve enhanced UF has a flip side in terms of states neglecting priority social sectors. This study covers 14th FC period 2014-15 to 2017-18 (2017-18 also was the starting of GST regime) when the revenue at the disposal of the states through CSS was significantly curtailed leading to a paradoxical situation of enhanced responsibility vis-à-vis reduced funding. The increased untied fund got prioritised over filling up of gap in the state share of CSS. The study objectives, outlined below, are linked to these developments as well, especially to gauge what happened in the post-14th FC phase and immediately after the GST regime in Rajasthan.

1.3. Objectives and Specific Aims of the Study

The main objective of the study was to review expenditure patterns in health in order to understand Rajasthan's healthcare priorities. The study seeks to answer the following specific questions with respect to Rajasthan:

1. Is the health expenditure in line with its health needs?
2. How do the changes introduced by the 14th FC translate to changes in policy and health expenditures?
3. What is the role/share of NHM in health expenditures?
4. How participatory and responsive is the development of the Gram Panchayat Development Plan (GPDP) at the GP level, particularly from the perspective of health?

The report is organised in ten chapters. Chapter 2 presents the methodology in detail, while Chapter 3 analyses the issues related with health status and health service delivery of the state. Six distinct issues emerge as important in the state: MCH, tribal health, urban health, delivery of public health services and expenditure on disease programmes. Chapter 4 presents the macro level analyses of the state budget and expenditure on health; from here, it moves to the issues of Reproductive Child Health (RCH)/MCH, Tribal Health and Urban Health in the Chapters 5, 6, and 7. Chapter 8 discusses the issue of public service delivery, and Chapter 9 analyses the expenditure on the disease programmes. Finally, Chapter 10 provides the major conclusions and recommendations.

Chapter 2: Methodology and Challenges

In this chapter, we give a detailed description of the methodology used as well as the challenges we faced in conducting the expenditure review. This primarily includes discussion on the analysis of state budget, NHM budget, fieldwork undertaken, and literature review.

2.1. Methodology

In our study, we use the National Health Accounts (NHA) Guidelines (National Health Accounts Technical Secretariat, 2016) for defining what is included within healthcare expenditure. The list of inclusions and exclusions within health expenditure is given in Table 2.1. Capital expenditures on health are a separate group within health expenditures, which includes expenditure on building and constructions of medical facilities (excluding minor repairs), medical education, research, and pre-service training of health professionals. Estimation of health expenditure, as per NHA Guidelines mentioned above, is not restricted to the Health and Family Welfare Departments of any state/central government. It includes expenditure on all health-related activities by the government, spanning across all departments. However, it is important to note that all programmes and schemes that provide supplementary nutrition (e.g., mid-day meals in schools) are not included here in the estimation of health expenditure. Other aspects that influence health of a person but are not included in this estimate are environment health, water supply and sanitation, compensation of wage loss, disability, maternity leave, failure of permanent family planning methods and expenditure on relatives'/caretakers' food, lodging and transportation (NHA Guidelines 2016).

2.1.1. State Budget Analysis

In this PER on health in Rajasthan, we focus on overall healthcare expenditure in the state, through different state government departments for the period 2012-13 to 2017-18. For this purpose, state budget documents for the period 2012-13 and 2017-18 were obtained from the Department of Finance, Government of Rajasthan. Apart from Medical, Health and Family Welfare departments, health care expenditure undertaken by all the departments of the state were also considered to understand the total health expenditure in the state.

Table 0.1: Inclusions and Exclusions on Health Expenditure as per National Health Accounts (NHA).

Health care Expenditure (primarily investment that affect health care directly)	1. Out of Pocket Expenditure on outpatient and inpatient services, (medicines, doctor fees, bed charges, diagnostic, preventive & rehabilitative services, traditional systems of medicine (AYUSH), ambulance and allied services, health enhancing drugs/products (such as vitamins with/without prescription) at public/private health facilities and pharmacies. 2. All government health expenditures as below. • Budgets to health facilities • Procurement of drugs and consumables, • Health programmes such as disease control, family welfare and reproductive child health programme, • National nutrition mission, immunisation, antenatal care, delivery, postnatal care, abortion etc. 3. Health administration, health insurance, medical benefits to government employees across all departments. 4. Household expenditure on healthcare.
Capital Account (primarily investment on building healthcare infrastructure, both physical and human)	1. Capital expenditure on buildings and construction excluding minor repairs. 2. Medical education, research, and pre-service training.
Exclusions (mainly supplementary health and nutrition related programmes)	1. Mid-day meal 2. Expenditure on relatives/caretaker's food, lodging and transportation 3. Environmental health 4. Supplementary nutrition food programmes 5. Water supply and sanitation 6. Compensation for wage loss, disability, maternity leaves, and failure of permanent family planning methods

Source: Table is modified based on the National Health Accounts (NHA) Boundary for India-based on Statement of Health Accounts 2011.

2.1.2. National Health Mission Expenditure Analysis

The primary source of actual expenditure under the NHM is the Financial Management Report (FMR) documents submitted by the State Mission to the National Mission office. For our analysis, we obtained the FMR from the Department of Finance, Government of Rajasthan. The Government of India also reports

quarterly to the Health Management Information System (HMIS), where it reports health-related indicators for each state along with financial details (allocations, releases, actual expenditures). Other important sources of this information are the Comptroller Accountant General (CAG) reports that give details of the GoI's share, state share for budget allocations as well as actual expenditures. Apart from these reporting and monitoring systems by GoI and CAG, the state government is also required to make their annual Programme Implementation Plan (PIP) giving details of previous year's financials (allocations, actual expenditure, committed liability, and unspent balances) along with the proposals for the next financial year.

Our study uses the FMR for the analysis of NHM expenditure; FMR documents are among the primary financial reports of NHM that provide component-wise utilisation against the budget allocated. Prepared from the book of accounts, FMR records only actual expenditure. The SHS submits it to the Ministry of Health and Family Welfare on a quarterly basis.

The format of the FMR in Rajasthan includes the below mentioned financing components:

1. National Rural Health Mission–Reproductive Child Health Flexible Pool (NRHM–RCH FP)
2. Communicable Diseases Flexible Pool (CD FP)
3. Non-Communicable Diseases Flexible Pool (NCD FP)
4. National Urban Health Mission Flexible Pool (NUHM FP)
5. Infrastructure Maintenance (IM)
6. Additional State Share (ASS)

Financial Management Report (FMR) only includes expenses undertaken by the SHS. The component of NHM on infrastructure maintenance has its funds directly spent by the state government and not released to the SHS, hence details are not included in FMR. Similarly, the additional state share, which gives expenditure details for state specific schemes like Rajshree Yojana, does not give a break-up of component wise expenditure (e.g., procurement, human resources, etc. Therefore, the NHM analysis does not include that component here. Also, the state share under Tribal Sub-Plan (TSP) is also not included as the funds for same are routed to the Tribal Department.

As the FMR reports only budget allocations and expenditures, it is possible to calculate the utilization as ratio of 'actual expenditure' to 'budget allocated'. Within each of the above four financing components, especially in the NRHM–RCH FP,

expenditures for a single scheme/programme are spread across different sections, for e.g., Janani Suraksha Yojana (JSY), we needed to add the section on procurement of drugs for Janani Shishu Suraksha Karyakram (JSSK) to JSSK allocations under maternal health in RCH FP in order to get a complete picture of JSSK allocations. Similar reallocations have been made across components in order to make a more meaningful analysis.

2.1.3. Literature Review

A detailed review of literature, including existing published materials along with government documents, was undertaken to understand the status of various health indicators, issues, and challenges facing the health sector, health delivery governance and institutional system, and health finance in the state. To understand the health status in the state and district level NFHS–3 and NFHS–4 reports for Rajasthan were reviewed. State PIPs were analysed from 2012-13 onwards to understand the role, progress, and reach of the NHM in the state. In order to understand the financial burden faced by the households with respect to health, our study undertook analysis of the 71st round of National Sample Survey (NSS) on consumption on health. The NHM implementation guidelines were reviewed to understand the norms of public health delivery systems. Guidelines for various health schemes at the national and state levels were also reviewed.

2.1.4. Field work

Field work was undertaken to understand the flow of funds within the health department hierarchy, including the role of local self-governance institutions in exercising their devolved powers in the health sector for improving health outcomes at local level. Three districts were selected for the field analysis i.e., Tonk, Dungarpur, and Jaisalmer located in three administrative regions of the state. These three districts represent distinct geographies. In each district two blocks were selected for detailed analysis. In each block, five GPs were identified wherein Primary Health Centres (PHCs) were covered including one Adarsh PHC[8]. The selection of blocks and GPs were carried out in consultation with district officials, especially the District Chief Medical Officer (DCMHO) and Block Chief Medical

[8] Adarsh Primary Health Centre (PHC): Under the Adarsh PHC Yojana, selected PHCs (one in each block) have undergone a gap analysis regarding HR (manpower), equipment, and availability of medicine and test facilities, and these gaps were filled. These are developed as an ideal PHC to fulfil the curative, preventive, promotive, and family planning role of the PHC.

Officer (BCMHO). The selection of blocks and GPs were based on the following broad criteria:

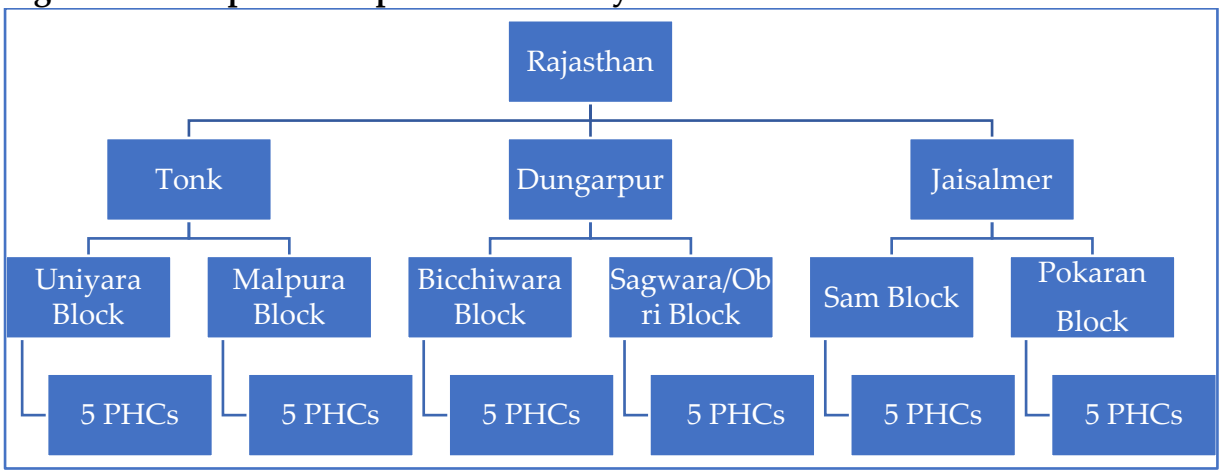
- Performance criteria – High performing and Low performing Block/GP-PHC
- Distance criteria – PHCs near Block Headquarters; medium distance and interior
- One Adarsh PHC (minimum).

Key in-depth interviews were undertaken with the health department and NHM officials and managers at state, district, block, and GP level (including ASHA Sahyoginis). Detailed tools were prepared by Centre for Budget and Policy Studies (CBPS) team and were shared with state officials and United Nations Children's Fund (UNICEF) team members. A research team of seven members was selected by the partner agency, the Institute of Development Studies (IDS), Jaipur to conduct the field work. A total of 204 key in-depth interviews were conducted, and 39 institutional profiles were prepared.

Field work commenced after official permission was granted by the Department of Medical Health and Family Welfare, Government of Rajasthan on 18 April 2019. The field work was carried out between April-June 2019. The field work schedule had to consider polling dates for the General Elections, 2019. The qualitative data entry was carried out in July 2019.

In order to understand the process of development of and expenditure under the GPDPs, the sarpanches and secretaries of the GPs were interviewed.

Figure 0.1: Sample Description for Primary Data Collected



Note: PHC stands for Primary Health Centre.

2.2. Challenges

2.2.1. Challenges in the State Budget

Analysing the state budget for health expenditure is a complex activity. The total expenditure on NHM from the year 2014-15 is difficult to be extracted from the state budget though the entire funds for NHM including that of the central share is being routed through the state treasury and should ideally form a part of the state budget. Analysing the NHM funds flow through the state treasury should have been only a matter of selecting the right budget lines to arrive at the total figures for the NHM. However, in reality, it was far from this. The ambiguous details for each item in the state budget made it difficult to sort out the NHM heads. Additionally, the infrastructure maintenance component was not easily discernible within the state budget. There is no single document that reports the entire expenditure incurred under the NHM programme.

2.2.2. Challenges in analysing National Health Mission Financials

The Government of India (GoI)has a quarterly reporting system, HMIS, where the states report their health care indicators as well as financials related to NHM; HMIS gives state-wise details of budgets allocated, funds released by GoI and actual expenditures as reported by the states. The CAG audits the state government including that of the releases under NHM to SHS. The CAG reports indicate the releases to the state from GoI and also the expenditures booked under the NHM scheme. State Health Society (SHS) also maintains financial details regarding the releases to the NHM and actual expenditures through the FMR. However, an exercise to understand the releases from the centre was done and we found a number of discrepancies across different source, all of which are supposedly authentic. Table 2.3 and Table 2.4 give the budgetary releases and actual expenditures for NHM in Rajasthan as reported by three different sources.

Table 0.2: Budgetary Allocations (Centre, State and Total) for National Health Mission (NHM) in Rajasthan (Rs in Crore)

Year	HMIS	Lok Sabha Questions	CAG Finance Accounts	Audited FMR
	(Centre Share only) releases	(Centre Share only) releases	(Centre Share only) releases	(Centre and State Share)
2014-15	1,115.96	1,115.96	1,088.87	2,181.63
2015-16	1,244.97	1,287.84	1,275.66	2,493.18
2016-17	1,183.49	1,204.84	1,190.58	2,537.53
2017-18	1,440.99	1,615.29	1,428.94	2,673.35

Source: Health Management Information System (HMIS) https://nhm.gov.in/New_Updates_2018/Quarterly_MIS/dec-2019/High-Focus-States-Other-than-NE.pdf; Comptroller Accountant General (CAG) Finance Accounts for various years https://cag.gov.in/state-accounts/rajasthan; and Financial Management Report (FMR) sourced through NHM Finance Office, Government of Rajasthan.

Table 0.3: Actual Expenditure (Centre, State and Total) for National Health Mission (NHM) in Rajasthan (Rs in Crore)

Year	HMIS	Lok Sabha Questions	CAG Finance Accounts	FMR
	(Centre Share only)	(Centre Share only)	(Centre Share only)	(Centre and State Share)
2014-15	1,722.69	1722.69	1,324.03	1968.49
2015-16	1,714.46	1799.10	1,779.70	2031.92
2016-17	1,759.17	1856.77	1,577.98	2205.50
2017-18	1,564.52	1885.55	2,141.67	1975.82

Source: Health Management Information System (HMIS) https://nhm.gov.in/New_Updates_2018/Quarterly_MIS/dec-2019/High-Focus-States-Other-than-NE.pdf; Comptroller Accountant General (CAG) Finance Accounts for various years https://cag.gov.in/state-accounts/rajasthan; and Financial Management Report (FMR) sourced through NHM Finance Office, Government of Rajasthan.

When we look at both tables, we see that the releases and expenditures from these sources do not match. For example, the central share amounts given by HMIS, Lok Sabha Questions as well as CAG financial reports differ (Tables 2.3 and 2.4). The FMR is the only document that shows the total allocation; however, it does not segregate the central and state share, making it difficult to ascertain which of the sources are accurate. Therefore, for our NHM analysis we have considered only the FMR as it is detailed and more amenable for analysis by components. Accordingly, the state budget analysis will reflect the NHM expenditures that are less than that of the expenditures reflected in NHM analysis through FMR. Except for the FMR data on allocations and actual expenses, for all the years of analysis, the actual

expenditure is higher than allocations as shown by data from HMIS, CAG and Lok Sabha questions. This issue needs much greater analysis to actually understand the health sector accounting and financing modalities in the state.

The FMR is a highly detailed document which includes more than 2,000 separate line items. Preparation of the Programme Implementation Plan (PIP) is a complex process and indeed NHM has a separate administration (read society) that handles the entirety of NHM processes in the state. Out of the six categories under NHM expenditure, information provided for NRHM–RCH FP happens to be the most detailed. Other account heads including the NUHM, the NCD, IM, and ASS did not have further details, making it even more difficult to carry out an in-depth component wise analysis of these three pools. This maybe an indication of the non-prioritisation of these expenditures, especially in case of NUHM and NCD; we explore this aspect later in greater detail.

2.2. 3. Challenges due to accounting Modalities in NHM

Our analysis includes the period from 2012-13 to 2017-18[9]. As the expenditures were classified broadly based on specific areas of healthcare, individual expenditures within were also split. But this was not always possible. For instance, ASHA incentives for JSY were given under JSY but all other ASHA incentives within NRHM-RCH were included within ASHA cost. This was also true for ASHA incentives under immunisation, which were not included within child health ASHA incentives. Similarly, Human Resources (HR) expenditure was separate for NRHM-RCH FP and that for specific disease programmes even though they may share health care personnel. This made the analysis of HR a challenge. Human Resources (HR) expenditure within NHM is an underestimate as a large portion of Infrastructure Maintenance (IM) expenditure goes towards staff in sub-centres, which is not given in detail in the FMR. The state budget also does not give separate IM components as NHM, which makes analysis of wages within IM difficult to calculate. Similarly details for HR are not available under NUHM.

It is also not possible to classify NHM expenditure by district from the FMR to understand how NHM money is split within districts. In addition, Rajshree Yojana and Shubhlaxmi Yojana, though according to NHA classification fall under social

[9] The format of expenditure reporting changed from 2018-19 and now Financial Management Report (FMR) categories are divided into 18 separate units that pool similar expenditures from all programmes. For example, procurement includes procurement of drugs and equipment from all pools of NHM, giving a more complete picture.

welfare schemes, have been included in the analysis as they are included within NHM additional state share category. Both Shubhlaxmi Yojana and Rajshree Yojana are largely social welfare schemes that promote birth of girl child and her education.

Priority expenditures such as NRHM-RCH were given in detail, but this was not the case with NUHM. No details were available for expenditures under ASS and IM which formed an average of 11% and 23% of total NHM spending.

2.2.3. Challenges with respect to District Level Analysis (Primary Data)

Several challenges were faced by the field team during the field work. Non-availability of district/block officials especially DCMHO and BCMHO at the appointed time was a major constraint. The research team had to make multiple visits to meet them to understand the background and challenges faced by them at the district level and block levels. It was also observed that they were hesitant to respond to the questions related to budgets and fund flows during the interviews. The research team was directed to talk to accounts personnel for information related to budgets.

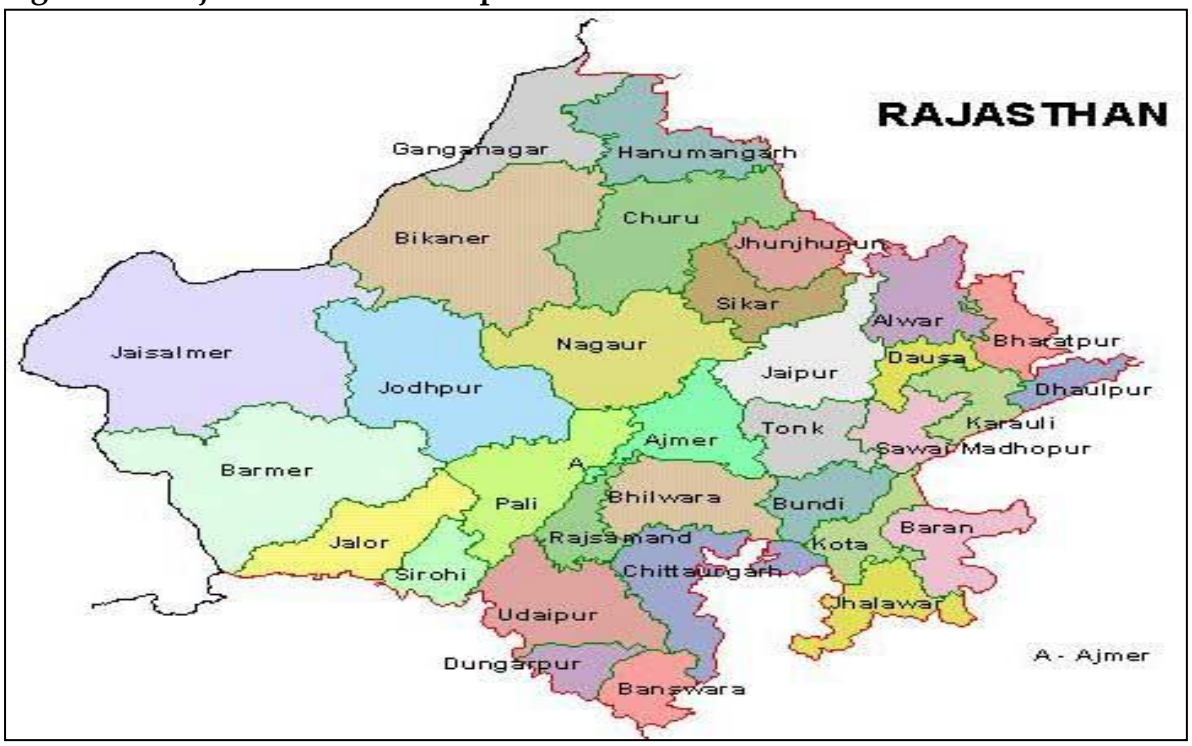
The data/documents pertaining to GPDP funds were difficult to access in the districts due to hesitancy on the part of the functionaries to share such data. There was some difficulty in accessing data pertaining to Rajasthan Medicare Relief Society (RMRS) and Village Health Sanitation Nutrition Committee (VHSNC) meetings as the registers were not updated.

The research team could access only few hard copies of GPDP plans at the GP level. In most areas the sarpanch/secretary stated that they can share copies only if the research team gets a permission letter from Block Development Officer (BDO) or a higher authority. In a nutshell, it was difficult to discern NHM expenditures within state budget documents. Sourcing this information from different documents like HMIS and Lok Sabha questions did not yield matching results, thus raising questions of accountability.

The next chapter will look into the heath profile of the state in detail.

Chapter 3: Health Status and Health Care Delivery in Rajasthan

Figure 0.1: Rajasthan District Map



The following section focuses on the health and disease profile of the state. We will first look at the general health profile of the state, followed by specific population groups, namely, mother and child, tribal population, and urban poor. We will further assess the state of public health delivery in the state and household expenditure on health.

3.1. Rajasthan's Health Profile

3.1.1. Comparing Rajasthan's socio-economic and health profile with other states

Rajasthan has the eight largest population in the country which is about 5.66% of India's population. The sex ratio in the state is low with only 973 women for every 1000 men. More than 15% of its population comprises of children aged 0-6 years, with the child sex ratio being even poorer at 887 per 1000 males. Almost 25% of its population live in urban areas and 13.5% of its population consists of STs (Census 2011). Rajasthan has poorer MCH indicators in comparison to selected states like Maharashtra and Tamil Nadu that are economically developed as well as those such as Odisha that are economically not so different from Rajasthan (Table 3.1). Rajasthan is hindered by its large state size, poor literacy rate, and high fertility rate.

Although the state has shown good improvement in MCH indicators between 2005-06 (NFHS-3) and 2015-16 (NFHS-4), there is still room for improvement (Table 3.3).

Table 0.1: Maternal and Child socio-economic and health Indicators in Select States, 2015-16

State	Rajasthan	Odisha	Maharashtra	Tamil Nadu	Bihar	India
Indicators						
Rank of state by size*	1	9	3	11	13	-
Population proportion in India**	5.66	3.47	9.28	5.96	8.60	-
Rural population /urban population**	75:25	84:16	55:45	52:48	89:11	72:28
Literacy Rate (%) **	66.11	72.87	82.34	80.09	61.8	74.04
Sex ratio females/1000 males**	933	979	929	996	918	940
Below Poverty Line (BPL) population in state (%) ***	14.71	32.59	17.35	11.28	33.74	21.92
Scheduled Tribe (ST) population#	13.5	22.8	9.4	1.1	1.5	8.6
Infant Mortality Rate##	**41**	40	24	20	48	41
Under-5 Mortality Rate##	**51**	48	29	27	58	50
Institutional Births (%) ##	**84**	85.3	90.3	98.9	63.8	78.9
Women age 20-24 years married before age 18 years (%) ##	**35.4**	21.3	26.3	16.3	42.5	26.8
Total fertility rate (children per woman) ##	**2.4**	2.1	1.9	1.7	3.4	2.2

Source: *Rank of state by size https://web.archive.org/web/20131203163229/http://mospi.nic.in/mospi_new/upload/SYB2013/ch2.html; **Census 2011; *** BPL population (2011): https://www.rbi.org.in/scripts/PublicationsView.aspx?id=16603 as on 16 September 2015; #Expert Committee report on tribal health; and ## State Fact sheets, National Family Health Survey (NFHS)–4, 2014-15.

3.1.2. Rajasthan General Disease profile

The study on the health profile of Indian states shows that Rajasthan, like other states in India, has seen a decrease in deaths due to Communicable Diseases (CDs) and an increase in deaths due to Non-Communicable Diseases (NCDs) (Indian Council for Medical Research (ICMR) et al., 2017). However, there still occur higher deaths due to infectious causes in Rajasthan compared to other states like Maharashtra, Tamil Nadu, or Kerala. Death rates in 2016 showed that Chronic

Obstructive Pulmonary Disease (COPD) was the main killer, followed by ischaemic heart disease, lower respiratory diseases, diarrhoeal diseases, and tuberculosis (TB). Death rates due to COPD, lower respiratory diseases, and TB were significantly higher than the national mean in the same year for that disease. Looking at causes of death in 2016 by age group (Table 3.2), it can be seen that in the age group 0-14 years, the highest cause of death was diarrhoea, lower respiratory infections, and others (41.7%), followed by neonatal disorders (36.6%) and unintentional injuries at (4.8%) (we will discuss this in detail in section 3.2). In the age group 15-39 years, transport injuries caused the highest mortality (14.2%), followed by deaths caused by infections leading to diarrhoea/ lower respiratory tract infections and others (12.4%), and those due to HIV/AIDS and TB (12.4%). Cardiovascular diseases are the highest cause of death in the age group 40-69 years (27.5%) and the second highest cause in those aged over 70 years (24.1%).

Table 0.2: Top three causes (of 10) of Deaths in Rajasthan by age group in 2016

Age Group	Highest Cause of Death	Per cent	Second Highest Cause of death	Per cent	Third highest Cause of Death	Per cent
0-14 years	Diarrhoea, Lower Respiratory tract Infections, other	41.7%	Neonatal disorders	36.6%	Unintentional Injuries	4.8%
15-39 years	Transport Injuries	14.2%	Diarrhoea, Lower Respiratory tract Infections, others	12.4%	HIV/AIDS & Tuberculosis	12.4%
40-69 years	Cardiovascular diseases	27.50%	Chronic Respiratory diseases	20.4%	Cancer	13.5%
>70 years	Chronic Respiratory diseases	30.4%	Cardiovascular diseases	24.1%	Diarrhoea, Lower Respiratory tract Infections, others	18.40%

Source: Health of the Nation's States–India State level Disease burden Initiative, 2017

As seen above, chronic respiratory diseases are an important cause of death in the population aged above 40 years, followed by cardiovascular diseases. In fact, Rajasthan has one of highest numbers of Disability Adjusted Life Years (DALYs) in

India for COPD[10], amounting to more than 2,250 per 100,000 in India. The main causes of COPD are smoking, indoor air pollution caused by use of unclean source of fuel, and outdoor air pollution. Similarly, lower respiratory infections are the highest causes of DALYs in Rajasthan. The second major cause of deaths is ischaemic heart disease (Indian Council for Medical Research (ICMR) et al., 2017). Both COPD and ischaemic heart disease and its associated NCDs (diabetes, stroke, hypertension, etc.) are long term illnesses and require significant expenditure on treatment. A paper based on results of the 60th round of NSS Office survey found that people preferred to get hospitalised in private institutions for NCDs as opposed to CDs, and people with NCDs also had longer hospital stays. For NCDs, the average cost per stay as an inpatient was as high as Rs 14,377 in private hospitals compared to Rs 6,876 in government hospitals (Barik & Arokiasamy, 2016). Hence, NCDs are not only debilitating physically, but also have more adverse financial implications for the individual and the household.

3.2. Health Profile: Key issues in Rajasthan

3.2.1. Maternal/Reproductive and Child Health (MCH/RCH)

As seen in the above table, 41% of deaths in children aged 0-14 years in Rajasthan were due to infectious diseases. The hold of infectious diseases is still strong in the state as the percentage of children with complete immunisation stood at only 54% (Table 3.3). High intra-state differences exist, e.g., in Jalor and Barmer districts, only 36% children received all basic immunisations as compared to 80% in Ganganagar. Malnutrition also plays a part in causing poor immunity in children, resulting in vicious cycle of infection and further poor nourishment. In districts like Pratapgarh, Dungarpur, and Sirohi more than 35% of the children under five years of age have not attained adequate weight for their height (wasting).

[10] World Health Organisation (WHO) defines Chronic obstructive pulmonary disease (COPD) as a lung disease characterised by chronic obstruction of lung airflow that interferes with normal breathing and is not fully reversible. Accessed on 7 February 2019 from https://www.who.int/respiratory/copd/definition/en/.

