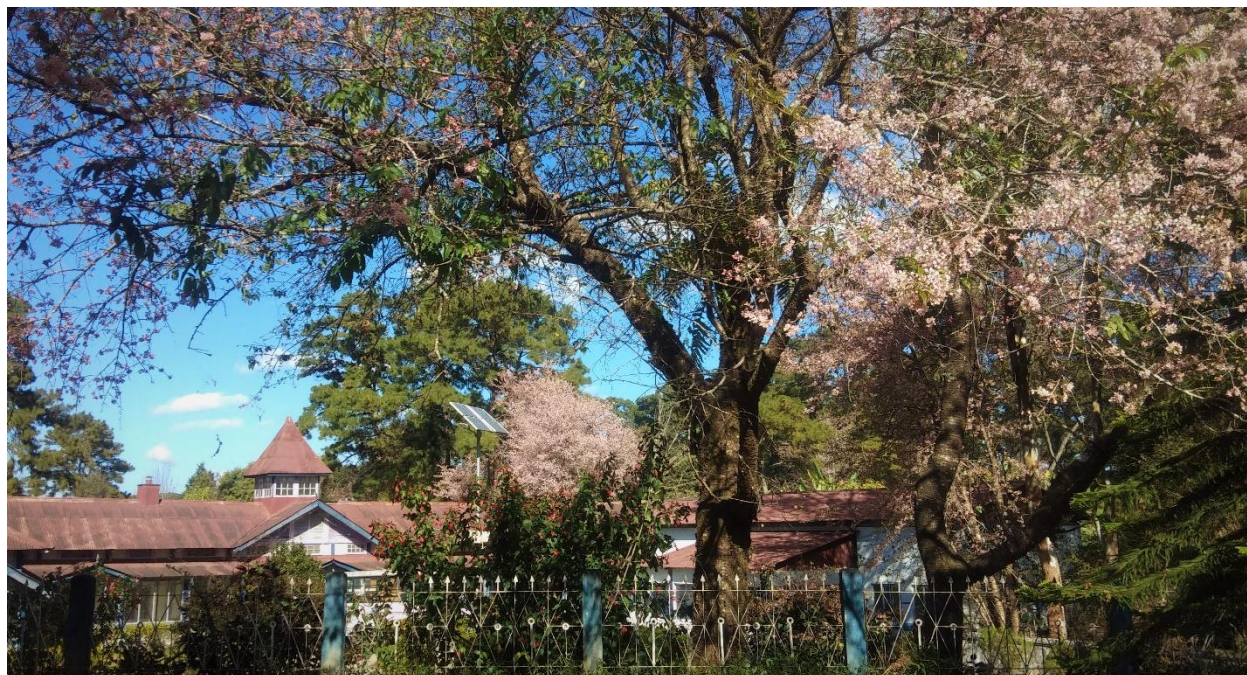# Report

Megha Health Insurance Scheme: An Analysis of Enrolment and Claims Data

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List of Abbreviations

AB-PMJAY	Ayushman Bharat Pradhan Mantri Jan Arogya Yojana
ANC	Ante-Natal Check-up
APL	Above Poverty Line
ASHA	Accredited Social Health Activist
BOCW	Building and Other Construction Workers
BPL	Below Poverty Line
CBHI	Community Based Health Insurance
CGHS	Central Government Health Scheme
CHC	Community Health Centre
CMC	Christian Medical College
ESIS	Employees' State Insurance Scheme
GBD	Global Burden of Disease
GNRC	Guwahati Neurological Research Centre
HHs	Households
HMIS	Health Management Information System
ICMR	Indian Council of Medical Research
ICU	Intensive Care Unit
IEC	Information, Education and Communication
IHME	Institute of Health Metrics and Evaluation
MGNREGA	Mahatma Gandhi National Rural Employment Guarantee Act
MHC	Master Health Card
MHIS	Megha Health Insurance Scheme
MoLE	Ministry of Labour and Employment
NABH	National Accreditation Board for Hospitals & Healthcare Providers
NHPS	National Health Protection Scheme
NREGA	National Rural Employment Guarantee Act
NRHM	National Rural Health Mission
NTD	Neglected Tropical Diseases
OPD	Outpatient Department
PHC	Primary Health Centre
PHFI	Public Health Foundation of India
PoS	Point of Service
RSBY	Rashtriya Swasthya Bima Yojana
SECC	Socio Economic and Caste Census of India
SEWA	Self Employed Women Association
SNA	State Nodal Authority
TMS	Transaction Management Software
TPA	Third Party Agency
UHC	Universal Health Coverage
UHIS	Universal Health Insurance Scheme
URN	Unique Registration Number
WHO	World Health Organization

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Executive Summary

Megha Health Insurance Scheme (MHIS) is a universal health insurance scheme launched in December 2012 with a primary objective to reduce household out of pocket expenditure on health. The scheme began with the financial coverage of ₹ 1, 60,000 per family for an enrolment fee of ₹31 in 2012, as MHIS-I. After various improvements and amendments in 2017, total insurance cover was increased to ₹ 2, 80,000, along with an increase in the number of service packages eligible for insurance, under MHIS-III. The scheme currently in place is MHIS-IV which was launched in Dec-2018, with substantial improvement in coverage, both financially as well as enrolment. Despite substantial expansion of the MHIS since the scheme's inception, there is a lack of comprehensive documentation. For example, how the enrolment was carried out, how the empanelment of hospitals was completed, how insurance packages were costed, and how insurance companies were identified. Furthermore, no formal analysis has ever been carried out to analyse the patterns of utilisation of the scheme and how this reflects the general health of the population in the state of Meghalaya. The current report therefore aims to both provide a detailed description of process measures for the various components of the scheme, and to use MHIS claims data (MHIS II and III) to draw important insights into the health and wellbeing of the population, patterns of disease and ill-health, quality of care, and financial disbursement for health under MHIS.

Demographic profile observed from enrolment data

From MHIS-I through MHIS-III, there was a consistent increase in enrolment and the pattern of enrolment remained stable. This trend was observed across districts, gender, age group and occupation categories. Enrolment was equal amongst both males and females in all three phases of MHIS (Enrolment data disaggregated by age groups showed that highest enrolment was in the age group 19-45 years in all three phases followed by 6-18 years

Analysis of Claims data

Claims data provide important insights into the health of the population, patterns of disease and ill-health, quality of care, and financial disbursement for health under MHIS. We analysed claims data disaggregated by service packages, patterns of care delivery across different types of facilities (public, private, CHC/PHC, and tertiary colleges), and trends in care delivery for maternal health in the state.

i. **Public sector versus private sector**

    The highest volume of claims both in terms of number claimed and amount, were for services availed in private hospitals in the state, with non-private sector service providers empanelled under MHIS-III delivered approximately 43% of all care claims.

ii. **Packages with the highest volume of claims**
    a) **General ward unspecified:** The top fifteen packages as indicated by number of claims and amount claimed in MHIS-III included a) packages listed under 'general ward unspecified' (GSU), b)cat/dog bite, c) maternal packages, d) cataract care, d) ICU care, e) renal dialysis, Analysis of number of claims data disaggregated by length of stay at health facility too showed that the most number of claims under GWU also stayed for more than five days at a hospital. Furthermore,

frequency of claims for general ward, doubled from MHIS – I through MHIS III. This warranted further investigation of data recorded under this category.

Further analysis of GWU disaggregated by age and sex showed that majority of claimants were females in 19-45 years. The highest volume of claims categorized under GWU were also attributable to services accessed by the private hospitals (figure A). The average amount claimed (INR) claimed towards services availed in private hospitals was approx. 4000 rupees.

Figure A. Distribution of Hospital Types Accessed by Claimants for General Ward Unspecified in MHIS III
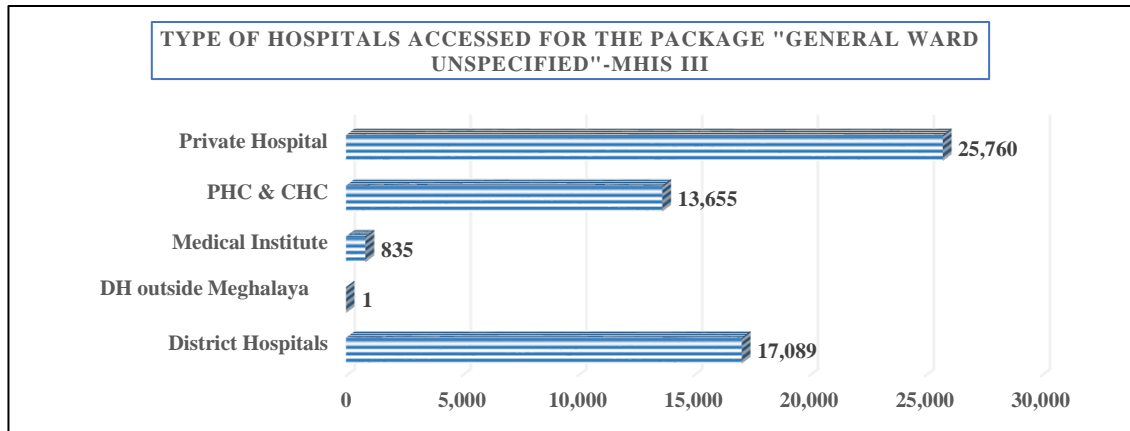
The 'General Ward Unspecified' was a difficult variable to analyse as the data required enormous amount of cleaning and recoding before analysis was possible. We further analysed 'discharge description' for GWU in MHIS-III to understand the patterns observed in the earlier analysis of GWU data. Acute gastroenteritis contributed to the highest proportion of claims under this category (21%) followed by acute respiratory tract infection (13%) inclusive of both lower and upper respiratory tract infections. Other conditions categorized under GWU included recurrent vomiting with dehydration, typhoid and viral fever, urinary tract infections, reproductive and child health, dysentery, accelerated hypertension, auditory processing disorders, scrub typhus and cancer (site unspecified). Also, majority of the claims towards GWU category were from hospitals located in the East Khasi Hills district (64%). This corroborates with most GWU claims availed for services offered by the private hospitals, and EKH being the most urbanised district in the state, also has the most number of private hospitals in the districts.

Conclusions: It appears that the GWU package of services is being used as a "cover-all" package that both obscures the true burden of many important health conditions of the population of Meghalaya, and leaves the scheme open to abuse and fraud given the reduced governance and transparency for a more general, as opposed to specific, package of services. Given that this package accounts for both the highest volume of claims and the highest amount (INR) claims for, and the fact that many explanatory descriptions identify conditions for which there are existing packages (e.g. viral fever and maternity care services), there is a strong need to look further into the GWU package, reassess its appropriateness, and consider whether it could be disbanded, or its use discouraged except in highly special circumstances.

b) Cat and dog bite: Analysis of claims data revealed that health care towards cat/dog bites contributed second highest volume of claims (11%) in MHIS-III. This included five doses of injections (INR 777 per injection) plus expenses towards dressing. Majority of claimants for cat/dog bite care availed these services from the public sector, PHC/CHCs (42%) or district hospitals (32%). Claim data towards cat/dog bites when disaggregated by district, showed that East Khasi Hills (20%) and West Garo Hills (12.5%) were the top contributing districts to these high claims in the state. It should be noted that East Khasi Hills is more urbanized whereas West Garo Hills is a predominantly rural district.

Conclusions: The extremely high and unexpected volume of claims for dog and cat bite warrants immediate further investigation. This trend can be explained by one of two options: Either there is a serious problem with animal bites in the state, or this package is being misused due to its unique requirement for 5 separate return visits, each incurring a cost. In either case, it is very likely that the current pattern of care, as indicated by the claims data, does not represent good value for money for the Government of Meghalaya.

c) Maternal care claims: Given that over half of the top ten high volume packages were related to maternal services, a deep-dive was undertaken in relation to maternity care in Meghalaya under the MHIS. Claims towards maternal care, including ultrasound, antenatal care, and delivery care services, were the third highest volume of claims under the MHIS. Claims for availing Ultrasound /ultrasonography were mostly aggregated in private hospitals (88.7%), 89% of which were conducted in the East Khasi Hills district. Furthermore, 58.1% of claims for the 3rd ANC check-up were made by a private hospital, compared to 35.8% for the first ANC check-up. 92% of all claims for a lower Segment Caesarean were made in a private hospital. Table A shows the distribution of volume of claims across the different maternal care packages. Approximately half of all maternal care claims were made for normal delivery (with or without episiotomy) (44%), compared to 13.5% caesarean section delivery. Of the total number of claims made under the 'Normal Delivery' package, 44% were made from PHC & CHC facilities, with 31.2% claimed from private hospitals. There was an almost equal distribution of claims for normal delivery with episiotomy between CHC and PHC (33.7%) and private facilities (35%). Approximately 26% of all maternal care claims were made within the East Khasi Hills district, followed by West Jaintia Hills district (17%).

Conclusions: Analysis of MHIS claims data for maternal care provides useful insight into the quality of maternal care practices in the State. Figures for caesarean delivery, which is often used as proxy markers for poor quality of care, are broadly in line with international best practice, which recommends vaginal delivery for all births unless contraindicated or in emergency circumstances, and indicate that maternity services in the State appear to be of fair quality and in the interest of the women availing them. Routine or liberal use of episiotomy is not recommended for women undergoing spontaneous vaginal birth by the WHO, a clinical audit for the need and use may be considered. However, it appears that few women attend all 3 ANC appointments that they are entitled to, and very few attend the first. As the World Health Organisations recommend women attend at least 3 ANC appointments, this pattern of utilisation should be further investigated and addressed in order to improve ANC uptake by women in the State.

Table A: Distribution of Highest Volume of Maternity Care Claims

MHIS III Maternal Packages	Volume of maternal care claims (% of total maternity claims)
Normal Delivery	7,804 (29.3%)
Normal delivery with episiotomy and P repair	3,839 (14.4%)
Lower Segment Caesarean Section and Caesarean delivery	3,607 (13.5%)
3rd ANC check-up (USG Screening blood test medicines) 1 Visit	2,985 (11.2%)
2nd ANC check-up (USG Screening medicines) 1 Visit	2,754 (10.3%)
1st ANC check-up (USG Blood test medicines) 1 Visit	2,096 (7.9%)
D&C (Dilatation & curettage) and D&C (Dilatation & curettage) up to 8 weeks	966 (3.6%)
Conventional Tubectomy	821 (3.1%)

Challenges encountered while analysing MHIS data

The data under 'General Medical Ward' were not coded and had to be extracted manually for each row. Due to lack of coding, we also had challenges in extracting the data as there were typos, spelling errors or different cases of alphabet used each cell and row had to be **cleaned to rectify error** for each individual **manually** to enable analysis.

Conclusion: Better systems for recording and coding data would be efficient for conducting analysis of these data. It will not only help minimizing error in GWU category, but also reduce room for human error in other categories too. An improvement in the technical infrastructure is recommended for improvement in overall data quality and ease of analysis.

Financing and sustainability of MHIS

Health care is financed through State budget in Meghalaya as in other states. MHIS was launched in 2012 as a top-up scheme to ensure universal coverage. Since it aims universal coverage, the State bears the full responsibility for financing the premiums of households which fall outside the SECC category. As the scheme grows, its premium liability on government too increases. Whether the government will be able to stretch the fiscal space to address this need, has been assessed in this section.

Given the current levels of public spending on health, i.e. about 7 percent of total government budget and nearly 3 percent of its GSDP, Meghalaya is already spending a larger share on health compared to all India average. Also, the public spending is highly skewed towards medical care at the cost of public health and family welfare in the State. Spending on MHIS is likely to aggravate this. A careful review of budget allocation to health would help in rationalising public resources.

Table B: MHIS Coverage and Premium Projections: 2021-22 to 2024-25

Year	Based on Household Data from MHIS		Based on Household Data from Census	
	Total No. of Hhs	Total Premium (Rs Lakhs)	Total No. of Hhs	Total Premium (Rs Lakhs)
2021-22	8,59,600	8,844	7,28,938	7,499
2022-23	8,82,511	11,297	7,48,329	9,580
2023-24	9,06,033	13,945	7,68,236	11,824
2024-25	9,30,182	17,180	7,88,672	14,566

Levels of premiums under different phases of MHIS indicate the need for evidence base for decisions, such as cost of packages or alternate measures. The past trends in premiums pose a serious issue in assessing financial sustainability. In spite of these limitations, a conservative estimate of finances suggest that State would be able to sustain the scheme, if the scheme is expanded in a phased manner to reach about 70 percent of households by 2024-25 with due considerations on the rate of premium.

Conclusion

MHIS, the state sponsored insurance scheme launched to provide universal health coverage to every resident of Meghalaya irrespective of socio-economic strata, has seen a continuous increase in enrolment since its inception. Analysis of claims data revealed some interesting observations that provide important insights into the general health of and quality of care for the population. Almost half of all claims were attributable to a category recorded as 'general ward unspecified'. Amongst claims made under this category, were mostly due to services availed in private sector, and in turn highest in the East Khasi Hills district, the most urbanized district. Second highest claims were made to avail anti-rabies vaccine towards cat/dog bites, predominantly in the public sector hospitals (district and PHC/CHCs).The third highest claims were made towards maternal care, which revealed that 44% of all claims were attributable to normal deliveries, compared to 13% towards caesarean sections, which is in line with the international best practices.

Though the State is spending higher than many other states in India, the financial sustainability analysis indicate that the scheme can be sustained if expanded in a phased manner, both in coverage of households and the rate of premium. A detailed review of the state health budget, including Central grants, would help the State in allocating the budget more strategically and efficiently. A pooled analysis of claims by and budget allocation to public health facilities, sooner rather than later, will be useful to track resources and rationalise spending.

Preliminary Recommendations:

1. The benefit package of services offered under MHIS could be consolidated in order to remove duplicate, redundant, and low value care packages and streamline what is offered into a more cost effective package of services.
2. The use of General Ward Unspecified package should be placed under scrutiny and its use further investigated In order to reassess its appropriateness, and consider whether it could be disbanded, or its use discouraged except in highly special circumstances.
3. The extremely high rate of claims for dog and cat bites warrants a thorough investigation. It should also be noted that there is an anti-Rabies control programme funded by the public health scheme, indicating potential for duplicate expenditure by the Government. If assessed as feasible, combining these schemes and removing the dog/cat bite package from the MHIS could leverage significant funds for the wider health sector.
4. Spending through state health budget is highly skewed towards medical care services. A detailed review of allocation to various budget heads on health is recommended to rationalise and improve the efficiency of spending.
5. Synchronising the data base of households with national level data bases such as Census, SECC, would help in contextualising Meghalaya with other states.
6. Periodic assessment of the scheme through analysis of State spending on health and budgetary documents, in combination with claims data, is strongly encouraged in order to continually assess the performance of the MHIS against its objective to provide Universal Health Coverage to the population of Meghalaya.
7. Financial sustainability analysis indicates that the scheme can be sustained if expanded in a phased manner, both in coverage of households and the rate of premium. A detailed review of the state health budget, including Central grants, would help the State in allocating the budget more strategically and efficiently.

1. Meghalaya: A Brief Profile

The State of Meghalaya is situated in the north east of India. It was declared a full-fledged State in January 1972, by carving out from erstwhile Assam. Geographical area of the State is approximately 22,430 square kilometres, with a length to breadth ratio of about 3:1. The state shares an international border of approximately 456 km with Bangladesh to its south and west, and is bound by Indian state of Assam to the north and east (1).

The state is the wettest region of India, recording an average of 12,000 mm (470 in) of rain during a year. The forest area covers about 70% of the total geographical area of the state. The population of the State is 29,66,889 as per Census 2011 and it is projected to be around 36,88,945 in 2020 (2). The per square kilometre population density of Meghalaya is nearly one-third of that of national figures. Nearly 86 percent of the total population belong to Scheduled Tribes, predominantly the Khasi tribes. Out of the total population, about 20.07 percent live in urban areas and the remaining 80 percent live in rural area. As per the census of India 2011, the sex ratio in the state is 989 females per 1,000 males which is far higher than the national average of 940. Meghalaya is currently divided into 11 administrative districts with 46 blocks or sub-districts.

Table 1. 1: Socio-Demographic Profile of Meghalaya

Indicators	Meghalaya	India
Total population - 2011	29,66,889	1,210,854,977
Sex ratio (Females/ 1000 males)	989	940
Population density/km^2	132	382
Literacy rate (%)	74.4	74.04
Population below poverty line by States 2011-12 (%)	11.9	21.9
Per capita net state domestic product at current prices (₹): 2015-16 (base year 2011-12)	70,693	94,130

1.1 Disease Profile in Meghalaya

The topographical features and climatic conditions vary across districts of the state. Accordingly, types of diseases and their incidence vary in the state (5). The Global Burden of Disease study (2017) (6) listed out the prevalence of diseases and health conditions in Meghalaya, and non-communicable diseases such as oral disorders, haemoglobinopathies and haemolytic anaemia, gynaecological disorders, congenital birth defects, urinary diseases and male infertility, endocrine, metabolic blood and immune disorders were the most prevalent conditions of 69,710.02 per 100,100 population, followed by nutritional deficiencies (44,653.43 prevalent cases per 100,000), with dietary iron deficiency having the highest prevalence in this category. Neurological disorders such as headache disorders, Alzheimer's disease, Parkinson's disease, epilepsy, multiple sclerosis, motor neuron disease, had the third highest prevalence which accounted for 43,820.02 prevalent cases per 100,000 population, as shown in Table 1.2.

Table 1. 2: Prevalence of Diseases/Health Conditions in Meghalaya in 2017

Diseases/Health conditions	DALYs per 100,000		Prevalent cases per 100,000		Incidence (New cases per 100,000)	
	Rate	Rank	Rate	Rank	Rate	Rank
Maternal and Neonatal Disorders	3442.58	1	2702.33	17	1361.09	14
Respiratory Infections and Tuberculosis	333.547	2	40965.66	4	224102.54	1
Neoplasms	2208.77	3	215.33	22	95.28	21
Cardiovascular Diseases	2187.33	4	3181.9	15	367.32	19
Enteric Infection	1929.63	5	1836.44	19	125346.44	2
Digestive Diseases	1666.31	6	16707.83	8	4130.62	12
Other Non-Communicable Diseases	1648.8	7	69710.02	1	58082.63	3
Mental Disorders	1633.3	8	14357.57	9	4804.49	10
Neglected Tropical Diseases (NTDs) and Malaria	1416.55	9	27310.59	5	7546.16	8
Nutritional Deficiencies	1389.05	10	44653.43	2	27012.87	5
Musculoskeletal Disorders	1292.01	11	12419.99	10	2715.16	13
Neurological Disorders	1210.56	12	43820.02	3	15058.71	6
Chronic Respiratory Diseases	1130.12	13	4470.68	14	575.83	17
Unintentional injuries	1114.42	14	8128	13	4686.4	11
Other Infectious Diseases	937.36	15	2045.81	18	7177.7	9
Diabetes and Kidney Diseases	876.07	16	8393.7	12	373.93	18
Sense Organ Diseases	758.36	17	22858.11	7	-	-
Self-harm and interpersonal violence	554.22	18	2915.98	16	277.87	20
Transport injuries	519.81	19	1766.34	20	587.67	16
Skin and Subcutaneous Diseases	505.13	20	23440.76	6	48132.8	4
Substance Use Disorders	324.5	21	1515.68	21	625.11	15
HIV/AIDS and Sexually Transmitted Infections	183.76	22	9978.14	11	7889.38	7

Source: Global Burden of Disease (GBD) India Compare (2017)[6]

Another study carried out on the subject of Disease Burden in Meghalaya by the ICMR (2017) (7) found that diseases causing deaths varied across age groups as seen in Figure 1.1. It is interesting to note that maternal disorders and diarrheal diseases amongst children up-to age 14 years, alone contributed to approximately 70 percent of total deaths in the state. However, amongst 70+ years, NTDs & malaria, cardiovascular diseases and cancers resulted in about 60 percent of deaths among the age group 70 years and above.

Figure 1. 1: Causes of most deaths in different age categories
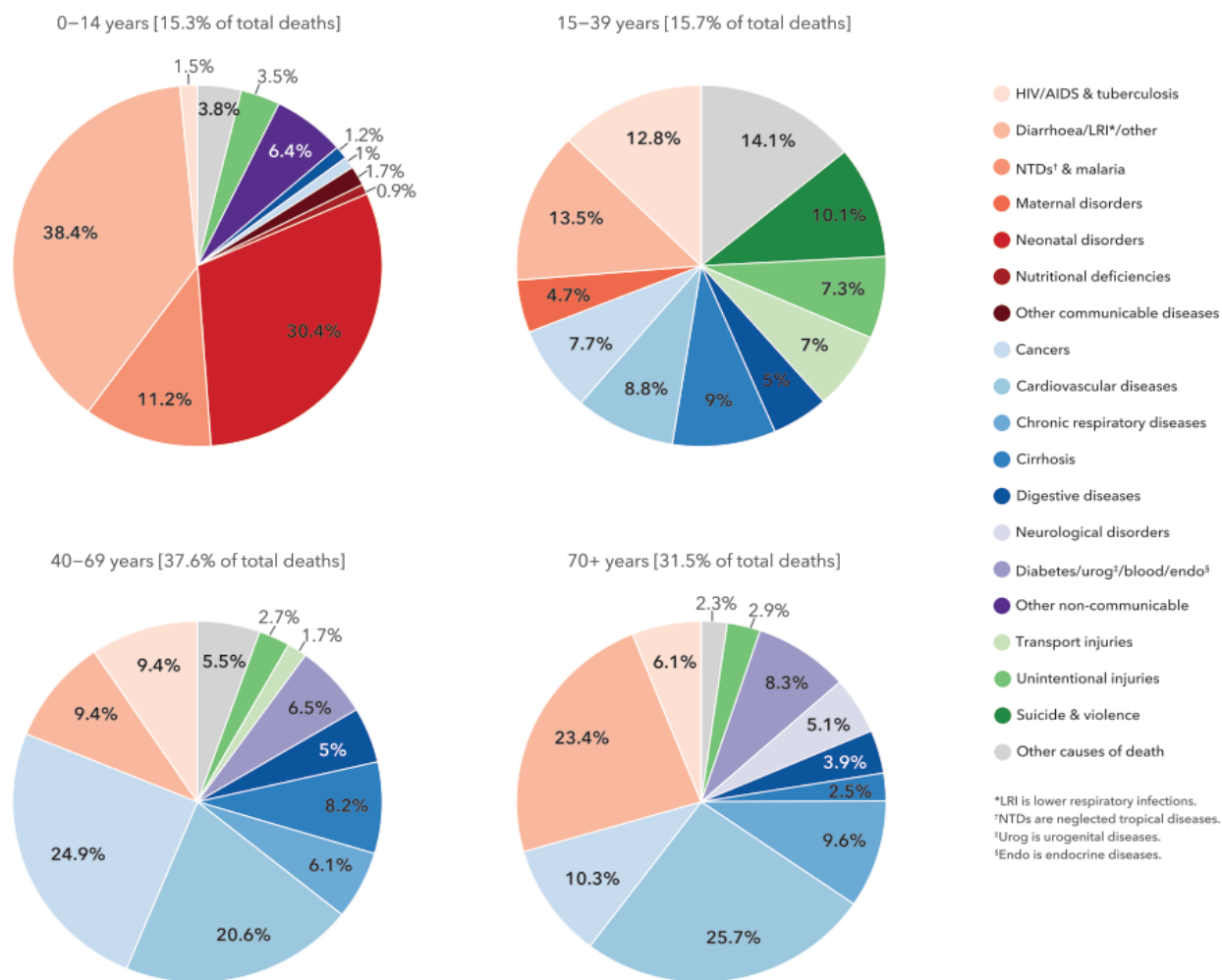
Source: Indian Council of Medical Research, Public Health Foundation of India, Institute for Health Metrics and Evaluation (2017)[(7)]

The ICMR study also estimated the number of life years lost on account of top 15 causes as well as the number of years lived with disability due to these causes by gender in the state. These are presented below in Figure 1.2 and 1.3 respectively.

Figure 1. 2: Percentage of Number of Years of Life Lost due to Different Diseases based on Gender in 2016

Figure 1. 3: Percentage of the Number of Years Lived with Disability due to Different Diseases based on Gender in 2016
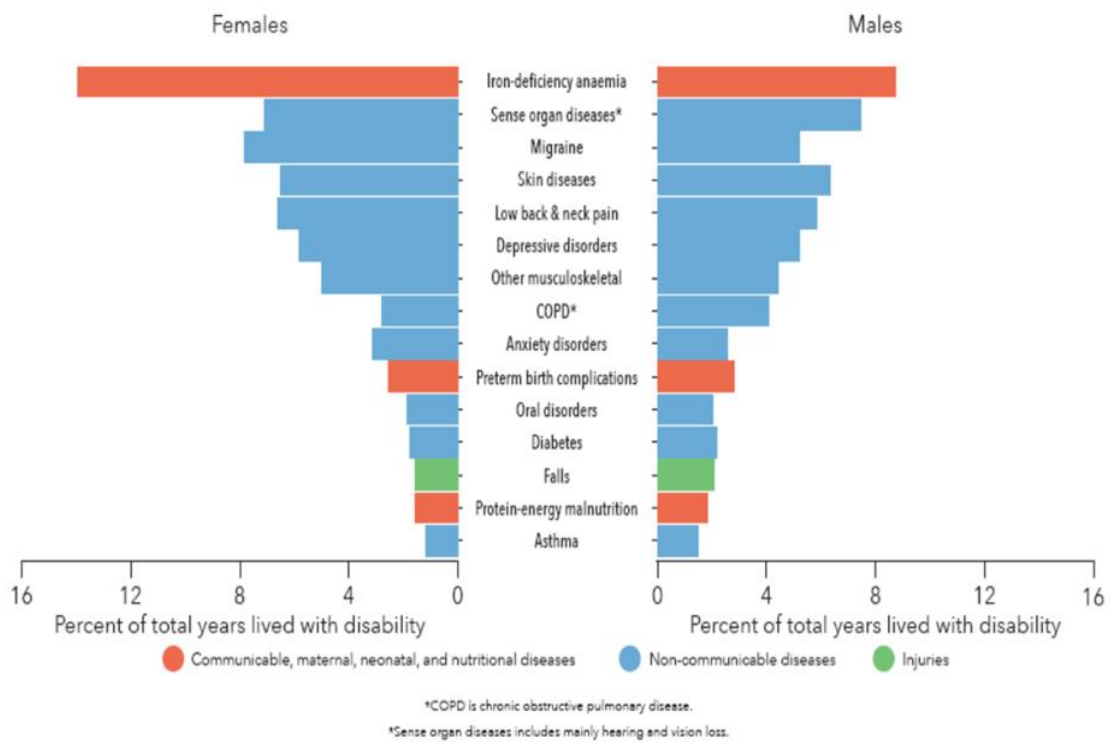
1.2 Health Care System and Health Profile of Meghalaya

Health is constitutionally a state subject. However, services that fall under public goods category is under the concurrent list. Central government plays a major role in policy directives, while states largely implement health services through the public health care network. Even though provision of health care is a responsibility of the government, public spending accounts for only 30% of total health care spending. In India, private service providers play a substantial role in service delivery, in addition to services delivered by voluntary and charitable institutions. In the case of Meghalaya, public spending is much larger than private spending on health care. The size of private service providers is much smaller than public providers. The private service providers remain largely concentrated around the capital city of the state. There are a total of fifteen private hospitals, out of which nine are situated in the capital (8–11). The Health Management Information System (HMIS) reported that, as of June 2020, Meghalaya has 666 active public facilities (482 Sub Centres, 143 Primary Health Centres, 28 Community Health Centres and 13 District Hospitals) (12). The state has one Medical College (North Eastern Indira Gandhi Regional Institute of Health and Medical Sciences), which is the first Post Graduate Medical Institute in the North Eastern Region (8). The number of public sector doctors, nurses and other paramedical staff (including Pharmacists, A.N.C, Vaccinators, Lab Technicians and Health Visitors) are 1444 and 1274 respectively in 2015-16 (2).

1.3 Structure of Public Health System
Figure 1. 4: Structure of Public Health System
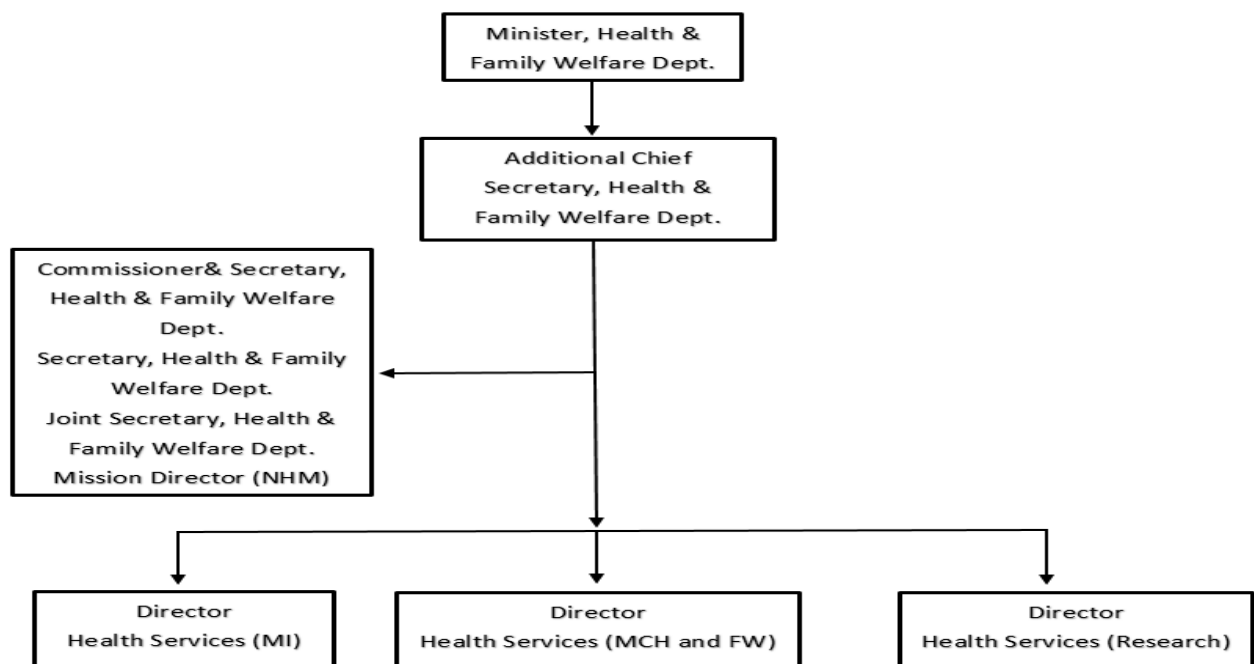
Source: Meghalaya State Portal, n.d[1]

As per the Directorate General of State Health Services 2017, the conditions of Meghalaya were better than the national average in case of average population served per government hospital with 1.5

government hospital bed per 1000 population as compared to the national average of 0.59 per 1000 population. With 30 deaths per 1,000 live births, Meghalaya's infant mortality rate is lower than the national average of 41 (13). While both India and the state's under-five mortality rate were almost the same a decade ago, Meghalaya managed to reduce it to 40 as compared to the current national average of 50. The prevalence of stunting (among children under the age of five years) reduced between 2006 and 2016. However, it still continues to remain higher (43.8%) than India's average of 38.4%. The rate of exclusive breastfeeding (children under age 6 months exclusively breastfed) in the state is almost 20% lesser than the all the India average (54.9%) (13). The percentage of institutional births — a crucial parameter for access to healthcare services — improved from 29% in 2005 to 51.4%, far below from national average of 78.9% (13). Meghalaya had spent 6.73% of its total state expenditure on health and its per capita health care expenditure was ₹2223 in 2015-16, which was higher than majority of the states/union territories in India (14).

1.4 Health Insurance in India: An Overview

Global experience, both in highly industrialized countries as well as in low- and middle-income economies clearly demonstrate the importance of achieving universal coverage through either a purely tax-based regime or social health insurance mechanisms or a mix of both (15). Although India followed a mix of these strategies since the 1950s, the penetration of health insurance remained low for the next six decades. India's tryst with health insurance program goes back to the early 1950s, with the launch of Employees State Insurance Scheme (ESIS in 1952) and Central Government Health Scheme (CGHS in 1954). However, India's landscape of health insurance has undergone tremendous changes in the last three years with the launch of several more health insurance schemes in the country, largely initiated by central and state governments (15). After over half a century of experience, CGHS (3 million) and ESIS (55.5 million) put together currently cover an estimated 58.5 million beneficiaries, roughly about 5% of India's population (15). However, as part of liberalization of the economy since the early 1990s, the government opened up the insurance sector (including health insurance) to private sector participation in the year 1999. This development had thrown open the possibility for higher income groups to access quality care from private tertiary care facilities. This was expected to provide financial risk protection to a relatively small segment of the society. However, on the flip side, private health insurance was observed to result in cost escalation, inequity in health financing pattern while cost-effectiveness of healthcare provided by the private sector could be questioned. In addition to ESIS and CGHS, few experiments of health insurance in India relate to the Community Based Health Insurance (CBHI) models in respect to the poor and informal communities. The experiments are led by various community-based organizations (Self Employed Women Association (SEWA), Karuna Trust, etc.), although their reach, scalability and sustainability appear limited at present.