Table 0.3: Maternal and Child health indicators within Rajasthan

Health Indicator	Rajasthan (2015-16)	Rajasthan (2005-06)	Bottom 3 Districts with poorest indicator value (2015-16)			District with best indicator value (2015-16
Maternal Mortality Ratio per 100,000 live births*	199	288	Banaswara (184.6)	Dungarpur (146.1)	Jhalawar (144.9)	Jalor (28.2)
Infant Mortality Rate per 1000 live births	41	65	Banaswara (30.3)	Bhilwara (25.8)	Jhalawar (25.2)	Jodhpur (1.4)
Under-5 Mortality Rate (U5MR) per 1000 live births	51	85	Banswara (34.7)	Bhilwara (27.9)	Jhalawar (26.9)	Jodhpur (1.5)
Total Fertility Rate**	2.4	3.2	Barmer (4.4)	Dhaulpur (4)	Banaswara (3.9)	Kota (2.4)
Mothers with at least 4 Antenatal care visits (%)	38.5	23.4	Barmer (16.2%)	Bharatpur (17.2%)	Churu (18.3%)	Kota, Jaipur (58.7%)
Institutional Births (%)	84	29.6	Jaisalmer (49.8)	Barmer (60.3)	Jodhpur (72.7)	Baran (97)
Children age 12-23 months completely immunised (%)	54.8	26.5	Jalor (35.7%)	Barmer (36%)	Jaisalmer (38.6%)	Ganganagar (79.9%)
Children under 5 years who are stunted (height for age) (%)	39.1	43.7	Dhaulpur (54.3%)	Banswara (50%)	Bharatpur (47.6)	Sikar (28.4%)
Children under 5 years who are wasted (weight for height) (%)	23	20	Pratapgarh (38.2%)	Dungarpur (37.5)	Sirohi (36.6)	Sikar (11.5%)

Source: * NITI Aayog, National Family Healthy Survey–4, Rajasthan State Report, 2015-16.
** http://nrhmrajasthan.nic.in/FW.htm, Mission Parivar Vikas accessed on 19 December 2019.
Note: Three districts, i.e., Banaswada, Pratapgad, and Dungarpur are fully under Tribal Sub-Plan (TSP), while Udaipur, Sirohi, Rajasmand, Chittorgarh and Pali are partially under TSP. In the state of Rajasthan, ten high priority districts have been identified which are Udaipur, Rajsamand, Dungarpur, Banswara, Bundi, Jalore, Barmer, Jaisalmer, Karauli and Dholpur for the implementation of the Reproductive, Maternal, Newborn, Child and Adolescent Health (RMNCH+A) initiative.

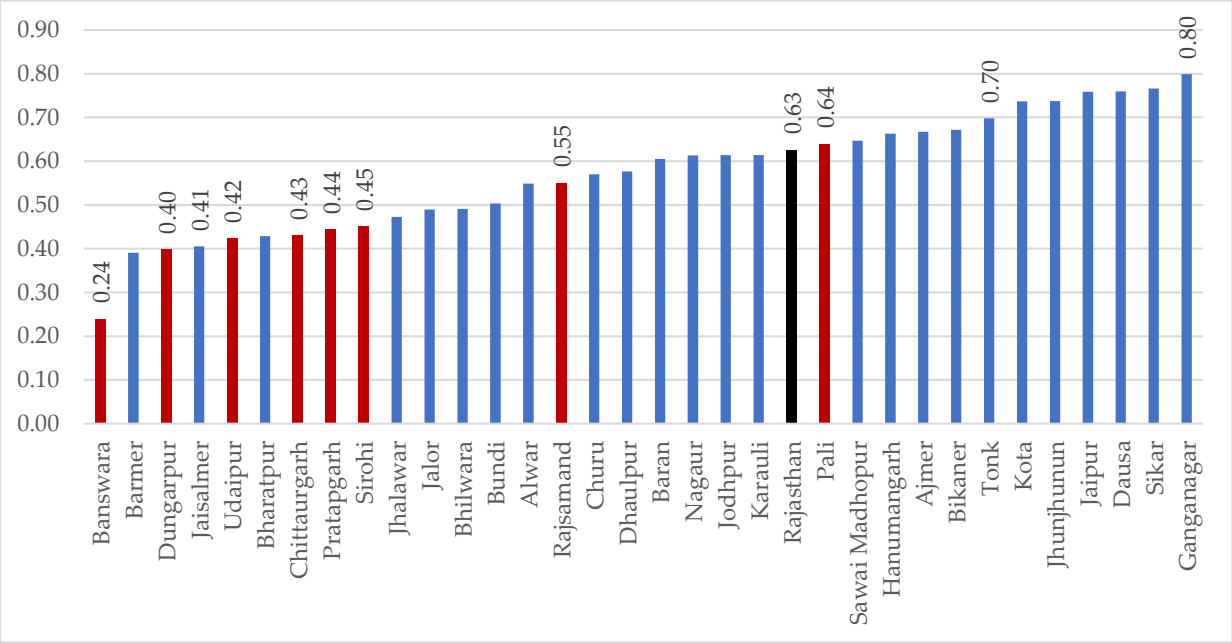
The second important reason of child deaths was linked to neonatal causes. Three causes accounted for 78% of all neonatal deaths in India in 2005: prematurity and

low birthweight, neonatal infections, and birth asphyxia and birth trauma. Fifty per cent of all under-5 deaths in India were caused by pneumonia and diarrhoeal diseases (Million Death Study (MDS) collaborators, 2010). All of these causes are largely preventable by providing appropriate and early antenatal and delivery care, and early diagnosis and treatment. In order to improve child and mortality indicators, the NRHM introduced the Janani Suraksha Yojana (JSY) in 2005-06 which provided cash to mothers belonging to Below Poverty Line (BPL), SC and ST households in lieu of having their babies delivered in a health facility and the JSSK in 2011, which covered all health care costs (medicines, diagnostics, stay, food, and transport) for pregnant woman in public health facilities and their child for up to one year after delivery. This has brought about an improvement in child indicators as seen in Table 3.3. However, there is wide variation across the state with respect to MCH indicators; for instance, the percentage of women who had at least four Ante Natal Care (ANC) check-ups varies from 16% in Barmer to a highest of 59% in Kota, while the state average is 39%. Similarly, only 50% mothers delivered in a health facility in Jaisalmer as compared to 97% Baran, while the average for Rajasthan was 84%. Although there has been a significant jump in institutional deliveries in the past decade, the resultant improvement in health indicators is still not enough. The differences in indicator levels amongst districts tells us that the progress on MCH has not been inclusive, and efforts need to focus on compensating this disparity.

Maternal and Child Health Index (MCHI)

The lack of data on general diseases makes it difficult to compare health indicators between districts. National Family Health Survey (NFHS)–4 and HMIS (2014-15) us gives us district level indicators mainly for MCH indicators. In order to facilitate comparison between districts, MCH indicators have been used to construct a Maternal and Child Health Index (MCHI). Mothers who had at least four ANC visits (%), percentage of Institutional births (%), children aged 12-23 months fully immunised (BCG, measles, and 3 doses each of polio and DPT) (%), children under five years who are stunted (height-for-age) (%), children under five years who are wasted (weight-for-height) (%), non-pregnant women aged 15-49 years who are anaemic (<12.0 g/dl) (%), IMR, MMR, and Under-5 Mortality Rate (U5MR) were the indicators used to construct the MCHI. This was used to rank the districts to allow comparison (Figure 3.2).

Figure 0.2: District-wise Maternal and Child Health Index (MCHI), Rajasthan, 2014-15



Source: MCHI calculated based on indicators obtained from National Family Health Survey-4 (2015-16) and Health Management Information System (HMIS) (2015).
Note: Red Bars indicate districts with tribal scheduled areas.

Maternal and Child Health Index (MCHI) shows the poorest performing district is Banswara (0.24) and the best indicators are seen in Ganganagar (0.80). Six of the ten districts with the poorest MCHI are under the tribal scheduled areas. Of the three study districts, Dungarpur (0.40) and Jaisalmer (0.41) show poor MCH indicators; however, Tonk does better than the state average at 0.70.

Adolescent Health

The main health issues faced by the adolescents in India include mental health problems, early pregnancy and childbirth, HIV, sexually transmitted infections and other infectious diseases, violence, injuries, malnutrition, and substance abuse (Maliye & Garg, 2017). More than 35% women in Rajasthan are married before the age of 18 years, while almost 41% girls aged 15-19 years were married and had begun childbearing (NFHS-4 state fact sheet). Eighty-five per cent of married women aged 15-19 years were not using any contraceptive methods. According to NFHS-4, 49.1% of girls and 22.1% boys aged 15-19 years have anaemia. Twenty-one per cent of girls and 23% of boys aged 15-19 years are moderate to severely thin._A study estimated that if Rajasthan prioritised on adolescent health by focusing on reducing child marriage, preventing anaemia, and diagnosing and treating mental health issues it would gain higher benefit per unit of cost invested (Mangal et al., 2018).

Currently, Rashtriya Kishori Shakti Yojana (RKSK) is active only in 10 districts of the state with a total of 314 Adolescent Friendly Health Clinics (AFHC)[11].Table 3.4 highlights some of the main MCH-related schemes currently operational in Rajasthan.

Table 0.4 :District-wise Maternal and Child Health Index (MCHI), Rajasthan, 2014-15

Sr. No	Scheme	Information/Benefits
1.	**Janani Suraksha Yojana (JSY)**	Cash incentives to all mothers for institutional at public and accredited private health facilities of Rs 1,400 in rural and Rs 1,000 in urban areas
2.	**Janani Shishu Suraksha Karyakram (JSSK)**	Free Referral Transport, Diet, Diagnostics, Drugs, consumables in public facilities for all pregnant women and their infants
3.	**Pradhan Mantri Surakshit Matruvta Abhiyan/Kushal Mangal Karyakram**	Expert care for high-risk mothers in the ninth month of pregnancy
4.	**Pradhan Mantri Matru Vandana Yojana**	Cash incentive of Rs 5,000 for the first pregnancy
5.	**Maternal Death Review**	Reporting of causes of maternal deaths in institutions and community
6.	**Child health programmes for new-borns**	Home based Newborn Care, Newborn Care Corners, Newborn Stabilisation Units, 36 Special Newborn Care Units and Nutrition Rehabilitation Centres, Kangaroo Mother Care in the Special Newborn Care Units (SNCUs) and Newborn Stabilization Units (NBSUs) of the state**.**
7.	**Mission Chirayu**	In eight districts to reduce still born rate. Establish SNCU, follow operational guidelines in high case load facilities, provide c-section where required, improvement in Ante Natal Care (ANC) numbers to identify high risk cases. Programme Implementation Plan (PIP) 2017
7.	**Routine Immunisation programme**	Immunisation coverage is poor in Rajasthan especially in desert areas and urban areas.

[11] National Health Mission (NHM) Programme Implementation Plans (PIP) 2017-18.

Sr. No	Scheme	Information/Benefits
8.	**Programme for diarrhoea and pneumonia control (Integrated Management of Neonatal and Childhood Illnesses–IMNCI)**	Management of diarrhoea with provision of Oral rehydration solution and zinc and early identification of pneumonia.
9	**Intensified Diarrhoea control fortnight**	From 2014 onwards, May to June, in all Primary Health Centres (PHCs) in districts, Anganwadi Centres (AWC) will have Intensive Diarrhoea Control Fortnight (IDCF) corner, Accredited Social Health Activist (ASHA) to distribute ORS packet in under-5 age houses, in children with diarrhoea, provision of ORS and zinc tablets, education to school children regarding hand washing and hygiene.
10.	**Infant & Young Child Feeding (IYCF), "MAA" – Mothers Absolute Affection**	Promotion of exclusive breast feeding and Kangaroo Mother care.
11.	**National Iron Plus Initiative (NIPI)**	Provision of iron and folic acid supplements and deworming in women of all age groups.
12.	**National Deworming Day**	Deworming of children of aged 1-19 years occurs in February every year from 2017 onwards at all government schools, private schools, madrasas, Kendriya Vidyalayas, Navodaya Vidyalayas, and Anganwadi centres in all the districts.
13.	**Proactive and Optimum care of children through Social-Household Approach for Nutrition (POSHAN)– Malnutrition Treatment Centres (MTC), Nutrition Rehabilitation Centre (NRC), child treatment centres, and village child development centres (VCDCs)**	70 MTCs functional in Rajasthan in 2017-18 for treatment of severely malnourished children
14.	**Rashtriya Bal Suraksha Karyakram, (RBSK-Raj) software to monitor the programme.**	RBSK has been started for early detection and management of the '4Ds' (defects at birth, diseases in children, deficiency conditions and developmental delays including disabilities) prevalent in children.
15.	**Rashtriya Kishore Swasthya Karyakram (RKSK)**	RKSK is currently operational in ten districts of the state. There are 314 Adolescent Friendly Health Clinics (AFHCs) in the state.

Sr. No	Scheme	Information/Benefits
16.	**Maternal and Child Tracking System (MCTS)**	Mother and child registered in urban and rural government institutions for delivery registered in system from January 2011. The mother and child can be tracked anywhere in the country and information can be updated. Information on beneficiary schemes is given to them via telephonic calls
17.	**Implementation of the Pre-Conception and Pre-Natal Diagnostic Techniques (PCPNDT) Act and use of Integrated Monitoring system for PCPNDT Act (IMPACT) software**	This Act was passed in 1994 to prevent female foeticide to improve the sex ratio in the state. IMPACT is) used to monitor ultrasounds done on pregnant women at facilities with a view to improve sex ratio.
18.	**Family planning programme**	To reduce the Total Fertility Rate in the state.
19.	**Mukhya Mantri Shubhlaxmi/Rajshree Yojana**	Cash incentives for birth, care, and education of girl child (although social sector expenditure, included under National Health Mission [NHM])

3.2.2. Tribal health

The tribal population in Rajasthan lives mainly in the southern and eastern part of Rajasthan. The most common health problems faced by the tribal population in India include, malaria, malnutrition, high child and maternal mortality, addictions to alcohol and tobacco, and animal bites and accidents due to occupational hazards (State of Tribal Health in India, 2017). Although tribal population comprises only 8% of total population in the country, they account for nearly 30% of cases of malaria. Higher prevalence of TBs is also seen, i.e., 703 cases for the state against the national average of 256 per 100,000. The expert committee on tribal health's report also adds that the tribal population, like the general population, is in epidemiological transmission with evidence of increasing cases on NCDs as compared to CDs.

Women in tribal population are subject to higher morbidities than the general population. They are malnourished and married at a younger age. The number of children borne by women are also higher, which leads to a vicious cycle of malnourishment. A study in 2010 in Rajasthan showed that ST women were also more likely to give birth at home, have no ANC check-ups as well as have a lower usage of contraception (Bhardwaj & Tungdim, 2010). Another study showed that, a

large number of pregnancy related deaths occurred during postpartum period at home (Iyengar et al., 2009). The rates of institutional deliveries have improved with the introduction of the NRHM. According to NFHS-4, 78% of the ST women interviewed in Rajasthan delivered at a health facility in 2015-16 as opposed to only 24.7% in 2005-06. A jump of 50 percentage points is observed amongst the number of ST mothers who have used a health facility to deliver their children (Table 4). We further see that this improvement is higher in SC and Other Backward Classes (OBC) categories as compared to ST. Tribal women also face an additional burden of sexually transmitted diseases that is compounded by the lack of knowledge on its transmission and consequences due to low levels of education (Bhasin, 2007).

Malnourishment also extends to children in the community which shows higher levels of stunting and wasting than the general population. Child mortality estimates for the tribal community are unavailable but is generally worse than that of the general population. Infant Mortality Rate (IMR) based on census data estimates ST rates at 74 per 1000 live births as compared to 62 (per 1000 live births) for general population. Rates of immunisation are also low at 56% as compared to 71% for the general population in the country. However, levels of breastfeeding are good in the tribal population (The Expert Committee on Tribal Health, 2017).

Treatment seeking is influenced by poor literacy as well as their cultural and traditional beliefs, where-in traditional healers were sought first for treatment. Lack of trained personnel and facilities in remote areas also results in preference for the more expensive, private medical treatment, instead of available public health facilities. Lack of understanding of cultural context when providing health care and how their traditional beliefs along with a lack of public facilities compounds the low access to public health care (Bhasin 2007; Nagda, 2008; Sundararajan et al., 2013). Although it has also been seen that schemes like JSY has helped in reducing costs on delivery care to the poor, costs due to delivery complications as well as resultant post-natal care in public facilities do remain (Govil et al., 2016).

Table 0.5: Percentage of women giving birth in Health Facility by Social Category in 2005-06 and 2015-16 in Rajasthan and India

Caste/Group	India NFHS–4	Rajasthan NFHS–4 (2015-16)	Rajasthan NFHS–3 (2005-06)
Scheduled Caste (SC)	78.3	85.4	19.6
Scheduled Tribe (ST)	68	78.3	24.7
Other Backward Classes (OBC)	79.8	83.5	43.5
Others	82.9	89.6	52.9

Source: NFHS stands for National Family Health Survey. NFHS 3 (2005-06) and NFHS-4 (2015-16) Rajasthan state reports

3.2.3. Urban Poor

According to Rajasthan's economic survey 2019-20, almost 25% of its population lived in urban cities in 2011. This has increased from 16.28% in 1961 and 23.4% in 2001. This translates to about 1.7 crore people of whom 47% are women. About 13% of its urban population consists of children aged 0-6 years. The state has 29 cities with more than one lakh population including 3 cities namely Jaipur, Jodhpur and Kota with more than one million population. These three cities account for 30% of total urban population of the state. The sex ratio for urban areas is 911 against the state average of 926 females out of 1000 males. The Committee on Slum Statistics/Census constituted by the Ministry of Housing and Urban Poverty Alleviation, Government of India in its report (2011) has indicated 145% increase (from 15.63 lakhs to 38.26 lakhs) in urban slum population during last decade (2001-11) in Rajasthan (Rajasthan NUHM PIP 2014-15)[12].

A 2007 study on the urban landscape in Rajasthan also talks about the then increase in the number of slums in upcoming industrial towns and cities. The urban cities showed a lack of health facilities that catered to the urban poor as opposed to the rural health system, which was well-developed. The urban local bodies also lacked resources required to plan and carry out such changes (Agarwal & Kirti, 2007). Post the adoption of the NUHM in 2013, 61 cities were selected under its umbrella. Broadly, NUHM aimed to map the slums in the cities and its health indices, and also reorganise the different public health infrastructure in the cities namely, urban PHCs, Health and Family Welfare centres (HFWCs), and Health Kiosks into standardised Urban Health Centres. Many of the cities required construction of new PHCs as well as Community Health Centres (CHCs) and needed sufficient resources to run existing ones. In addition to this, many of the NRHM schemes were extended

[12] http://nrhmrajasthan.nic.in/PIP.htm

to urban areas, e.g., JSY, JSSK, Mobile Medical Units, free drug and diagnostics scheme as well as health insurance schemes. In addition to these, schemes for infectious diseases like Revised National Tuberculosis Control Programme (RNTCP), Urban Malaria Scheme, and, recently, NCD screening are also enabled in the cities.

The urban statistics, especially those for the urban poor, remain almost non-existent in the present scenario. Illegal and newer slums and settlements were not recognised by the local bodies, which resulted in unhygienic conditions of living and a lack of basic facilities, resulting in poor health indicators (Subbaraman et al., 2012). These settlements are also largely ignored when producing urban health statistics due to their illegality (Agarwal & Kirti, 2007). Looking at NFHS-4 data for Jaipur, Jodhpur, Kota, and Ajmer (i.e., cities with largest urban populations), we see that urban areas in Jaipur lag behind its rural counterparts in terms of MCH indicators. Kota and Ajmer do not show this trend and the gap between the urban and rural indices there is not as high as that seen in the state average. Jodhpur with its large urban population has the poorest urban health indices of the four cities. Hence, there is considerable diversity and there is a need to look into how the state deals with problems in the urban landscape.

Table 0.6: Comparison of Maternal and Child Health (MCH) indicators of urban and rural areas in select districts of Rajasthan (2015-16) *

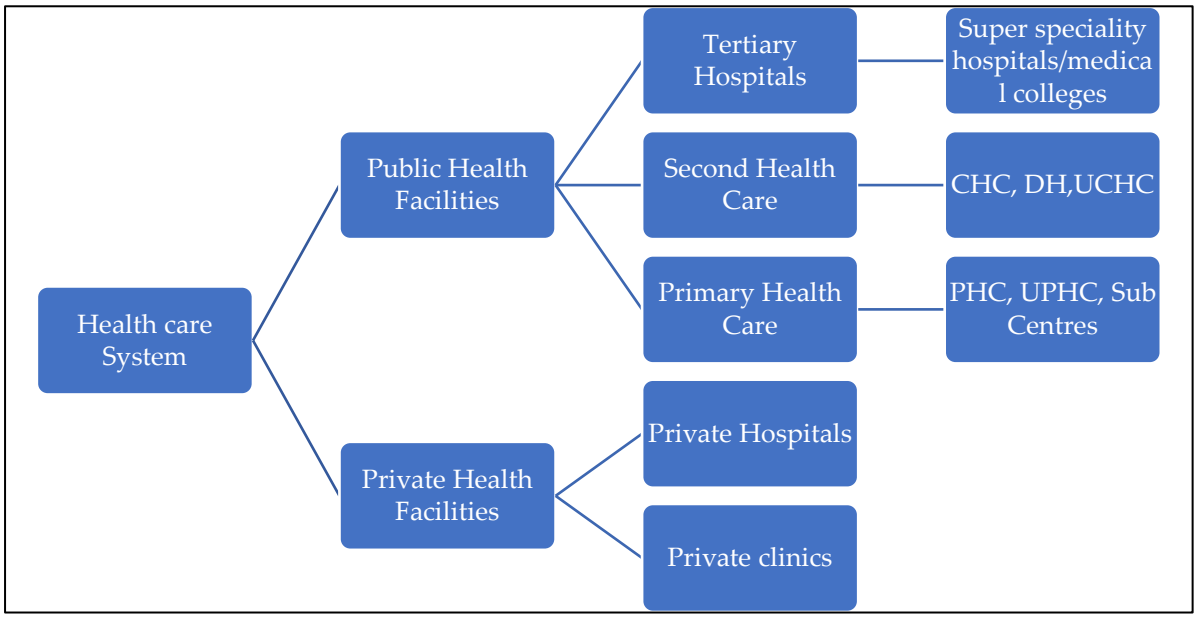
MCH Indicators	Mothers who had at least 4 antenatal care visits (%)	Institutional births (%)	Children aged 12-23 months fully immunised (BCG, measles, and 3 doses each of polio and DPT) (%)	Children under 5 years who are stunted (height-for-age) %)	Children under 5 years who are wasted (weight-for-height) (%)	Non-pregnant women aged 15-49 years who are anaemic (<12.0 g/dl) (%)
District						
Rajasthan urban	53.8	90.3	60.9	33	21.6	40.7
Rajasthan rural	34	82.3	53.1	40.8	23.4	49
Jaipur urban	67.8	92.7	54.2	35.8	13.5	26.6

MCH Indicators	Mothers who had at least 4 antenatal care visits (%)	Institutional births (%)	Children aged 12-23 months fully immunised (BCG, measles, and 3 doses each of polio and DPT) (%)	Children under 5 years who are stunted (height-for-age) %)	Children under 5 years who are wasted (weight-for-height) (%)	Non-pregnant women aged 15-49 years who are anaemic (<12.0 g/dl) (%)
Jaipur Rural	49.7	95	63.7	35.6	12.1	27.4
Kota urban	63	92.5	72.9	30.7	27.8	56.5
Kota Rural	52	91.6	69	33.8	27.6	65
Ajmer urban	61.5	90.2	71.1	27.8	30.2	47.7
Ajmer rural	46.7	85.9	65.2	36.1	32.2	56.7
Jodhpur urban	56.5	88.6	54.5	39	20.6	41.4
Jodhpur rural	32.6	66.3	36.3	40.9	25.2	46.2

Source: National Family Health Survey (NFHS)–4 Rajasthan state Fact sheet.

*Districts with highest urban population the state were chosen.

Figure 0.3: Health Care Delivery System



PHC–Primary Health Centre, CHC–Community Health Centre, DH–District Hospital, UPHC–Urban Primary Health Centre, and UCHC–Urban Community Health Centre.

3.3. Health care services in Rajasthan

3.3.1. Availability of Health Care Facilities

Delivery of health care in the state is done by a large network of public health facilities in Rajasthan, which is similar across states. Its foundation was laid down by the Bhore committee in 1946, which emphasised the need for primary care facilities which included curative as well as preventive services. India's public healthcare system is three-tiered, consisting of primary, secondary and tertiary health care facilities (Figure 3.3). Primary care is the first level of care for a patient to seek medical care. It consists of sub-centres and PHCs in rural areas. and Urban Primary Health Centres (UPHCs) in cities.

Primary Health Centres (PHCs) essentially provide general outpatient services as well as reproductive and child health facilities and preventive services. They also provide basic laboratory facilities and services under the national health programmes like JSY, RNTCP, etc. Community Health Centres (CHCs) (Taluk Hospitals), and sub-district hospitals at block level serve as secondary level care hospitals. They are referral centres for PHCs and serve as gatekeepers for higher tier hospitals like district hospitals and super specialty hospitals. They provide inpatient as well as outpatient services for general medicine, surgery, obstetrics and gynaecology, emergency care as well as critical care (in District Hospitals [DH], ophthalmology, paediatric, and dental facilities. Currently, DHs are also secondary

level care hospitals that include facilities for emergency (trauma care) and intensive care units (ICUs) at the district level. These (DHs) have been envisaged to be further developed into tertiary care centres, which are super speciality hospitals, according to the new Indian Public Health standards document, 2012 (Indian Public Health Standards [IPHS] Guidelines for District Hospitals, 2012). Tertiary care centres that include facilities for cardiac care and surgery, nephrology, and urology services as well as cancer care are available only in few government medical colleges in the state.

Table 0.7: Health Infrastructure Status in Rajasthan

Type of Infrastructure	Number in Rajasthan*
Sub-centre	14,374
Primary Health Centre (PHC)	2,094
Community Health Centre (CHC)	606
Hospitals	103
Mother and Child Welfare Centres	118
Urban Public Health Centre (UPHC)**	245
Health Kiosks (Urban)**	17
Urban Community Health Centre (UCHC)**	8

Source: *Economic Survey Rajasthan 2019-20, http://plan.rajasthan.gov.in/content/dam/planning-portal/Directorate%20of%20Economics%20and%20Statistics/Publication/Regular%20Publications/economic%20review%20english/economicreviewchaptersenglish/2019-20/ch%208.pdf.
**National Urban Health Mission Programme Implementation Plan (NUHM PIP) final budget sheet, 2017-18.

Currently, most tertiary care centres are privately run and restricted to the urban areas in the state. Under the NUHM, UPHCs and CHCs are in the process to being renovated or constructed according to new norms established under the Indian Public Health Standards (IPHS), to cater to the urban poor population. Table 3.7 gives the number of different public health facilities currently functional in the state. The state has systematically increased the number of public health facilities in the past decade, which is evident from Table 3.8, which shows a marked increase in the number of rural sub-centres, PHCs, and CHCs in the state as compared to other states. The Rural Health Statistics (RHS) document, 2018, also shows no shortfall in number of these facilities in the state. However, this is not the case with urban health facilities, which did not keep up the rapid growth in the urban poor population. The

NUHM PIP for 2014-15 showed an additional requirement of 63 new UPHCs and a need for hiring almost 2,500 new health staff in the cities.

Table 0.8: Number of Rural Public Health Facilities in Rajasthan between the tenth (2002-07) and twelfth plan (2012-17)

State	2002-2007			2012-2017			Percentage Increase		
	SC	PHC	CHC	SC	PHC	CHC	SC	PHC	CHC
Odisha	5927	1279	231	6688	1280	377	12.8	0.1	63.2
Rajasthan	10612	1499	337	14406	2079	579	35.8	38.7	71.8
Maharashtra	10453	1800	407	10580	1814	360	1.2	0.8	-11.5
Tamil Nadu	8682	1380	236	8712	1362	385	0.3	-1.3	63.1
Karnataka	8143	1679	254	9381	2359	206	15.2	40.5	-18.9
Kerala	5094	909	107	4575	849	232	-10.2	-6.6	116.8

Source: Rural Health Statistics, as on 31 March 2015, https://wcd.nic.in/sites/default/files/RHS_1.pdf, accessed on 15 October 2019.

Note: SC–Sub Centre, PHC–Primary Health Centre, and CHC–Community Health Centre.

Human resources seem to the bane of providing quality health care in the state. Not only do the urban areas require health staff, same is true for rural areas as well. As seen in Table 3.9, many PHCs do not have a laboratory (lab) technician or pharmacist in the state. Also concerning is the dearth of trained surgeons and obstetric/gynaecologists at CHCs. This is especially concerning in a state with high infant and maternal mortality incidence.

Table 0.9: Human Resources at health facilities in various states on 31 March 2018.

State	Pharmacists (PHCs & CHCs)			Lab Technicians (PHCs & CHCs)			Specialists* (CHCs)		
	Required	Vacancy	Vacancy %	Required	Vacancy	Vacancy %	Required	Vacancy	Vacancy %
Maharashtra	2184	300	13.7	2184	888	40.6	1444	959	66.4
Rajasthan	2666	1494	56	2666	575	21.5	2352	1787	75.9
Odisha	1665	118	7.0	1665	1098	65.9	1508	1255	83.2
Tamil Nadu	1806	-	-	1806	839	46.4	1540	1330	86.3
Karnataka	2565	151	5.8	2565	1033	40.2	824	326	39.5
Kerala	1076	*	-	1076	711	66.0	908	868	95.5
All India	31367	4938	15.7	31367	12354	39.3	22496	18422	81.8

Source: Rural Health statistics, 2018. *Specialists: physicians, surgeons, Obstetrics and Gynaecology (OB &GY) and paediatricians.
Note: SC–Sub Centre, PHC–Primary Health Centre, and CHC–Community Health Centre.

3.2.2. Access to health care

Household Health care expenditure

Not only should health facilities be available, but they should also be affordable for the poor to make use of them. In order to understand the financial burden faced by the households with respect to health, our study undertook analysis of the 71st round of NSS on health as well as looked in to the 2017-18 report on the 75th round of NSS. Relevant findings are presented in the section below.