However, India in the last thirteen years (since 2007) has witnessed a plethora of new initiatives, both by the central government and a host of state governments also entering the bandwagon of health insurance. One of the reasons for initiating such programs can be traced to the commitment that the governments in India have made to scale up public spending in health care. Among others, these include enhanced access and availability of essential health care services, protecting households from financial risk through schemes such as, National Rural Health Mission (NRHM), and Rashtriya Swasthya Bima Yojana (RSBY). The State specific initiatives include Rajiv Aarogyasri (Andhra Pradesh), Chief Minister's Insurance Scheme for Life Saving Treatment (Tamil Nadu), Vajapayee Arogyasri & Yeshasvini programs in Karnataka, etc. List of health insurance schemes in India:

a) Rajiv Aarogyasri Health Insurance Scheme in Andhra Pradesh (2007)
b) Tamil Nadu's Chief Minister Kalaignar Insurance Scheme for life saving Treatments (2009).
c) Yeshasvini Cooperative Farmers Health care Scheme in Karnataka (2002)
d) Vajapayee Arogyasri Scheme in Karnataka (2010)
e) Apka Swasthya Bima Yojna in Delhi (2007)
f) Critical Life-Saving Health Insurance Scheme (RSBY Plus) in Himachal Pradesh
g) Central Government Health Scheme (CGHS)
h) Employees' State Insurance Scheme (ESIS)
i) Rashtriya Swasthya Bima Yojna (RSBY) (2008), a centrally sponsored scheme being implemented in 24 states in India.

Table 1. 3: State-wise Health Insurance Coverage

Scheme	Total covered population in 2009-10 (in millions)		
	Unit of Enrolment	No of families	No of Beneficiaries
CGHS	Family	0.87	3.0
ESIS	Family	14.3	55.4
Rashtriya Swasthya Bima Yojana (RSBY)	Family	22.7	79.45
Rajiv Aarogyasri Scheme (AP)	Family	22.4	70
Chief Minister's Insurance Scheme (TN)	Family	13.6	35
Vajapayee Aarogyasri Scheme (KN)	Family	0.95	1.4
Yeshasvini (KN)	Individual	N/A	3.0
Total Government Sponsored Schemes		N/A	247
Private Health Insurance[1]	Individual	N/A	55
Grand Total			302

Source: Subramanian (2016)[16]

The basic question while designing a benefit package for a health insurance scheme is that of - what health conditions should be covered by the scheme. Most of the latest state government sponsored schemes cover inpatient tertiary care. While this helps poor households tide over catastrophic health events, the large share of out-of-pocket payments occur in outpatient visits.

The benefit package for Yeshasvini Health Insurance Scheme in Karnataka covers both secondary and tertiary care. The benefit package under RSBY is mainly focused on the provision of secondary care. Primary care is not included in any of the schemes for various reasons. In Tamil Nadu, for example, the primary care and secondary care are already well provided by the public sector. In states where the primary care is not so sound, insurance schemes must aim for better integration with the public sector

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[1] Estimates

through referral system. The governments can also use the data generated by health insurance schemes for strengthening primary care. The CGHS and ESIS are the only schemes that provide comprehensive coverage including outpatient care, preventive/wellness care and hospitalization. The provision of services under CGHS is uncapped and provided through public facilities with some specialized treatment (with reimbursement ceilings) permitted at private facilities. The scheme is unique in the sense that it offers a range of services through both allopathic dispensaries and the units of alternative medicine like Homoeopathy and Ayurveda.

The ESIS is also unique in the sense that apart from preventive, outpatient and inpatient medical care, it also provides compensatory cash benefits for loss of wages, disability benefits distinguished by permanent and temporary disability, and a maternity cash program among other benefits. Although the outreach of the scheme is generally poor but it actively offers preventive care especially in the case of HIV and screening of other occupational hazard related diseases.

2. Megha Health Insurance Scheme (MHIS)

The Megha Health Insurance Scheme (MHIS) is a universal health insurance scheme (UHIS) in the State. It was first launched on 15th December 2012 with the primary objective of reducing household out of pocket expenditure on health. The scheme was built on the existing RSBY to augment services and enhance coverage in the state.

The scheme began with the financial coverage of ₹1,60,000 per family for an enrolment fee of ₹31 in 2012. Each family is considered to consist up to five members, but in instances where family size is more than five members, a new smart card will be issued which will cover another five family members but the additional family members will be considered as another family and will get a different Unique Registration Number (URN). The insurance policy is valid for a period of one year, and beneficiaries are expected to renew their smart cards on a yearly basis by paying a nominal amount.

When the scheme first came into play with MHIS Phase I, the cover available to enrolled beneficiaries was ₹ 1,60,000 for an enrolment fee of ₹ 31/-. Nonetheless, various improvements and amendments have been made to the scheme in the years that followed. Such changes include increase in the number of packages offered (from 1,036 to 1,708 packages), the enrolment fee (from ₹ 31 to ₹ 50) and in MHIS Phase III, insurance cover was enhanced to ₹ 2,80,000 for up to 5 members of a family on a floater basis. Additionally, a Senior Citizen cover was also introduced (in MHIS III in 2018) whereby each enrolled senior citizen per smart card belonging to Below Poverty Line (BPL) and NREGA category will receive an additional insurance cover of ₹ 30,000.

The insurance policy is valid for a period of one year, therefore beneficiaries should renew their smart cards on a yearly basis by paying a nominal amount, depending on the enrolment fee. The smart cards provided belonging to BPL in this scheme can only be used in empanelled hospitals under the scheme across the state (168 empanelled hospitals) and other secondary and tertiary care hospitals which have been empanelled outside the state of Meghalaya.

2.1 Financing of the MHIS
The MHIS is financed through both Central and state funding, with the Central Government financing 90% of the premium for enrolled households under the identified categories as per Socio Economic and Caste Census of India (SECC). The scheme began with an insurance cover of ₹1,60,000 per

family with an enrolment fee of ₹31 per family in 2012, and was raised to ₹ 2,00,000 during MHIS-II and further to ₹ 280,000 during MHIS-III in 2017.

In addition to the 10% of the remaining premium amount, the State finances the entire premium for households outside the SECC category while collecting a small sum as enrolment fee from the households. This is in a way, a move towards universal health coverage in the state.

The state spending on health care has increased overtime across the country, including in Meghalaya. In per capita terms, spending increased from ₹ 378 in 2006-07 to ₹ 1805 in 2016-17 in Meghalaya. This includes spending on medical education and family welfare programs. Similarly, household out of pocket expenditures on health care rose much faster in the State from ₹ 464 in 2004-05 to nearly ₹ 9,600 in 2014. One of the primary objectives of MHIS is to reduce out-of-pocket expenditure on health in the state.

2.2 Rationale for MHIS

MHIS is a culmination of experiences from schemes implemented in other states as well as its own experience in implementing RSBY. The insurance schemes in other states such as Aarogyasri, Chief Minister Health Insurance Scheme, primarily offered secondary and tertiary care services for select population groups with limits on financial coverage as well as limits on individual cover. RSBY implemented initially by the Ministry of Labour targeted population below poverty line among unorganised sector workers across the country. This target population expanded to other categories such as weavers, construction workers, etc., over the years.

Drawing on these experiences as well as implementing RSBY in the state, the Government of Meghalaya launched Meghalaya Health Insurance Scheme as a Universal Scheme to cover the entire population of the state in 2012. The scheme has been continued since then, with a few months break twice. The scheme was planned for 12 months (a year) with provision to renew. During this process, a couple of times the scheme was extended for a few months before deciding on renewal. Because of this difference in duration and discontinuity, the government termed the implementation as MHIS-I, MHIS-II and MHIS-III. The scheme currently in place is MHIS-IV which was launched in Dec-2018. There has been substantial improvement in coverage, both financially as well as population from one phase to another.

2.3 Unique features of MHIS

One of the key features of MHIS is inclusion of out-patient care under the scheme, and covering every citizen irrespective of socioeconomic strata. However, the scheme ensured to exclude families which have been covered by any other public schemes such as government scheme for state employees, ESIS, CGHS, etc. The scheme has empanelled both public and private hospitals under its ambit and adopted an insurance model. While the scheme successfully moved to Phase-IV, certain challenges remain to be attended to. These are;

1. In spite of seven years of existence, the scheme covers about 50 percent of the population only.
2. Utilisation of the scheme remains moderate (33.54% households are using the services).
3. Claims ratio has been increasing phase after the phase.
4. Scaling up as well as the financial sustainability of the scheme are raising concerns for the authorities.

It is noted that in spite of making substantial progress and building up systems and mechanisms to make the scheme more viable, no documents have been developed on any of the processes of the scheme, for instance, how the enrolment was carried out, how the empanelment of hospitals was completed,

identification of insurance company and costing of packages, etc. All these processes are being followed but documentation part of the processes have been missed out.

In this context, this study is undertaken with the following key objectives:

1. Describe the context of MHIS and its evolution since inception
2. Describe the process for enrolment, claims reimbursement, empanelment, packages and their prices, monitoring claims settlement, etc.
3. Assessing progress, pattern and challenges faced in enrolment
4. Analyse claims on various parameters such as by districts, packages, age groups, etc.
5. Assess the sustainability of the scheme on financial and coverage

2.3.1 MHIS I

Christened as 'Megha Health Insurance Scheme' (MHIS), the scheme was launched in 2012 and became effective from May 2013 to provide all the households in the state, a financial cover of up to ₹ 1,60,000 per year to cover in-patient services with the minimal amount of ₹ 31 per household, irrespective of their income levels (17). The new health insurance scheme was among the first of its kind across the nation.

MHIS expanded the cover available under RSBY both in terms of universalizing the scheme across the entire population instead of just those covered under the Below Poverty Line (BPL) list. MHIS I expanded the financial coverage to ₹ 1, 60,000 from ₹ 30,000 provided by Rastriya Swasthya Bima Yojana (RSBY). The beneficiaries of MHIS I could seek services from the empanelled public and private hospitals in the state. In addition, selected super-specialty hospitals from outside the state such as Christian Medical College (CMC), Vellore, Guwahati Neurological Research Centre (GNRC), Guwahati, North East Cancer Hospital & Research Institute were also empanelled in MHIS I. ICICI was selected as the insurer after a rigorous and competitive bidding process. Bids were received from six leading insurance companies. Time period of MHIS I was from 1st May 2013 to 31st October 2015.

2.3.2 MHIS II

The MHIS II was launched in 2015. MHIS II enhanced financial coverage to ₹ 2, 00,000 from ₹ 1,60,000 in MHIS I. Under MHIS II, 14 super-specialty hospitals located in major metropolitan cities of India were empanelled. During MHIS II, New India Assurance Company was selected as the insurer through a competitive bidding process, where 10 other insurance companies participated. Time period of MHIS II was from 1st August 2015 to 31st August 2016.

2.3.3 MHIS III

MHIS Phase III started on 1st July 2017, and had an enhanced insurance cover of ₹ 2,80,000 for up to 5 members of a family on a floater basis. Most other schemes including MHIS I and II limited individual financial coverage to a maximum of ₹ 50,000, whereas MHIS III adopted a floater basis for extending financial benefits to the enrolled population by removing the restrictions of limits on individuals. Families with more than five members were recorded as a new family and provided a separate enrolment card.

The enrolment fee for MHIS Phase III was ₹50/- and the scheme did not have any age limit. Additionally, a Senior Citizen cover was introduced whereby each enrolled senior citizen per smart card belonging to BPL and NREGA category would receive an additional insurance cover of ₹ 30,000. In addition, pre-

existing diseases were also covered under this insurance scheme. New India Assurance Company Ltd was identified for implementing the scheme through a rigorous and competitive bidding process.

2.3.4 Recent Developments – Towards MHIS IV

The Central Government announced the implementation of Ayushman Bharat Pradhan Mantri Jan Arogya Yojana (AB-PMJAY) in its budget presentation in February 2018. This Scheme with an outlay of ₹ 5,000 crores annually intends to cover about 10 crore families with ₹ 5 lakhs financial coverage per family. Given this extended financial protection, the Meghalaya government has decided to merge its MHIS with AB-NHPS and implement NHPS in the State and therefore moving on with MHIS Phase IV.

2.4 How Eligible Beneficiary Data is Collected:

Main source of enrolment data included electoral rolls. Other sources were also used, such as
- BPL from 2002 data
- For ASHA from National Health Mission
- For Weavers from sericulture
- For Builders and Construction workers (BOCW) from Labour department
- For artisans from Handicraft department
- For Domestic workers from NE Regional movement
- For Mahatma Gandhi National Rural Employment Guarantee Act (MGNREGA) from State record
- Orphans and Destitute from social welfare or sometimes referred directly to the orphanage and unmapped Above Poverty Line (APL) and persons with disabilities.

Table 2. 1: Key Parameters of MHIS

Parameters	MHIS-I	MHIS-II	MHIS-III
Start Date of policy period	1st May 2013	1st August 2015	1st July 2017
End Date	31st October 2015	31st August 2016	25th September 2019
Premium (₹)	₹ 478 per household	₹ 431 per household	₹ 911 per household, and increased to ₹1702 for the extended 3 months period (July, August and September 2017)
Household Size	Maximum of 5 members per household and rest of the members are taken as separate household	Maximum of 5 members per household and rest of the members are taken as separate household	Maximum of 5 members per household and rest of the members are taken as separate household
Financial Cover (₹)	₹ 1.60 Lakhs per household on Floater Basis. Divided into -base cover (₹ 30,000) -replenishment cover (₹ 30,000) -tertiary care cover (₹ 1 lakh)	₹ 2.00 Lakhs per household on floater basis Divided into base cover, replenishment and tertiary care	₹ 2.80 Lakhs per household on Floater basis and additionally ₹ 30,000 additional cover for senior citizens, BPL and MNREGA category. Divided into base cover, replenishment, tertiary care and senior citizen(extra ₹ 30,000 for each senior citizen in a household)
Enrolment fee	₹ 31	₹ 30	₹ 50
No. of Households Enrolled	1,99,815	3,46,548	4,36,788
Number of Packages	1,036	1,704	1,708
Insurance Company	ICICI Lombard	New India Assurance Company Ltd	New India Assurance Company Ltd
Service Coverage	Secondary & Tertiary care	Secondary & Tertiary care (incl. OPD of lifestyle diseases like cardiac cases, Maternal & Child	Same as MHIS II (incl. special package for senior citizen)

		care and diagnostic tests)	
Exclusion	State and Central government employees. MHIS does not include suicidal cases and drug abuse, sterilization, fertility and sex change procedures, cosmetic treatments etc.	Same as MHIS-I	Same as MHIS-II
Utilization norms for Claims Amount in Public Facilities	-30% of total claim as incentives to medical & and 3rd grade staff like facility staffs. -70% on infrastructure	Same as MHIS-I	Same as MHIS-II

2.5 MHIS- Enrolment Process

MHIS enrolment process started with preparation of household list obtained from the chief electoral officer and finalized it after verifying with the block development offices. This list was updated by MHIS with details such as: age of the head of the household, household categories (e.g. APL, BPL, ASHA, Domestic Worker, Weaver, etc.) and gender. This list formed the basis for enrolment into MHIS scheme. Households were assigned a unique registration number (URN) for families that enrolled into MHIS. Enrolment process was preceded by preliminary meetings with district and block level administration, and awareness activities. The dates and locations of enrolment were informed in advance to the public. Mobile enrolment stations were equipped to collect biometric information and provide printed smart cards to the enrolled family. The enrolment drive continued for four months across the state. However, updating and corrections continued through the district kiosks for four months after the initial enrolment drive. Along with smart cards, all enrolled families were provided with a booklet containing information on the list of empanelled hospitals, where beneficiaries could seek health care services.

Hospital Empanelment

Empanelment implies readiness of hospitals to accept RSBY beneficiaries for treatment and conduct online transactions. Empanelment of hospital (both public and private) were completed by the insurance company one month prior to commencement of enrolment process. The empanelled hospitals are provided with recent package rates through a transaction management software (TMS) installed at each hospital. Hospitals could raise claims directly to the insurance company after a beneficiary had been treated and discharged. Hospital management process was one of the key processes to ensure accurate and timely calculation of premium to be paid to the insurance company for issued RSBY beneficiary cards and to ensure timely, accurate and hassle free payment of premium to the insurance company.

Figure 2. 1: Hospital empanelment process

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┌──────────────────────────────────────────────────┐
│ Hospital empanelment is made self-service where   │
│ each hospital can apply for empanelment through    │
│ MHIS portal (and by Post too).                     │
└──────────────────────────────────────────────────┘
                        ▼
┌──────────────────────────────────────────────────┐
│ Empanelment requests submitted are examined by the│
│ District Committee and list of selected hospital is│
│ sent to the Insurance Company.                     │
└──────────────────────────────────────────────────┘
                        ▼
┌──────────────────────────────────────────────────┐
│ Insurance Company verifies the details of          │
│ application submitted by hospital and if all the   │
│ criteria (Annexure 12 – RSBY Operational Manual)   │
│ are met, it empanels the hospital.                 │
└──────────────────────────────────────────────────┘
                        ▼
┌──────────────────────────────────────────────────┐
│ Insurance Company logs into the Hospital           │
│ Management application and creates hospital record │
│ and details.                                       │
└──────────────────────────────────────────────────┘
                        ▼
┌──────────────────────────────────────────────────┐
│ Hospital is issued a Master Hospital Card (MHC)    │
└──────────────────────────────────────────────────┘
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All the public hospitals as identified by the State Government including CHCs and Employee State Insurance Scheme (ESIS) hospitals were empanelled as per the RSBY guidelines. The State decided to empanel PHCs. Private Hospitals must be accredited by the National Accreditation Board for Hospital and Healthcare Providers (NABH). Due to unavailability of any hospitals with NABH accreditation, the scheme also empanelled private hospitals with more than 10 functioning in-patient beds. Few clinics such as Bansara eye clinic with five beds and New Hope Clinic providing minor procedures like cataract removal and dental care were also being empanelled. Hospitals outside the state with specific super-specialty services such as GNRC hospital, Guwahati, St John's hospital, Guwahati, CMC Vellore (TN) were also empanelled.

Following minimum criteria were mandated for empanelment of public and private sector hospitals:

Minimum facilities mandated in public sectors are:

a. Telephone/Fax,
b. An operational pharmacy and diagnostic test services, or should be able to link with the same in close vicinity so as to provide 'cashless' services to the beneficiary.
c. Maintaining necessary records as required and providing necessary records of the RSBY patients to the Insurer or his representative/Government/Nodal Agency as and when required.

d. A bank account operated by the health care provider through Rogi Kalyan Samiti or equivalent body.

Minimum facilities mandated in private sectors are:

a. At least 10 functioning in-patient beds or as determined by the State Nodal Agency. The facility should have an operational pharmacy and diagnostic test services, or should be able to link with the same in close vicinity so as to provide 'cashless' service to the beneficiary.
b. Those facilities undertaking surgical operations should have a fully equipped Operating Theatre of their own.
c. Optimally qualified doctors and nursing staff under its employment should be available 24x7.
d. Maintaining necessary records as required and providing necessary records of the insured patient to the Insurer or his representative/ Government/Nodal Agency as and when required.
e. Registration with Income Tax Department.
f. Telephone/Fax.

De-Empanelment of Hospitals

In case of issues regarding the performance of hospitals, the scheme had a provision for suspension and de-empanelment of hospitals. During Suspension, the hospital would still be empanelled with the scheme but cannot receive or treat beneficiaries until the investigations were nullified. While de-empanelment means that the hospital was removed from the list and the hospital was no longer able to provide services to MHIS beneficiaries.