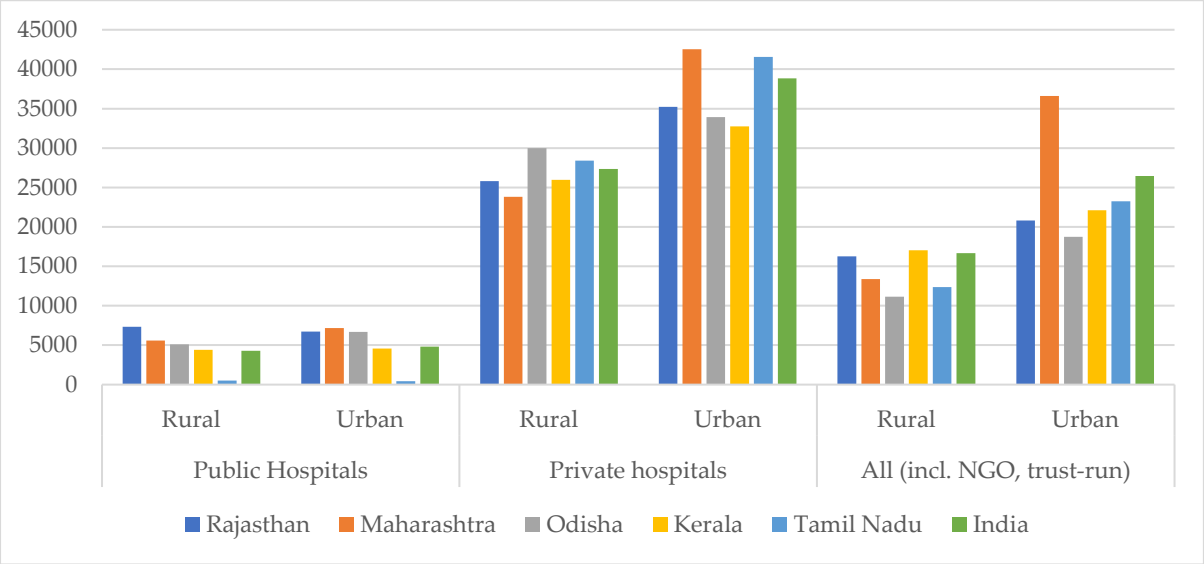
Table 0.10: Percentage of ailments treated on medical advice, and percentage break-up of such ailments by (level of care received) healthcare service provider in Rajasthan and India (2017-18)

Health Care Provider	India			Rajasthan		
	Rural	Urban	R+U	Rural	Urban	R+U
Government /Public Hospital	32.5	26.2	30.1	42.8	32.2	39.8
Private Hospital	20.8	27.3	23.3	26.6	32.6	28.3
Private doctor/in private clinic	41. 4	44.3	42.5	20.3	34	24.1
Charitable trust/NGO-run hospital	0.9	1.3	1.1	0.2	0.4	0.03
Informal Health care provider	4.3	0.9	3	10	0.8	7.5

Source: National Sample Survey (NSS) 75th round, 2017-18.

Looking at Table 3.10, we see that that there is a clear preference to seek treatment in private hospitals and dispensaries in Rajasthan and it is more evident in urban areas as compared to rural areas. This follows the national trend for preference for private facilities (65.8% in all-India and 52.4% in Rajasthan) although it is at a much lower percentage in Rajasthan. Looking at expenditures accrued during hospitalisation in various states, we see that Rajasthan has the highest average expenditure in public hospitals at Rs 7,174 per case of hospitalisation in 2017-18. This is not seen in hospitalisation at private facilities, where the average medical expenditure of Rs 28,226—though this is higher than that of public facilities, it is lower than that of the other states (except Kerala) as well as the all-India average (Figure 3.4).

Figure 0.4:Average medical expenses (Rs) during hospital stay per case of hospitalisation* in various states by type of facility and area in select states in 2017-18



Source: National Sample Survey (NSS) 75th round, 2017-18.
Note: This excludes hospitalisation for childbirth.

Looking at details of hospitalisation expenditure (Table 3.11), we see that percentage expenditure on drugs is the highest across all the sectors and especially in the rural public facilities in Rajasthan. This is followed by expenditure on package costs which are higher in private facilities. This needs further probing as Rajasthan supplies free medicines and free diagnostics in all public facilities, questioning the reason for high proportion of expenditure on drugs at public facilities.

Table 0.11: Percentage break-up of hospitalisation expenses incurred for treatment during stay at hospital, separately for public and private hospitals in each sector in Rajasthan 2017-18.

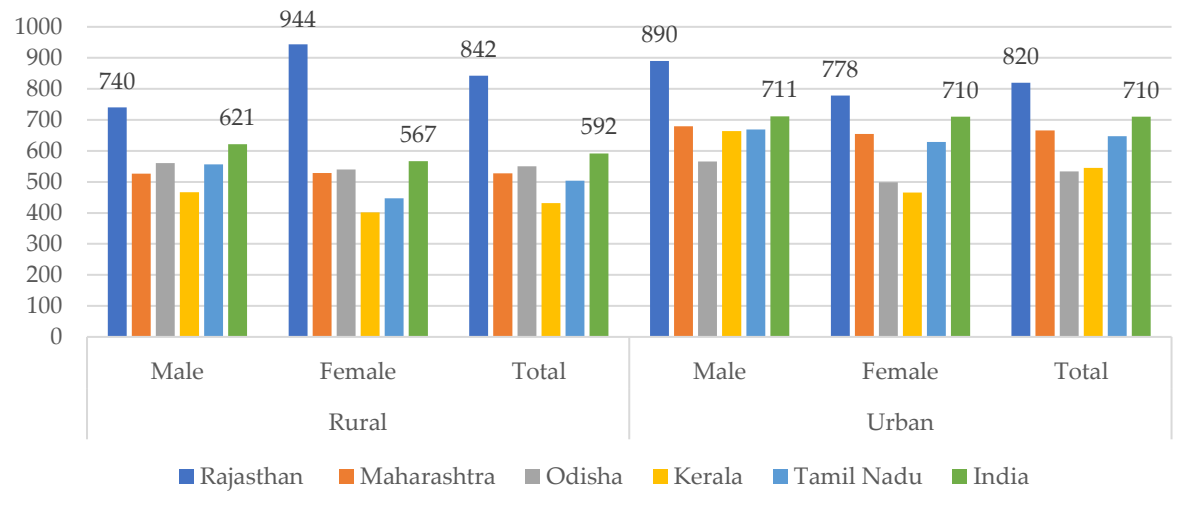
Hospital Expenditure on	Percentage break-up of hospitalisation expenses			
	Rural		Urban	
	Public	Private	Public	Private
Package Component*	17.2	34.2	25.8	45.1
Doctor's/surgeon's fee	0.7	10.6	1.8	9.7
Medicines	61.2	24.6	42.4	21.7
Diagnostic tests	14.3	12.5	12.8	8.5
Bed charges	0.2	9.7	1.9	8.8
Other	6.5	8.4	15.3	6.2

Source: National Sample Survey (NSS) 75th round, 2017-18

Note: Packages of treatment involving specific surgical or non-surgical medical procedures, inclusive of different items like operation theatre (OT) charges, OT consumables, medicines, doctor 's fees, bed charges, etc. are common nowadays in all private hospitals.

National Sample Survey (NSS) data on expenditure on outpatient medical treatment for Rajasthan in 2017 shows that it is higher than most other states in the country as well as the all-India average (Table 3.12). However, this data was not segregated based on type of health facility (i.e., public or private) and hence does not account for the important difference in expenditure due to this. This segregation is, however, available in the 2014 NSS data.

Figure 0.5: Average medical expenditure (Rs) incurred in 15 days per spell of ailment for non-hospitalized treatment in 2017 in select states



Source: National Sample Survey (NSS) 75th round, 2017-18.

Our analysis of 2014 NSS data shows the average expenditure on non-hospitalised treatment in public and private facilities in both urban and rural areas. Table 3.13 shows that the total expenditure on non-hospitalised treatment in both private and public facilities in urban areas in 2014 was higher than that of urban expenditure seen in 2017-18. However, rural expenditure on non-hospitalised treatment seems to have increased since 2014.

Table 0.12: Average expenditure on non-hospitalised treatment of ailments by type of facility in urban and rural Rajasthan (Year- 2014) in Rs.

	Public			**Private**		
	Male	**Female**	**Total**	**Male**	**Female**	**Total**
Rajasthan – Urban	1,714	494	1,104	1,034	1,316	1,175
Rajasthan - Rural	340	361	350	706	715	710

Source: National Sample Survey (NSS) 2014 Analysis.

Out of Pocket Expenditure

From the above tables, we can see that expenditure on medicines and diagnostics still form a major part of hospitalisation expenditure in Rajasthan and it is still one of the expensive states to seek treatment. In order to understand how much of this health expenditure is borne by a person, we define the term, Out of Pocket Expenditure (OOPE)as net health expenditure incurred after deducting reimbursements. In 2014, OOPE in Rajasthan was lower than the all-India average in most sectors (Table 3.13) indicating a possible positive effect of health coverage in the state[13]. It was also much lower in hospitalisation due to childbirth in Rajasthan as compared to the national level. A study of OOPE occurring during ANC and delivery in Rajasthan in 2011, showed that JSY covered up to 77% of costs for a normal delivery but only about 23% of costs for a complicated delivery (Govil et al., 2016). There are many health expenditure coverage mechanisms operational in Rajasthan as we will see in the section.

Table 0.13: Out of Pocket Expenditures on Healthcare (OOPE) at (2014) Current Prices in Rajasthan

	Rajasthan		All India	
	Rural	Urban	Rural	Urban
Hospitalisation Expenditure (excluding childbirth) (In Rs)				
OOPE per hospitalised case (Rs)-All	12,841	14,584	14,473	21,985
OOPE per hospitalised case (Rs)-Public	3,809	7,077	5,369	7,189
OOPE per hospitalised case (Rs)-Private	23,539	23,529	21,034	28,958
Childbirth Expenditure (as inpatient) (In Rs)				
OOPE per childbirth-(Rs)All	2,566	4,957	5,518	11,033
OOPE per childbirth (Rs)– Public	459	972	1,572	2,094
OOPE per childbirth (Rs)– Private	12,688	12,745	14,727	19,107

Source: Household Healthcare Utilisation & Expenditure in India: State Fact Sheets, http://nhsrcindia.org/sites/default/files/State%20Fact%20Sheets_Health%20care%20Utilisation%20and%20Expenditure%20in%20India.pdf

Health Care coverage in Rajasthan

Looking at NSS data from 2014, 26.6% population from the lowest quintile in urban Rajasthan and 33% of population from lowest quintile in rural Rajasthan were covered under a government health insurance (Table 3.14). At the national level, these percentages were much lower, i.e.,11.8% in urban and 13.8% in rural. Also, the

[13] Calculating Out of Pocket Expenditure (OOPE) for 2017-18 was not possible due to unavailability of findings of consumer expenditure survey for 2017-18.

coverage increased with quintile class at the national level, which was not the case in Rajasthan where coverage of the poorest was higher than second, third, and fourth quintile class in urban areas and highest in rural areas. Hence, Rajasthan has a wider reach in terms of insurance coverage for the poor. This may explain the reason why OOPE on hospitalisation is lower in Rajasthan as compared to all-India level.

Table 0.14: Percentage of persons having coverage of health expenditure support (Year- 2014) in Rajasthan

Quintiles	Government Insurance		Employer (not Govt) supported health protection		Others		Not covered	
	Rajasthan	India	Rajasthan	India	Rajasthan	India	Rajasthan	India
Urban								
1	26.6	11.8	0.0	1.4	0.0	0.3	73.4	86.5
2	20.0	16.7	0.0	0.8	0.0	1.0	80.1	81.5
3	16.5	17.4	8.3	2.5	0.4	2.21	74.9	77.9
4	21.6	21.3	0.8	3.3	1.0	3.8	76.7	71.6
5	45.2	18.3	0.9	6.3	2.8	11.5	51.2	64.0
All	26.9	17.7	2.0	3.2	1.0	4.5	70.2	74.6
Rural								
1	33.0	13.7	0.0	0.4	0.0	0.1	67.0	85.9
2	20.7	15.1	0.0	0.8	0.0	0.4	79.3	83.6
3	15.5	15.5	0.0	0.5	0.0	0.2	84.5	83.8
4	19.1	19.4	0.0	0.6	0.0	0.5	80.9	79.5
5	20.5	22.6	0.3	1.2	0.0	1.5	79.2	74.8
All	21.1	18.6	0.1	0.8	0.0	0.7	78.9	79.9

Source: National Sample Survey (NSS) 71st Round: Health Survey.

Rajasthan is at the forefront when it comes to making efforts for providing universal coverage. Prior to this scheme, the Mukhya Mantri Jan Rakshak Kosh (MMJRK) was introduced in 2009, which provided free outpatient as well as inpatient care at all public health faculties in the state to BPL card holders; however, this has been discontinued from 2018-19 onwards. The Mukhya Mantri Nishulk Dava Yojana (MNDY) was started in 2011 with the objective of providing essential medicines free of cost to all patients visiting public health care facilities in Rajasthan. It aimed to reduce the significant OOPE on health care that the current national health system demands. The scheme began in stages with 200 types of generic medicines being made available initially. Once the processes were strengthened, more medicines

were added to the list, including hospital supplies like sutures and needles as well as free diagnostics. In the recent budget 2019-20, the chief minister of Rajasthan announced an increase in the number of free medicines from 608 to 712 under this scheme and free tests from 70 to 90 in the free diagnostic test scheme. Studies have shown that not only has this scheme benefited the weaker sections of society by reducing OOPE, they have also improved utilisation rates of public health facilities (Bose & Dutta, 2018; Selvaraj et al., 2014). The study by Selvaraj et al., also suggests there was an increase in drug availability to match this demand with 61% median percentage availability in PHCs and 75% in CHCs. Government of Rajasthan also offers essential diagnostic tests under the Mukhya Mantri Nishulk Jaanch Yojana (MMNJY) free of cost at public institutions since 2014. Thus, Rajasthan has paved the way for universal coverage at public institutions by cutting down expenditures related to purchase of medicines and diagnostic tests, and expensive components of outpatient expenditures. Similarly, in order to bring down catastrophic expenditure related to inpatient care, the Bhamashah Swasthya Bima Yojana provides health insurance cover to the beneficiaries under the National Food Security Act (NFSA) as well as those BPL from 2015 for secondary and tertiary care. The Employee State Insurance Scheme (ESI) is benefiting people with salaries up to Rs 21,000 per month has insured 12.58 lakh people and their 36.24 lakh family members providing primary and secondary care. However, paradoxically, expenditure on hospitalisation in public facilities is still amongst the highest in Rajasthan (Tables 3.11 & 3.12) with people still spending highest on purchase of medicines questioning the actual effect of these schemes.

3.4. Main Points

Although Rajasthan's disease profile is shifting towards NCDs like the rest of the country, infectious diseases still cause a large number of deaths in children aged 0-14 years. Chronic Obstructive Pulmonary Disorder (COPD) and other respiratory diseases are major killers in the adult population of the state followed by cardiac causes.

Maternal and Child Health (MCH) indicators have improved in the last decade but still have a long way to go. Adolescent health also requires focus due to younger age at marriage, anaemia, and lack of knowledge of contraception. Maternal and Child Health Index shows wide inter-district differences: the poorest performing district is Banaswara (0.24) and the best indicators are seen in Ganganagar (0.80).

Six of the ten districts with the poorest MCHI are under the tribal scheduled areas. The needs of the tribal population are different from that of the general due to high

illiteracy, difference in cultural beliefs, and remoteness of locations. Similarly, the urban poor have only recently come to focus in the state, which shows a lack of adequate basic health provisions for this section of the population.

In terms of health care infrastructure, there seem to be adequate health facilities in the rural areas of the state; however, urban areas lack sufficient health facilities for the poor. Statistics show a lack of adequate numbers of health personnel in both urban and rural areas of the state.

However, preference for private health facilities in Rajasthan is lower than that of other states in the country. Interestingly, expenditure on hospitalisation in the state is higher than in other states, both in public and private domains. Expenditure on medicines forms the highest proportion of hospitalisation costs, indicating that the free drug scheme may be underutilized. However, Rajasthan is one of the few states that shows a higher percentage of the lower quintile accessing health insurance.

In short, data on health services points to areas that need focus in the state which include (1) MCH, (2) tribal health, (3) urban poor health, (4) service delivery mainly infrastructure, human resources, and (5) health coverage. The report will focus on expenditure these five areas of health in the state. Specific analysis of the desert area in Rajasthan is not included as it is difficult to separate data on that basis, and that is a limitation of this report.

Chapter 4: Public Expenditure Review on Health: A Macro Level Analysis

In this section, we will discuss the overall findings of our expenditure review on health. The chapters that follow will each discuss a problem statement identified in the health profile section, namely, MCH, tribal health, urban health, CD and NCD, and health care service delivery.

4.1. How Rajasthan Spends on Healthcare

The analysis of state budget documents shows that the health expenditure across all departments[14] increased from Rs 3,951 crores in 2012-13 to Rs 10,883 crores in 2017-18 registering a Compounded Annual Growth Rate (CAGR) of 18% (Figure 4.1). The real expenditure (2011-12 prices) also increased from Rs 3,639 crores to Rs 8,252 crores during the same period. The health expenditure as a percentage of GSDP increased from 0.8% to 1.3% for the same period. Indeed, this is a very encouraging development though it is still lower than the suggested healthcare expenditure of 1.87% of Gross Domestic Product (GDP) (combined expenditure of union and states in a particular state) by end of 2016-17 by the 12th five-year plan[15]. India proposes to increase it to 2.5% of GDP by 2025[16] from the current level of 1.15%. Studies show that the income of the state influences public expenditure on health and other social sectors to a great extent (Hooda, 2015). However, Rajasthan seems to be trying to increase the healthcare spending consistently and increased it to above 1% of GSDP since 2014-15. As per National Health Profile in 2015-16, Rajasthan's public expenditure on health was Rs 7,818 crores, which was next to Uttar Pradesh amongst the group of major EAG[17] states. But Rajasthan then managed to have a higher per-capita health expenditure as compared to economically developed states of Tamil Nadu or Karnataka. The state also has the higher health expenditure as percentage of GSDP as compared to economically developed states (Table 4.1).

[14] Public Health Department, Medical Education and Drugs Department, Tribal Development Department, Public Works, Districts and Other Departments.

[15] http://www.nhm.gov.in/images/pdf/publication/Planning_Commission/12th_Five_year_plan-Vol-3.pdf (last accessed on15 May 2019)

[16] https://economictimes.indiatimes.com/news/economy/policy/india-to-increase-public-health-spending-to-2-5-of-gdp-pm-modi/articleshow/67055735.cms?from=mdr

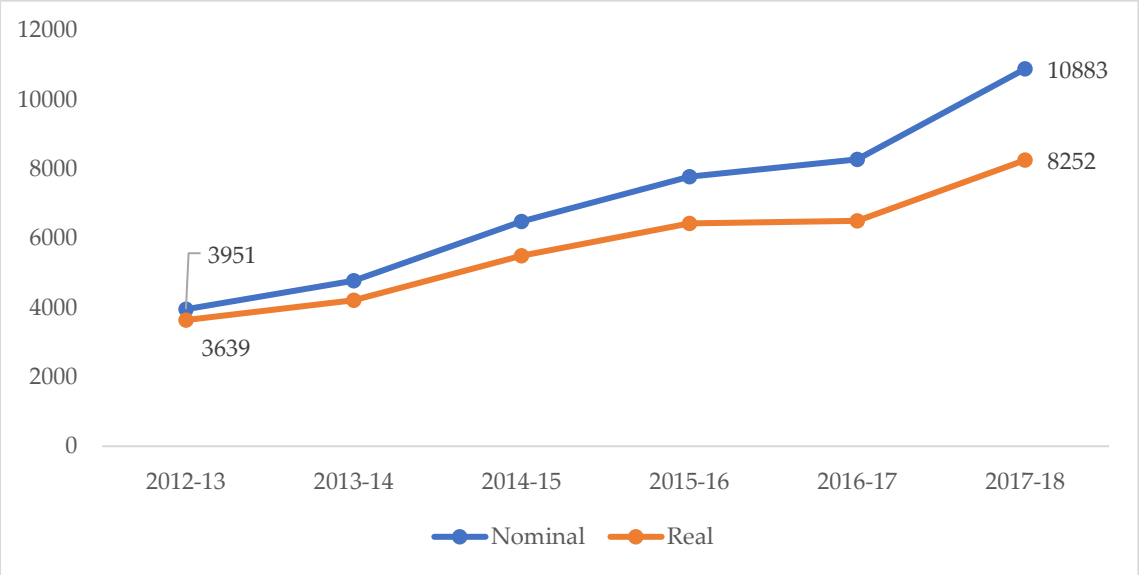
[17] Empowered Action Group (EAG) States are the eight socioeconomically backward states of India—Bihar, Chhattisgarh, Jharkhand, Madhya Pradesh, Orissa, Rajasthan, Uttaranchal, and Uttar Pradesh—which lag behind in the demographic transition and have the highest infant mortality rates in the country. Non-EAG states are the states that are not classified as EAG.

Table 0.1: Health care expenditure in Rajasthan and select states (2015-16)

Indicator	Rajasthan	Maharashtra	Tamil Nadu	Kerala	Karnataka	Odisha
Total State Expenditure on Health in Crores (Rs)	7,818	12,066	8,543	5,207	6,980	3,744
Health Expenditure as% of Total State Expenditure	5.61%	5.08%	4.99%	5.85%	5.03%	4.80%
Population 2015-16 (in Crores)	7.25	11.94	6.92	3.56	6.21	4.23
Per Capita Health Expenditure (Rs)	1,360	1,011	1,235	1,463	1,124	927
Health Expenditure as% of Gross State Domestic Product (GSDP)		0.60%	0.74%	0.93%	0.69%	1.19%

Source: National Health Profile 2018, http://www.cbhidghs.nic.in/Ebook/National%20Health%20Profile-2018%20(e-Book)/files/assets/common/downloads/files/NHP%202018.pdf.

Figure 0.1: Growth of Health Expenditure in Rajasthan in nominal and real terms (Rs in crore)

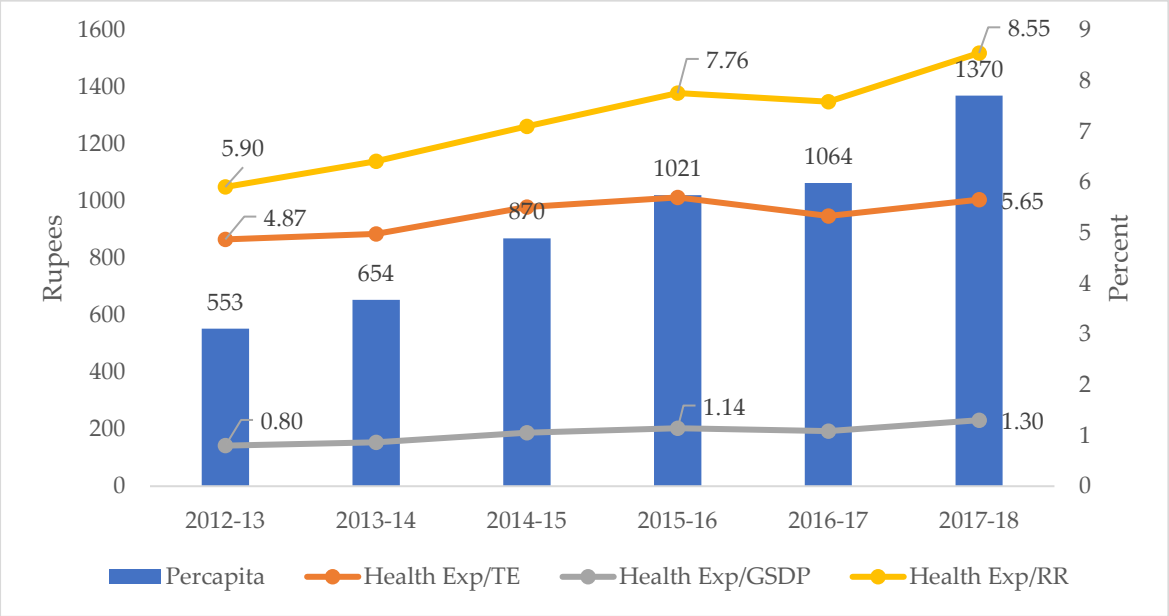


Source: Rajasthan state budget documents 2012-13 to 2017-18

The total expenditure on health as a percentage of total state expenditure increased from 4.9% in 2012-13 to 5.7% in 2017-18 (Figure 4.2). Health expenditure as a percentage of total revenue receipts also showed an increase with a dip only in the year 2016-17. The per-capita expenditure (nominal terms) increased from Rs 553 in the year 2012-13 to Rs 1,370 in the year 2017-18. Although there has been an increase in the state health expenditure as a percentage of total state expenditure, it is still at

5.65%, which is short of the target of 8%, suggested by the National Health Policy as the requirement for accomplishing various health related goals.

Figure 0.2: Per-capita health expenditure over 2012-13 to 2017-18 in Rajasthan

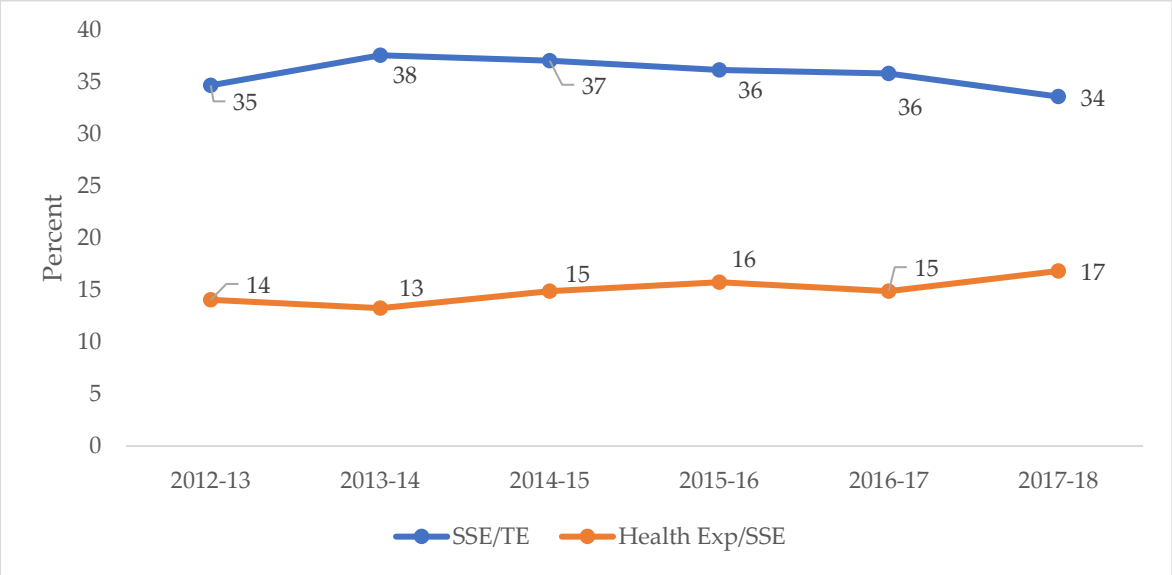


Source: State Budget Documents 2012-13 to 2017-18 and population projected from figures in Census 2011. Note: TE stands for Total Expenditure in state, GSDP stands for Gross State Domestic Product, and RR stands for Revenue Receipts.

4.2. Health Expenditure as proportion of Social Sector Expenditure

Health expenditure as a proportion of Social Services Expenditure (SSE) increased over the years from 14% in 2012-13 to 17% in 2017-18 (Figure 4.3). However, during this same period, there was a steady decrease in the share of SSE as whole, indicating lower prioritisation for other sectors within the social sector. Social services expenditure as a proportion of total expenditure decreased from 38% in 2013-14 to 34% in 2017-18. This is important as many components within the social sector are interlinked with health, e.g., water and sanitation, and nutrition, which could still affect health outcomes despite higher spending for health.

Figure 0.3: Share of health expenditure in social services expenditure (SSE)and total expenditure (TE)



Source: State Budget Documents 2012-13 to 2017-18.

Note: Social Services Expenditure (SSE) includes expenditure on education, sports and culture, health and family welfare, water supply and sanitation, housing, urban development, information broadcasting, welfare of Scheduled Caste/Scheduled Tribe/Other Backward Classes (SC/ST/OBC), labour and labour welfare, social security & nutrition, and other social services. Total Expenditure (TE) is total expenditure of the state.

4.3. Expenditure on Health by Various Departments of the State Government

The health expenditure of the state is spread across different departments and different major heads of accounts. Table 4.2 gives the details of the health expenditure by different departments. Medical Health and Family Welfare Department (MHFW), and Ayurveda and Medical Education Department incur almost entire health expenditures, while other departments incur miniscule portion of the expenditure by way of medical expenditure for treatment or medical expenses for their personnel.

Departments of MHFW and Medical Education together spend about 99% of the health expenditure of the state (Table 4.3 and Figure 4.4). Departments such as Education, Public Health Engineering Department, and other departments together account for about 1% of the health expenditure, respectively.