Figure 2. 2: Process for Suspension and De-empanelment of hospitals

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┌─────────────────────────────────────────────┐
│        Claims analysis and monitoring         │
└─────────────────────────────────────────────┘
                      ↓
┌─────────────────────────────────────────────┐
│   Spike/trigger/violation of norms by the     │
│                  hospital                     │
└─────────────────────────────────────────────┘
                      ↓
┌─────────────────────────────────────────────┐
│  Show-cause notice issued to the hospital     │
│       and given 7 days to respond             │
└─────────────────────────────────────────────┘
                      ↓
┌─────────────────────────────────────────────┐
│  If response is not satisfactory or has not   │
│  been received within the pre-specified time  │
│  period, Insurance Company suspends the       │
│  hospital.                                    │
└─────────────────────────────────────────────┘
                      ↓
┌─────────────────────────────────────────────┐
│  Suspension approved by State Nodal Agency    │
│                   (SNA)                       │
└─────────────────────────────────────────────┘
                      ↓
┌─────────────────────────────────────────────┐
│  Formal letter is sent to the hospital        │
│  regarding its suspension and mentioning the  │
│  timeframe of pre-specified days for          │
│  completion of formal investigation           │
└─────────────────────────────────────────────┘
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If the allegation is correct and substantiated with evidence the SNA will de-empanel the hospital	← ↑ →	Investigation report is not substantiated with evidence then the suspension would be revoked

Followed by:

MHIS publish of empanelment criteria and guidelines according to Ministry of Labour and Employment (MoLE) criteria and guidelines.

Issue of a letter to the hospital on its letter head and Master hospital Card would be taken back.

2.6 District Kiosk enrolment

District Kiosk in relation to a district means the office established by the Insurer at the district to provide post-issuance services to the beneficiaries.

Purpose of the District Kiosk: the Insurer undertakes the following activities:

- Re-issuing of lost Smart Cards.
- Modification of Smart Cards; whereby a family member can be added to an existing smart card (if the card has not yet exceed five members) if the beneficiary did not enrol themselves at the time of the enrolment period of 4 months.

2.7 Information, Education and Communication (IEC) campaigns

The Living Picture Company, Shillong was hired by the State Nodal Agency MHIS to plan and carry out the IEC/BCC campaigns for the scheme. The aim of this campaign was to make the scheme "community led" and "people-centric". The campaign for the MHIS was planned to be implemented in three phase's i.e.

1st phase - Pre launch campaign
2nd phase - Launched campaign
3rd phase - Post launch campaign

Some of the main objectives of the IEC/BCC campaign is to raise awareness amongst the people of Meghalaya about MHIS, to make them understand the importance of having health insurance and the different benefits the scheme offers and therefore encourage them to enrol under MHIS. The campaign also seeks to bring about awareness surrounding the superstitious beliefs and dispel myths some people might have about the insurance scheme. Other objectives focused on informing the people about the process and different ways of enrolling into the scheme and how to get and use the smart card. Dissemination of information on MHIS utilization to different stake holders like Doctors, Hospital staff, District and Block officials and others was another objective.

The Living Picture Company Creative developed creative activities centred on 'info-tainment', where information about MHIS was delivered in an entertaining format to a target audience. The target audience included fathers/husbands, mother/wives, village headman, village elders, service providers, college going students, teachers, etc.

The different activities carried out during the IEC campaign are:

1) **Community Events**: These include quiz programs and street plays, which encouraged public interaction, instant crowd response and prompt absorption of information conveyed. The street plays also provide a platform where MHIS officials are given the opportunity to explain to the vast public the details and facts surrounding MHIS.

2) **IEC Van Tour and Support**: IEC vans were customized to the MHIS theme and are equipped with LCD projector, laptop, sound system and generator. These vans supported many IEC campaign activities, such as stage performances, These IEC vans were on the road and covered remote and far-flung villages around Meghalaya and were therefore able to reach communities at their hometowns and implementing the generation of MHIS awareness from the ground up.

3) **Outdoor Media**: The main outdoor media comprised of hoarding and metal frames. Hoardings structures were designed for each phase of the campaign; 1) Pre-enrolment which was the introduction of the scheme, 2) Enrolment phase and 3) Post enrolment phase which was utilization of the smart card. Existing hoarding structures were hired and new ones were also constructed across the states, in various locations such as the national highway, local market areas, hospitals, etc. Metal frames were located in different hospitals, contents for these frame banners consisted of striking features about the scheme and the names of the hospital empanelled under the scheme.

4) **Print Media:** In addition to the outdoor media, print media were also included such as local new papers, leaflets, poster, pamphlets, etc. These posters highlighted topics regarding awareness and information about the scheme, pre-enrolment and showing utilization of the smart card, etc. This form of IEC campaign along with outdoor media was especially targeted in remote areas where electronic media was out of reach.

5) **Electronic Media**: Jingles were composed for the pre-launched of the scheme in Khasi and Garo language, various radio spots highlighting the process of enrolment into the scheme, the benefits the scheme offers were also produced in Khasi and Garo language. These jingles and radio spots were both broadcast in different local FM radio across the state, in IEC events, street play, seminars, etc. Besides these, a 20 minute docu-drama was also produced based on the MHIS theme. This film was projected in various venues such as seminars, festivals, and in remote areas, the IEC tour van was used. These electronic media produced had proved to be very successful and widely accepted by the people of Meghalaya (MHIS IEC Report 2012-2013).

2.8 Enrolment: Nature and Pattern

Enrolment statistics provided by the MHIS indicate that 49.29% of eligible individuals are presently enrolled in MHIS III. This has increased from 41.06% enrolment statistics recorded for MHIS I. In order to investigate patterns of enrolment across different population groups during MHIS I, II and III, enrolment data have been disaggregated - by district, gender, age, and occupation and presented in the respective sections. MHIS carried out the enrolment processes in every phase independently, since criteria for inclusion/enrolment underwent changes at each phase. The composition of different categories of households varied across districts. Majority of Meghalaya's population was concentrated in and around the capital city of the state. Hence enrolling this segment of population would have been much easier compared to other districts. It is anticipated that there could be wide variation in the enrolment across population groups such as: district, gender, age, and occupation due to variation in geographical conditions, accessibility and availability of health facilities.

2.8.1 Enrolment by District

Patterns of enrolment across the eleven North Eastern districts were calculated across the three phases of MHIS. The data reports an increase in enrolment in MHIS over time, with 7,28,028, 15,48,617 and 15,57,008 individuals enrolled in MHIS phase I, II and III respectively. After the transition from MHIS-I to MHIS-II, 8,20,589 (53%) individuals were newly enrolled and from MHIS-II to MHIS-III, 8,391 (1%) individuals were newly enrolled. This indicates a positive enrolment trend during the period of observation, with enrolment doubling between MHIS I and MHIS II.

Figure 2. 3: Distribution of Enrolled HHs with APL HHs in MHIS III
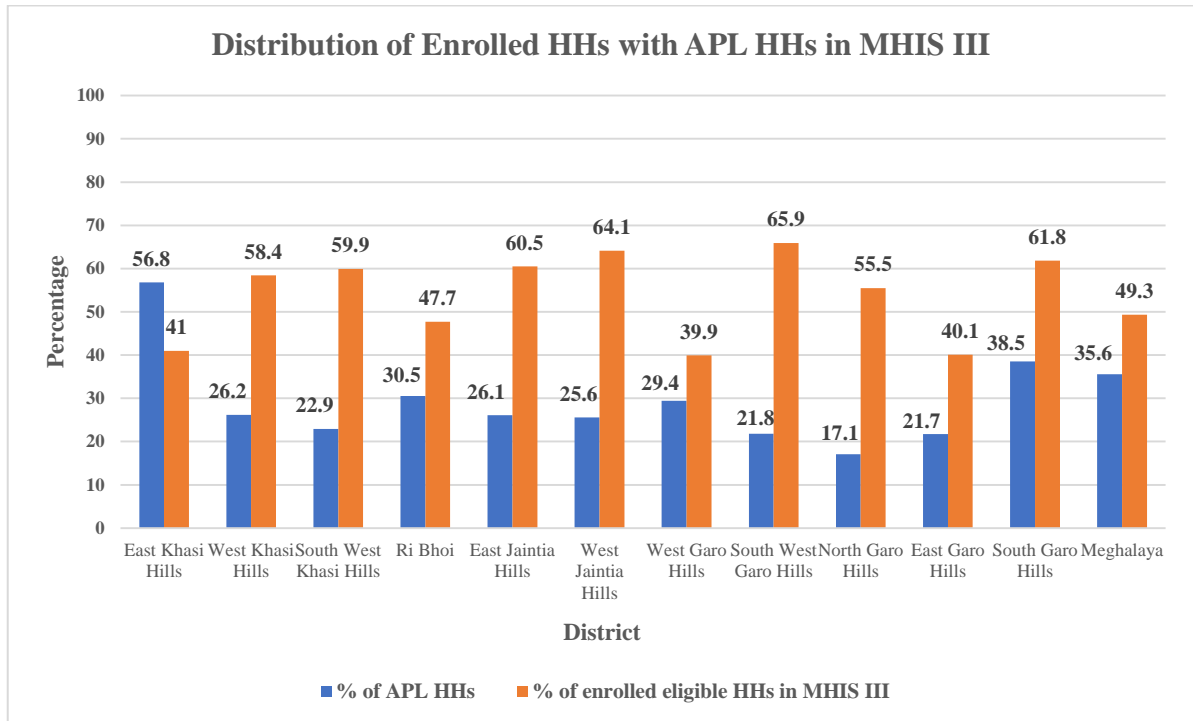
Figure 2. 4: Distribution of Enrolled HHs with BPL HHs in MHIS III
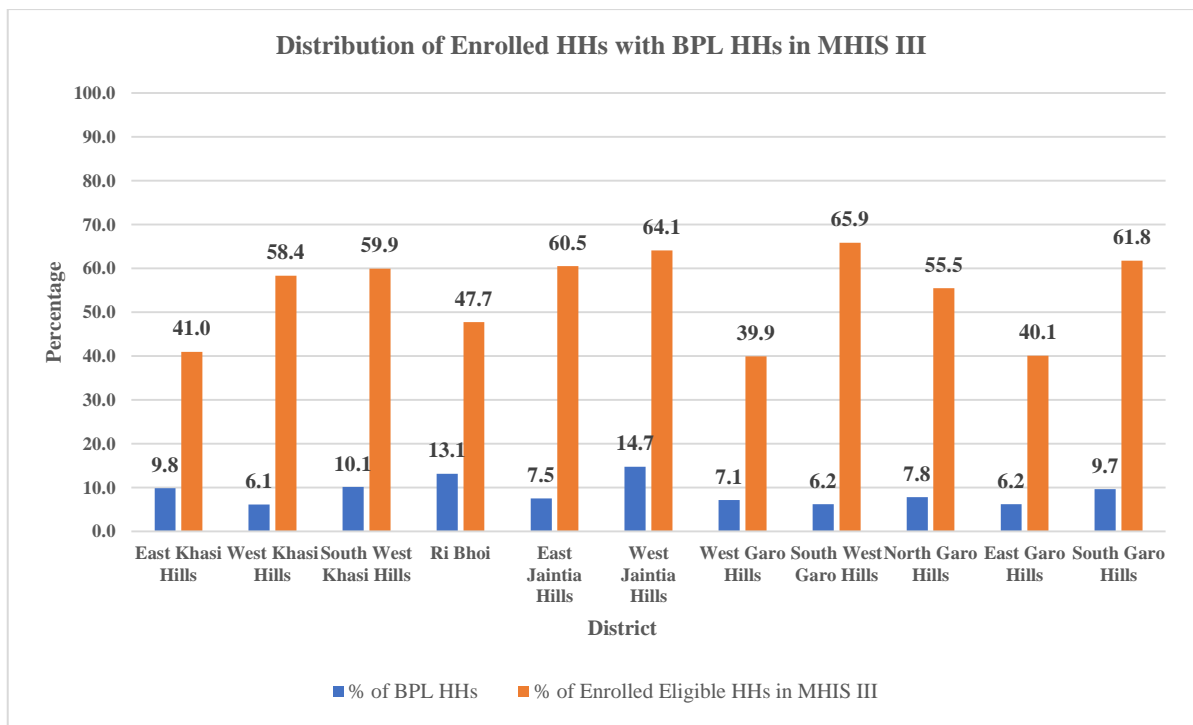
Table 2. 2: Percentage of individuals enrolled in MHIS by districts

District	MHIS I	MHIS II	MHIS III	% of eligible individuals in MHIS III
East Khasi Hills	25.8	20.4	23.2	29.8
West Garo Hills	8.1	16.5	12.9	16.4
West Jaintia Hills	12.7	12.4	12.8	9.5
Ribhoi	10.7	6.8	9.1	9.4
West Khasi Hills	8.6	8.2	9.4	7.3
South West Garo Hills	10	9.8	8.3	5.8
East Garo Hills	3.9	4.2	4.6	5.3
North Garo Hills	6.6	6.9	6	5.1
East Jaintia Hills	6.3	6.1	5.6	4.3
South Garo Hills	3	4.8	4.3	3.9
South West Khasi Hills	4.3	3.9	3.7	3.1
Total	**100**	**100**	**100**	**100**
N				**7,97,431**

Source: Calculated from MHIS data base

Figure 2. 5: Eligible HHs Enrolled by Districts (%)
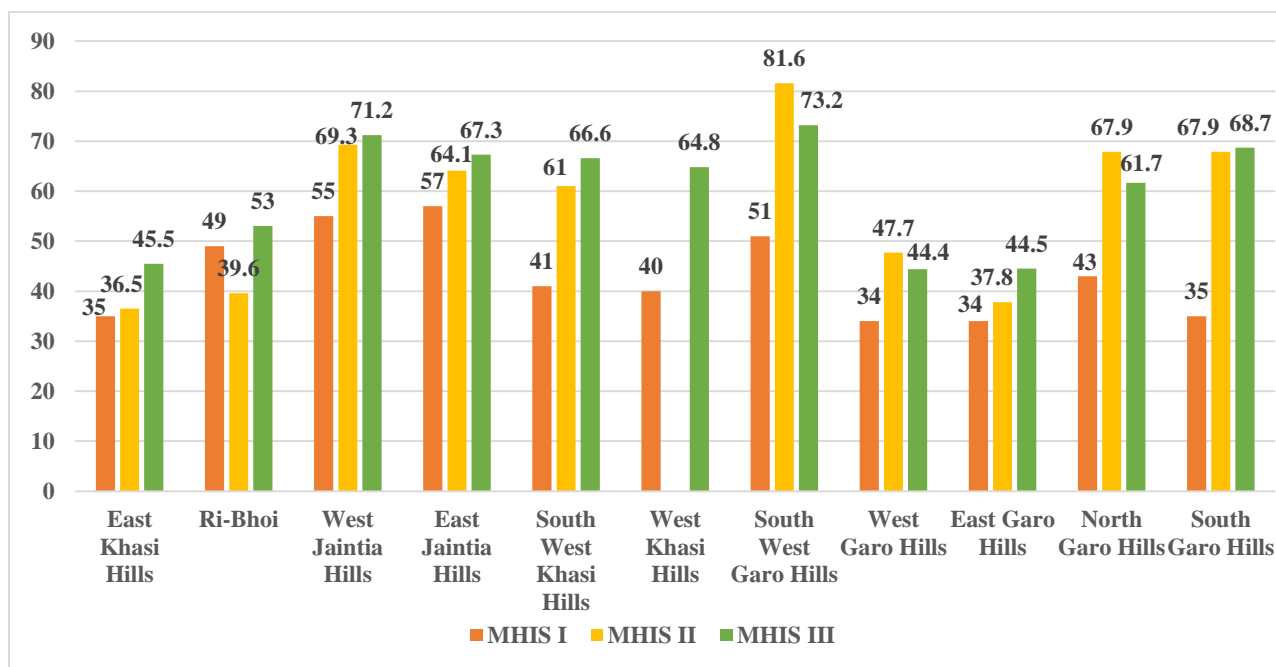
2.8.2 Enrolment by Gender

Figure 4.4 shows patterns of enrolment based on gender (male, female and other) across the three phases of MHIS. The enrolment status for both male and female has doubled between MHIS I (3,25,336 males and 4,01,724 females) and MHIS III (7,42,195 males and 8,10,214 females) and the other gender has increased almost four times (from 968 to 4,599).

MHIS I witnessed the highest percentage of female enrolment i.e. 55.2% in comparison to other phases. The percentage of males and others enrolled in MHIS I were 44.7% and 0.1%, respectively. However during MHIS II, 53.3% male, 46.4% female and 0.3% others were enrolled. Lastly, in MHIS III, 47.7% male, 52% female and 0.3% others were enrolled into the scheme.

During the transition phase of MHIS I to MHIS II, enrolment in regard to the male increased from 3,25,336 to 8,25,975 (relative percentage increase of 153.9 % in enrolment), 4,01,724 to 7,18,494 (78.9 % relative percentage increment in enrolment) among the females and 968 to 4,148 (328.5% relative increase in the enrolment) among the others. However, transitioning from MHIS II to MHIS III, the enrolment increased only for females and others by 12.8% (7,18,494 to 8,10,214) and 10.9 % (4,148 to 4,599) respectively whereas male enrolment declined by 10% (8,25,975 to 7,42,195).

Figure 2. 6: Distribution of Enrolled Persons by Gender: MHIS-I, II & III
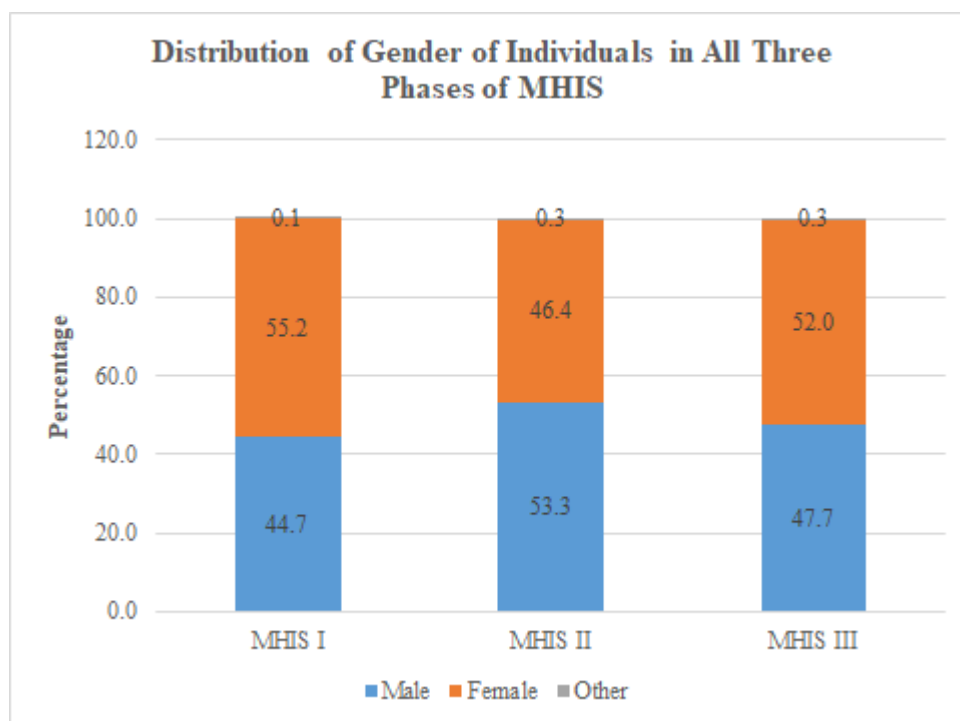
2.8.3 Enrolment by Age
The age of the participants was categorised into five categories in order to investigate the patterns of enrolment in MHIS over time. Table 4.2. shows enrolment in each phase of MHIS over time. The age category 19-45 years has the highest percentage of enrolment in comparison to other age categories across all the three phases, followed by 6-18 years.