Table 0.2: Details of Health Expenditure by Various Departments

Major Head	Department	Details for the Healthcare Expense (Minor Head and/or Sub-Group Head details as given in the Budget Document)
2210	Medical Health and Family welfare, Medical Education and Ayurveda	Personnel cost, number of healthcare programmes and schemes, maintenance of healthcare infrastructure, training, awareness programmes, drugs, and consumables.
2211	Medical Health and Family welfare, Medical Education and Ayurveda	
4210	Medical Health and Family welfare, Medical Education and Ayurveda	Capital works related to public health and family welfare and building construction. medical education,
2059	Public Works	Repair and maintenance of Hospitals
2202	Education Department	Medical Expenditure
2215	Public Health Engineering	Medical Expenditure
2220	Information and public Relation	Medical Expenditure
2225	Tribal Development	Medical Expenditures incurred in hostels run by the department
2230	Labour Department,	Medical Expenditure and Rashtriya Swasthya Bima Yojana (RSBY)
2235	Women and Child Development	Medical expenses and Medical expenditure
2245	Disaster management	Medical Expenditure
2250	Devasthan Department	Medical Expenditure
2251	Department of personnel	Medical Expenses
4217	Housing Department	Medical Expenditure
4700	Water Resources	Medical Expenditure

Table 0.3: Details of Health Expenditure by Various Departments, 2012-13 to 2016-17 (Rs in Crore)

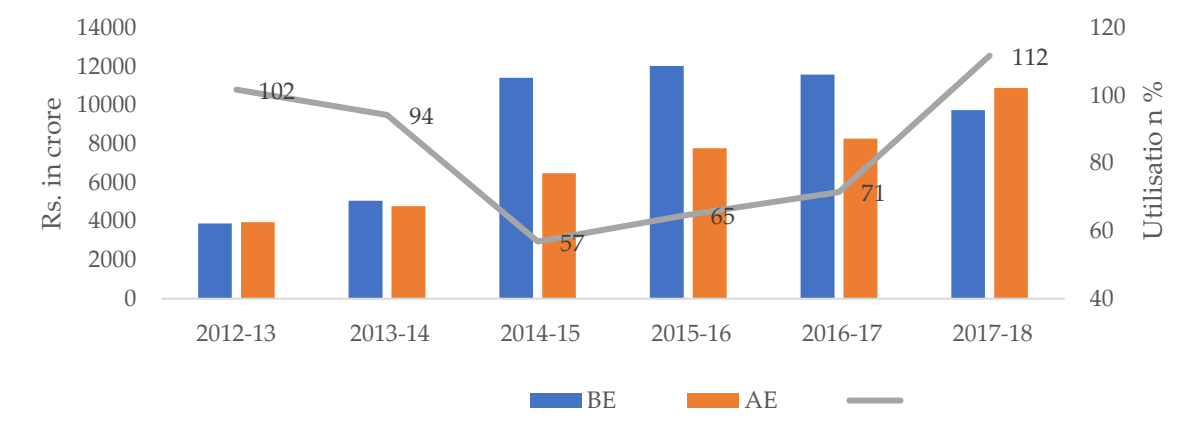
Department	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18 RE
Medical Health and Family Welfare & Ayurveda	3401	3989	5666	6588	7071	9180
Medical Education	490	762	791	1168	1180	1684
Education	50	17	14	15	16	4
Public Health Engineering Department	5	4	4	4	6	6
Others	5	3	10	4	2	9

Source: Compiled from state budget documents 2012-13 to 2017-18.

Note: 2012-13 to 2016-17 include actual expenditure (AE), while 2017-18 is Revised Estimate (RE).

The utilization of the health budget or the health expenditures against allocation had dipped from a good 94% in 2013-14 to a mere 57% in 2014-15 (Figure 4.5). However, it increased gradually to 67%, 71% and 112% during the next three years till 2017-18 RE. The overall utilization for the six-year period stood at 79% indicating the scope for improving the utilization rates in consistent manner.

Figure 0.4: Utilisation of Health expenditure in Rajasthan 2012-13 to 2017-18, Percent



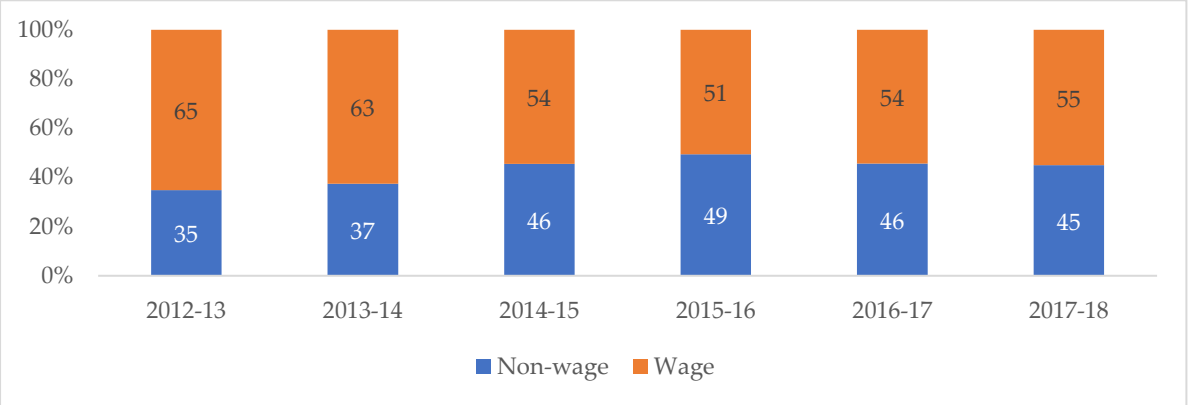
Source: Rajasthan State Budget Documents 2012-13 to 2017-18.

Note: BE stands for Budgeted Expenditure and AE stands for Actual Expenditure.

4.4. Share of Wages in Total Health Expenditure

The wage expenses include salaries, wages, contractual payments, allowances, medical reimbursement to employees, grant in aid salary and etc. The non-wage includes all the other running costs like medicines and supplies, machinery and equipment, capital costs for building infrastructure. The average wage expenditure was 57% while the rest accounted for non-wage expenditure.

Figure 0.5:Wage and Non-wage share in Total Health Expenditure

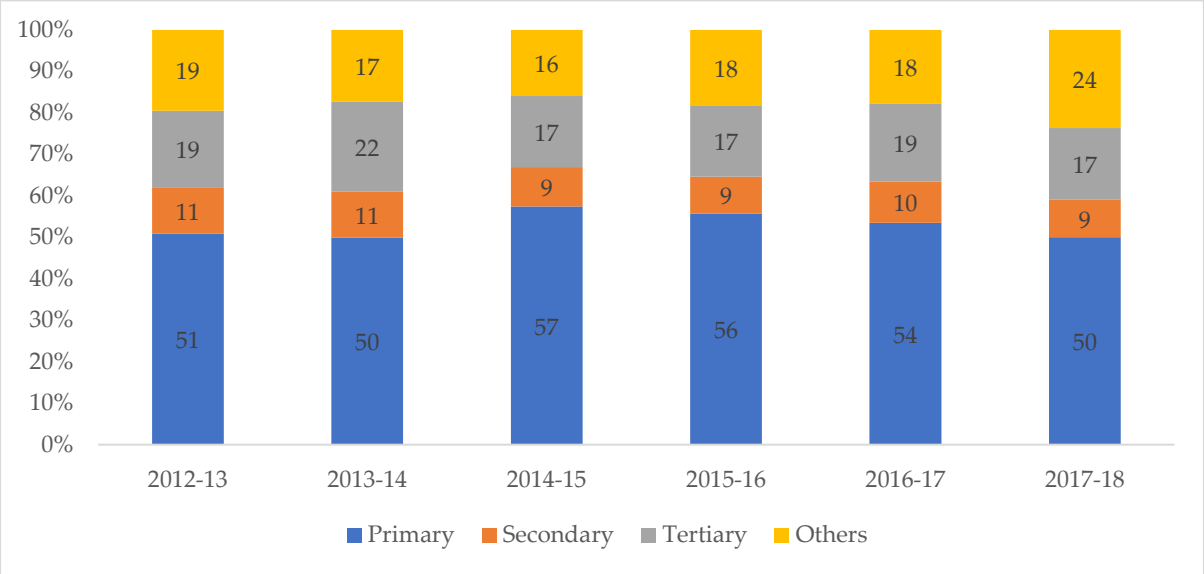


4.5. Share of Primary, Secondary, Tertiary healthcare in Total State Health Expenditure

The primary healthcare expenditures include expenses on all the hospitals and dispensaries in rural areas which are primary health centres, homeopath and ayurvedic dispensaries, ESI dispensaries, school health programmes, all national disease control programmes, and family welfare programmes. The secondary healthcare expenditures include expenditures incurred for running district hospitals, ESI hospitals and CHCs. The tertiary healthcare expenditures include expenditures of all specialist hospitals, teaching hospitals, medical colleges, and health care research. Other expenditures include state level direction and administration, medical stores, laboratories training institutes.

The primary healthcare expenditures rightly account for the highest of the health expenditures, followed by tertiary healthcare expenditure and secondary healthcare expenditures. The expenditures on primary, secondary and tertiary healthcare together account for about 81% of the total health expenditure. Going by the experiences in most countries, primary health expenditures alone should constitute more than 70% of health expenditure.

Figure 0.6: Share of Primary, Secondary and Tertiary healthcare in Total Health Expenditure

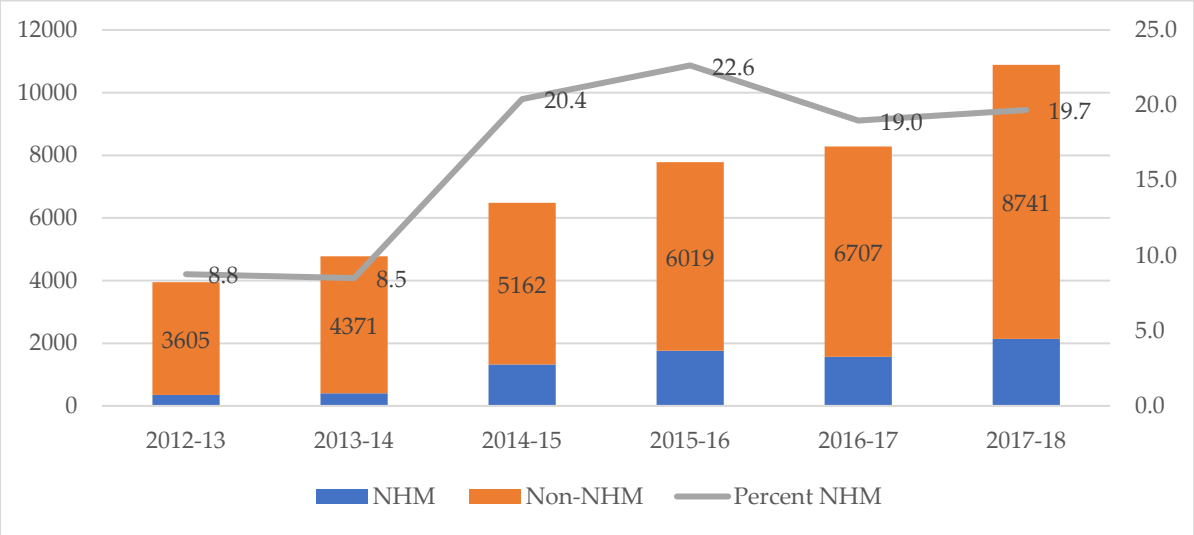


4.6. National Health Mission and Total State Health Expenditure

This is the important and comprehensive scheme implemented by the department of MHFW. As mentioned earlier, releases from GoI for this centrally sponsored scheme were routed outside of the state budget till 2013-14; since 2014-15, it has been channelled through the state budget. The state together with its share releases the entire money to the SHS, which implements the NHM scheme. As discussed earlier, expenditures indicated under NHM in the state budget (both NRHM and NUHM) do not match with that of the FMR. Although we cannot address the discrepancy, we have analysed the share of NHM expenditures reported in the state budget using the details there while the detailed analysis of NHM is undertaken using FMR.

National Health Mission (NHM) accounts for a significant 20.43% of the total expenditure on health (2014-15 to 2017-18) in the state. But it is very difficult to accurately quantify the share of NHM expenditure unless the line wise expenditures reported by the SHS are traced in the state budget. However, the NHM expenditure excluding the additionalities in FMR for the year 2015-16 (Rs 1,799.1 crores) was equal to that of the expenditure reported by as reply to Lok Sabha question. Considering this, the share of NHM in the state budget worked out to an average of 20.1% for the period 2014-15 to 2017-18 and this is close to what the NHM heads in the budget adds up to.

Figure 0.7: Share of National Health Mission (NHM) in the Health Expenditure in Rajasthan 2012-13 to 2017-18



4.7. Expenditure under National Health Mission

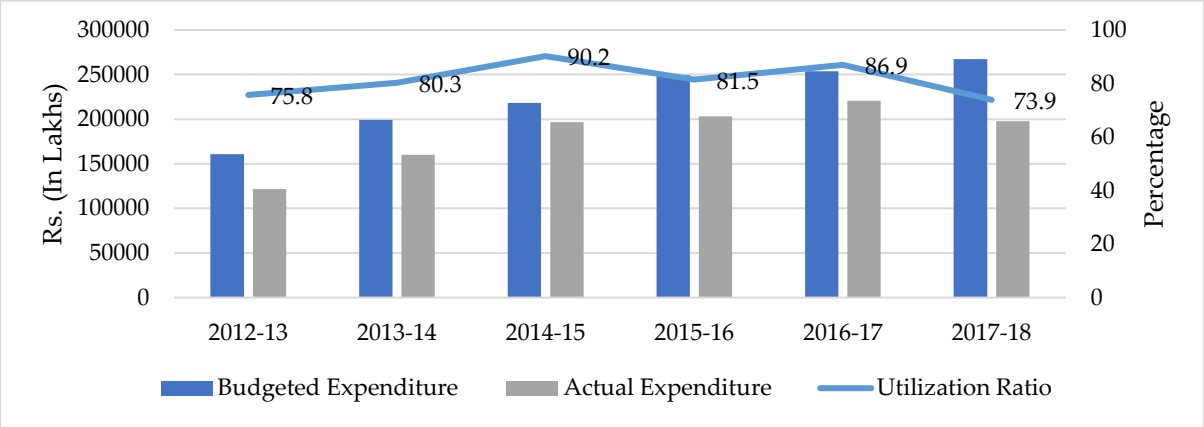
National Health Mission has the following six categories through which the programme is executed.

1. National Rural Health Mission- Reproductive Child Health Flexible Pool (NRHM-RCH FP)
2. Communicable Diseases Flexible Pool (CD FP)
3. Non-communicable Diseases Flexible Pool (NCD FP)
4. National Urban Health Mission (NUHM)
5. Infrastructure Maintenance (IM)
6. Additional State Share (ASS)

However, while the funds for the first four flexible pools are directed to the health society, allocation under the fifth component of NHM-IM is transferred to the state through the treasury route. For the analysis in this report, the total of NHM includes the five-flexible pools despite different routes of transaction. However, in Rajasthan's FMR, there are additional state expenditure which has been added to the NHM and has been classified as ASS in this section.

The total budgeted expenditure (allocation) on NHM sees an average of 11% year-on-year growth over the period 2012-13 to 2017-18. And the total actual expenditure sees an average of 11.2% year-on-year growth for the same period. The expenditure of the latest year fell to a three-year low. As the FMR reports only budgetary allocations and expenditures, we have calculated the utilization as ratio of Actual Expenditure to Budget Allocated. The utilization ratio on an average was 81.4%.

Figure 0.8: Total Budgeted Expenditure vs. Actual Expenditure in NHM (2012-13 to 2017-18)

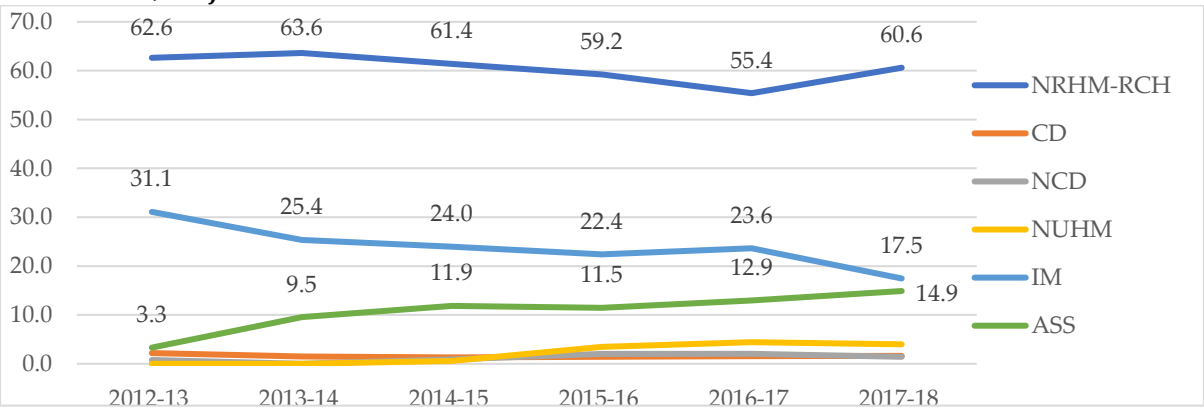


Source: Consolidated from audited Financial Management Report (FMR) of 2012-13 to 2017-18

4.7. 1. National Health Mission analysis by components

The largest chunk of NHM expenditure was on the NRHM-RCH FP, which accounted for an average of 60.6% from 2012-13 to 2017-18. This was followed by expenditure on IM at 23.4% and ASS at 11.3%. Average spending under NUHM was 3.5%, followed by CDs at 1.6% and NCDs at 1.3%. Although expenditure under NHM has increased over the years, its individual components tell a different story. Expenditure under RCH as well as IM showed a consistent decline from 2012-13 to 2017-18. However, during the same period, expenditure under the ASS component has increased from 3.3% to 14.9%.

Figure 0.9: Proportion of expenditure under various Components of NHM (2012-13 to 2017-18), Rajasthan



Source: Consolidated from Financial Management Review (FMR) Rajasthan from 2012-13 to 2017-18.

Note: NRHM-RCH FP stands for National Rural Health Mission- Reproductive Child Health Flexible Pool, CD stands for Communicable Diseases, NCD stands for Non-Communicable

Diseases, NUHM stands for National Urban Health Mission, IM stands for Infrastructure Maintenance, and ASS stands for Additional State Share.

The FMR is a highly detailed financial document consisting of more than 2,000 line items. Therefore, further analysis of its components is split into relevant health sections to make the analysis more detailed and meaningful.

4.8. Health Expenditure and Gram Panchayat Development Plans (GPDP)- Apni Yojana Apna Vikas

The 14th FC recommendations were implemented for the five-year period starting from 2015-16. One of the important recommendations involved the increase in the share of taxes to the states from the divisible pool of taxes at GoI. While GoI accepted these recommendations, its share in the CSS was reduced. The share of GoI in the CSS that varied between 55- 90% was fixed at 60% for all the states except for the north-eastern states where the GOI share was fixed at 90%. This was also to enable the states to prioritise based on its own requirements, given the availability of higher tax share. However, it also forced states to fill the gap which was created because of the reduced share of GOI in CSS.

The 14th FC provided grants only to the GPs among the three tiers of Panchayati Raj Institutions (PRIs) (district, block, and gram panchayat) stating that GPs along with the urban local bodies are the local governments responsible for provision of basic services, which is critical for development. Government of India also advocated for the GPDP as a tool to formulate and execute the developmental plans of the area by pooling different sources of funds received by GP along with the Own Source Revenue raised through taxes and non-taxes.

Gram Panchayats (GPs) receive funds from different schemes apart from the union FC and state FC grants. The 14th FC made a significant recommendation of enhancing the tax share of states from 32% to 42% in the union tax collections, and also made provisions of compulsory transfers of UF to local governments, i.e., GP based on population and area also known as basic grants for augmenting the basic services of water supply, public safety, sanitation, and roads. Gram Panchayats also receive the performance grants and the GPs in the state would receive an amount of Rs 13,633 crores over a period of 5 years[18]. They also receive 5% of the funds under TSP to the Provisions of Panchayats (Extension to the Scheduled Areas) Act (PESA panchayats), Mahatma Gandhi National Rural Employment Guarantee Act

[18] http://rajpanchayat.rajasthan.gov.in/Portals/0/GPDP_FINAL_BOOK_08-01-2016.pdf

(MNREGA), Swachh Bharat Abhiyaan, National Rural Drinking Water Programme etc. With this and the Own Source Revenue, GPs are expected to develop a plan for their area, through GPDP. The important objective of this GPDP is to enable GPs to take stock of resources available to them and prioritise based on the requirements of the people of the GP. The projects of the GPDP have to be discussed and approved in the Gram Sabha which makes it participatory and transparent.

4.8. 1. Process of Preparation and Implementation of GPDP: Findings from field visits to 30 GPs across

> 'Ward wise meetings are organised by the Ward panch, before the Gram Sabha. In these meeting various issues pertaining to the ward are discussed and priorities listed. These are then presented in the Gram Sabha and incorporated in the Gram Panchayat Development Plan GPDP based on priority.'– Sarpanch Pachewar Malpura, Tonk.

The sarpanch and the GP officials reported that the GPDP is prepared annually and it had been prepared for the year 2019-20 by their respective GPs. The preparation of the GPDP takes the various sources of funds available at the GP level into account. The activities are identified as per priority and the plan is prepared. It is based on discussions with disadvantaged communities, ward sabhas and women's groups. According to PRIs, the GPDP considers the demands of five departments i.e., elementary education, agriculture, medical and health, social justice and empowerment, and women and child development. The budgets are calculated as per the GPDP guidelines. It was also reported that most of PRIs had participated in a three-day training on preparation of GPDP. The PRIs were of the view that the plans formulated, focused on social development that benefit all. Two to five meetings are organised before the finalisation of the plans.

An analysis of the issues taken up in the GPDP indicates that focus of the plan is on improving infrastructure in the village: construction of roads, building water tanks, boundary walls, burial and cremation sites (community specific), cleaning of drains, building toilets, ensuring regular water supply, electrification of areas without power supply and removing encroachments. It is evident that there is no activity planned exclusively or especially for women and children. It was pointed out that the schemes like MNREGA and Self Help Groups (SHGs) under RAJEEVIKA benefit women directly as they get employment and loans from banks. It was felt that infrastructure works taken up by the GP like repairing anganwadi centres, building toilets in schools, and ensuring space for playgrounds benefitted women and children. Some of the PRIs were of the view that anganwadi workers are involved in

addressing issues of women and children and their concerns are given priority by the GP (see box).

Some of the challenges discussed by the PRIs in the finalisation and implementation of the GPDP include the following:

- Many of the PRIs were not aware of the allocation of funds for social sector.
- Reconciling public and personal interests; during the planning process people put pressure to get work done for their own personal benefit.
- Interpersonal differences lead to altercations; this impacted setting of priorities during planning stage.
- It is difficult to include all the proposals put up by the 'ward Panch' in the GPDP; this further created tensions at the GP level.
- Ensuring attendance of community members in the gram sabha for approval of GPDP is a challenge.
- It is difficult to clear encroachments for approved construction works.
- Taking no-objection certificates from concerned line departments like Public Health Engineering Department (PHED) takes long and work is delayed.

In case of unresolved issues, PRI representatives sit together and discuss the matter and arrive at amicable resolution. At times, the matter is also placed before the BDO for resolution.

Aapni Yojana Aapno Vikas: **Gram Panchayat Development Plan (GPDP) 2019-20, Gram Panchayat Nagar, Malpura, Tonk**

A brief analysis shows that while there is an acknowledgement that as per the state guidelines, 40% of the budget has to be spent on social development activities, i.e., nutrition, improving sex ratio, girls' education, addressing child and maternal mortality and promoting institutional delivery, the planned activities have largely focused on infrastructure development.

Infrastructure development activities include construction of roads, interlocking, safety/face wall on the pond, development of cremation ground, repair of Anganwadi Centres (AWC) and school buildings, construction of waiting room for travellers, panchayat bhawan, and toilets development of playground, purchase of computer furniture, electrification of main roads, construction of bridges, and repair and maintenance of various government buildings. Only one activity pertains to raising awareness on Beti Padhao Beti Bachao scheme.

The last section of the plan notes that in pursuance of the Sustainable development Goals (SDGs), reducing gender gaps is one of the outcomes of the GPDP. It states that women PRIs in the panchayat will be encouraged to participate in the GP activities, and an enabling environment will be created for girls to pursue higher education. It will be ensured that women and men are paid equal wages for equal work and the SHGs will be motivated to become independent. The GP will also play an active role in addressing issues of sex selection and elimination of girls. However, no concrete measures are included in the GPDP for these goals and objectives.

Source: Translated from Hindi document *Aapni Yojana Aapno Vikas,* GPDP, 2019-20, GP-Nagar, PS-Malpura Tonk.

Coordination between health department and Gram Panchayat

The relationship between the GP and the BCMHO in planning and achieving health care objectives of the block was observed to be weak and drew mixed responses. While the Auxiliary Nurse Midwife (ANM) works at the GP level, the interaction between the BCMHO and GP per se was reported to be negligible. It was also pointed out that there no correlation between Gram Panchayat and the Block health budgets. The nature of coordination can be summed up in the statements of health officials presented below.

The ANM carries out a head count survey and targets are set as per population to be covered. This is decided in consultation with the GP. The GP supports sometimes in carrying out the survey.'
– BCMHO, Pokhran, Jaisalmer.

'In the Medical Relief Society (MRS), the Sarpanch and Ward panch are members; several activities like immunisation camps, family planning camps are organised with their support. VHSNC is also involved in some activities.'
– BCMHO Sam, Jaisalmer

Health is seen as work of the health department, and therefore of the state and not of the local administration, which is evident from field interviews. Field interviews with regards to VHSNC also showed the disinterest by sarpanches in conducting meetings and hence many of the VHSNCs showed no utilization of Rs 10,000 UF.

4.9. Main Points

The total expenditure on health as a percentage of total state expenditure increased from 4.9% in 2012-13 to 5.7% in 2017-18. The per-capita expenditure (nominal terms) has increased from Rs 553 in the year 2012-13 to Rs 1,370 in the year 2017-18. The health expenditure as a proportion of SSE increased over the years from 14% in 2012-13 to 17% in 2017-18; however, SSE as a proportion of total expenditure decreased from 38% in 2013-14 to 34% in 2017-18. The government spent an average of 57% on personnel wages in the six years period of the study. The NHM accounts for a significant 20.43% of the total expenditure on health (2014-15 to 2017-18) in the state.

The largest chunk of NHM expenditure was on the NRHM-RCH FP, which accounted for an average of 60.6% from 2012-13 to 2017-18. This was followed by expenditure on IM at 23.4% and ASS at 11.3%. Average spending under NUHM was 3.5%, followed by CDs at 1.6%, and NCD at 1.3%.

An analysis of the issues taken up in the GPDP indicates that focus of the plan is on improving infrastructure in the village and there was no activity planned exclusively for women and children. The relationship between the GP and the BCMHO in planning and achieving health care objectives of the block was observed to be weak and drew mixed responses. While ANMs work at the GP level, the interaction between the BCMHO and GP per se was reported to be negligible, which shows that health is seen as work of the health department and therefore of the state government and not of the local administration.

Chapter 5: Maternal and Child Health

As already seen, MCH indicators are poor in the state with IMR being 34 per 1000 live births and MMR being 130 per 100,000 live births. Rate of immunisations are low and there is a high level of malnutrition. Adolescent health, especially of girls, requires attention, especially the areas of anaemia, early pregnancy (due to early marriage), and mental health. Tribal mothers have poorer MCH indicators than their counterparts. Urban poor mothers may not have adequate facilities owing to lack of public health facilities in cities. Family planning is important in the state which has a Total Fertility Rate (TFR) of 2.5. The section below will attempt to look at allocation and expenditures in the above areas of MCH in the state and NHM expenditure.

5.1. National Rural Health Mission-Reproductive and Child Health Family Planning Flexipool (NRHM–RCH FP)

This is the largest component under NHM, which accounts for 60.3% of its expenditures. The main allocations under this flexipool include Maternal Health (MH), Child Health (CH), Family Planning, and Prenatal Diagnostic Testing (PNDT). Tribal RCH is also included but expenditures under that is less. It should be noted that urban expenditure on MH, CH, and Family Planning all take place under NRHM. Hence, it is difficult to separate urban and rural expenditures in these categories, except under certain schemes like JSY. It is also important to note that although human resources are one of the highest expenditures in programmes, these cannot be distributed by specific population or services. Only ASHA incentives could be segregated by programme or service, hence these have been distributed accordingly. Same is true for procurement of drugs and equipment. Hence totals of various flexipools (especially A and B) will not match with those that are seen in the FMR. Looking at allocations and expenditures under MCH, we see that both have increased between 2012-13 and 2017-18. However, the average utilization rate is about 71%. The highest allocation goes towards maternal health component, which composed of 69% allocation (in 2012-13) within MCH, but gradually decreased to 57% (in 2017-18) of the total allocation. In its place, expenditures on CH increased from 20% in 2012-13 to 26% in 2017-18. Family Planning also has a seen a slight increase in expenditure from 11% to 17% in the same time period. Let us now look at each of the components separately.