Enrolment increased by a relative percentage of 181.6% among 19-45 years, 163.0 % among 60 and above years and 144.3 % among 46-60 years during the transition from MHIS I to MHIS II. However, the trend of enrolment for the same age categories declined for the transition between MHIS II to MHIS III – 14.4 % relative decrease among 19-45 years, 13.6 % among 60 and above years and 12.0 % among 46-60 years respectively.

Figure 2. 7: Distribution by Age Groups for Enrolment across All Three Phases of MHIS
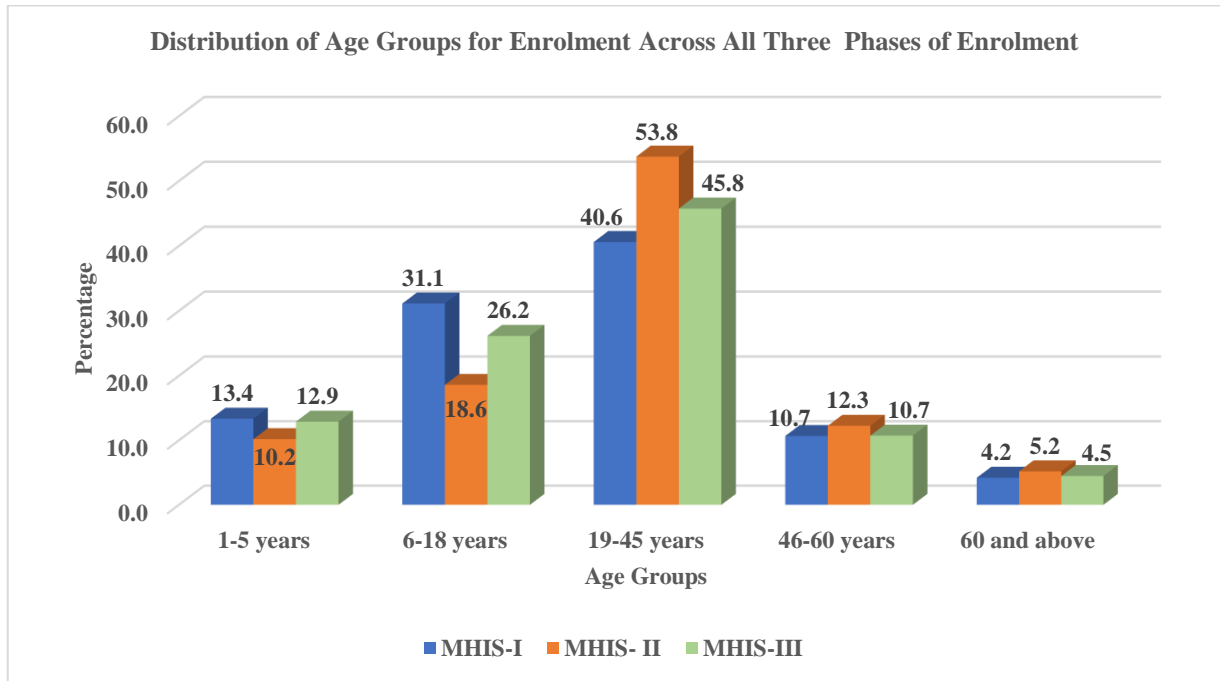
Figure 2.7 shows enrolment in each MHIS phase disaggregated by district and age groups. The age category of 19-45 years had the highest enrolment in all eleven districts as well as across the three phases of MHIS. In contrast, the elderly population (60 years and above age category) had the least enrolment followed by 1-5 years population in all districts and MHIS phases. Enrolment in age group 19-45 years increased from 40.6% in MHIS I to 53.8% in MHIS II but decreased in MHIS III to 45.8%.

Figure 2. 8: Distribution of Enrolled Individuals by District and Age Groups in MHIS I

Distribution of Enrolled Individuals by District and Age Groups in MHIS I
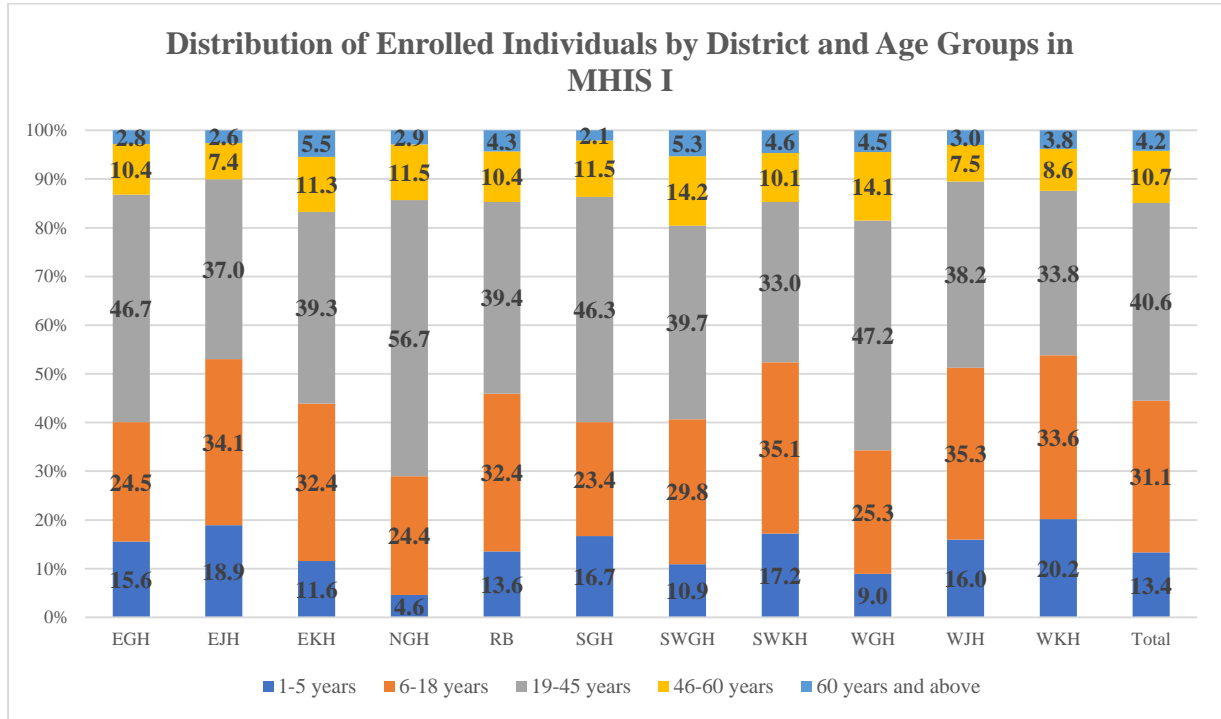
Figure 2. 9: Distribution of Enrolled Individuals by District and Age Groups in MHIS II

Distribution of Enrolled Individuals by District and Age Groups in MHIS II
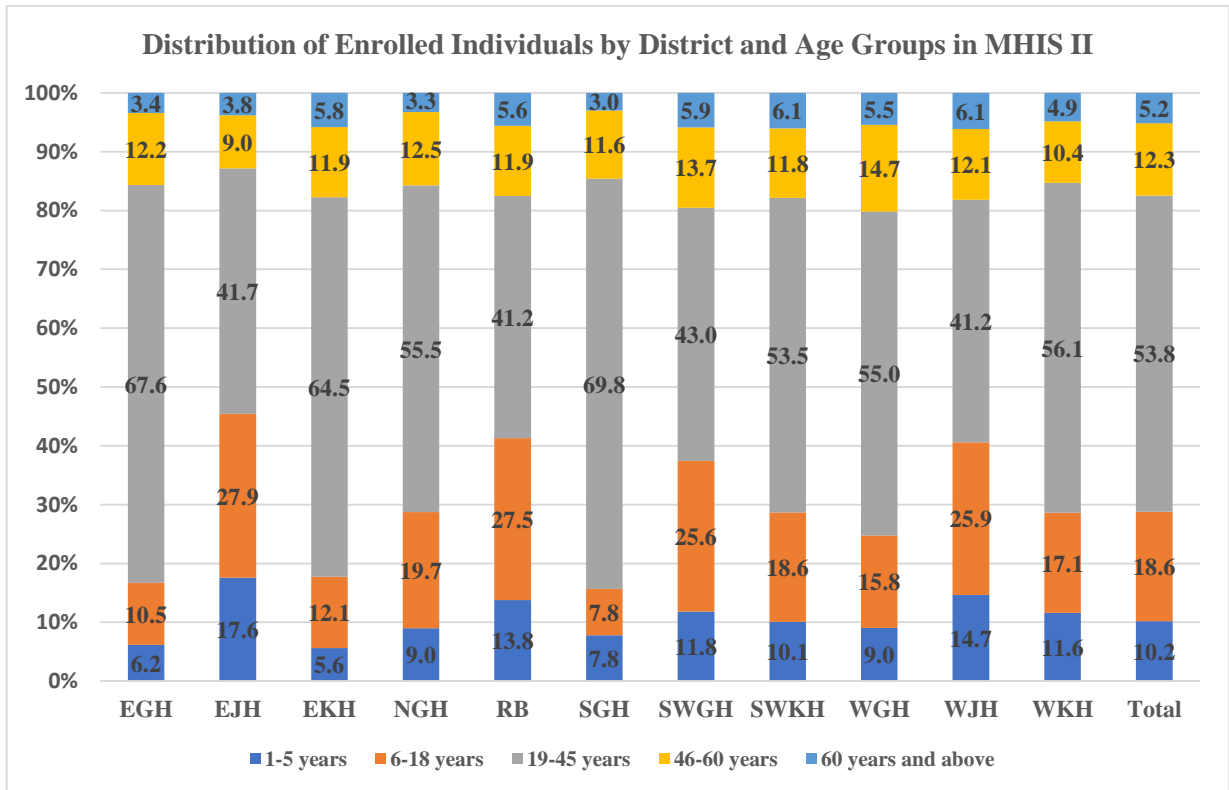
Figure 2. 10: Distribution of Enrolled Individuals by District and Age Groups in MHIS III
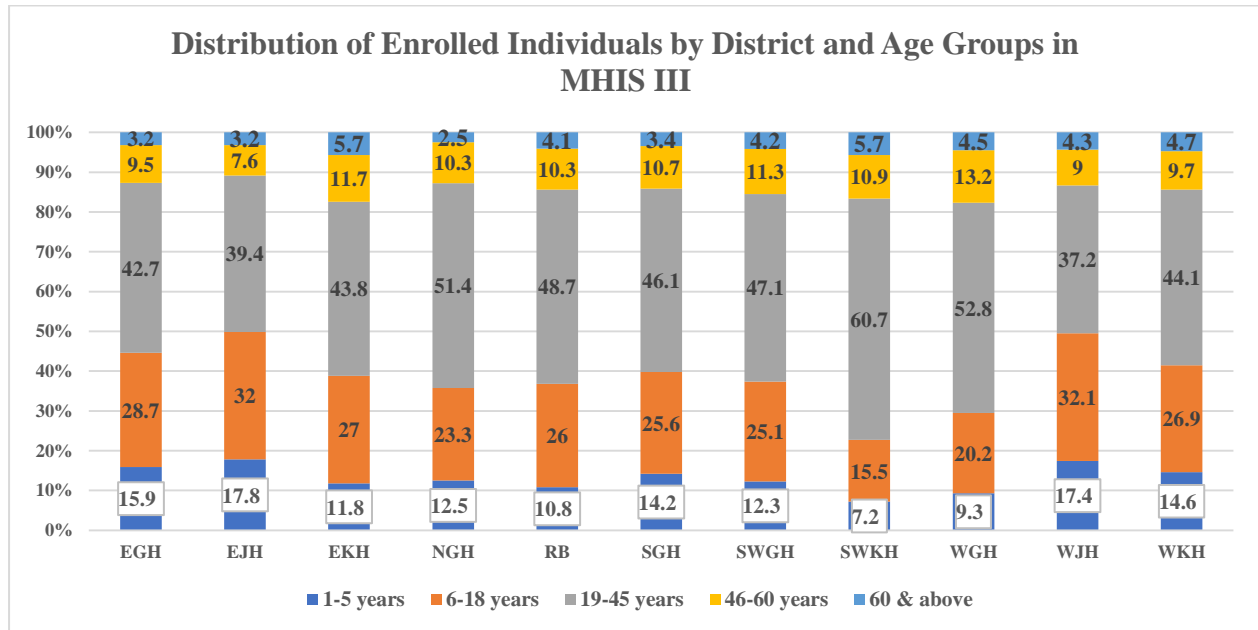
2.8.4 Enrolment by Occupation

There were only three occupational categories during MHIS I: above poverty line (APL), Below Poverty Line (BPL) and Mahatma Gandhi National Rural Employment Guarantee Act (MGNREGA) and these persisted across all three MHIS phases. ASHA workers, building and construction workers, handicraft workers and weavers were added later on in MHIS-II and domestic workers were added in MHIS-III.

Majority of the overall enrolment across each phase of the MHIS were from MGNREGA with 20,74,102 (54%) individuals followed by APL and BPL categories with 13,32,929 (35%) and 3,96,313 (10%) individuals, respectively.

Table 2. 3: Distribution of Enrolled Person by SECC Category and Age Groups: MHIS III

Category/Age Category	1-5 years	6-18 years	19-45 years	46-60 years	60 & above	Total
BPL	9.9	10.0	9.0	10.0	10.9	9.6
BOCW	0.6	0.6	0.5	0.3	0.1	0.5
State APL	27.1	27.9	30.2	29.3	30.5	29.1
Domestic Workers	0.1	0.1	0.1	0.1	0.0	0.1
MGNREGA	61.4	60.6	59.5	60.0	58.3	60.0
Weavers	0.2	0.2	0.2	0.1	0.1	0.2
Handicraft Workers	0.1	0.1	0.1	0.1	0.0	0.1
ASHA Workers	0.6	0.5	0.5	0.2	0.1	0.5

2.8.5 Summary of Patterns of Enrolment in MHIS over Time

By examining enrolment data from the inception of MHIS I through MHIS III (2012 to 2018), we observed an increasing pattern in enrolment over time. Enrolment statistics indicate a positive trend for increasing enrolment over time (from 41.01 % in MHIS I to 49.29% in MHIS III). Patterns of enrolment across gender, districts, and occupations remain relatively stable.

2.9   MHIS- Claims

Claims data provide important insights into the health of the population, patterns of disease and ill-health, quality of care, and financial disbursement for health under MHIS. Descriptive statistics were calculated in order to investigate the highest volume claims for service packages, trends in care delivery for maternal health, and the patterns of care delivery across different types of facilities (public, private, CHC/PHC, and tertiary colleges) in the state.

Figure 2. 11: **Number of Claims (Point Of Service) by Length of Hospital Stay for MHIS III**
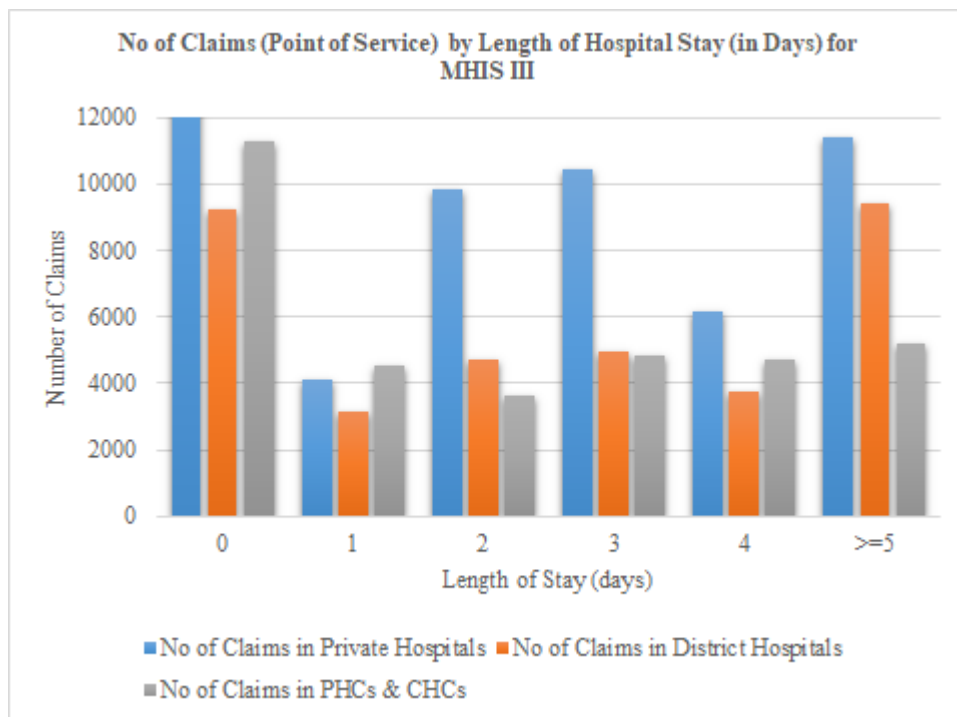
Figure 2. 12: Average Amount of Claims (INR) by Length of Hospital Stay-MHIS III
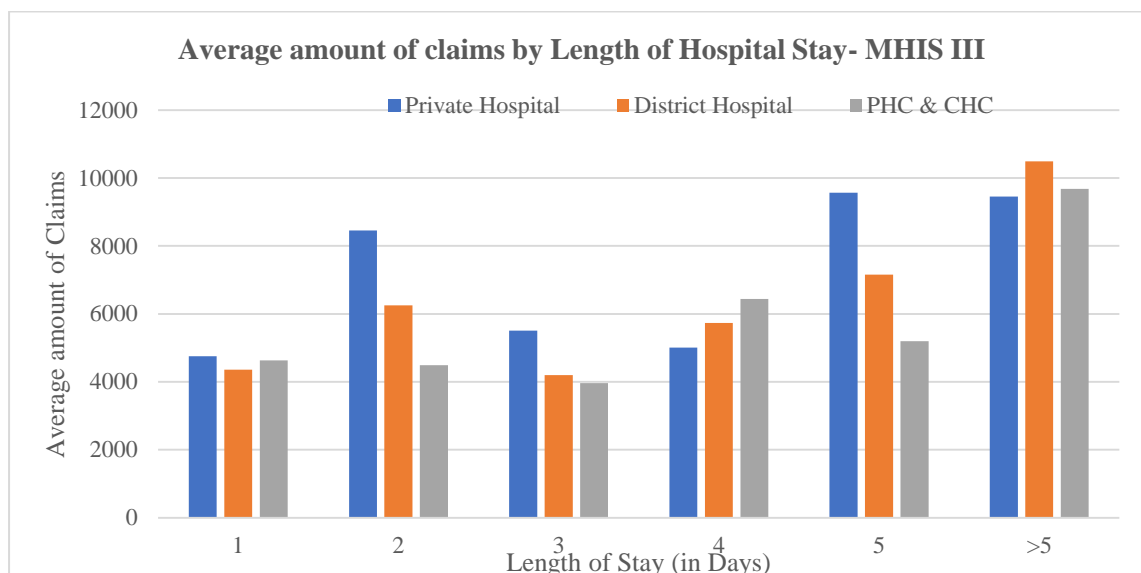
Table 2. 4: Number of Claims Cases[2] by District and by Hospital Type in Meghalaya - MHIS-III

	Hospital Districts	District Hospitals	PHC & CHC	Medical & Research Institutes (NEIGRIHMS & Pasteur)	Private Hospitals	Total Number of Claims
1	East Khasi Hills	8,241	4,631	6,360	49,057	68,289
2	West Khasi Hills	5,193	1,752	-	3,109	10,054
3	South West Khasi Hills	-	2,117	-	-	2,117
4	Ri Bhoi	3,101	5,013	-	3,354	11,468
5	East Jaintia Hills	-	4,406	-	-	4,406
6	West Jaintia Hills[3]	7,108	2,723	-	9,017	18,848
7	West Garo Hills	5,751	1,537	-	4,676	11,964
8	South West Garo Hills	-	4,934	-	-	4,934
9	North Garo Hills	-	4,823	-	-	4,823
10	East Garo Hills	3,253	695	-	-	3,948
11	South Garo Hills	2,764	1,593	-	-	4,357
Total No. of Claims		**35,411**	**34,224**	**6,360**	**69,213**	**1,45,208**
Proportion by Hospital Type		**24.39**	**23.57**	**4.38**	**47.66**	**100**

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[2] Claims cases consists of Point of Service (PoS) claims and Manual claims

[3] In the MHIS III Manual file, there are 186 entries for Jaintia Hills. East or West isn't specified. The calculations match the table only if we consider these 186 Jaintia Hills entries as belonging to West Jaintia Hills.