Table 0.1: Budgeted (BE) and Actual (AE) Expenditure from 2012-13 to 2017-18 (in Rs lakhs)

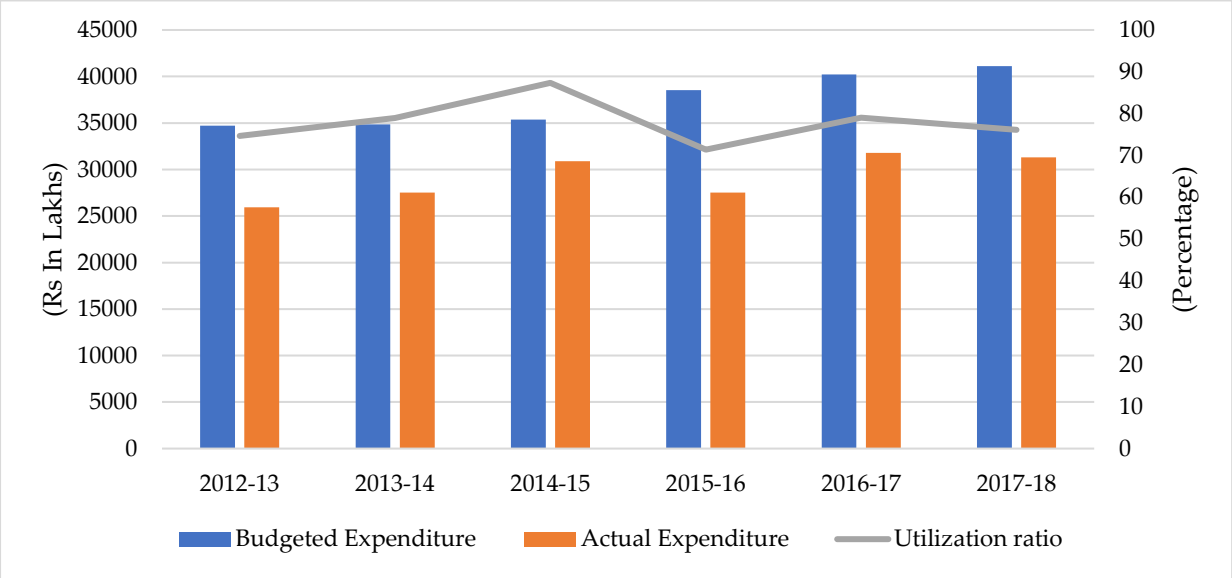
NRHM component	2012-13 BE	2012-13 AE	2013-14 BE	2013-14 AE	2014-15 BE	2014-15 AE	2015-16 BE	2015-16 AE	2016-17 BE	2016-17 AE	2017-18 BE	2017-18 RE
Total Child Health	10042.8	5057.9	11936.4	5929.6	16707.9	9115.4	16339.3	8149.9	19484.6	12319.9	18770.1	11743.1
Total Maternal Health	34718.0	25935.0	34834.3	27506.9	35366.5	30898.6	38542.2	27525.0	40212.2	31784.8	41113.2	31314.8
Total Family Planning	5740.3	4111.3	6104.6	4071.5	9517.4	7023.9	10481.4	7920.7	10557.5	9514.0	12501.2	7869.6
PNDT	169.4	123.0	160.0	112.5	146.9	73.4	69.1	147.8	30.0	30.0	55.0	66.6
TRIBAL RCH	0.0	0.0	164.8	0.7	29.6	2.6	29.6	14.1	4.3	4.3	4.3	4.7
Total MCH	50670.5	35227.3	53200.2	37621.1	61768.3	47113.8	65461.6	43757.4	70288.5	53653.0	72443.8	50998.7
Utilisation ratios		69.5		70.7		76.3		66.8		76.3		70.4

Source: Consolidated from Financial Management Report (FMR) of 2012-13 to 2017-18.
Note: 2017-18 is Budgeted estimate and Revised Estimate

5.1.1 Maternal Health (MH)

Maternal Health allocation formed an average 60% of total RCH allocation. While allocation on MH saw an increasing trend, the expenditure saw a mixed trend. The budgetary allocation for MH saw an average increase of 3.5% annual growth rate. However, the utilization ratio bettered itself in 2014-15 but subsequently declined again in the following years. This also meant a decline in actual expenditure in 2015-16 as compared the previous years. Maternal health recorded an average of 77.9% of utilisation ratios over the six years. (Figure 5.1).

Figure 0.1: Total Budgetary allocation and expenditure of Maternal Health (Rs Lakhs)



Source: Consolidated from Financial Management Report (FMR) of 2012-13 to 2017-18.
Note: 2017-18 is Budgeted estimate and Revised Estimate.

Allocations under maternal health include programmes like JSY (53%), JSSK (38%), Procurement of equipment (5%), and Information Education Communication (IEC)/Behaviour Change Communication (BCC) activities (2%), Other activities (1%), Maternal Health Training (1%). and Drugs and supplies (1%). Of all these components, only the top two have been discussed below in detail due to its contribution in share of the total MH allocations.

Janani Suraksha Yojana (JSY)

Janani Suraksha Yojana (JSY) was launched in April 2005 as a safe motherhood intervention to reduce the MMR and IMR by promoting institutional delivery among pregnant women. Under this initiative, all pregnant women are entitled to JSY benefits directly into their bank accounts in Rajasthan. Looking at individual components within MH, JSY has received the highest allocation in the past five years with an average annual increase of 3% for the period 2012-13 to 2017-18. Allocations under JSY accounted for roughly 60% of MH and 34% of total RCH. Meanwhile, the average annual increase in actual expenditure has been only 0.3% resulting an average utilization ratio of 87.5%.

Under the JSY program, highest allocation (78.7%) went into institutional deliveries, followed by incentives to ASHA (16.5%), and administrative expenses (4.6%). Incentives to ASHA records a utilization ratio of 79.2%, while administrative expenses record 60.6%. On an average, the funds allocated towards institutional deliveries have been utilized at a ratio of 90.5%. Within institutional deliveries,

greater allocation has gone in rural areas (81.2%) with a utilization ratio of 94.3%, while urban received an average allocation of 18.6% of the total institutional deliveries and recorded a utilization ratio of 74.1%.

This trend of higher uptake of JSY in rural areas is visible all over the country, which raises questions on the availability of the scheme in urban areas. JSY also drives MH expenditure in the state as this is open to all women. However, the share of institutional deliveries in the state still ranges from 49.3% in Jaisalmer to 97% in Baran, pointing towards inter-district disparity the reasons for which need to be understood better and responded to. The reasons could include the difference in health infrastructure or the governance measures—we are unable to comment because it is outside the purview of this expenditure review-based analysis.

Table 0.2: Number of beneficiaries, expenditures, and utilisation ratios under of Janani Suraksha Yojana (JSY) in Rajasthan (2013-14 to 2017-18)

	2012-13	**2013-14**	**2014-15**	**2015-16**	**2016-17**	**2017-18**
No. of beneficiaries	1072623	1106262	1090012	1031247	1067378	1020259
Budgeted Expenditure under JSY in lakhs (Rs)	18142	21711	19408	20100	20359	20772
Actual Expenditure under JSY in lakhs (Rs)	16181	17997	18364	17784	18832	16063
Utilization Ratio under JSY	89	83	95	88	92	77
Incentives to Accredited Social Health Activist (ASHA) utilisation ratio	47	49	118	81	109	72
Utilisation ratio for Institutional deliveries						
Rural	98	103	99	87	92	86
Urban	80	68	65	115	66	51

Source: Press Information Bureau · Government of India, Ministry of Health and Family Welfare: http://pib.nic.in/newsite/PrintRelease.aspx?relid=133709, and https://data.gov.in/resources/stateut-and-performance-wise-number-janani-suraksha-yojana-jsy-beneficiaries-2015-16-2017, and consolidated from audited Financial Management Report (FMR) of 2012-13 to 2017-18.

Janani Sishu Suraksha Karyakram (JSSK)

Janani Sishu Suraksha Karyakram (JSSK) was launched in 2011 with a view to encourage institutional deliveries. The initiative entitles all pregnant women delivering in public health institutions to free and no-expense deliveries, including

caesarean section (C-section). The entitlements include free drugs and consumables, free diet up to three days during normal delivery and up to seven days for C-section, free diagnostics, and free blood, wherever required. This initiative also provides for free transport from home to institution, between facilities in case of a referral and drop back home.

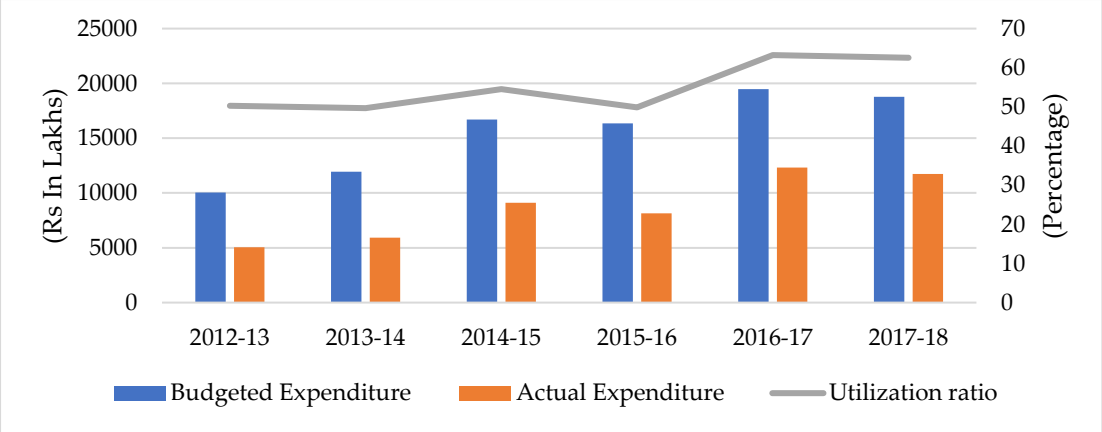
The budgetary allocation for JSSK saw an average increase of 1.5% annual growth rate, while the expenditure grew only by 6.3% annually. The scheme recorded an average of 73% of utilization ratios over the six years. Within JSSK, highest allocation goes for free referral transport, which accounts for an average of 36.8% of the total allocation. It records an average utilization ratio of 95.3%. Second highest allocation goes for procurement of drugs and consumables, which account for 30.1% of the total allocation, and has an average utilization ratio of 77.6%.

This points to the fact that referral transport maybe an important factor in promoting institutional deliveries in the state. Expenditure under JSSK is not segregated based on area; hence, an analysis of rural vs urban allocations was not possible.

5.1.2. Child health

Child Health (CH) is the second largest component under NRHM-RCH FP and received an average 25% allocation within the total RCH allocation. The budgetary allocation for CH saw an average increase of 14.4% annual growth rate, while the expenditure grew annually at a higher rate (21.4%). But the expenditures in CH were low as it recorded an average of only 55% utilisation ratios over the six years. (Figure 5.2).

Figure 0.2: Total Budgetary allocation and expenditure of child health (Rs In Lakhs)



Source: Consolidated from Financial Management Report (FMR) of 2012-13 to 2017-18.
Note: 2017-18 is Budgeted estimate and Revised Estimate.

Allocations under CH includes programmes like immunisation (30.6%), incentives to ASHA (22.5%) National Iron Plus Initiative (9.6%), RBSK (8.4%), JSSK (7.5%), Drugs & supplies (6.7%), Rashtriya Kishore Swasthya Karyakram (RKSK) (5.6%), BCC/IEC activities (3.3%), Facility Based Newborn Care (1.9%), Care of Sick Children and Severe Malnutrition (1.6%), Other Intervention (1.5%), and Child Health Training (1.4%). Of all these components, only the top few have been discussed below in detail due to its contribution in share of the total CH allocations.

Immunisation

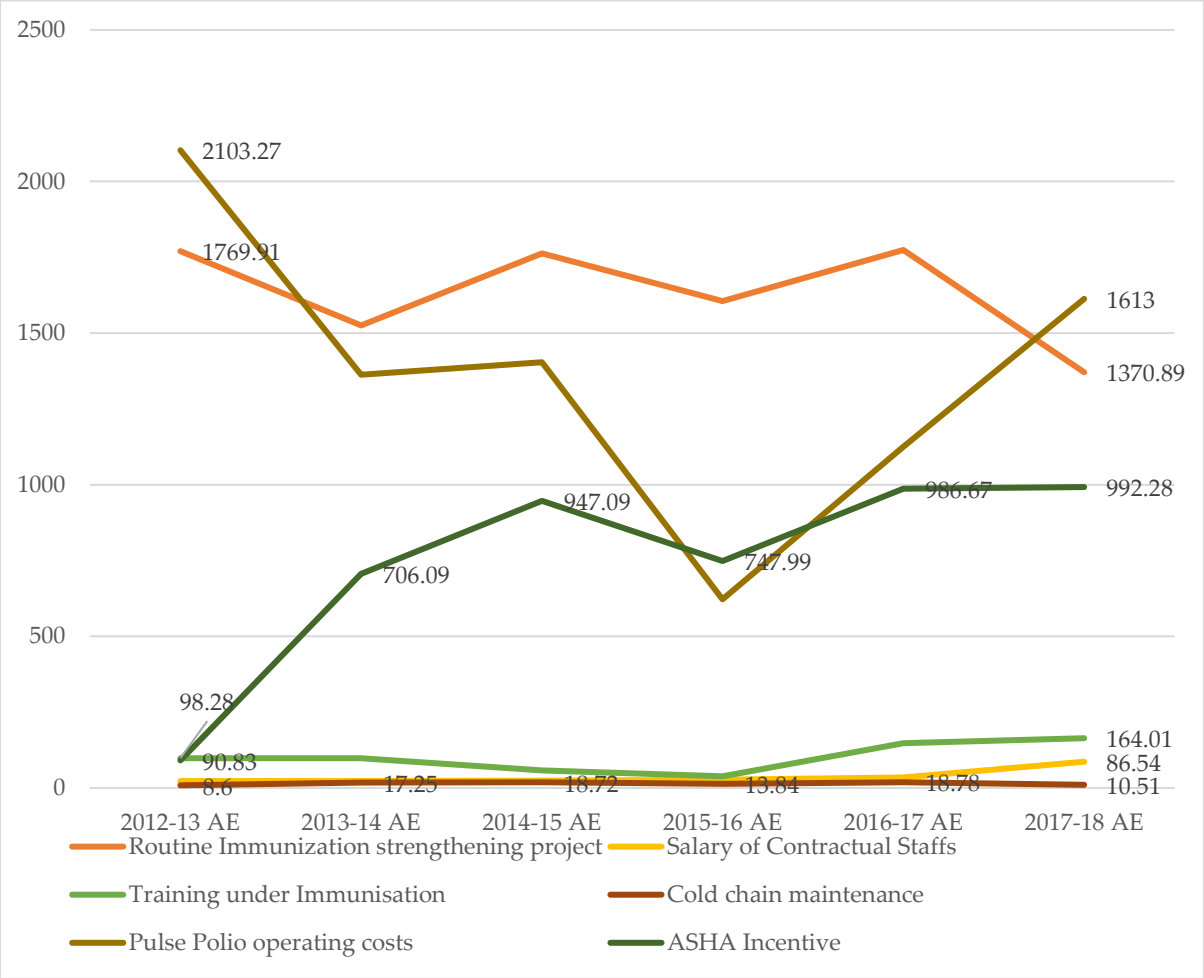
The programme is now known as Universal Immunisation Programme (UIP) and is one of the key components under NRHM. Under this programme, the government provides vaccination against seven vaccine preventable diseases of diphtheria, pertussis, tetanus, polio, measles, hepatitis b & tuberculosis.

While looking into child health exclusively, highest allocation goes for the immunisation programme covering 30.6% of the total CH allocation. However, upon adding incentives to ASHA under immunisation, this rises to 40% of the total child allocation. The following description includes ASHA incentives for immunisation as part of immunisation costs. The allocations saw a steady increase over the years from 2012-13 to 2017-18, except for the year 2013-14, which saw a dip. On the contrary, the actual expenditure on immunisation saw a mixed trend, the same being true for the utilization ratios over the years. The average utilization ratios over the six years are recorded at 63.2%.

Within immunisation (Figure 5.3), highest share of expenditure (41.9%) goes towards Routine Immunisation strengthening project, which is used for mobility support, review meetings, and outreach services. Its utilization ratio is recorded at 60.5%. The second highest expenditure goes for pulse polio operating cost (35.1%) with a utilization ratio of 82.7%. Third highest expenditure goes to the payment of ASHA incentives (19%) with a utilization ratio of 50.5%. Additionally, it must be noted that immunisation does not include the cost of procurement of vaccines that are directly supplied by the Union government, which could otherwise occupy the largest chunk of expenditure within immunisation.

Utilization of various allocations (except pulse polio) under immunisation averages at 60%. The percentage of fully immunised children in Rajasthan's districts range from 36% to under 80%, once again pointing to the unequal distribution in resources. Components like outreach services, mobility support and ASHA incentives require improved utilisation, therefore improving reach either through IEC/BCC or actual availability of resources.

Figure 0.3: Expenditures under routine immunisation 2012-13 to 2017-18 in Rs (in Lakhs)



Source: Consolidated from Rajasthan Financial Management Report (FMR) for 2012-13 to 2017-18.

Incentives to ASHA

This is the second largest allocation for CH, accounting for 22.5% of total child health allocation. This allocation has been calculated by pooling in incentives to ASHA under child related schemes (incentive to child health, ASHA incentives for RKSK and NIPI) from the human resources section. ASHA Sahyogini in Rajasthan is an important conduit between the Health, and Woman and Child departments. She plays an important role in counselling and imparting information for various child health topics, mainly nutrition, breastfeeding, and immunisation. All of these areas require focus in Rajasthan. Of the three main incentives for ASHA, incentives for CH get the highest allocation, followed by that for NIPI and RKSK. The average utilisation is 54%, pointing towards a need for improvement in this area, i.e., improving communication/reach between ASHA and her beneficiaries could improve the immunisation.

The National Iron Plus initiative (NIPI)

On an average this programme makes up for the third highest allocation (9.6% of the total child health). Allocation and expenditure for this began in the year 2013-14. However, the trend has been mixed with varying degrees of increases and decreases. On an average, the annual increase in allocation has been 61.8%, while the average annual increase in actual expenditure has been 22.8%. Therefore, the average utilization ratio of five years has been 55%. Lack of details makes it difficult to analyse the programme in detail. However, based on the details of the year 2016-17, it is seen that the highest allocation within NIPI goes to drugs for children aged 6 to 60 months, followed by drugs for adolescents under the Weekly Iron and Folic Acid Supplementation (WIFS). The least allocation goes to children aged 5 to 10 years.

Rashtriya Bal Swasthya Karyakram (RBSK)

This scheme is aimed at early identification and early intervention for children from birth to 18 years to cover defects at birth, deficiencies, diseases, development delays including disability in anganwadi, and all government and aided private schools.

Budget allocations and expenditures for RBSK were made from 2014-15 onwards. On an average, the annual increase in allocation has been 58.3%, while the average annual increase in actual expenditure has been 117.8%. The average utilization ratio of five years has been 30%.

Most of the expenditure was incurred on operational costs of preparing and disseminating guidelines, and operational plan across districts and providing referral support for secondary/tertiary care. Allocation on average of four years increased by 115% and expenditure increased by 86%. Utilization ratio for operational cost remains close to 54%. Based on details available for operational cost from 2017-18, a basic pattern of previous years can be estimated. Within operational cost, a major allocation (84%) goes for mobility support for a mobile health team with a utilization ratio of 60.5%, followed by newborn screening–inborn error of metabolism (15%) with a utilization ratio of 16%. Other than operational cost, allocation is made for referral support for Secondary/Tertiary care starting from 2014-15, which has seen a gradual increase in four years.

Rashtriya Kishore Swasthya Karyakram (RKSK): Adolescent health

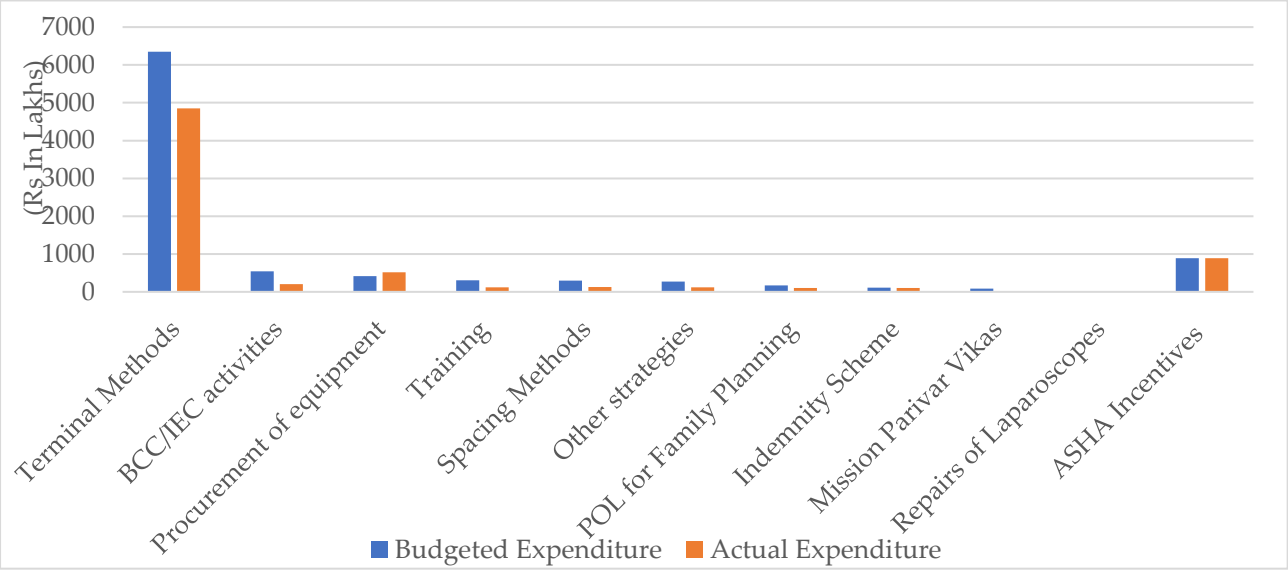
This programme focuses on adolescents aged 10-19 years, with the objective of improving their nutrition, enhancing mental health, preventing injuries and violence, enabling sexual and reproductive health, preventing substance abuse, and

addressing conditions for NCDs. Budgetary allocations to RKSK constitutes of 5.6% of the total CH. Its allocations are lower than that for the CH component for JSSK and also than drugs and supplies for CH. Allocations to RKSK saw an increase in the second and third year; however, thereafter it saw a continuous decrease over the later years. The average utilization ratio over the years is recorded as 36%. Within RKSK programme, the highest allocation has been made to activities of IEC/BCC. The second highest allocation goes towards the training of peer educators, etc. of the programme. Allocations under ASHA incentives for RKSK have also been miniscule, which started at Rs 50 lakhs in 2014-15 and decreased to just Rs 5.42 lakhs in 2017-18.

5.3. Family Planning

Family Planning receives an average allocation of 14.8% under total RCH allocations. Consolidation of different components (as illustrated in the figure 5.4) of family planning programme accounted under various heads shows that there has been an average of 18.3% year-on-year growth over the years of the total allocation. Furthermore, our analysis shows that, on an average, 67.2% was directed to provision of terminal or limiting methods, while spacing methods received only 3.2%. Within the allocations made for the provision terminal/ limiting methods, greater allocation (an average of 91.1%) is apportioned towards the compensation for female sterilisation, while male sterilisation consisted of only 3%. ASHA incentives received the second highest allocation at 9.4% and had an average utilization of 94%. Within incentives highest allocation/expenditure is seen towards 'incentive for promoting of limiting method up to two', followed by incentive for promoting a spacing method.

Figure 0.4: Average Budgeted Expenditure (BE) vs Actual Expenditure (AE) of Family Planning Programme



Source: Consolidated from audited Financial Management Reports (FMR) of 2012-13 to 2017-18.
Note: BCC stands for Behaviour Change Communication, IEC stands for Information Education Communication, and POL refers to Petrol, Oil, and Lubrication.

The next highest allocation under the Family Programme is directed to activities of IEC/BCC. The allocations on IEC/BCC increased from 2014-15, however utilization varies between sub-optimal level and overutilization. This raises questions over efficiency of IEC/BCC activities under Family Programme. Procurement of Equipment received 4.4%, and training received an allocation of 3.2%.

Three issues are brought to light here: (1) the largest portion of family planning expenditure goes towards compensation for sterilisation, which is in line with other cash transfer schemes, (2) the lack of prioritisation of spacing methods over terminal methods, which is seen by the difference in allocations of the two as well as how ASHA incentives are distributed under FP; terminal/limiting methods especially skewed towards female sterilisation also brings into fore the gender bias which operates in this scheme, and (3) inconsistent usage of allocations under IEC/BCC questions the efficiency of IEC/BCC, which is important from the point of view of propagating the use of spacing methods.

5.4. Pre-Conception and Pre-Natal Diagnostic Techniques (PCPNDT) Activities

Child sex ratio is an important indicator of discrimination against the girl child. The child sex ratio in Rajasthan was recorded as 888 in 2011 Census data, down from 909 in 2001 Census. The statistics hints at prevalence of female foeticide in the state. To

combat this practice of sex selection and prenatal sex detection from all over India, the PNDT Act was established in 1994. This mission under NHM contributes to the successful implementation of the act. However, considering the lower sex ratio in Rajasthan, the money allocated on this mission seems to be quite insignificant as a proportion of the total RCH, with an average of less than 1% (0.18%). The allocation saw a considerable decrease over the years from Rs 169 lakhs in 2012-13 to Rs 55 lakhs in 2017-18.

Shubhlaxmi Yojana

This scheme was introduced in the state with an aim of stopping female foeticide. The scheme gives cash benefits to the girl child at various stages of her life. This scheme comes under the additionalities by the state under NHM; therefore, itis a purely state scheme with no contribution from the centre. As a proportion of the entire NHM funds, it constitutes of 4% and records an average utilization ratio of 100%.

Rajshree Yojana

The scheme was introduced in the state in 2016 for the overall development of girls with an intention to improve their health and educational status. This scheme comes under the additionalities by the state under NHM; therefore, it is a purely state scheme with no contribution from the centre. The first two benefits under the scheme pertaining to health are (1) on birth of a girl child, and (2) on completion of all necessary vaccines for the girl child. As a proportion of the entire NHM funds it constitutes of 4% and records an average utilisation ratio of 143%.

The above two schemes, Shubhlaxmi and Rajshree, do not come under the definition of health expenditure under NHA as they serve as social welfare schemes and hence are not part of this expenditure review.

5.5. Main Points

Maternal Health allocation constitutes the highest proportion of the RCH allocations in Rajasthan, at 60% of total RCH, followed by CH at 25% and Family Planning at 14.8%, on average from 2012-13 to 2017-18. Within these components, JSY drives maternal health expenditure as it is open to all women in the state. This is followed by JSSK under maternal health and terminal sterilisation methods under Family Planning. It is interesting to note that it the free cash transfer component in JSY as well as terminal sterilisation that drives both these expenditures. It is the free referral transport that drives JSSK expenditures.

Looking at maternal health allocation/expenditures from a health indicator point of view, the increase in institutional deliveries appears to be a direct consequence of JSY and JSSK. However, improvement in indicators has not been uniform across districts and there is rural/urban divide in uptake of the JSY scheme. Preference for

referral transport component in JSSK emphasises that accessing delivery care maybe an issue to be looked into. Field observations and RHS also point to the lack of staff (especially nurses and gynaecologists), which may prompt women to look for delivery points further than their desired closest public health facility necessitating transport requirement. This may also be detrimental to the mother's and child's health due to increase in the time taken to the hospital.

Looking into the child health expenses/allocations, immunisation takes up the highest berth. However, its utilization is only 63.2%, whose consequence can be seen in the poor immunisation record of the state. Also, to be noted are the ASHA incentives in this category, which have a utilization of 50%. Outreach and IEC/BCC is critical in immunisation for its uptake, which is an important job of the ASHA. Low utilization is concerning and needs to be improved. Adolescent health is another area of concern, which has seen lower allocations from 2015-16 for IEC/BCC as well as community and facility-based services. The only significant allocation for the age group 10-19 years is under the WIFS which supplements Iron and Folic Acid (IFA) through schools. Rashtriya Bal Suraksha Karyakram (RBSK) is still in infancy phases in the state and requires significant expenditure to undertake state-wide health check-ups and referral in children, not excluding costs of treating affected children. This essential expenditure could not occur at expense of other programmes such as adolescent health in the state, which is already a low-prioritised area.

Family Planning's allocation focuses mainly on termination methods and not spacing methods. Allocations and expenditures are highest on termination methods including those of ASHA incentives which is skewed towards sterilisation in the state. Low allocations are seen in IEC/BCC methods which are a mainstay in the utilisation of these services—this is another area of concern especially in a state with high TFR and low female literacy and high gender biases.

Chapter 6: Tribal Health

Tribal population accounts for 12.6% of Rajasthan's total population[19] and with more than 92 lakh tribal people, it has the fourth largest tribal population in India according to 2011 Census. The tribal population is concentrated in the southern and eastern parts of the states. Of the three districts visited by our field team, two i.e., Dungarpur and Jaisalmer, had a sizeable tribal population. Interviews with ASHA Sahyoginis put forth that anaemia and malnutrition were the most common ailments in women and children. Malaria and dengue also afflicted this population with seasonal variations. One ASHA in Dungarpur pointed to TB and drug addictions as problems faced by the tribal population. Many ASHAs also complained about the lack of hygiene probably caused by the lack of sanitation facilities in the community.

Interviews further showed that accessing health care was affected by two major reasons. First, lack of knowledge, especially in women, about their health resulted in delay in seeking healthcare. This was further worsened by belief in superstitions says an ASHA supervisor in Jaisalmer, 'There are several Bhil households in this area; women's mobility is restricted, and their health is not a priority. Women are taken to a doctor only when the situation worsens. There is blind faith on traditional healers /bhopas'. Second was the lack of transport or easy access to PHCs. Hilly areas made it difficult for the sick to access healthcare. Even though 104/108 Ambulance services were available, absence of cellular network made it difficult to book transport.

Poor health indicators and poor access to health facilities coupled with infrastructure and human resources challenges especially the lack of health personnel, is a cause for concern. In Dungarpur, the Free drug and free diagnostic schemes seems to have had a positive impact. The doctors report an increase in the number of patients at the PHCs, however they also complain of shortages of medicines and diagnostic reagents as well as lack of Lab technicians to carry out tests. The above findings clearly indicate the need for concentrated efforts towards tribal health keeping their disease profile and cultural beliefs in mind.

[19] https://censusindia.gov.in/Tables_Published/A-Series/A-Series_links/t_00_005.aspx, accessed on 29 May 2020.