Table 2. 5: Amount Claimed by District and by Hospital Type in and Outside Meghalaya - MHIS-III (in INR)

Location of Service Provider (Hospital District)	District Hospitals in Meghalaya		PHC & CHC		Medical & Research Institutes (NEIGRIHMS & Pasteur)		Private Hospitals in Meghalaya		
	PoS	Manual	PoS	Manual	PoS	Manual	PoS	Manual	Total
East Khasi Hills	6,24,03,878	19,23,780	2,48,27,768		1,80,96,798	1,13,05,444	25,01,99,965	17,15,63,496	54,03,21,129
West Khasi Hills	2,83,65,175		99,28,348				1,16,54,903		4,99,48,426
South West Khasi Hills			69,23,934						69,23,934
Ri Bhoi	1,03,98,817	1,41,677	2,22,05,615	5,50,011			1,70,93,836	28,50,688	5,32,40,644
East Jaintia Hills			1,25,15,571						1,25,15,571
West Jaintia Hills	2,51,84,928		97,60,370				4,95,11,036	20,66,786	8,65,23,120
West Garo Hills	3,25,04,390	45,939	54,44,467				3,33,70,028	2,81,904	7,16,46,728
South West Garo Hills			2,07,04,455	17,605					2,07,22,060
North Garo Hills			2,13,28,585						2,13,28,585
East Garo Hills	2,15,75,185	58,618	48,78,805						2,65,12,608
South Garo Hills	99,70,408		59,30,089						1,59,00,497
Claims made in Meghalaya (Rs)	**19,25,72,795**		**14,50,15,623**		**2,94,02,242**		**53,85,92,642**		90,55,83,302
Claims Share by Hospital Type (%)	**21**		**16**		**3**		**59**		**100**
Claims made Outside Meghalaya (all Private Hospitals)-(Rs)									4,26,68,648
Total Claims - MHIS-III (Rs)									**94,82,51,950**

Figure 2. 13: Number of Claims and Amount Claimed (Share in %)-MHIS III
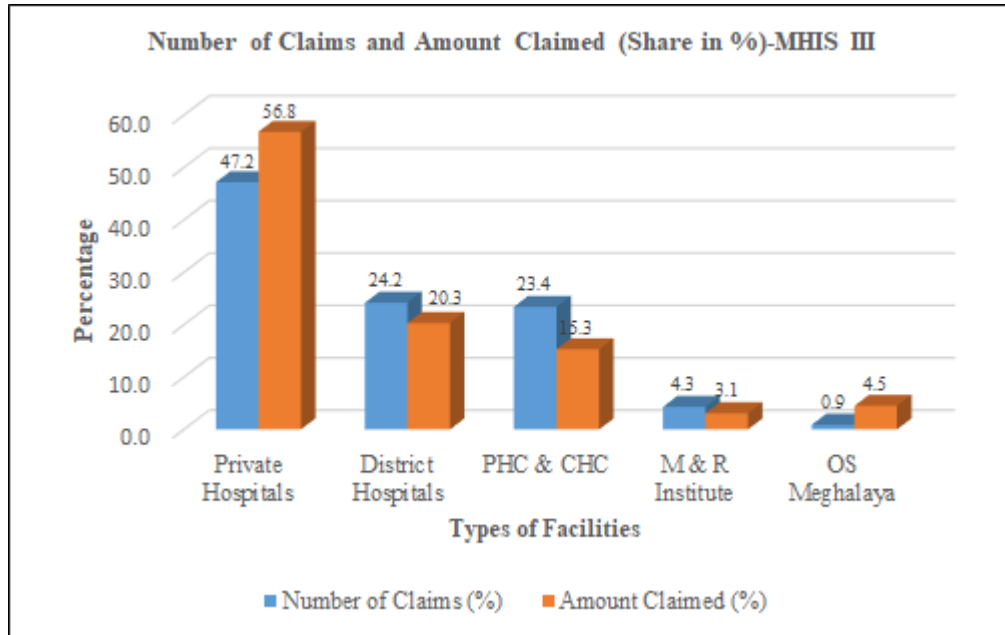
Figure 2. 14: Distribution of Number of claims by top fifteen packages in MHIS II and MHIS III
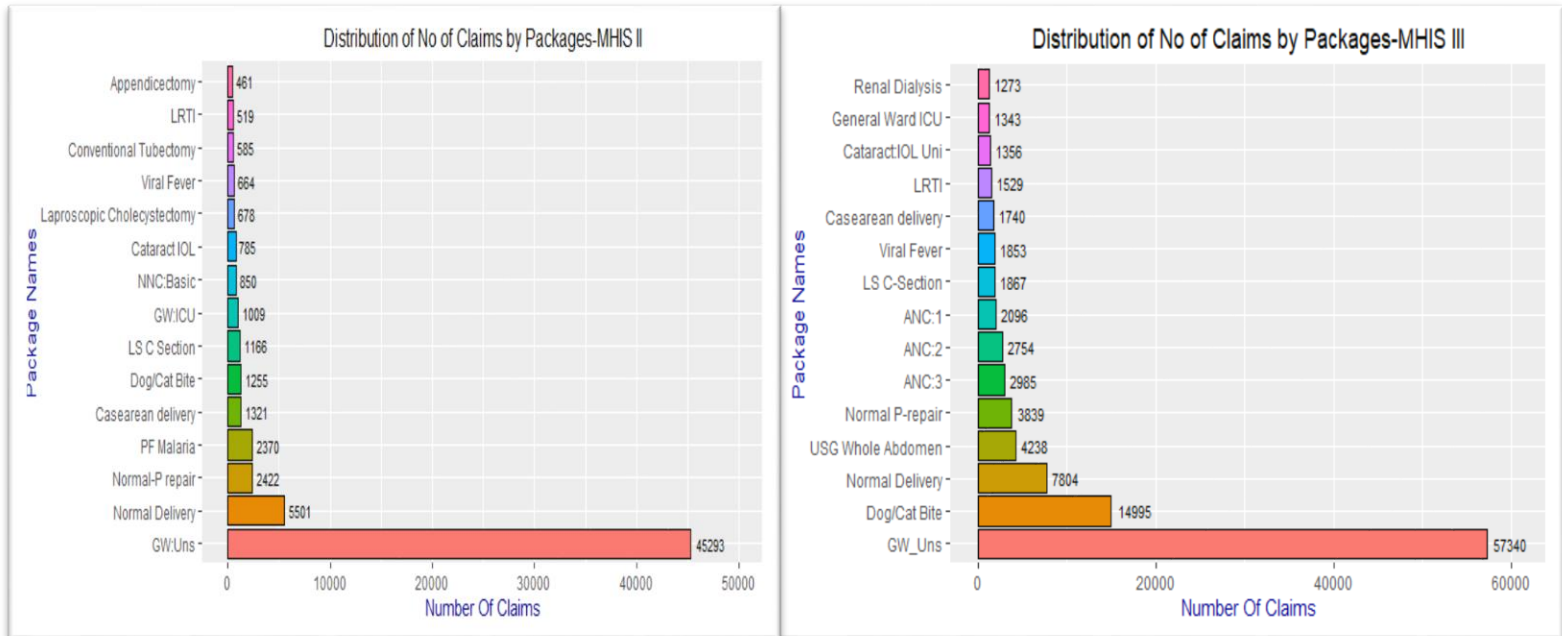
The above table illustrates the total and average amount claimed per package in MHIS II and MHIS III. While the total amount of money claimed appears to be highest for the General Ward Unspecified package in both MHIS II and III, the average amount is the highest for packages like Laparoscopic Cholecystectomy and Caesarean delivery in MHIS II and Laparoscopic Cholecystectomy and Neonatal Care in MHIS III.

Figure 2. 15: Distribution of Total Amount Claimed (in INR) by Top Fifteen Packages in MHIS II and MHIS III
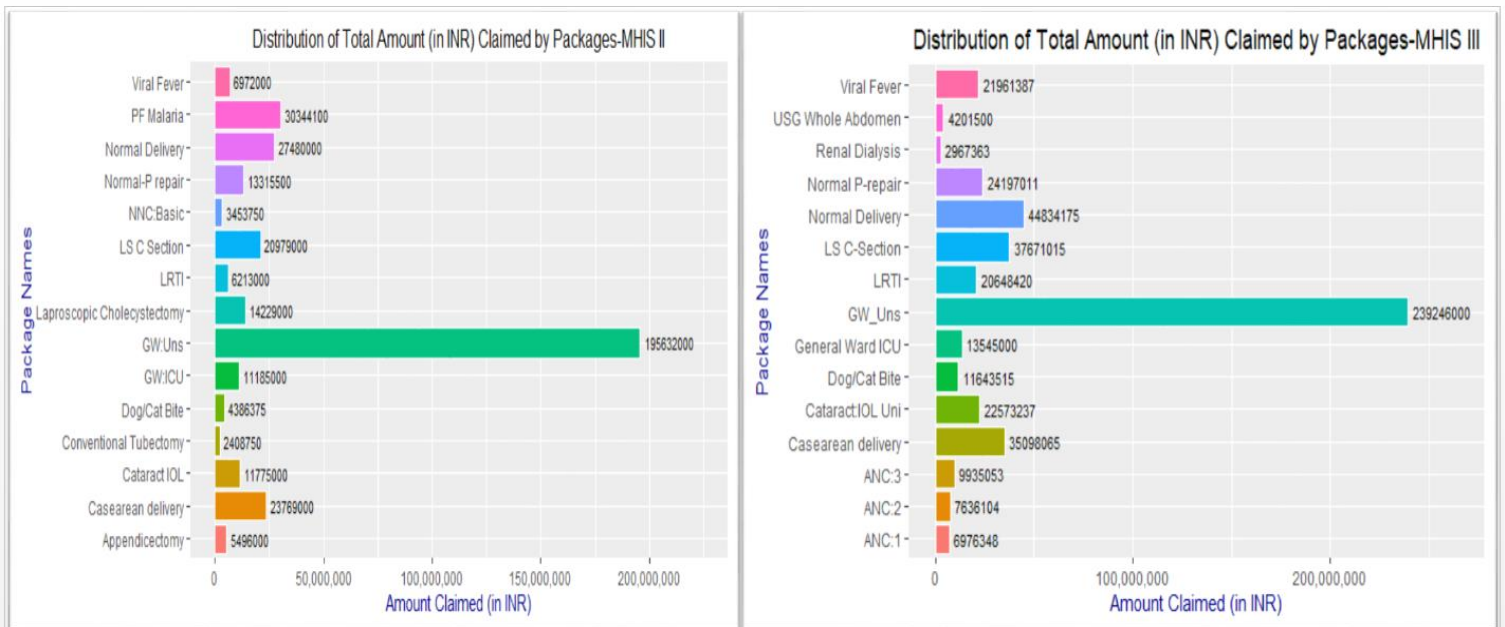
Figure 2. 16: : Distribution of Average Amount Claimed (in INR) by Top Fifteen Packages in MHIS II and MHIS III
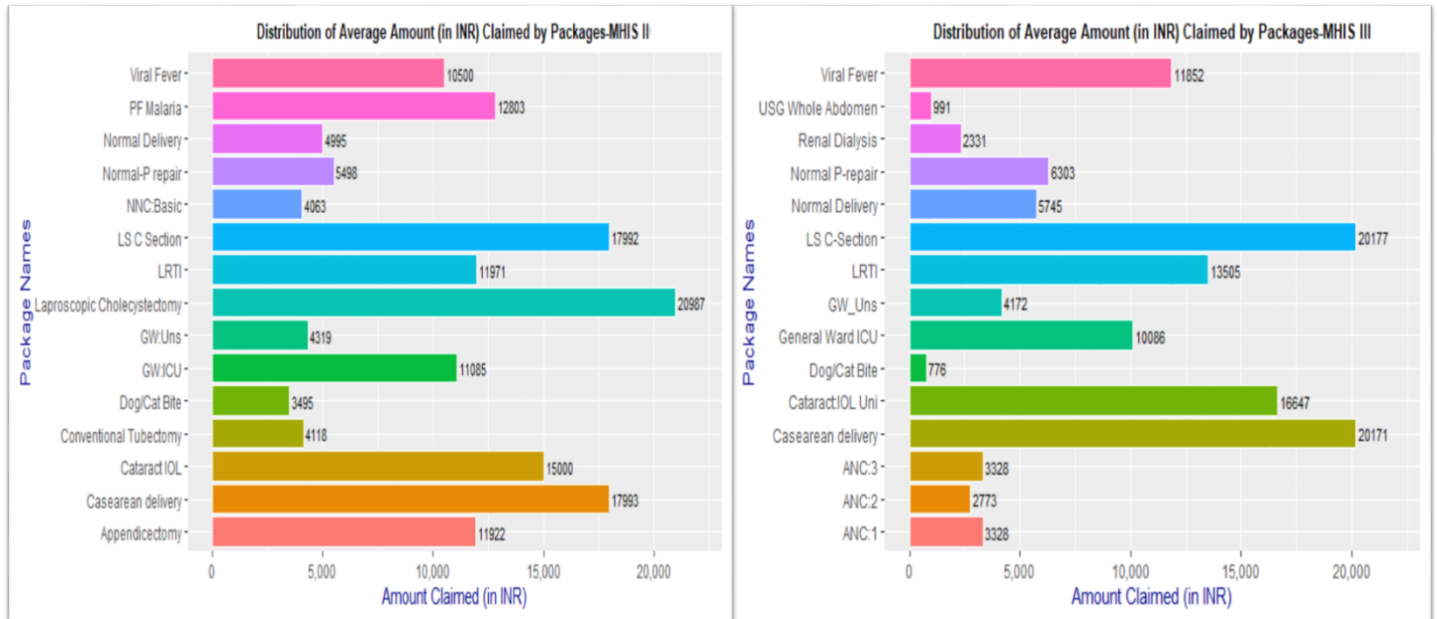
Table 2. 6: Distribution of Length of Stay in Each Category of Hospital in MHIS II and MHIS III

MHIS II						MHIS III					
	Type of Hospital						Type of Hospital				
Length of Stay (in Days)	Medical Institute	Private in Meghalaya	Private outside Meghalaya	Public in Meghalaya	Totals	Length of Stay (in Days)	District Hospital	M & R Institutes	PHC & CHC	Private Hospital	Totals
0	-	-	-	-	-	0	5,746	3,273	9,712	10,976	**29,707**
1	47	2,335	-	5,878	**8,260**	1	2,910	66	4,482	3,611	**11,069**
2	106	5,748	-	6,004	**11,858**	2	4,089	136	3,014	8,252	**15,491**
3	73	7,412	-	7,062	**14,547**	3	4,629	139	4,619	8,095	**17,482**
4	88	3,566	-	5,496	**9,150**	4	3,393	135	4,002	5,491	**13,021**
≥5	411	8,057	6	12,984	**21,458**	≥5	7,446	604	3,483	8,708	**20,241**
Totals	725	27,118	6	37,424	65,273	Totals	28,213	4,353	29,312	45,133	1,07,011

As can be noted from the table above, utilisation of private hospitals increased from 41.5% in MHIS II to 42.2% in MHIS III. Almost 27.8% of the claimants in MHIS III reported not staying in the hospital while 16.3% were admitted for 3 days.