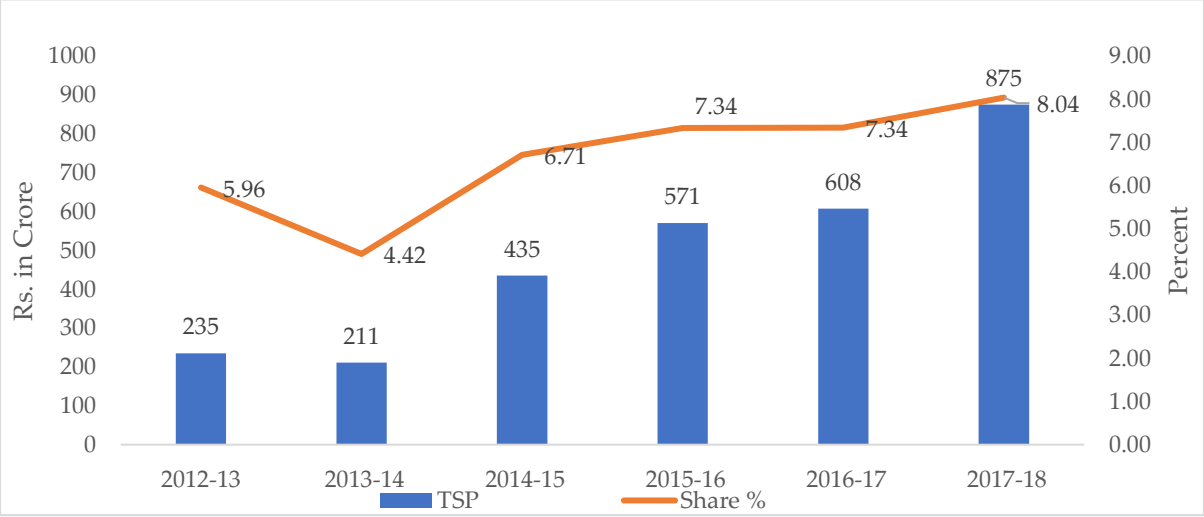
Tribal Sub Plan

> 'Bagriya and Banjara communities reside in the outskirts of the village. They are very ignorant about the health-related issues; the women and children are undernourished; and they are hesitant to get their children for immunization' – ASHA Sahyogini, Malpura, Tonk

In view of the special needs of tribal population, the concept of drawing up a Tribal Sub-Plan (TSP) accounting for all the flows of funds invested in the Integrated Tribal Development Project (ITDP) started from 1975-76. Depending on the concentrations of tribal population in the villages, the Government of India has segregated tribal areas into ITDPs, Additional Tribal Sub Plan (ATSP), Modified Area Development Approach (MADA) and Mini-MADA areas (Tribal Development Department, 2019). Tribal Sub-Plan (TSP) requires the state and central government to earmark a portion of their budget outlays towards tribal welfare in proportion to the tribal population in the state. Therefore, Rajasthan with 12.4% population as tribal should at least allocate 12% of its health.

Health expenditures that were marked under TSP in the state budget documents were considered as tribal expenditure in major heads namely, 2210, 2211 and 4210. There was no other budget line that was marked specifically as a tribal expense/scheme with the exception of the three already mentioned and our analysis for tribal expenditure is limited to these.

Figure 0.1: Share of Tribal expenditure in Total State Health Expenditure in Rajasthan 2012-13 to 2017-18

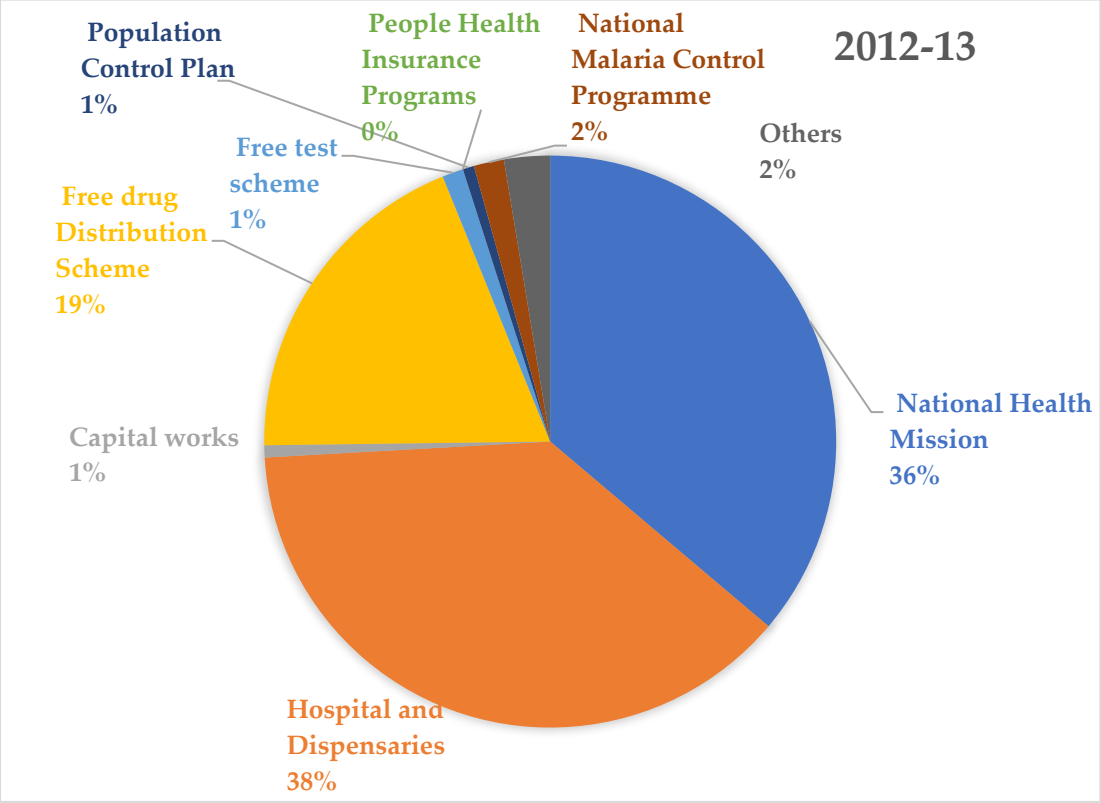


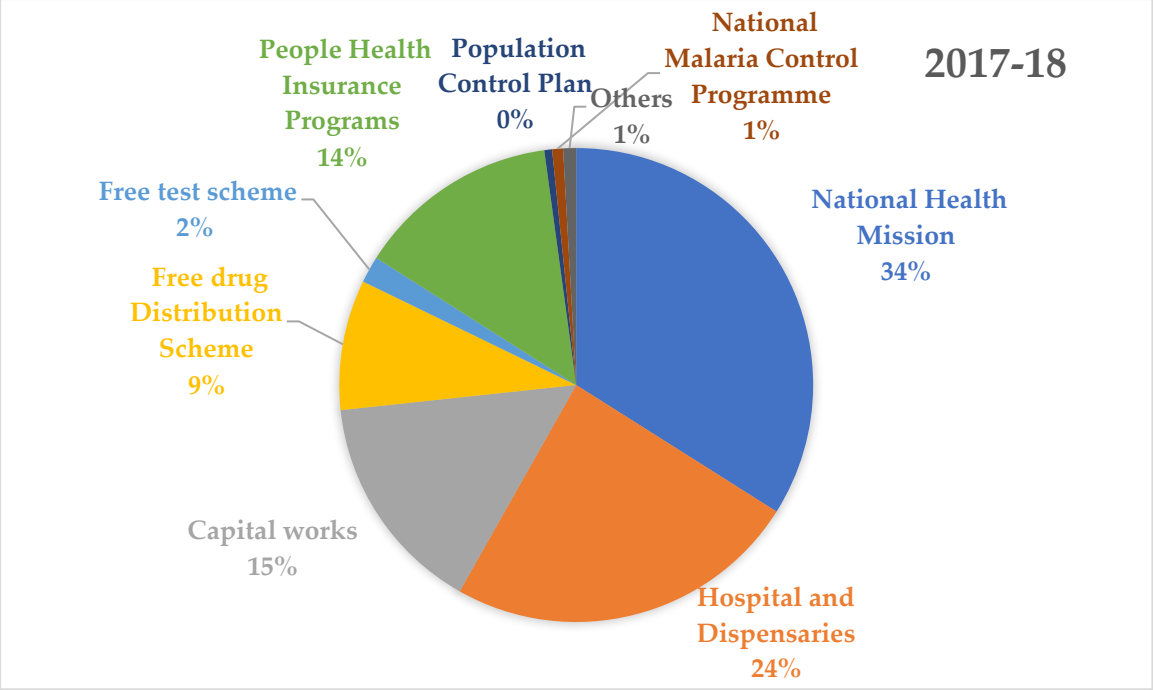
Source: Analysis of Rajasthan State budget documents 2012-13 to 2017-18.

6.1. Tribal Health Expenditure in State Budget

The share of the TSP in total state health expenditure consistently increased since 2014-15, where it formed only 6.7% of total state health expenditure. In 2017-18, TSP accounted for about 8%of the total health expenditure of the state at Rs 875 crores. Delving further into TSP expenditures, we see that NHM took up an average of 36% of TSP funds from 2012-13 to 2017-18 (Figure 6.2); NHM includes expenditure on NUHM, NRHM, ambulance services and Chief minister's Help Fund. This is followed by expenditure on hospitals and dispensaries (33%). This includes the rural and urban services under allopathy and other forms of medicine. The free drug scheme, free testing, and insurance accounted for about 18.4% of the TSP over years (Table 6.1). Expenditure under these three schemes within TSP saw a 75% jump from 2014-15 to 2017-18.

Figure 0.2: Share of expenditure on different components of Tribal Sub-Plan (TSP) in Rajasthan 2012-13 and 2017-18





Source: Analysis of Rajasthan State budget documents 2012-13 to 2017-18.

Within disease specific expenditures, the malaria control/eradication programme has significant expenditure in TSP. This accounts for an average of 0.9% of TSP expenditure over the six years. However, the expenditure on malaria under TSP accounts for 6.87% of the total malaria eradication expenses of the state. The National AIDS Control also had sporadic expenditures under TSP. An uncommon expenditure under TSP included the expenditure on controlling food adulteration and also running the Tourist Surgical Medical Unit. The expenditure, however, is very low hovering only around Rs 1.5 crores annually.

Table 0.1:Share of Insurance, Free drug, and Free test scheme under Tribal Sub-Pan (TSP) (Rs in Crore)

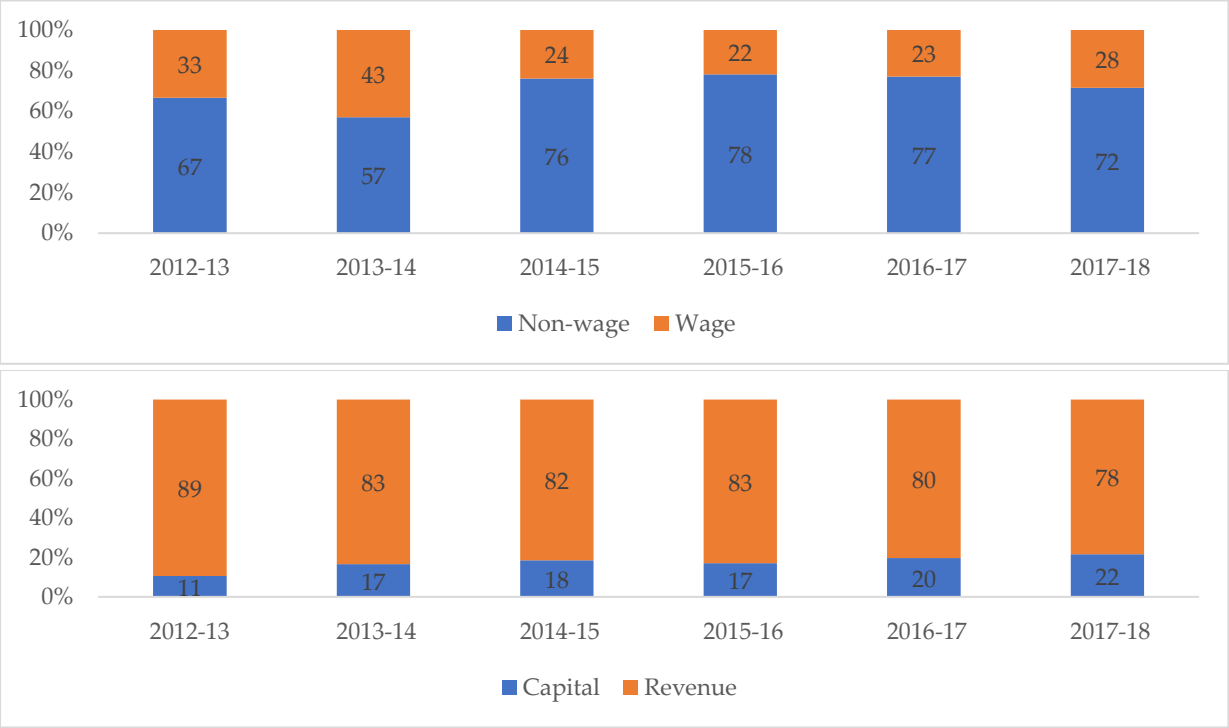
	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18
Bhamashah/RSBY/AB-MGRSBY[20]	0	0	6	28	61	121
Free drug	45	28	34	48	40	78
Free test	3	11	16	12	14	16
Total	**48**	**39**	**56**	**87**	**115**	**215**
Share (%) of TSP	20.23	18.55	12.93	15.30	18.97	24.53

Source: Analysis of Rajasthan State budget documents 2012-13 to 2017-18.
Note: RSBY stands for Rashtriya Swasthya Bima Yojana, and AB-MGRSBY stands for Ayushman Bharat- Mahatma Gandhi Rajasthan Swasthya Bima Yojana.

[20] Now all insurance schemes are clubbed and called as Ayushman Bharat–Mahatma Gandhi Rajasthan Swasthya Bima Yojana.

The non-wage expenses account for 71% of the total expenditure on health under TSP, while the wage accounts for the rest. The non-wage expenditure includes the health programmes, disease control programmes, drugs and medicines, materials and supplies, vehicle maintenance, etc. The revenue expenditure which includes all the health programmes, disease control programmes, apart from personnel expenses, accounts for 83% of the TSP, while the rest account for capital expenditure, which is largely related to the medical college hospital expenditure. Hence, TSP funds are being used mainly for programme expenses and not for personnel, and this is a positive sign.

Figure 0.3: Share of Wage/Non-wage and Capital/Revenue expenses under Tribal Sub-Plan 2012-13 to 2017-18



Source: Analysis of Rajasthan State budget documents 2012-13 to 2017-18

6.2. National Health Mission Expenditure on Tribal Health

With reference to the TSP, it was reported that the total NHM funds received from GoI is bifurcated as General, Schedule Caste (SC) Sub-plan and TSP. Tribal Sub-Plan constitutes 13.48%, SC sub-plan is 17.83% and remaining amount is for General population. The state share is also calculated in the same way. Both the centre and state shares become part of the flexipool and are further disbursed to the districts as per population. Therefore, it is difficult to bifurcate the TSP funds at the lower level. The funds are not transferred to the Tribal Department in Rajasthan like in some states, for e.g., Maharashtra. Within NHM, in the FMR, therefore the only tribal expenditure that can be discerned is the Tribal RCH whose expenditure is miniscule.

Therefore, we will look at TSP within NHM expenditures as seen in state budget. The NRHM expenditures makes up bulk of expenditures under NHM. Further details on expenditure through NHM could not be analysed.

Table 0.2:National Health Mission in Tribal Sub-Pan (TSP) (State budget) Rs in Crore, 2012-13 to 2017-18

TSP Components of NHM	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	Average
Below Poverty Line (BPL) Chief Minister Life Help Fund (30:70)	5.7	6.5	6.2	2.9	3.9	3.9	5
National Rural Health Mission (NRHM)	72.2	32.7	149.0	213.2	208.4	278.0	159
State Wise Emergency Ambulance Services Scheme	7.1	8.1	10.0	4.7	3.1	9.4	7
National Urban Health Mission (NUHM)	0.0	0.0	9.8	10.6	0.9	5.8	5
Grand Total	85.0	47.3	175.1	231.4	216.3	297.1	175

6.3. Main Points

The expenditure on tribal health through TSP constituted 8% of total state health expenditure in the state. Of this, NHM comprised 36%, followed by 33% expenditure on hospitals and dispensaries. Tribal Sub-Plan funds were mainly used for programme expenditure and less than 30% was used for wages. Field insights point to a need for improving access to populations by improving 104/108 Ambulance services. There is also a need to improve IEC/BCC approaches in treatment of this population considering their cultural beliefs.

Chapter 7: Urban Health

Urban health came into focus with the introduction of the National Urban Health Mission (NUHM). Urban health in cities comes under the jurisdiction of the municipal corporations. They have their own revenue and oversee running and maintaining health facilities that come under their jurisdiction. These health facilities, mainly UPHCs and CHCs serve the urban poor populations. In addition, most cities also have state run medical colleges and hospitals, which are maintained by the state government and not the urban local bodies.

An analysis of urban health expenditure was carried out by selecting all expenditures marked urban in major heads 2210, 2211, and 4210; NUHM analysis within the FMR was also carried out.

7.1. Urban Health Expenditure in state Budget

Expenditure on urban health care services increased from Rs 1,343 crores in 2012-13 to Rs 2,633 crores in 2017-18. However, its share in the total health expenditure consistently decreased over years from 34% to 24.2% (Table 7.1)

Table 0.1: Details of Health Expenditure by sector over the years 2012-13 to 2017-18 (Rs Crore)

	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18
Rural	1,824	2,171	3,463	4,110	4,377	5,424
Urban	1,343	1,680	2,058	2,078	2,136	2,633
Others (public health+ Medical education and research)	784	926	965	1,593	1,763	2,827
Grand Total	3,951	4,777	6,486	7,781	8,276	10,883
Urban share%	**34.0**	**35.2**	**31.7**	**26.7**	**25.8**	**24.2**

Looking further at urban expenses, almost 60% on average was spent on hospitals and dispensaries. As already mentioned, many of the state expenditures on hospitals goes towards funding medical colleges. These not only cater to the urban population but also to rural population from surrounding areas and hence cannot be taken as an exclusive urban expenditure. This is followed by an average 8.5% expenditure on the Tribal Sub-Plan (TSP) components. The share of TSP consistently increased over the years from 6.5% in 2012-13 to 11.5% in 2017-18. It mainly included expenditure on hospitals and dispensaries as well as on NUHM. This increase in contribution was not seen in the SC component plan, which decreased from 2.3% to 1.7% during the

same period. Other high urban expenditures include allopathy (7.2%) and Ayurveda[21] (6.3%).

The capital expenditure that includes medical education saw significant expenditure (43%), while the revenue expenditure hovered around 57% of the total urban expenditure. The wage expenditure averaged over 70% for the period 2012-13 to 2017-18 and the non-wage showed decline over the last two years (2016-17 and 2017-18).

Table 0.2: Share of Capital/Revenue and Wage/Non-wage expenditure in urban health expenditure 2012-13 to 2017-18

	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18
Urban Expenditure Total	1343	1680	2058	2078	2136	2633
Capital/Revenue						
Capital	579	772	936	889	881	1147
Revenue	764	907	1122	1189	1255	1485
Capital%	43	46	45	43	41	44
Revenue%	57	54	55	57	59	56
Wage/Non-wage						
Non-wage	393	568	765	631	530	692
Wage	951	1112	1293	1447	1606	1941
Non-wage%	29	34	37	30	25	26
Wage%	71	66	63	70	75	74

7.2. National Urban Health Mission (NUHM) Expenditure

Table 0.3: National Urban Health Mission (NUHM) expenditure within state budget

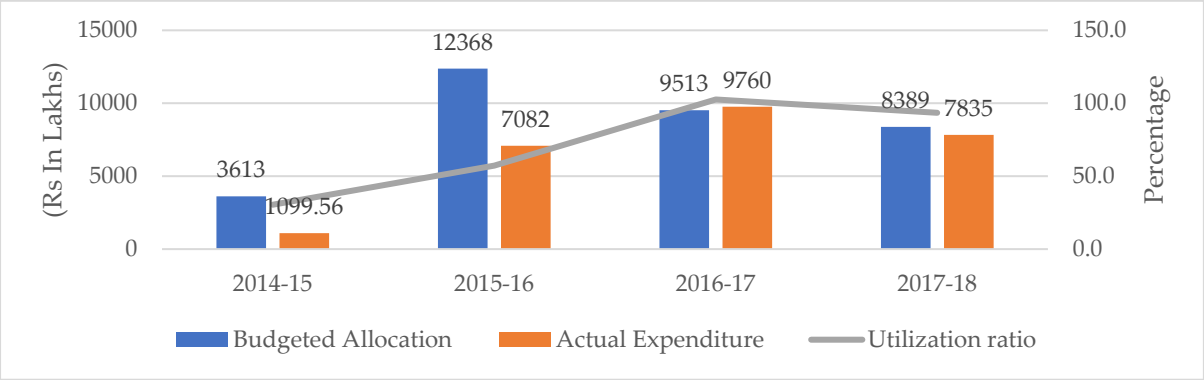
	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18
NUHM	0.00	13.60	75.55	81.16	26.92	42.95
Share in total urban%	0.00	0.81	3.67	3.91	1.26	1.63

Expenditure on NUHM within state budget started as 0.81% of urban expenditure and was at 1.63% in 2017-18. On average, NUHM amounted to 3.47% of the entire NHM allocation. National Urban Health Mission (NUHM) was started from the year 2014-15 with an aim to address the health concern of the urban poor population. The allocation for NUHM saw an increase in the second year (2015-16), however it levelled down over the next two years meaning no new initiatives or expenditures have been undertaken. The utilization of funds under NUHM improved steadily,

[21] This includes urban expenditure related to wage and non-wage within direction and administration as well as hospital and dispensaries related to Ayurveda.

especially in 2016-17 and 2017-18. Details of the programme are unavailable in the FMR (Figure 7.1).

Figure 0.1: Budgetary allocations, expenditure, and utilization for National Urban Health Mission (NUHM)



Source: Consolidated Financial Management Report (FMRs) from 2014-15 to 2017-18.

7.3. Main Points

In conclusion, urban expenditure as a percentage of total health expenditure decreased from 34% to 23%. Forty-three per cent of these expenditures go towards capital expenses. On the whole, hospitals and dispensaries took up 60% of all expenditure under urban health; however, these are for secondary and tertiary care centres, while primary care facilities usually come under the ambit of local municipal corporations. Municipal corporation health expenditures do not figure under state budget nor under NHM. Municipal corporations usually undertake the maintenance and running of PHCs in their wards. Their role in current urban health scenario is largely understudied as was seen in the municipal corporation study in Maharashtra; they serve as a conduit for health schemes under NHM. National Urban Health Mission (NUHM) is still in its infancy and forms a miniscule part of urban expenditure—this means urban expenditure is geared mainly towards infrastructure and maintenance of health facilities. There are no specific health schemes that cater only to an urban population in the state as seen from the state budget and NHM analysis.

Chapter 8: Communicable and Non-communicable Diseases

The expenditure on control/eradication of Communicable Diseases (CDs) and management of Non-Communicable Diseases (NCDs) increased consistently, except for the year 2016-17 wherein expenditure on CDs reduced. The expenditure on NCDs is low but it has been increasing steadily. The share of expenditure on CDs in the disease management hovered around 85% over the years indicating its predominance.

Table 0.1: Expenditure on Communicable Diseases (CDs) and Non-Communicable Diseases (NCDs) over years (Rs Crore)

CD/NCD	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18
Communicable Diseases						
AIDS	0.00	0.00	21.00	24.18	0.00	0.00
Leprosy	22.64	25.77	29.15	30.18	30.80	7.43
Malaria	56.54	61.78	66.11	56.19	63.57	83.90
Multiple	0.02	0.02	0.03	0.03	0.04	0.06
Swine Flu	0.00	0.00	0.00	0.00	0.00	1.25
Tuberculosis	11.98	12.87	13.14	14.33	15.70	86.41
CD Total	91.17	100.44	129.43	124.92	110.10	179.06
Non communicable Diseases						
Blindness	4.59	4.80	5.12	5.40	5.77	7.28
Cancer	0.00	0.00	0.00	0.00	0.00	22.50
Goitre	0.15	0.08	0.07	0.00	0.00	0.03
Mental	10.00	11.72	12.66	12.97	13.77	15.98
NCD total	14.74	16.60	17.85	18.38	19.54	45.79
Grand Total	105.92	117.05	147.29	143.29	129.64	224.85
Share of CD and NCD in Total Health Expenditure	2.68	2.45	2.27	1.84	1.57	2.07
share of CD	86.08	85.81	87.88	87.18	84.93	79.63

Source: Analysis of state budget documents 2012-13 to 2017-18.

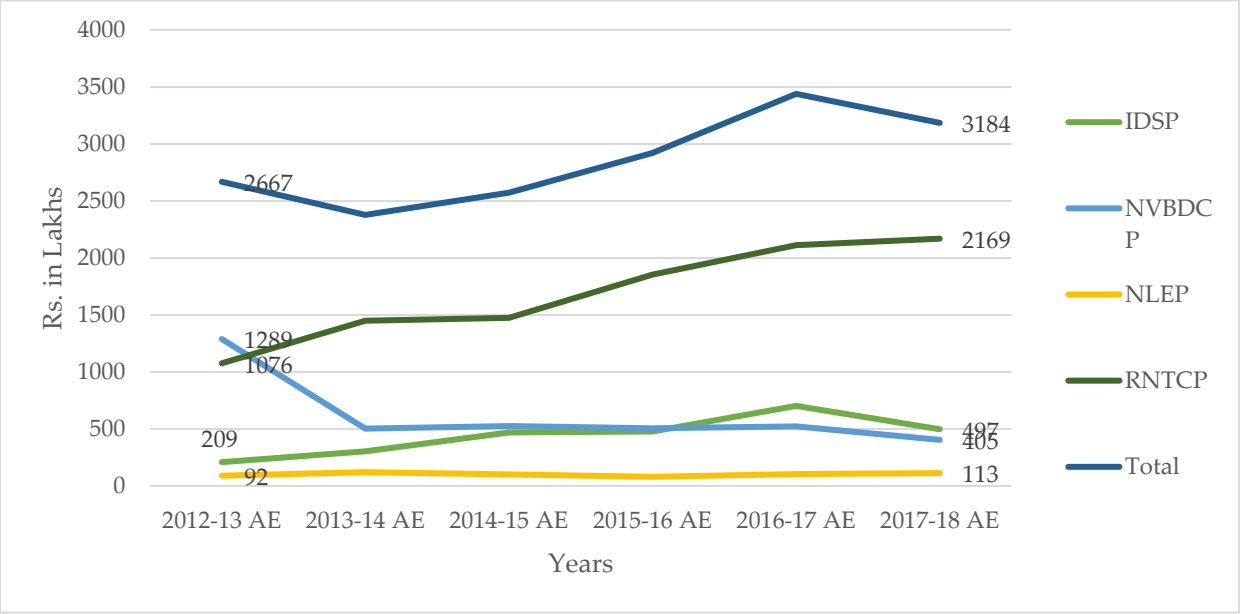
There is a sudden spike in the expenditure of the TB control programme during the year 2017-18 reaching Rs 86.4 crore from the previous year's expenditure of Rs 15.7 crore. This kind of spike raises concerns that needs to be probed further to be understood better. Similarly, the leprosy control programme expenditure which was hovering around Rs 28 crores over the period 2012-13 to 2016-17 suddenly dropped to Rs 7.43 crores in 2017-18. This can, of course, perhaps be attributed to its near eradication from the country. Cancer treatment expenditures figured in 2017-18 for the first time and in a big manner at Rs 22.5 crore, which doubled the NCD expenditure from Rs 19.5 crores in 2016-17 to Rs 45.7 crores in 2017-18.

8.1. National Health Mission Expenditure on Communicable Diseases: Flexible Pool for Communicable Diseases (CD-FP)–NHM.

Expenditure under this flexipool forms on an average 1.6% of total NHM expenditure. It has seen a consistent increase from Rs 2,667 lakhs in 2012-13 to Rs 3,184 lakhs in 2017-18. The average year on year growth rate in expenditure was 4.25%.

Communicable Diseases Flexipool (CD-FP) includes expenditures on RNTCP, which constitutes of 60% (average of six years) of the total expenditures under the CD-FP. Increase in expenditures under RNTCP has been the main cause of increased spending in this flexipool. National Vector Borne Diseases Control Programme (NVBDCP) constituting 21.9% (average of six years), Integrated Disease Surveillance Programme (IDSP) constituting 15.5% (average of six years), and National Leprosy Eradication Programme constituting 3.6% (average of six years) are other prominent heads.

Figure 0.1: Components of Communicable Disease-FlexiPool (Actual expenditure) 2012-13 to 2017-18



Source: Consolidated from Financial Management Reports (FMR) of 2013-14 to 2017-18.
Note: RNTCP stands for Revised National Tuberculosis Control Programme, NLEP stands for National Leprosy Eradication Programme, NVBDCP stands for National Vector Borne Diseases Control Programme, and IDSP stands for Integrated Disease Surveillance Programme.

1. Revised National Tuberculosis Control Programme (RNTCP)

This programme consists of 59% of the expenditure under CD. It is the only programme under CD that saw an increase in expenditures from 2012-13 to 2017-18

and drives CD expenditures. It has seen an average of 15.7% year on year growth rate in expenditures. Details of allocations within the RNTCP programme is not available for the first three years and therefore the details of the last three years have been used to understand the priorities within this programme. Therefore, an average of three years (2015-16 to 2017-18) shows that the highest expenditure (47.5%) within the RNTCP programme has gone into the payment of contractual services. The second highest allocation (9.5%) goes to 'Honorarium/counselling charges', and t the third highest allocation (6%) goes into Public Private Mix (PP/NGO support).

2. National Vector Borne Diseases Control Programme (NVBDCP):

Under CD, this programme spends the second highest share which accounts for 21.9% of the total CD. The expenditure under this programme reduced drastically by a year-on-year average of 15% from 2012-13 to 2017-18. This is an umbrella programme for the prevention and control of vector borne diseases viz. malaria, Japanese encephalitis (je), dengue, chikungunya, kala-azar and lymphatic filariasis. However, in Rajasthan, no allocations or expenditures have been undertaken for diseases other than malaria, dengue, and chikungunya.

Details for the programme have been given only for the last three years. Malaria-related programme costs receive 56% of total funds under NVBDCP, followed by 24% expenditure on 'Cash grants for decentralised commodities', which consists mainly of drugs used for malaria treatment. This is followed by spending on dengue and chikungunya at 18.5%.

3. Integrated Disease Surveillance Programme (IDSP):

The key objective of the programme is to strengthen/maintain decentralised laboratory-based, information technology-enabled disease surveillance system for epidemic prone diseases, to monitor disease trends, and to detect and respond to outbreaks in early rising phase through trained Rapid Response Team (RRTs). Amongst the programmes under CD-FP, IDSP undertakes the third highest spending (15.5%). Spending on IDSP increased on year-on-year basis by an average of 37% for four years from 2012-13 to 2016-17. Based on details available only for the last three years, it is noticed that 74.65% of the total expenditure goes into remunerating contractual staff like district epidemiologists, data manager and district data entry operator. Laboratory support expenditure occupies 14.3% of IDSP, followed by spending on mobility support at 9.9%.

4. National Leprosy Eradication Programme (NLEP):

Expenditure under NLEP forms 3.6% of total CD-FP and has remained stagnant with marginal increases over the years. Highest spending goes for case detection and management (35%), followed by HR and capacity building at 26.5%.

8.2. Non-Communicable Diseases Flexipool (NCD-FP)

Non-Communicable Diseases Flexipool (NCD-FP consists programmes for diseases like National Programme for Control of Blindness (NPCB), National Mental Health Programme (NMHP), National Programme Health Care of the Elderly (NPHCE), National Tobacco Control Programme (NTCP), National Programme for Prevention & Control of Cancer, Diabetes, Cardiovascular Diseases & Stroke (NPCDCS). Other programmes like the National Programme for Prevention and Control of Deafness, National Oral Health Programme, National Programme for Palliative care, National Programme for Fluorosis (NPF) and National Iodine Deficiency Diseases Control Programme (NIDDCP) that are included within NRHM-RCH FP are also discussed here. Only allocations and expenditures from 2015-16 onwards are discussed here due to absence of programmes (e.g., NPCDCS started only in 2015-16) or lack of data in the earlier years (e.g., NMHP).

Table 0.2: Expenditures and Allocations under Non-Communicable Disease programmes within National Health Mission 2015-16 to 2017-18 in Rs Lakhs

PROGRAMMES	2015-16 BE	2015-16 AE	2016-17 BE	2016-17 AE	2017-18 BE	2017-18 AE	Average Expenditure	Proportion
National Programme for Control of Blindness (NPCB)	900	1372	1708.13	1458.38	1801.53	1518.22	1449.5333	35.1
National Mental Health Programme (NMHP)	28	209.44	1898.21	124.91	818.86	101.1	145.15	3.5
National Programme Health Care of the Elderly (NPHCE)	866.8	825.53	1194.82	637.5	335.1	57.01	506.68	12.3
National Tobacco Control Programme (NTCP)	698.4	2.39	589.72	415	483.78	390.78	269.39	6.5
National Programme for Prevention &Control of Cancer, Diabetes,	1818.16	1668.9	3077.26	1869.62	934.78	790	1442.84	35.0

PROGRAMMES	2015-16 BE	2015-16 AE	2016-17 BE	2016-17 AE	2017-18 BE	2017-18 AE	Average Expenditure	Proportion
Cardiovascular Diseases & Stroke (NPCDCS)								
National Programme for Prevention and control of deafness (NPPCD)	667.1		619.48	66.83	9.78	61.73	64.28	1.6
National Oral Health Programme (NOHP)	29.92	16.05	181.88	52.86			34.455	0.8
National Programme for Palliative Care (New Initiatives under NCD)					238.58	2.79	2.79	0.1
National Programme for Fluorosis (NPF)	460	333.27	553.45	300.68	378.07	52.3	228.75	5.5
National Iodine Deficiency Disorder Control Programme (NIDDCP)	49	17.86	42.37	35.02	42.94	0.17	17.683333	0.4
Total	**5517.38**	**4445.44**	**9865.32**	**4960.8**	**5043.42**	**2974.1**	4126.78	100.0

Source: Consolidated from Financial Management Report (FMRs) of 2013-14 to 2017-18.
Note: BE stands for Budgeted Expenditure and AE stands for Actual Expenditure.

Expenditures on NCD-FP forms only 1.3% of total NHM expenditure. Allocations and expenditures for NCD programmes increased in for 2015-16 and 2016-17 but saw a decline in 2017-18 (Table 8.2). The programmes NPCDCS and NPCB together account for 70% average expenditure in the three years. Further details within the programmes are unavailable within the FMR. Programmes like NPHCE), NTCP, and NPF are the programmes with relatively high expenditures.

8.3. Main Points

In conclusion, share of total state health expenditure on diseases decreased from 2.68% in 2012-13 to 2.07% in 2017-18 as seen from state budget documents. The share of expenditure on CDs averaged at 85.3%. Within NHM, CD expenditure is an average of 1.6% and NCD is at 1.3%.

Revised National Tuberculosis Control Programme (RNTCP) consists of 59% of the expenditure under CD; it is only programme under CD which has seen an increase

in expenditures from 2012-13 to 2017-18 and drives CD expenditures. National Vector Borne Diseases Control Programme (NVBDCP) accounts for 21.9% of expenditure and has reduced drastically by a year-on-year average of 15% from 2012-13 to 2017-18. Malaria, dengue, and chikungunya are the only diseases with expenditures in NVBDCP with malaria being allocated 56% funds. Integrated Disease Surveillance Programme (IDSP) also saw an increase in expenditures with most of it going towards remuneration of staff.

Allocations and expenditures for NCD programmes increased for 2015-16 and 2016-17 but decreased in 2017-18. Programmes of NPCDCS and NPCB together account for 70% average expenditure from 2015-16 to 2017-18. Details of expenditure within these programmes are unavailable within FMR. Non-Communicable Diseases programmes are still in their infancy in the state.

No programmes focusing on prevention of COPD exist, which is the highest cause of death in the state. This means the state does not have infrastructure attuned to dealing with acute/chronic respiratory illnesses in place. This is also important from the standpoint of the current COVID-19 pandemic, whose presentations are mainly in the form of respiratory illnesses.

Chapter 9: Delivery of Health Care Services

Delivery of health care services depends on i) presence of adequate manpower, both skilled and non-skilled, ii) presence of adequate physical infrastructure, iii) presence of adequate supplies. In addition, the responsiveness at decentralised levels also count and therefore we are analysing UF here. The chapter also analyses the health coverage through insurance as it directly relates to the issue of health care delivery.

> 'We do not conduct any deliveries as the required staff is not there: the post of Lady Health Visitor (LHV) is vacant. We have reported the matter to the higher authorities, but the vacancies have not been filled up; we just refer the patients to Aligarh or other neighboring PHCs.'
>
> - Medical Office In Charge (MOIC), Primary Health Centre (PHC), Tonk.

Under state and NHM expenditures, personnel salaries and benefits usually comprise the bulk of expenditures, which is necessary for running the state health machinery and keeping the health programmes active.

9.1. Human Resources (HR)

Manpower employed in the health department consists of both skilled and non-skilled workers employed under various rungs within the state. Personnel are employed at all government health facilities from the tertiary care public hospitals to the primary health centres and sub centres. In addition, personnel are also employed at health department offices, from the state level up till the village level.

Human Resources–State

As already seen in Chapter 4, the wage component within the state budget saw a steady decline from 65% in 2012-13 to 54% in 2017-18. Therefore, the average expenditure on wages in the state is at 57% of total state health expenditure during the same period.

Table 0.1: Components of Wage-expenditure in state budget 2012-13 to 2017-18 in Rs Crore

	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18
Research Medical and pre-service training	494	591	693	843	977	1,164
Health care (primary, secondary and tertiary)	2,015	2,302	2,716	2,919	3,346	4,603
Administrative	133	124	152	205	210	242
Total	2,641	3,018	3,560	3,966	4,533	6,008

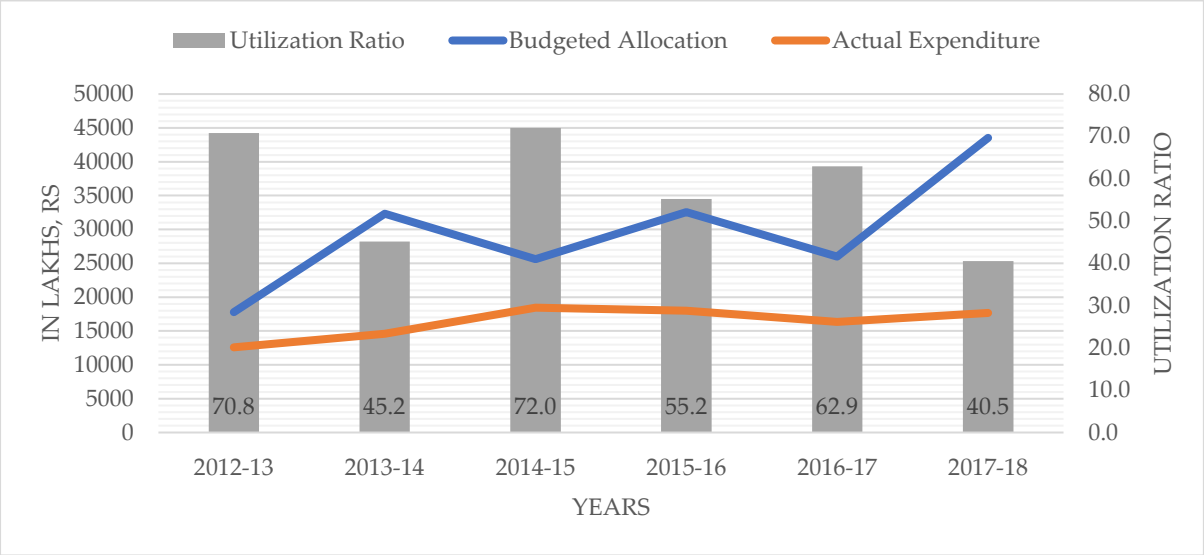
Within wages, primary, secondary, and tertiary healthcare services together form the bulk of the wage expenditure accounting for 75% of the total wage expenditure for health and family welfare in the state. In-service training and pre-service training with research which augment the healthcare capacities account for 20% of the wage expenditure, while the rest 5% account for administrative expenditure.

Human Resources—NHM

Human resources under NHM can be broadly divided into that under NRHM-RCH FP, under various diseases programmes, and under infrastructure maintenance (IM). Currently, only details of HR under NRHM-RCH are available; HR under disease programme is mainly available for CDs like RNTCP but not for NCDs like NPCDCS. In addition, details for personnel under NUHM is also unavailable within the FMR. Infrastructure maintenance also mainly goes towards salaries of various staff within NHM, including ANMs and Lady Health Visitors (LHVs) in all sub-centres in the state and staff under urban family welfare centres. As mentioned earlier IM expenditure was an average of 23% of total NHM over six years, hence this is a large part of HR that is not accounted within the FMR. In addition, it should also be remembered that many staff are shared between programmes, for e.g., Medical Officers (MOs) and ANMs under NRHM-RCH are likely to see all patients. Hence, in the section below we will discuss in detail the human resources mentioned under the NRHM-RCH FP.

Allocations for HR under NRHM have been accounted under two different sections in FMR (2012-13 to 2016-17 under RCH and 2017-18 under Additionalities) and for our analysis we have discussed them together. In addition, incentives for ASHA seen elsewhere (e.g., ASHA incentives under JSY, immunisation) have been added with ASHA cost for a more complete analysis. Allocations for HR have been flip-flopping since 2012-13 with alternate years of increase and decrease. Expenditures increased from 2012-13 to 2014-15 by 23%; however, since then, they have decreased from Rs 193 crores in 2014-15 to Rs 186 crores in 2017-18. The total remuneration under HR has been categorised into ASHA costs and contractual services for the analysis in this report.

Figure 0.1: Allocations and Expenditures for Human Resources (HR) under National Rural Health Mission (NRHM) 2012-13 to 2017-18



Source: Consolidated from Financial Management Report (FMRs) of various years.

Table 0.2: Expenditure under Human Resources (HR) in National Rural Health Mission–Reproductive Child Health Flexible Pool (NRHM–RCH FP) in Rajasthan in Rs Lakhs

	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	Average
HR NRHM-RCH Flexipool	12,674.26	15,307.0	19,391.89	18,730.97	17,349.08	18,640.6	17,015.63
% within NRHM-RCH	16.6	15.0	16.0	15.6	14.2	15.6	15.4
% within NHM	10.4	9.6	9.9	9.2	7.9	9.4	9.3
A. Contractual services	9,632.01	8,528.29	9,448.2	8,628.89	3,404.59	7,605.18	7,874.527
% within HR NRHM-RCH	76.0	55.7	48.7	46.1	19.6	40.8	46.3
% within NHM	7.9	5.3	4.8	4.2	1.5	3.8	4.3
B. ASHA Cost	3,042.25	6,778.97	9,943.69	10,102	13,944.5	11,035.4	9,141.135
% within HR NRHM-RCH	24.0	44.3	51.3	53.9	80.4	59.2	53.7
% within NHM	2.5	4.2	5.1	5.0	6.3	5.6	5.0

Source: Consolidated from Financial Management Report (FMRs) of various years.

Contractual Services

Remuneration for contractual services accounted for an average 42% of the expenditures under HR under NRHM-RCH. It forms an average 4.3% of total NHM expenditure from 2012-13 to 2017-18. This proportion went down from 67% in 2012-13 to 37% in 2017-18. A detailed analysis of 2017-18 FMR[22] showed that the highest expenditure (27.9%) went towards nurses and paramedical staff, but only 15.3% of funds allocated were utilized. Amongst them, major expenditure goes to staff nurses and then to ANMs followed by others; LHVs have utilization of 31%, lab technicians at 28% and pharmacists at 24%. Lower utilization of funds may point to vacancies in posts. Our field team visited 30 PHCs spread across Jaisalmer, Tonk, and Dungarpur districts, of which 17 were Adarsh PHCs[23]. All PHCs, including Adarsh PHCs, were understaffed. In Jaisalmer district, the shortage of staff was acute compared to the other districts. While posts of Medical Office In Charge (MOICs) were filled up; the post of Ayush doctors in Adarsh PHCs were lying vacant. Out of a total of 30 PHCs, 16 PHCs had less than 5 posts filled up. Only one PHC in Tonk had 11 out of 14 posts filled up. The posts of accountants were filled up in only three PHCs. However, the post of LHVs were filled up in 13 out of 30 PHCs. Pharmacists were available only in 5 PHCs and lab technicians were available in 18 PHCs.

The second highest expenditure (26.2%) under contractual services goes towards Ayush staff consisting of Ayush MOs and pharmacists; 75% of funds allocated to this section were utilized in 2017-18. Teams of RBSK received the third highest share of expenditure, but only 54% of that allocation was utilized in 2017-18.
Large number of vacancies have been the bane of the health system in Rajasthan—this was seen not only by our field team but also supported by RHS (Table 3.9). This may be the cause of low utilizations under HR.

[22] The allocations within human resources (HR) were revised in the 2017-18 Financial Management Report (FMRs), moving them from part A under Reproductive Child Health (RCH) to Part B under NRHM additionalities. The categories within HR were also reorganised, hence analysis of each category within HR for all years is not possible.

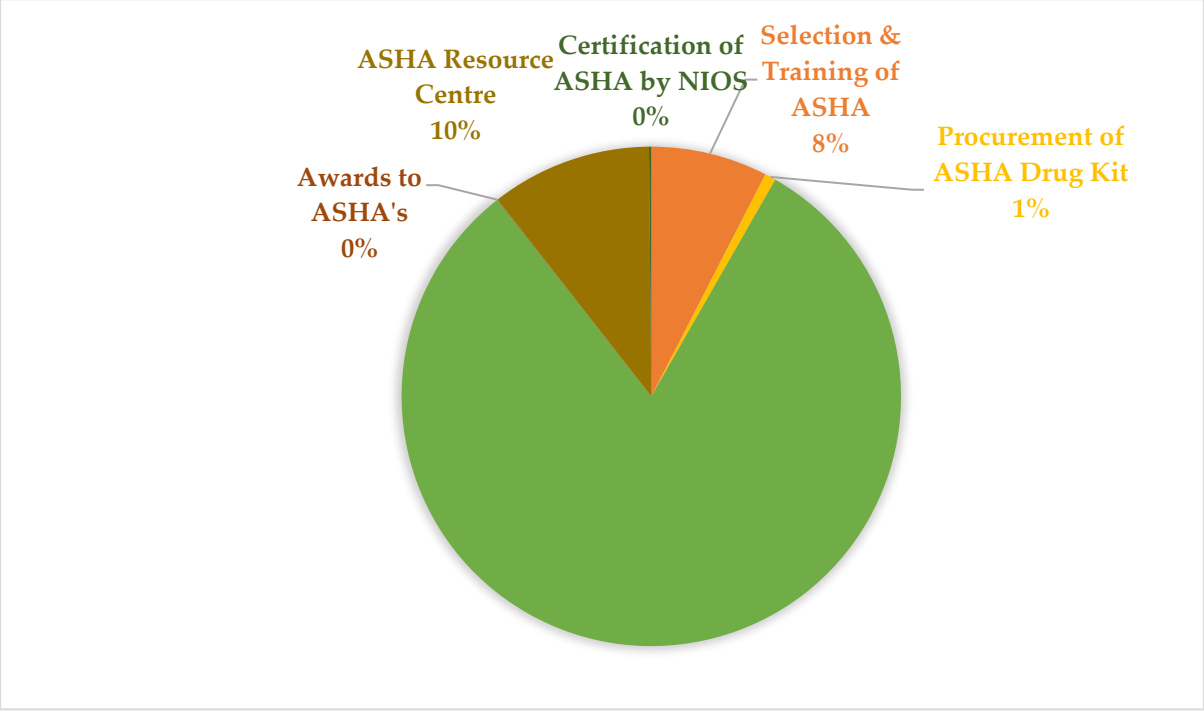
[23] The Department of Health and Family Welfare, Government of Rajasthan started the Adarsh Primary Health Centre (PHC) Yojana in August 2016, to provide quality health services in the rural areas. These are to be developed as wellness centres and the aim was to provide these centres with full staff and facilities, medicines, ensuring availability of 15 diagnostic tests under Mukhya Mantri Nishulk Jaanch Yojana (MMNJY).

Accredited Social Health Activist (ASHA)

To improve health outcomes, particularly among women and children, and to reduce geographic and socioeconomic disparities, ASHA (ASHA Sahyogini in Rajasthan as she is a joint worker between Departments of Medical and Health and Women and Child Development) are recruited and trained to work in their own communities as health activists, educators, and providers of basic essential services.

Costs of ASHA under NRHM-RCH forms an average of 5% expenditure under NHM. Costs of ASHA constitutes of an average of 53.7% expenditure of the HR under NRHM-RCH; this proportion increased from 24% in 2012-13 to 53.7% in 2017-18. Eighty-four per cent of this expenditure was for the provision of ASHA incentives. Expenditure on ASHA resource centre constituted 9%, while ASHA training's share was 6%.

Figure 0.2: Distribution of Allocations under Accredited Social Health Activist (ASHA) Cost within National Rural Health Mission–Reproductive Child Health (NRHM RCH) 2012-13 to 2017-18



Source: Consolidated from Financial Management Report (FMRs) of various years.

Incentives for ASHAs under each programme gives a holistic picture of how successfully ASHAs are employed for each of the programmes under RCH. Based on the available expenditure detailed data for 2017-18, ASHA receives highest claims for incentives under 'other programmes' like Intensified diarrhoea Control Fortnight (34.5%), followed by incentives for maternal Health (26%) and incentives for Child Health (24%). Similarly, involvement of ASHA for achieving better family health

programme is given a share of 11% of the total incentives. The ASHAs are paid a sum of Rs 2,500 from the Department of Women and Child Development towards honorarium and a sum of Rs 1,500 for routine tasks by NHM. In addition, they receive incentives for 30 activities carried out by them under various heads. ASHA Soft, a software developed in Rajasthan, has been credited with improving accountability and disbursement of the incentives to ASHA. Some of activities and their incentives are given in Table 9.3.

Human resources within NRHM-RCH services formed an average of 15.4% of total NRHM-RCH expenditures from 2012-13 to 2017-18 and 9.3% of the total NHM expenditures. Within NRHM-RCH, HR as a proportion of total NHM, decreased from 10.4% to 9.3% in the same years. Under HR, ASHA costs comprise of bulk of expenditures and increased from 24% in 2012-13 to 53.7% in 2017-18; however, expenditure on other contractual staff decreased from 76% to 46.3% during the same period. It was also observed that 81% of ASHA costs goes towards paying incentives. One of the reasons for decrease in these expenditures maybe the vacancies observed at all levels of the health staff, especially in number of nurses and ANMs, as well as in lab technicians and pharmacists. This could lead to poor service delivery in important schemes like MNDY and MMNJY.

Table 0.3: Salary and Incentives for Accredited Social Health Activist ASHA in Rajasthan

Monthly Fixed Transfers	
Integrated Child Development Services (ICDS)	Rs 2,500
Routine tasks	Rs 1,500
Incentives	
Ensuring 4 Ante Natal Care (ANC)	Rs 300 per patient
Post Natal Care (PNC) and follow up of newborn child	Rs 250/ per patient
Reporting Child deaths	Rs. 50 per child
Institutional Delivery	Rs 300/ per delivery
Follow up of Severely malnourished children	Rs 150/child
Measles injections	Rs 100/ patient
Booster Shots	Rs 50/ child
Full Vaccination	Rs 150 percase
For meetings of Pregnant and lactating mothers	Rs 100 per meeting
Home based care of Young Child for 15 months	Rs 250 per quarter
Social Mobilisation	Rs 150
Motivating women for Family Planning	Rs 200 per person

Source: ASHA soft claim form, Government of Rajasthan

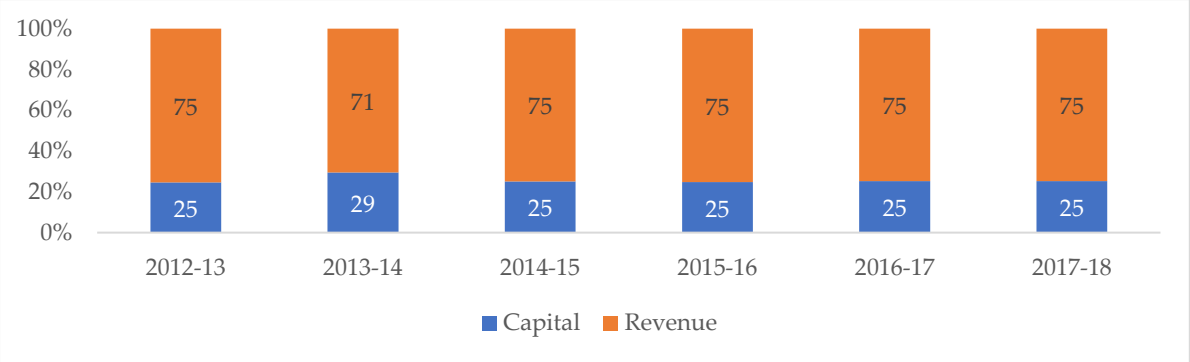
9.2. Expenditure on Physical Infrastructure

For physical infrastructure we move to capital expenditure and untied funds (UF).

Capital expenditure: State

According to the NHA definition, capital expenditure consists of construction of buildings and facilities as well as research, medical, and pre-service training. The share of capital expenditure in total health expenditure is at 25% over the years, except for the year 2013-14. The capital expenditure includes the expenditure on creation of health infrastructure, machines and medical equipment, medical education, and training (teaching colleges, medical colleges, ayurvedic training and research, nursing colleges, training institutes, etc.)

Figure 0.3: Share of Capital and Revenue expenditures in Total Health Expenditure in Rajasthan 2012-13 to 2017-18



Source: Rajasthan state budget documents 2012-13 to 2017-18

Table 0.4: Expenditure on Trainings in the Healthcare services (Rs in crore)

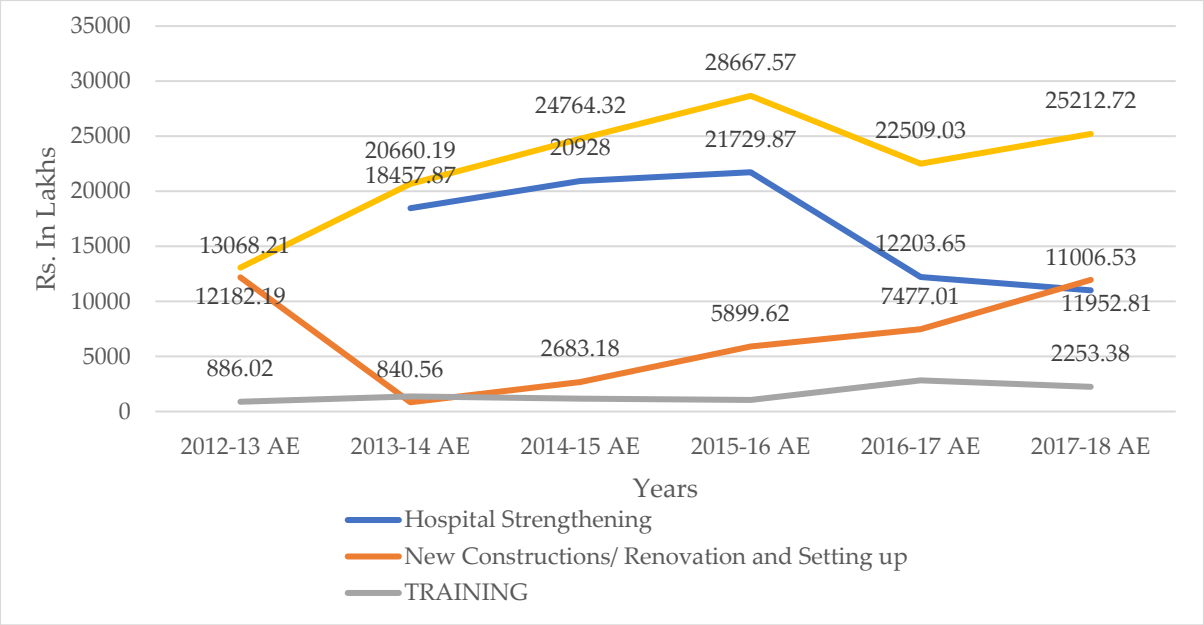
Trainings	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18
Ayurvedic Training	2.55	1.80	1.90	1.68	1.57	2.04
Auxiliary Nurse Midwife and Ladies Health Family Training	14.06	15.15	16.46	16.52	17.80	22.55
Local Health and Family Welfare Training Centre	1.85	2.19	2.70	2.42	2.46	3.06
Total	**18.46**	**19.14**	**21.06**	**20.62**	**21.84**	**27.66**

The training expenditures remain almost stagnant. except for the year 2017-18. The medical colleges and other teaching hospitals role in training cannot be captured clearly. The expenditure on training and conferences (object code 29) hovers around Rs 2 crores, except for the year 2015-16 when it was about Rs 9 crores.

Capital Expenditure: NHM

Within the NRHM-RCH flexipool, capital expenditure comes under Part B of NRHM additionalities. This includes expenditure on hospital strengthening**, new constructions, and training. Other pools do not give details** of training or constructions in detail and are clubbed with other programme costs that makes it difficult to discern.

Figure 0.4: Expenditure on various components of capital expenditure from 2012-13 to 2017-18. In Rs Lakhs



Source: Consolidated from Financial Management Report (FMRs) of various years.

Capital expenditure accounts for an average of 12.51% of total NHM from 2013-14 to 2017-18. Rs 13,068 lakhs was spent on capital expenditure in 2012-13 and it gradually increased to 28,667 lakhs in 2015-16. There was a sharp drop in expenditure in 2016-17, which recovered to Rs 25,212 lakhs in 2017-18. The sharp drop in expenditure was mainly due to decrease in expenditure on hospital strengthening in 2016-17. An average of 68.7% of the total capital expenditure went into hospital strengthening and 87.2% of the allocated got utilized (from 2013-14 to 2017-18). This, however, decreased significantly in 2016-17 and 2017-18, indicating a reduced priority. In addition, new constructions expenditure gradually increased to Rs 11,006 lakhs in 2017-18 from Rs 840 Lakhs in 2013-14, indicating increased prioritisation on new constructions of health facilities. However, average utilization of allocated monies in the four years is only 59%. It should be noted that the above analysis **does not include capital spending under NUHM due to the lack of details.**

Trainings under various programmes under NRHM receives only 7% of total capital spending, of which an average of 43% goes towards ASHA training and selection. Spending on training has remained stagnant over the years increasing slightly in 2016-17.

9.4. Untied Funds

With the objective of increasing the functional, administrative, and financial autonomy of various health facilities, provisions in the form of UF, annual maintenance grants, and Rogi Kalyan Samiti (RKS)[24] funds are made available in NHM. These funds are available for use of undertaking of any innovative or responsive facility specific need-based activity. Thus, they help in increasing the functionality of the health facility. 2014 onwards, the three separate grants (i.e., UF + RKS corpus + annual maintenance grant) were merged into one single Untied Grant. District Hospitals get Rs 10 lakhs, sub-district hospitals and CHCs get Rs 5 lakhs, PHCs get Rs 1.75 lakhs, and sub-centres get Rs 20,000, while VHSNCs get Rs 10,000 per year as UF. These are transferred to the account of the RKS, which then takes the decision on its expenditure.

Year on year expenditure has increased 9% on average. The highest expenditure (35.8%) of the UF goes to PHCs followed by CHCs, which spent 25.7% of the UF. The third highest expenditure occurs within untied funds to sub-centres, which constitute of 19.8% allocation. An average proportion of utilization of funds against allocation under was at 73%.

During the last year, PHCs had used the UF for the for the purchase of medicines, stationery, bed sheets, coolers, RO-water filter, refrigerator, aluminium gates, wash basins, racks for medicine storage, cupboards, taps and lights, labour room supplies, fans, bath fittings, electrical equipment's, and LED TV.

A functional RKS (or Medical Relief society (MRS) in Rajasthan) is pertinent for the use of the funds available at the PHC level. It was found from PHC level interviews that irregularity of MRS meetings delayed completion of tasks, MRS membership was often politicised and a lack of an accountant to manage MRS funds impacted usage of funds and timely preparation of Utilization Certificates. Interviews with

[24] Rogi Kalyan Samiti (RKS) (Patient Welfare Committee)/Hospital Management Society is a registered society, which acts as a group of trustees for the hospitals to manage the affairs of the hospital. RKS/HMS is free to prescribe, generate, and use the untied funds with it as per its best judgement for smooth functioning and maintaining the quality of services. https://nhm.gov.in/index1.php?lang=1&level=2&sublinkid=1078&lid=145, accessed on 26 August 2019. It is known as Rajasthan Medicare Relief Society (RMRS) in Rajasthan

ASHA Sahyoginis revealed that the VHSNCs are also not active, as the meetings are not held regularly. The nonreceipt of UF to the VHSNCs were also quoted by ASHAs as reasons for under-utilization of the grants.