Figure 2. 17: Distribution of Length of Stay in each category of hospital in MHIS II and MHIS III
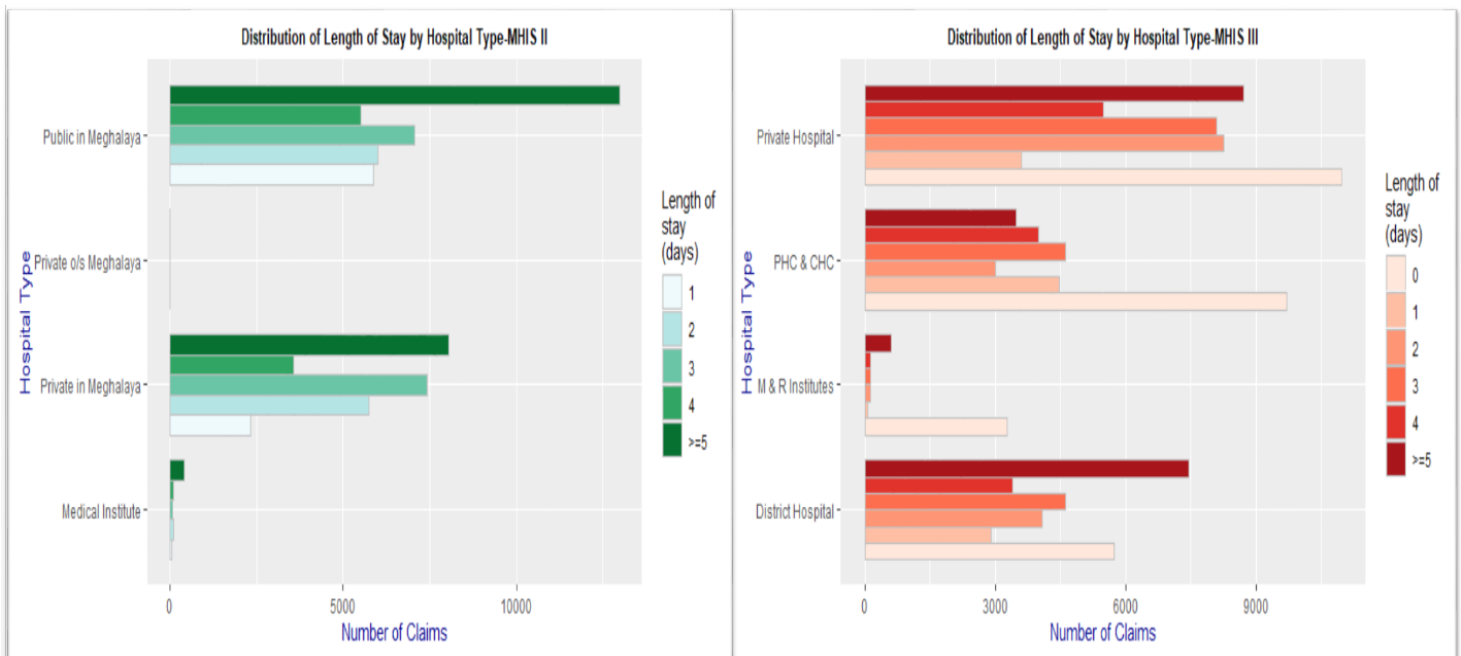
Table 2. 7: Distribution of Length of Stay by Top Fifteen Packages Claimed in MHIS II and MHIS III

MHIS III							MHIS II					
	Length of Stay (In Days)							Length of Stay (In Days)				
Package Name	0	1	2	3	4	>=5	Package Name	1	2	3	4	>=5
ANC:1	2,096	-	-	-	-	-	Appendectomy	-	5	-	-	-
ANC:2	2,754	-	-	-	-	-	Casearean delivery	-	1,321	-	-	-
ANC:3	2,985	-	-	-	-	-	Cataract IOL	2	-	-	-	783
Casearean delivery	-	-	1,740	-	-	-	Conventional Tubectomy	-	585	-	-	-
Cataract:IOL Uni	1,356	-	-	-	-	-	Dog/Cat Bite	1	-	-	-	1,254
Dog/Cat Bite	14,995	-	-	-	-	-	General Ward ICU	96	225	202	112	374
General Ward ICU	1	164	347	242	170	419	General Ward Unspecified	2,660	8,551	10,221	8,370	15,491
General Ward Unspecified	9	3,101	11,537	13,401	10,998	18,293	Laproscopic Cholecystectomy	-	-	-	-	678
LRTI	-	-	-	-	-	1,529	LRTI	-	-	-	-	519
LS C-Section	-	-	1,867	-	-	-	LS C Section	-	1,166	-	-	-
Normal Delivery	-	7,804	-	-	-	-	Neonatal Care:Basic	-	-	1,700	-	-
Normal P-repair	-	-	-	3,839	-	-	Normal-P repair	-	-	2,422	-	-
Renal Dialysis	1,273	-	-	-	-	-	Normal Delivery	5,500	1	-	-	-
USG Whole Abdomen	4,238	-	-	-	-	-	PF Malaria	1	4	2	4	2,359
Viral Fever	-	-	-	-	1,853	-	Viral Fever	-	-	-	664	-

Figure 2. 18: Distribution of Length of Stay by top fifteen packages claimed in MHIS II and MHIS III
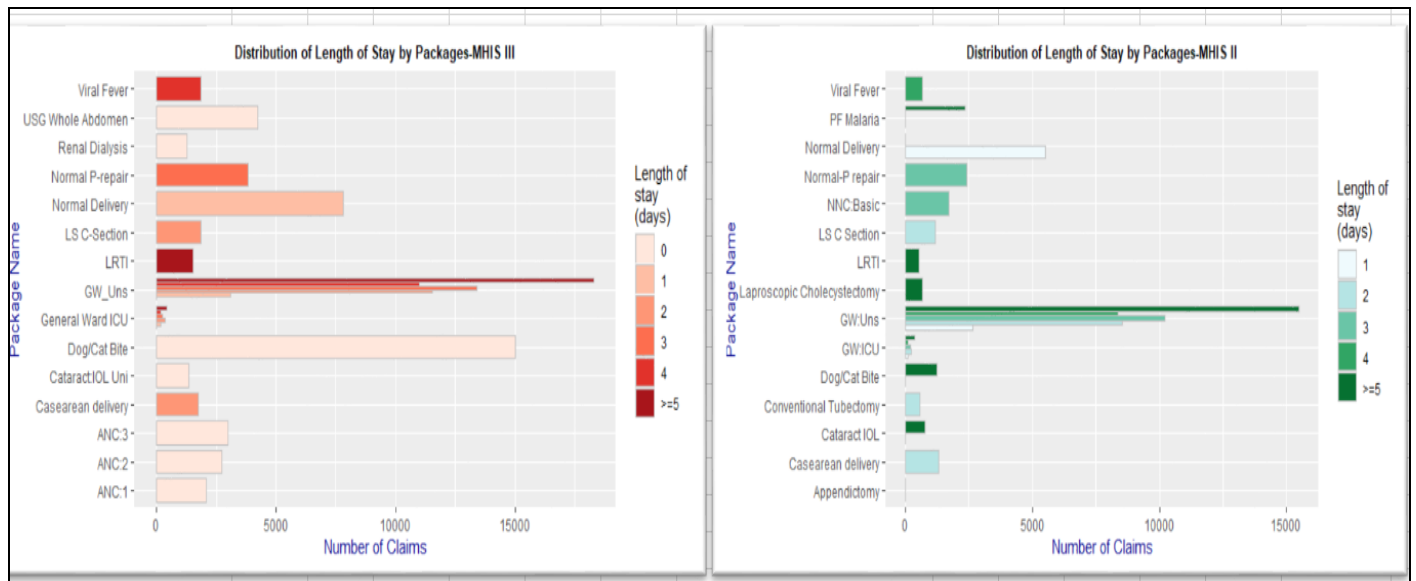
The figure above depicts the distribution of length of hospital stay (in days) across the top fifteen packages claimed in both MHIS II and MHIS III. As can be noted from the table for MHIS III, the claimants for ante-natal care visits, dog or cat bites, renal dialysis, cataract and ultrasound do not stay back in the hospital whereas almost 31.9 % of the General Ward Unspecified package claims mention staying admitted in the hospital for 5 days or more. Even in MHIS II, 34 % of the claims for General Ward Unspecified have also reported staying for 5 days or more.

Table 2. 8: Distribution of Length of Stay by top fifteen packages claimed in each category of hospital in MHIS II

Package Name/	Public Hospitals					Medical Institutes					Private Hospitals					Private Hospitals o/s Meghalaya				
Length of Stay (in	1	2	3	4	>=5	1	2	3	4	>=5	1	2	3	4	>=5	1	2	3	4	>=5
Appendictomy	-	-	-	-	-	-	-	-	-	-	-	5	-	-	-	-	-	-	-	-
Casearean delivery	-	486	-	-	-	-	64	-	-	-	-	771	-	-	-	-	-	-	-	-
Cataract IOL	-	-	-	-	1	-	-	-	-	4	2	-	-	-	778	-	-	-	-	-
Conventional Tubector	-	304	-	-	-	-	-	-	-	-	-	281	-	-	-	-	-	-	-	-
Dog/Cat Bite	1	-	-	-	1,236	-	-	-	-	-	-	-	-	-	18	-	-	-	-	-
GW:ICU	18	22	18	6	32	-	2	4	10	29	78	201	180	96	313	-	-	-	-	-
GW:Uns	1,916	5,097	5,557	4,871	8,944	18	40	63	76	359	726	3,414	4,601	3,423	6,183	-	-	-	-	5
Laproscopic Cholecys	-	-	-	-	128	-	-	-	-	-	-	-	-	-	549	-	-	-	-	1
LRTI	-	-	-	-	430	-	-	-	-	19	-	-	-	-	70	-	-	-	-	-
LS C Section	-	90	-	-	-	-	-	-	-	-	-	1,076	-	-	-	-	-	-	-	-
NNC:Basic	-	-	18	-	-	-	-	6	-	-	-	-	1,676	-	-	-	-	-	-	-
Normal-P repair	-	-	1,467	-	-	-	-	-	-	-	-	-	955	-	-	-	-	-	-	-
Normal Delivery	3,942	1	-	-	-	29	-	-	-	-	1,529	-	-	-	-	-	-	-	-	-
PF Malaria	1	4	2	4	2,213	-	-	-	-	-	-	-	-	-	146	-	-	-	-	-
Viral Fever	-	-	-	615	-	-	-	-	2	-	-	-	-	47	-	-	-	-	-	-
Totals	5,878	6,004	7,062	5,496	12,984	47	106	73	88	411	2,335	5,748	7,412	3,566	8,057	-	-	-	-	6

The table above illustrates that almost 33.9 % of the General Ward Unspecified claims in public hospitals reported to have been admitted for 5 days or beyond whereas the same is true for 33.7% of the claims in private hospitals. It may also be noted that a significantly higher number of people resort to private hospitalisation for packages like Casearean delivery or treating cataract whereas public hospital utilisation is higher for packages like dog/cat bite, normal delivery and malaria.

Figure 2. 19: Distribution of Length of Stay by top fifteen packages claimed in each category of hospital in MHIS II

Table 2. 9: Distribution of Length of Stay by top fifteen packages claimed in each category of hospital in MHIS III

Package Name/ Length of Stay (in Days)	District Hospitals						PHC and CHC						M & R Institutes						Private Hospitals					
	0	1	2	3	4	>=5	0	1	2	3	4	>=5	0	1	2	3	4	>=5	0	1	2	3	4	>=5
ANC:1	266	-	-	-	-	-	1,079	-	-	-	-	-	-	-	-	-	-	-	751	-	-	-	-	-
ANC:2	201	-	-	-	-	-	1,013	-	-	-	-	-	-	-	-	-	-	-	1,540	-	-	-	-	-
ANC:3	115	-	-	-	-	-	1,137	-	-	-	-	-	-	-	-	-	-	-	1,733	-	-	-	-	-
Casearean delivery	-	-	721	-	-	-	-	-	1	-	-	-	-	-	41	-	-	-	-	-	977	-	-	-
Cataract:IOL Uni	26	-	-	-	-	-	-	-	-	-	-	-	17	-	-	-	-	-	1,313	-	-	-	-	-
Dog/Cat Bite	4,812	-	-	-	-	-	6,320	-	-	-	-	-	3,256	-	-	-	-	-	607	-	-	-	-	-
General Ward ICU	-	12	22	9	14	48	1	1	-	5	-	1	-	6	15	20	16	75	-	145	310	208	140	295
GW_Uns	-	1,009	3,209	3,421	2,834	6,616	8	1,050	3,013	3,322	2,958	3,304	-	12	65	119	119	520	1	1,030	5,250	6,539	5,087	7,853
LRTI	-	-	-	-	-	782	-	-	-	-	-	178	-	-	-	-	-	9	-	-	-	-	-	560
LS C-Section	-	-	137	-	-	-	-	-	-	-	-	-	-	15	-	-	-	-	-	-	1,715	-	-	-
Normal Delivery	-	1,889	-	-	-	-	-	3,431	-	-	-	-	48	-	-	-	-	-	-	2,436	-	-	-	-
Normal P-repair	-	-	-	1,199	-	-	-	-	-	1,292	-	-	-	-	-	-	-	-	-	-	-	1,348	-	-
Renal Dialysis	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1,273	-	-	-	-	-
USG Whole Abdomen	326	-	-	-	-	-	154	-	-	-	-	-	-	-	-	-	-	-	3,758	-	-	-	-	-
Viral Fever	-	-	-	-	545	-	-	-	-	-	1,044	-	-	-	-	-	-	-	-	-	-	-	264	-
Totals	5,746	2,910	4,089	4,629	3,393	7,446	9,712	4,482	3,014	4,619	4,002	3,483	3,273	66	136	139	135	604	10,976	3,611	8,252	8,095	5,491	8,708

It may be noted from the table above for MHIS III that almost 38.7% of the General Ward Unspecified claimants in district hospitals have reported their length of stay as being 5 days or more. The same is true for 24.2% of the claimants from PHCs and CHCs and 30.5% of the private hospital claims. While dog and cat bite treatment is concentrated in district hospitals, PHCs CHCs and Medical & Research Institutes, people seem to rely more on the private sector for treatment of cataract, renal dialysis and Casearean delivery. Almost 75.2 % of the claims in Medical and Research Institutes did not include staying or being admitted to the hospital. This could possibly because 74.8 % of the claims were for dog/cat bite. Even in PHCs and CHCs, approximately 33.1% of the claimants have zero days of stay, primarily owing to the fact that most claims in this hospital type pertain to the antenatal care packages and dog/cat bites.

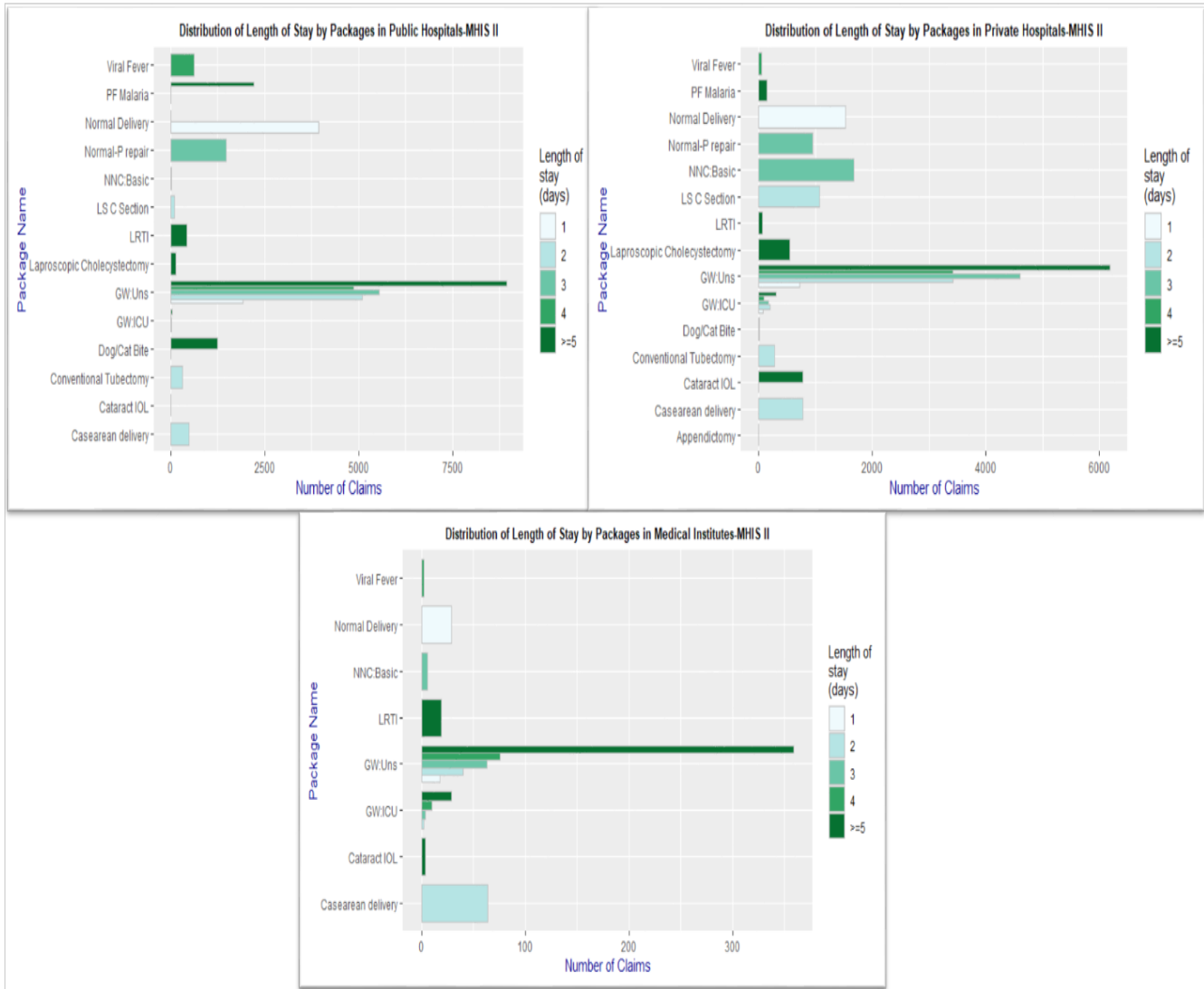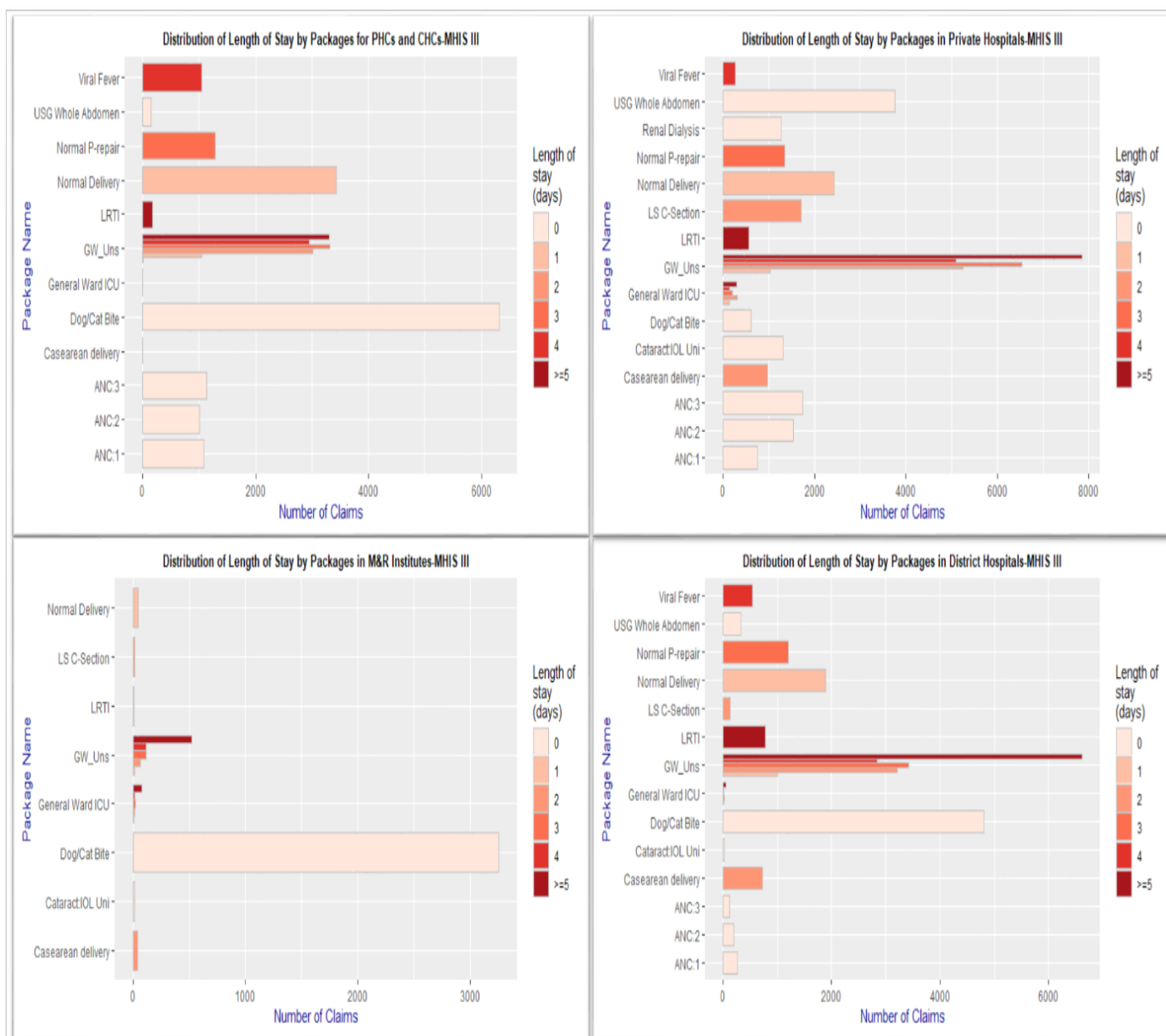**Figure 2. 20: Distribution of length of stay of top fifteen packages claimed in each category of hospital in MHIS III**

40

2.3.1 High Volume Claims

An analysis was undertaken to investigate the highest volume of claims for packages of care under the MHIS. The top ten highest volume packages of care are presented in Table 5.8.