9.5. Supplies: Procurement in NHM and State Budget for Free Drug and Free Diagnostics scheme

Expenditure on free drug scheme (MNDY) and free diagnostics scheme (MMNJY) is available within the state budget as well as NHM and appear independent of each other (Table 9.5). Expenditure on MNDY has, on the whole, consistently increased from Rs 129 crores in 2012-13 to Rs 279 crores Revised Estimate (RE) in 2017-18. Similarly, expenditure on MMNJY has increased from Rs 21 crores in 2012-13 to Rs 175 crores RE in 2017-18. The share of the free drug/diagnostic services as a proportion of total health expenditure had decreased from 5.19% in 2012-13 to 2.33% in 2016-17 before increasing to 3.32% in 2017-18 RE.

Table 0.5: Details of free drug and diagnostics expenditure from 2012-13 to 2017-18 (Rs in Crore)

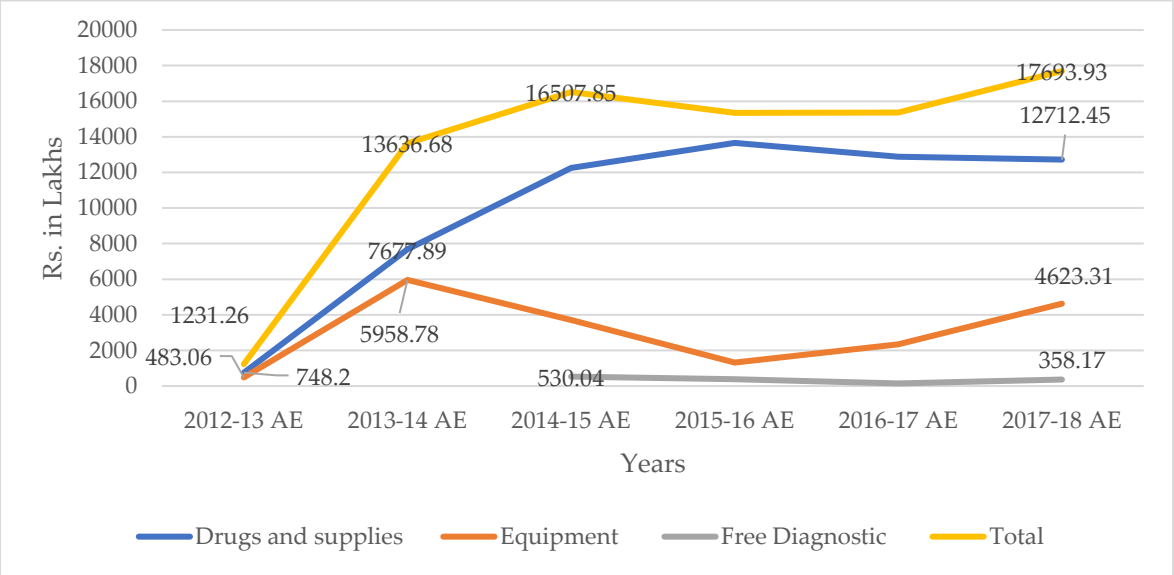
Expenditure	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18
Free drug Scheme (MNDY)	129.49	106.18	143.71	202.28	174.27	279.47
Free test Scheme (MMNJY)	21.55	132.52	108.92	133.84	138.32	175.51
Total	204.91	109.33	167.03	229.36	192.92	361.16
Share in Total health Expenditure	5.19	2.29	2.58	2.95	2.33	3.32

Source: State budget documents 2012-13 to 2017-18.

Note: MNDY stands for Mukhya Mantri Nishulk Dava Yojana, MMNJY stands for Mukhya Mantri Nishulk Jaanch Yojana.

Procurement within NHM consists of procurement of drugs and supplies, equipment, and provision of free diagnostic services. Expenditure under procurement increased steeply from 2012-13 to 2013-14 by 1000% from Rs 12 crores to Rs 136.36 crores (Figure 9.5). Since then, this expenditure steadily increased albeit at a slower rate to Rs 176.93 crores in 2017-18. Procurement was 1% of NHM in 2012-13 and increased to 9% in 2017-18 expenditure. This increase is mainly guided by expenditure on drugs and supplies, which forms 75% of its expenditure due to the MNDY (85% of drug expenditure) that provides free drugs in all public health facilities. At the same time that expenditure on procurement of drugs increased, expenditure on procurement of equipment decreased with the highest decrease in the year 2015-16 to Rs 13.10 crores. This expenditure improved to Rs 46.23 crores in 2017-18.

Figure 0.5: Budgetary expenditure within procurement in National Health Mission 2012-13 to 2017-18 in Rs Lakhs



Source: Consolidated from Financial Management Report (FMRs) of various years. Note: AE stands for Actual Expenditure

The least expenditure (2.7%) under procurement is made towards provision of free diagnostic tests, which started only in 2014-15. While in the first-year, allocations were equally made for both pathological services and radiological services under this programme; in the second year, the allocation reduced for radiological services and was discontinued thereafter. Expenditures of MNDY formed an average of 4.6% of NHM expenditures, while MNJY expenditures formed an average 0.2% of NHM expenditures.

Field investigations revealed that Mukhya Mantri Nishulk Dava Yojana (MNDY) and Mukhya Mantri Nishulk Jaanch Yojana (MMNJY) were well received by the people at district hospitals, block level hospitals as well as in Primary Health Centres (PHCs). Officials at all three tiers reported an increase in the number of people visiting public health facilities as the result of these schemes. They also pointed out that this scheme helped the economically weaker sections as they do not have to spend on costly medicines. They also pointed out that people did not need to travel to district hospital for tests due to MMNJY.

The challenges in MNDY faced by health facilities included a shortage of pharmacists, especially at PHC levels. Lack of transport facilities, especially in Jaisalmer, hampered delivery of medicines to the PHCs. Officials also commented on the lack of space to store medicines. Officials of MNJY were unanimous in their need for lab technicians. In their absence, other facility staff had to take on additional responsibility. Increased demand for tests required new equipment and machines as well. Suggestions within MNDY mainly included introduction of a return policy to curb wastage of medicines as well as filling of pharmacist posts, especially in Jaisalmer, and an increase in the number of drugs on the list. With regards to MMNJY, officials felt that appointment of lab technicians, regular training of lab technicians and other staff, and availability of equipment and tools were needed. In addition, availability of test reports without delay and an increase number of diagnostic tests were also felt necessary.

9.6. Health Care Coverage

In order to combat the high charges of hospitalisation, Rajasthan had a health insurance scheme in place for the BPL called the Mukhya Mantri Jeevan Raksha Kosh (MMJRK) till 2017-18. In the state budget, this expenditure is placed under people health insurance. Bhamashah Health Insurance Scheme was started in 2015 and continued till 2019—this was replaced by the Ayushman Bharat-Bhamashah. The other government insurance available is the ESI. Table 9.6 shows expenditure under people insurance increased from 2015-16 onwards, the year Bhamashah was introduced, and it increased considerably to Rs 866 crores in 2017-18. Employee State Insurance (ESI) also increased from Rs 59 crores in 2012-13 to Rs 114 crores in 2017-18. Together they form 13% of the total health expenditure.

Table 0.6: Expenditure on insurance in state budget from 2012-13 to 2017-18 (Rs Crores)

Expenditures on Insurance schemes	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18
Employee State Insurance (State budget)	59.72	65.95	75.37	88.68	97.27	114.23
People insurance scheme (state budget) *	0.51	0.63	6.92	214.29	397.07	866.57
Total	**211.27**	**305.29**	**334.91**	**639.09**	**806.93**	**1,435.77**
% Share in Total health expenditure	**5.35**	**6.39**	**5.16**	**8.22**	**9.75**	**13.19**
Mukhya Mantri Jan Rakshak Kosh (MMJRK) (National Health Mission–NHM) **	17.19	35.44	38.41	26.80	25.88	16.86
Health Insurance Scheme (NHM)**		25.00	2.18			

Note: *includes Rashtriya Swasthya Bima Yojana (RSBY), and ** from Financial Management Report (FMR) 2012-13 to 2017-18.

Expenditure on health insurance under NHM is limited to expenditure for only 2013-14 and 2014-15. However, MMJRK expenditures are included within the ASS component of the FMR. Expenditures under this scheme increased from Rs 17.19 crores in 2012-13 to Rs 38 crores in 2014-15, but it fell to Rs 16.86 crores in 2017-18. This was the last year of the scheme.

Bhamashah Insurance Scheme: Field Notes

The district officials were of the view that Bhamashah insurance has helped the poor to get treatment from private health providers; the seriously ill patients have benefitted as cost of surgeries and medical treatment are covered. The maximum usage is at the district hospitals as serious ailments are treated here, and all the facilities are available. Initially, not all hospitals were registered under the scheme and the Bhamashah cards were not available with all; in turn, the usage was low.

Some of the challenges in implementation of the scheme include extensive documentation and procedures. The benefits are primarily accruing to private hospitals; it was also pointed out that private hospitals are conducting surgeries when it is not required. It was also suggested that if all facilities were provided in public institutions, then patients would not go to private institutions and the scheme would be better utilized. In districts like Jaisalmer where there are fewer private providers, the patients preferred to go to Jodhpur for treatment.

9.7. Main Points

The expenditure on HR as a percentage of total health expenditure in the state budget reduced over the years from 65% to 54%. Although the expenditure on wages increased in numbers, it did not increase in proportion to total state health expenditure—this may mean that the number of personnel has not increased or rather decreased over the study period. As 75% of the wage expenditure goes towards providing health care services, this may mean a decrease in the staff directly serving at health facilities. Under NHM, the NRHM-RCH consists of 95% of HR expenditure (does not include infrastructure maintenance). Expenditure under HR within NRHM-RCH also saw a decline from 10.4% to 9.3%. Accredited Social Health Activist (ASHA) costs, on an average, made of 53% of this expenditure, which has seen an increase over the six-year period, while contractual services (all other contractual employees) expenditure saw a decrease from 76% to 46%. This further strengthens the notion that the number of employees at health facilities have decreased over the years. Our field team visited 30 PHCs spread across Jaisalmer, Tonk, and Dungarpur districts, of which 17 were Adarsh PHCs[25]. All PHCs, including Adarsh PHCs were understaffed. In Jaisalmer district, the shortage of staff was acute compared to the other districts.

Capital expenditure under the state budget remained consistent at 25% of the total state health expenditure from 2012-13 to 2017-18. However, under NHM, expenditures under capital showed a consistent increase until 2015-16 (14%), following which it decreased. The state government under NHM initially focused on strengthening of hospitals, which made up the bulk of expenditures until 2015-16 and then it drastically reduced. However, expenditure on construction of new structures has consistently increased in the six years of the study such that in 2017-18 expenditure on renovations and new constructions were almost same.

The highest expenditure (35.8%) of the UF goes to PHCs followed by CHCs, which spent 25.7% of the untied funds. A functional RKS (or MRS in Rajasthan) is pertinent for the use of the funds available at the PHC level. It was found from PHC level interviews that irregularity of MRS meetings delayed completion of tasks, MRS

[25] The Department of Health and Family Welfare, Government of Rajasthan started the Adarsh PHC Yojana in August 2016 to provide quality health services in the rural areas. These are to be developed as wellness centres and the aim was to provide these centres with full staff and facilities, medicines, ensuring availability of 15 diagnostic tests under the Mukhya Mantri Nishulk Jaanch Yojana (MMNJY).

membership was often politicised, and a lack of an accountant to manage MRS funds impacted usage of funds and timely preparation of Utilisation Certificates.

Expenditure on the free drug and free diagnostics increased from 2012-13 to 2017-18, with the share of free drugs scheme being larger. The share of the free drug/diagnostic services as a proportion of total health expenditure had decreased from 5.19% in 2012-13 to 2.33% in 2016-17 before increasing to 3.32% in 2017-18 RE. Within NHM, it is the expenditure on drugs and supplies that drive procurement expenses. Of this expenditure on free drug scheme is the highest. However, health gains due to these schemes are offset by the lack of necessary personnel, especially lab technicians, and other necessary facilities like delays in medicine delivery due to lack of transport.

The people's insurance scheme has also shown increased expenditure over the years and insurance formed 13.19% (including ESI) of total health expenditure in 2017-18. However, as with other insurance schemes in the nation, the benefits are primarily accrued by private hospitals even if it means accessing health care services in another district.

Chapter 10: Conclusion and Recommendations

Rajasthan indeed emerges as a state that has tried to spend more on health, especially from the perspective of making attempts to address the issue of health of the low-income group. However, what also emerges is that this has perhaps failed to yield full results as all the interventions are not fully coordinated. The fact that any enhanced expenditure on one aspect of the delivery also needs complementary expenditure on the other to be able to make the system accountable, increase the uptake, and then, in turn, make public health care service a reliable delivery mechanism is not always recognised in making budgetary choices. This will get elaborated as we present our conclusions below. The recommendations provided here are linked and also restitutive in parts as we have chosen to go by themes and areas that need greater attention.

10.1. Towards Universal Health Coverage

The SDG 3.8 target aims to 'achieve universal health coverage, including financial risk protection, access to quality essential health care services, and access to safe, effective, quality, and affordable essential medicines and vaccines for all'. Rajasthan's journey towards Universal Health Coverage (UHC) started in 2009 with the MMJRK, where the BPL population as well as other poor could access free health care at all public health facilities[26]. This was followed by the free drugs and free diagnostics schemes. In order to improve health care access, the Bhamashah Health Insurance Scheme extended cashless secondary and tertiary care for the poor in private facilities. Indeed, these schemes have increased the number of people coming to public health facilities, such that it is difficult for the present infrastructure to deal with this increase in demand for services. Utilization under MNDY has been 95%. However, field insights show that there is a need for an addition for more type of drugs, improvement in delivery of drugs to the facilities, reduction in drug wastage as well as need for increased storage space. Mukhya Mantri Nishulk Jaanch Yojana (MMNJY) is a relatively new scheme whose utilization is 85%. The scheme mainly faces problems of staff as well as lack of quality lab equipment to meet increasing demands. The health insurance scheme shows utilization of 119% in state budget. However, it is the private institutions that have benefited from this scheme as state health facilities cannot compare to private facilities in terms of quality of service. Hence the focus of these schemes needs to shift to tackle problems that improve efficiency in distribution of the scheme.

[26] This has been discontinued from 2018-19.

Lack of personnel effects the road to universal coverage at all levels. Analysis showed that expenditures on wages has decreased from 65% to 54% in the six years of the study. A similar reduction was seen within NHM where expenditure on HR with NRHM-RCH decreased from 10.4% of total NHM to 9.3%. Not only has expenditure decreased, the average utilization for NRHM-RCH HR was only 57%, which may point to vacancies in staff positions. Field staff found vacancies even in Adarsh PHCs across the three districts of the study. Absence of staff not only impacts routine patient services in health facilities but also increases workload on existing staff. For e.g., in the absence of PHC accountants, the Medical Officers (MOs) step in to do this job, thus affecting their routine patient services. Absence of ANMs in some PHCs prevented them from undertaking routine services like childbirth, increasing risk to mother and child.

Physical infrastructure in terms of capital expenditure remained stagnant at 25% of total health expenditure over the six years. Within NRHM, however, capital expenditure has shown an increase over the years. Expenditure on improvements in existing facilities showed precedence in the initial years, which decreased with a consistent increase in new constructions. This is a good sign as improvement in infrastructure is a must to sustain use of public facilities and decrease catastrophic health expenditure. Another important feature that helped in maintenance of health facilities were the untied grants whose utilization averaged at 74%. It was felt that these were not sufficient and lack of accountants, especially at the PHC level, affected the use of these funds which do not lapse at end of year.

Rajasthan's per capita expenditure on health care is more than many of the financially well-to-do states, but it still has a lot of catching up to do in terms of health indicators. The national health policy asks states to increase health expenditure to 8% of state budget.

Recommendation 1: Fix gaps in human resource by rationalisation of HR. This is especially important in case of pharmacists, lab technicians, and accountants. These are much-needed support staff who will ease the burden on doctors and other health staff, improving service on the way.

10.2. Child and Adolescent Health

Looking into child health expenses/allocations, immunisation takes up the highest berth. However, its utilization is only 56% whose consequence can be seen in the poor rates of complete immunisation. Also, to be noted is that the ASHA incentives in this category also have a utilization of only 50%. Outreach and IEC/BCC in

immunisation is critical for its uptake, which is an important job of the ASHA. The 12th Common Review Mission (CRM) pointed out that the lack of Anganwadi centres and ASHAs drastically affected immunisation rates(National Health Mission, 2018). Field reports showed ASHA workers also faced barriers in convincing tribal women to get their children immunised.

Rashtriya Bal Suraksha Karyakram (RBSK) is still in infancy phases in the state and would require significant expenditure to undertake state-wide health check-ups and referral in children, not excluding costs of treating affected children.

Adolescent health is another area of concern, which has seen lower allocations from 2015-16 for IEC/BCC as well as community and facility-based services. The only significant allocation for the age group 10-19 years is under the WIFS, which supplements IFA through schools. However, the 12th CRM reported unavailability of IFA tablets in schools and Anganwadi Centres (AWCs) visited. The report also found lack in clarity of roles of staff under RKSK. It also stressed the need for proper training of counsellors and peer educators under the programme.

A CBPS study on public expenditure on children aged 0-18 years in 16 states saw that education sector expenditure accounted for 94%, followed by nutrition at 5% and less than 1% on health. The study also reported that the state has very high rates of absence in all the classes starting from primary to senior secondary. It has the fourth highest rate of women getting married below 18 years of age (35% of women aged between 20-24 years). Though the state stands as the sixth best state for the indicator of pregnant women suffering with anaemia, it is still high at 51%. This indicates the importance of counselling for these children[27].

Recommendation 2: Devise innovative strategies for education and communication in tribal areas leading to improved community acceptance of immunisation to enhance the utilization of allocations within immunisation, especially in terms of ASHA services.

Recommendation 3: Prioritise adolescent health and awareness by projecting it as the start of cycle for the improvement of RCH indicators in the state. Start by prioritising IEC/BCC for adolescents.

10.3. Tribal Health

Tribal health has seen increasing expenditures over the years, and it is currently at 8% of total health expenditure in state. The national report on tribal health

[27] https://cbps.in/wp-content/uploads/Public-Finance-for-Children-PF4C-across-16-Indian-States.pdf

recommends that tribal health expenditure should be commensurate to tribal population in the state i.e., at 13.5%. However, it is difficult to segregate tribal specific expenditure as i) areas under TSP also include general population and ii) not all tribal population is limited to ITDP areas. This was seen in the lack of specifics within TSP expenditures at lower rungs of health department. This is also a cumbersome process that adds to accounting pitfalls. Hence, universal coverage of the entire state with tribal specific health components would be ideal. Rajasthan is already on the forefront of UHC provision in the country. However, gaps exist in provisions of infrastructure and human resources, especially in resource poor settings that should be focus of tribal expenditure. In Jaisalmer, long distances to health facilities deterred access to services (difficulty in contacting ambulances) as well as availability of services (difficulty in transporting medicines).

A lack of focus on tribal specific health ailments is seen. For example, there is a need for de-addiction camps in tribal areas to deter alcohol and drug addictions. Tribal women face higher burdens of high fertility rate, malnutrition, and anaemia. Hence increased focus is required on family planning counselling and adolescent health, which have seen decreased allocations over the years. Studies and our field team inputs have shown that cultural beliefs affect treatment seeking behaviour in tribal population, which affects uptake of treatments and therefore health indicators (Sundararajan et al., 2013). In Dungarpur, the MOs pointed out that 'alcohol consumption is high in the area, and combining medicines and alcohol is not recommended. If we give medicines, the patients complain that the medicines do not work'.

Utilization under IEC/BCC in NRHM-RCH is below 45% in most years, except in 2017-18. Hence, the government's focus should be to improve access and availability in supporting universal health coverage in resource poor settings in combination with introduction of measures aimed at tribal specific health problems.

Recommendation 4: Tribal health expenditure, which is only at 8%, should be commensurate to the population in the state which is 13.5%. Although strengthening of public health services is a sure way to improve tribal health indicators as well, care must be exercised to make investments in specific health concerns in tribal areas. For example, prioritising health education in view of tribal cultural beliefs is important.

Recommendation 5: Focusing on tribal health problems, mainly alcohol and tobacco de-addiction programmes, sickle cell disease, etc., is also important.

10.4. Urban Health

Urban health expenditure shows a decrease in the state. However, there are many intricacies to calculating urban health expenditures. Firstly, municipal corporation expenditures on health are not included within the state budget. Secondly, urban expenditures have not been segregated within the NHM. Urban Programme expenditure like that for JSY, JSSK, CDs, and NCDs have not been separated by sector in the FMR. National Urban Health Mission (NUHM) expenditure details are also lacking within the FMR. This makes analysis of urban expenditures within NHM incomplete. Even details given within the state budget are incomplete. For e.g., expenditures on hospitals and dispensaries constituted the highest expenditure in urban areas. However, many of these hospitals are state-run tertiary care centres or medical colleges that cater to non-urban population as well. This lays bare the need for a way for a clearer visual of the state's urban health financials and points to lack of prioritisation of urban poor. Analysis of PIPs has shown that urban infrastructure in cities has been insufficient and the emphasis of the state government is on building new infrastructure to cater to the growing urban poor population. However, it is also important to realise that the needs of the urban poor vary from that of rural population and simply replicating rural health mechanisms may not solve the urban health problems.

Recommendation 6: Increased prioritisation of urban health concerns beginning with increasing the stake of Municipal corporations in health expenditures.
Recommendation 7: Separating urban expenditures from NRHM expenditures to improve NUHM efficiency and accountability.

10.5. Gram Panchayat Co-ordination

Field visits showed that there was very little co-ordination between the health department and the members of the PRIs. The VHSNCs, which come under the health department (NHM), do not have regular meetings due to disinterest of the sarpanch and the UF go under-utilized. Similarly, when members of the PRI take part as members of the RMRS, especially at the district and block levels, there are complaints of politicising of meetings—this also leads to challenges in usage of funds. The interviews regarding development of Apna Gaon Apna Vikas showed that many were unaware of need to focus on health care needs of women and children. The plans usually focused on infrastructure related projects, including constructions of anganwadis and schools. Health care provision was deemed as responsibility of the ANM, and therefore the health department. The woman and

child department in the state co-ordinates with the health department by sharing the ASHA Sahyoginis working towards the common goal of preventing malnutrition. Such kind of co-ordination is necessary is necessary between the PRI and health department to bring about overall well-being in the society.

Recommendation 8: Improving co-ordination between the health department and PRI through institutionalised mechanisms, especially in lieu of the 14th FC grants to ensure improved utilization and prioritisation of women and child health in villages.

10.6. Gender Concerns

Rajasthan has a long history of gender bias and its low sex ratio is the proof. Policymakers have tried to right this wrong in various ways. One of the ways is to provide access to health care. However, most of the government's push towards women's health has been mainly through the provision of free delivery care and care for her children. To bring down fertility rates, incentives are offered for terminal methods of contraception, which are also skewed towards women's contraceptive methods. The 12th CRM report found that counselling services were inadequate at community and facility level under family planning, which shows that women (and men) are given very little knowledge of spacing methods and therefore cannot exercise their rights in choosing to have fewer babies after longer intervals. Also concerning is the reduction in funding towards adolescent health programmes that not only serve as knowledge centres for young adults but also platforms in addressing gender bias.

Rajasthan has cash transfer schemes like Shubhlaxmi Yojana and Rajshree Yojana, like in many other states, to prevent female foeticide as well as child marriage, but these schemes still encourage the notion that the burden of having girls is satisfied by receipt of cash. Long term goals in terms of bringing behavioural change need to be discussed.

Currently, universal coverage in the state looks at providing free delivery care, free secondary and tertiary treatments, free medicines, and free investigations. However, one crucial aspect missing in this spectrum is preventive care. Early diagnosis of mental illnesses, mainly depression, and cervical and breast cancer, etc. are some of the more important diseases afflicting women.

Recommendation 9: Institutionalising a gender review of health initiatives to make the health care provisions and uptake more gender responsive.

Recommendation 10. Prioritising measures that improve women's health care in the long run. This includes prioritising adolescent wellbeing and behavioural change communication.

10.7. COVID-19 and Healthcare

Rajasthan's expenditure on CDs and NCDs is at 1.6% and 1.3% of the total health expenditure. A pandemic of this proportion requires large number of resources in terms of manpower and hospital infrastructure both in terms of number of beds as well as medical equipment like ventilators. Added to this is the large requirement of personal protective equipment (PPE) for front-line workers of the state who need to be protected from risk of exposure. In addition to this, the state needs testing kits as well provisions in all state hospitals to treat all patients. All in all, this is a massive state endeavour led by the department of health that requires co-ordinated efforts from all rungs of government machinery.

An emergency like this diverts the state's limited resources and stretches it. The result will be a shift in priorities due to lack of funds and reduction and/or stoppage of funding for most all programmes waiting till the state recovers economically. This will affect the positive strides achieved by the state. Effects of this are already seen where hospitals are overrun by corona cases, other essential medical services are disrupted due to lack of beds or fear of the virus and people especially the most vulnerable, for e.g., those requiring cancer treatments or dialysis succumb to their illnesses without proper treatment. Thus, it is the vulnerable who will suffer the most. Be it the economically deprived part of society with poor access to health care or the people with life threatening health conditions requiring emergency care, it is crucial that health care needs are met.

When a health crisis affects the state's capacity to provide health care, it is important that health care goals such as universal health coverage are not compromised as these would ultimately protect the people in the long run. The only way of ensuring this in a sustainable manner is through a strong public health care delivery at decentralised level.

Recommendation 11: Strengthen the public health care delivery at all levels to ensure localisation of health management and multi-sectoral engagement in health care.

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Annexures

Table A. 1: Key Officials Interviewed at the District and Block level

Level	Designation	Tool used	Number of interviews in each District	Total Number of Interviews
A. District (3)	Chief Medical Health Officer (CMHO)	A1	1	3
	Accountant – National Health Mission (NHM) and State Department	A1a and A2a	2	6
	NHM Programme Manager (District Programme Manager)	A3	1	3
	Principal Medical Officer (PMO)	A2, A4	2	6
	Total		**6**	**18**
B. Block (6)	Block CMHO	B1, A4	2	12
	Block Programme Manager (BPM)	B5	1	6
	Accountant - NHM and State Department	B1a and B5a	2	12
	Medical Officer for Community Health Centre (CHC)	B2	1	6
	Total		**6**	**36**
C. Gram Panchayat (30)	Sarpanch and Panchayat Secretary	C2	10	30
	Accredited Social Health Activist (ASHA), and Auxiliary Nurse Midwife (ANM)	C1	10	30
	PHC Medical Officer	B3	10	30
	PHC Accountant	B4	10	30
	Medicaid Relief Society (MRS) Member	A4	10	30
	Total		**50**	**150**
TOTAL A+B+C			**62**	204
Profile	Responsible staff of the Institution	Facilities	**13**	**39**

Table A. 2: Primary Health Centre (PHC) wise distribution of staff availability

Block / District	PHC	MOIC	NHM Accountant	Pharmacist	LHV	Lab technician	ANM	Class IV	Total
Sum (JSMR)	Devikot (A)	2	1	1	PNF	1	1	1	7
	Habur (A)	1	PNF	PNF	PNF	1	2	PNF	4
	Jhinjhinyali (A)	1	PNF	PNF	PNF	1	1	PNF	3
	Khuhri (A)	1	PNF	PNF	PNF	1	1	1	4
	Myajlar	2	PNF	PNF	1	1	1	PNF	5
Pokaran (JSMR)	Jaloda	1	PNF	PNF	PNF	PNF	1	PNF	2
	Jhabra	1	PNF	PNF	PNF	PNF	1	1	3
	Lathi (A)	2	PNF	1	PNF	1	PNF	1	5
	Ramdevra (A)	1	PNF	PNF	PNF	PNF	2	PNF	3
	Khetolai	1	PNF	PNF	PNF	PNF	1	PNF	2
Uniyara (Tonk)	Banetha (A)	1	1	1	1	1	4	2	11
	Kakod	1	PNF	PNF	PNF	1	PNF	1	3
	Aligarh (CHC))	1	1	PNF	PNF	PNF	13	PNF	15
	Soap	1	PNF	PNF	PNF	PNF	2	PNF	3
	Pachala	1	PNF	PNF	PNF	1	PNF	PNF	2
Malpura (Tonk)	Pachevar (A)	1	PNF	1	1	1	1	PNF	5
	Nagar	1	PNF	PNF	PNF	PNF	1	PNF	2
	LambaHarisingh (A)	1	PNF	PNF	1	1	1	2	6
	Chandsen	1	PNF	PNF	1	PNF	1	1	4
	Soda	1	PNF	PNF	PNF	PNF	1	PNF	2
Bichhiwara (Dungarpur)	Gandwa	1	PNF	1	PNF	PNF	2	PNF	4
	Kanba (A)	2	PNF	PNF	1	1	2	1	7
	Sabli (A)	1	PNF	PNF	PNF	1	2	PNF	4
	Shishod (A)	2	PNF	PNF	1	1	2	PNF	6
	Talaiya (A)	1	PNF	PNF	1	1	2	PNF	5
Sagwara (Dungarpur)	Mandav (A)	1	PNF	PNF	1	PNF	1	PNF	3
	Ghata ka Gaon	1	PNF	PNF	1	1	3	PNF	6
	Padava	1	PNF	PNF	1	PNF	6	PNF	8
	Bhilura (A)	1	PNF	PNF	1	1	2	1	6
	Tamtiya	1	PNF	PNF	1	1	1	2	6

Note: A stands for Adarsh PHC, PNF stands for Post not filled, JSMR-Jaisalmer, MOIC stands for Medical Officer In Charge, NHM stands for National Health Mission, LHV stands for Lady Health Visitor, ANM stands for Auxiliary Nurse Midwife.

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