Table 2. 10: Highest Volume Claims under MHIS

MHIS III Packages	Volume of Claims (% of total claims)
General Ward Unspecified[4]	57,340 (42.3)
Dog/Cat Bite subjected to completion of 5 injections plus dressing (₹ 777 Per Injection Plus Dressing)	14,995 (11.1)
Normal Delivery	7,804 (5.8)
Ultrasound Sonography Test	4,238 (3.1)
Normal delivery with episiotomy and P repair	3,839 (2.9)
3rd ANC check-up(USG Screening blood test medicines) 1 Visit	2,985 (2.2)
2nd ANC check-up(USG Screening medicines) 1 Visit	2,754 (2.0)
1st ANC check-up (USG Blood test medicines) 1 Visit	2,096 (1.5)
Lower Segment Caesarean Section	1,867 (1.4)
Viral Fever	1,853 (1.4)
Others	35,899 (26.3)
Total	**1,35,670**

In comparison to MHIS II and MHIS I, use of the 'General Medical Ward' package has incrementally decreased as a proportion of total claims (as shown in figure 2.21.). However, raw frequency of 'General Ward' package has increased incrementally from ~25000 t0 ~50,000 (as shown figure 2.22).

An analysis of the Discharge Descriptions for General Medical Ward package in MHIS III reveals that almost 21% of the claims accrue to acute gastroenteritis while almost 13% are for acute respiratory tract infections. An analysis of the Discharge Descriptions for General Medical Ward package in MHIS III shows that the few of the highest volume claims accrue to acute gastroenteritis with moderate dehydration, acute respiratory tract infections including upper and lower respiratory tract infections, recurrent vomiting with dehydration, typhoid and viral fever, urinary tract infections, reproductive and child health, dysentery, accelerated hypertension, auditory processing disorders, scrub typhus and cancer.

Challenges encountered while cleaning 'General Ward Unspecified' data

As discussed 'General ward unspecified' was the category accruing highest claims, it was necessary to investigate what 'conditions' were included under this head. This information was extracted by investigating the discharge certificates, data of which were entered manually. In absence of coding and errors related to manual entry, such as typographic error, variations in way an information has been entered, difference in case used, etc., we had to examine each row and extract data from them manually.

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[4] If a medical condition requiring hospitalization has not been envisaged under the "General Medicine" list then a pre-authorization can be sought as "General Ward Unspecified".

This posed additional challenge in analysing the data in terms of time, personnel time and efforts and also potential errors. Below are some of the screenshots of 'errors' that were encountered while extracting these data.   a) & b) Variations in entering information related to conditions, ANC and abdominal pain, c) & d) case of alphabets variation in gastritis and UTI

a

VKS WITH APD
eeks prenancy incomplete abortion
14wks Preg with URTI
15 weeks GA with dysentry
15 weeks Pregnancy with Enteric fever
15 WEEKS PREGNANCY WITH SMALL FOR DATES
16 iv pregnancy with acute acute pancreatiti
16 Pregnancy
16 week pregnancy
16 week Pregnancy
16 WEEKS GESTATION WITH LOW LYING PLACENTA
16 weeks pregnancy
16 WEEKS PREGNANCY LEAKING PV HYPOTHYROIDISM
16 WEEKS PREGNANCY WITH THREATENED ABORTION
16 weeks pregnancy with u t i
16 WKS GRAND MULTI GRAVIDA 3DAYS PREGNANCYPUO
16 wks pregnancy
16 wks pregnancy
16 WKS PREGNANCY WITH AGE
16 wks Pregnancy with UTI
16 YEARS OLD FEMALE WITH RIGHT ADNEXAL MASS
17wksofPregnancyKeptforObservation
18 weeks pragnancy with Anaemia

b

3D DESTENSION
3D fullnes with AGE
Abd fullness
Abd koch ATT
ABD LYMPHANEPATHY WITH EVALN
ABD PAIN
ABD PAIN
Abd pain
Abd pain
Abd TB ON DOTS
ABD with Adenopathy
ABDMINAL PAIN
Abdomen
ABDOMEN CALVIC TV FEVER
Abdomen Colic with APD
ABDOMEN KOCHS
ABDOMEN KOCHS CAT II
Abdomen pain acidity loose of stool and vomit
Abdomen pain and weakness
Abdomen pain and weakness
abdomen pain weakness
ABDOMENAL PAIN AND DIARRHOEA
abdoment mass neuroblastoma

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Table 2. 11: List of top fifteen conditions categorized under 'General ward unspecified'

Sr. no.	Discharge description	Frequency*	%
1	Acute gastroenteritis	4510	20.5
2	Acute respiratory infection	2801	12.8
3	Typhoid fever	1991	9.1
4	Viral fever	1805	8.2
5	Lower respiratory infection	1443	6.6
6	Urinary tract infection	1392	6.3
7	Acute febrile infection	1288	5.9
8	Scrub typhus	1232	5.6
9	Malaria	1013	4.6
10	Hypertension	875	4.0
11	Upper respiratory infection	789	3.6
12	Acidic peptic disease	722	3.3
13	RCH	709	3.2
14	Fever (unspecified)	693	3.2
15	Cancer (unspecified)	688	3.1

Since the discharge description data was cleaned manually, the frequencies listed are only the approximation and may not be exact

Figure 2. 21: General Medical Ward Claims as a proportion of total claims

General Medical Ward - % of Total Claims
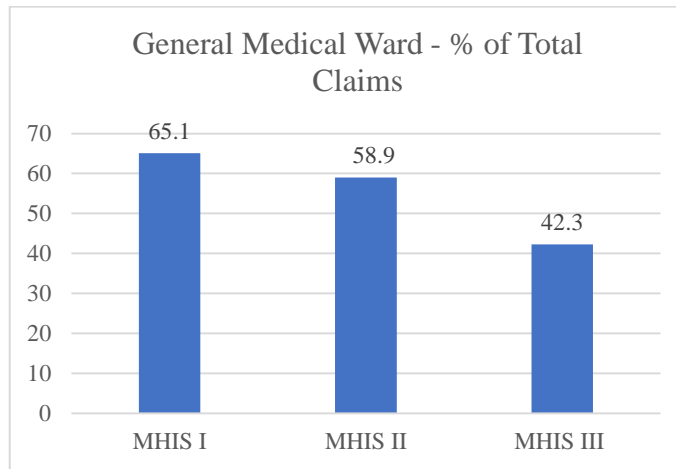
Figure 2. 22: Frequency of claims for general wards data

Frequency of Claims for General Medical Ward
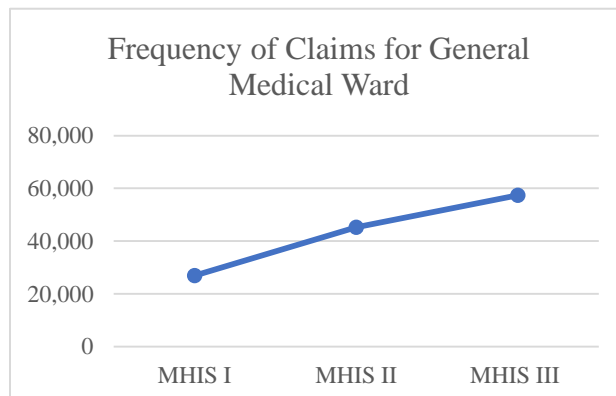
Claims data for this package indicate a high level of variability in care provision and amount claimed under the 'General Ward' package, with a range of ₹ 500 up to ₹ 20,000 (Mean ₹ 4439.073, SD 3543.343). General ward includes both ICU and unspecified cases.

There is a slightly higher proportion of claims made by females (59.3%) under the General Ward Unspecified Package compared to males (40.7%) in MHIS III.   The majority of claimants belonged to the age category of 19-45 years (50.4%), followed by 6-18 years (15.8%).

Table 2. 12: Age-Sex Distribution of Claimants for General Ward Unspecified in MHIS III

Age Groups/ Gender	Female	Male	Total
1-5years	6,058	7,135	**13,193**
6-18 years	5,160	4,289	**9,449**
19-45 years	15,435	6,904	**22,339**
46-60 years	4,684	2,969	**7,653**
61 and Above	2,652	2,053	**4,705**
Age Not Specified	1	-	**1**
Total	**33,990**	**23,350**	**57,340**

Figure 2. 23: Age-Sex Distribution of Claimants for General Ward Unspecified in MHIS III

Age-Sex Distribution of Claimant for General Ward Unspecified-MHIS III
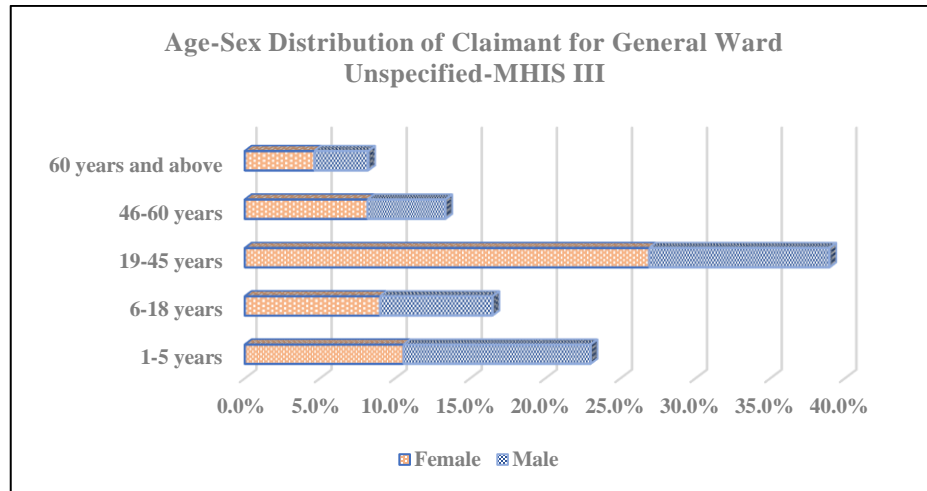
Figure 2. 24: Distribution of Hospital Types Accessed by Claimants for General Ward Unspecified in MHIS III

TYPE OF HOSPITALS ACCESSED FOR THE PACKAGE "GENERAL WARD UNSPECIFIED"-MHIS III

Hospital Type	Value
Private Hospital	25,760
PHC & CHC	13,655
Medical Institute	835
District Hospital os Meghalaya	1
District Hospitals	17,089
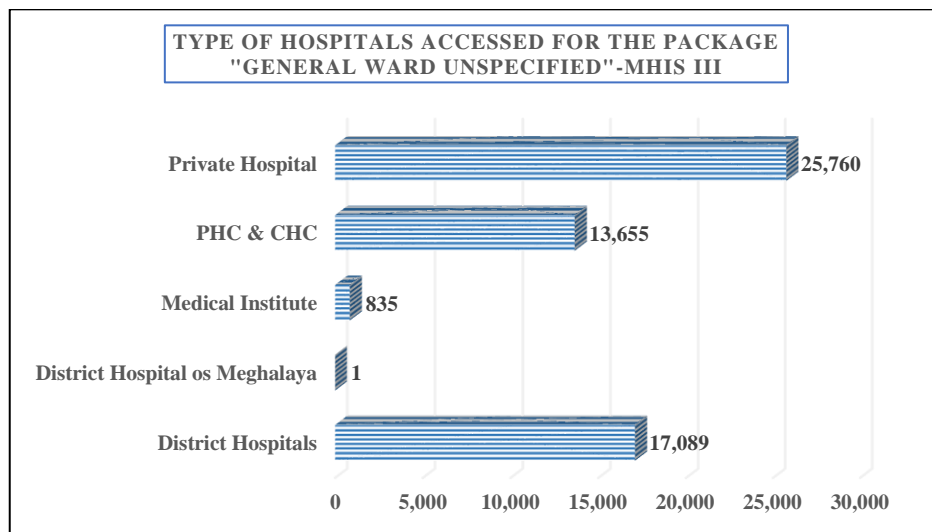
Table 2. 13: Distribution of number of claim by range of claim amount (in INR) for General Ward Unspecified in MHIS III

Amount Claimed (in INR)	N	%
Less than 1,000	3,111	5.4
1,001-4,000	35,946	62.7
4,001-7,000	13,632	23.8
7,001-10,000	2,774	4.8
Above 10,000	1,877	3.3
Totals	**57,340**	**100.0**

Figure 2. 25: Distribution of Amount Claimed (in INR) for General Ward Unspecified in MHIS III

Amount Claimed (in INR) for General Ward Unspecified - MHIS III
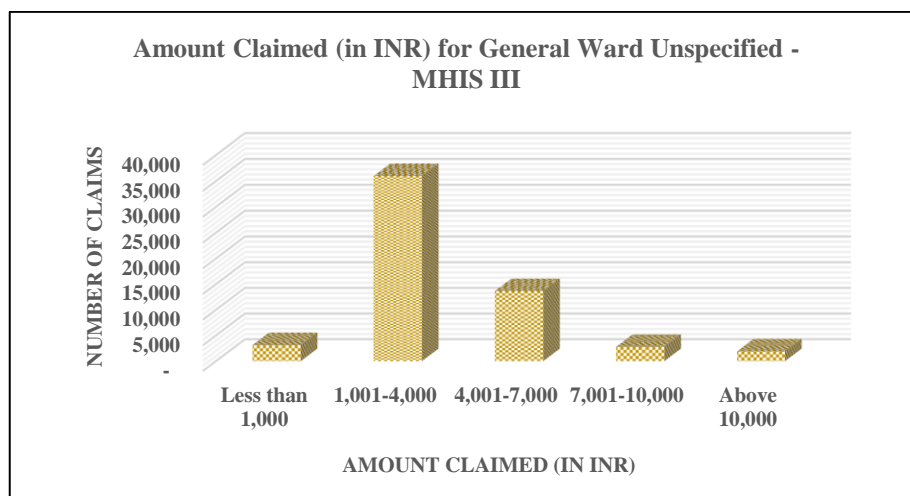
Table 2. 14: Distribution of Average Amount Claimed (in INR) by Hospital Type for General Ward Unspecified in MHIS III

Hospital Type	Average Amount Claimed (in INR)
District Hospitals	4,808.4
District Hospital outside Meghalaya	2,250.0
Medical Institute	7,453.9
PHC & CHC	3,505.5
Private Hospital	3,997.8

Figure 2. 26: Boxplot of Average Amount Claimed (in INR) by Hospital Type for General Ward Unspecified in MHIS III
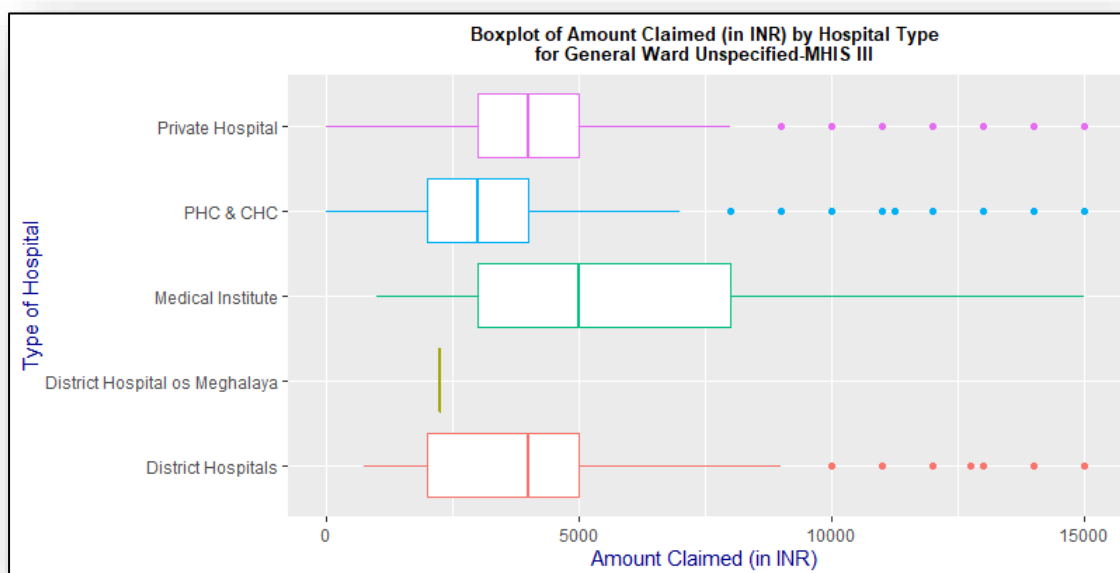
2.3.2 Patterns of claims across districts

Table 2.14 provides a breakdown of the top 10 highest volume claims across each district.

This table illustrates that 25.0 % of all claims made in the East Khasi Hills were for the General Ward package, followed by West Jaintia Hills district (18.0 %). Similarly, 20.0% of all claims made in the East Khasi hills were for the Dog/Cat Bite package, followed by 12.5% in the West Garo Hills district.

2.3.3 Patterns of Claims across Different Types of Facilities

Table 2.15 provides a breakdown of the distribution of claims in MHIS III across the top ten packages by Hospital Type.

Table 2. 15: Distribution of Claims in MHIS III across the top ten packages by Hospital Type (%)

MHIS III Packages/ Hospital Types	District Hospital	PHC & CHC	Private Hospital	Others [5]
General Ward Unspecified	29.8	23.8	44.9	1.5
Normal Delivery	24.2	44.0	31.2	0.6
Dog/Cat Bite subjected to completion of 5 injections plus dressing (₹ 777 Per Injection Plus Dressing)	32.1	42.2	4.1	21.7
Ultrasound Sonography Test - WHOLE ABDOMEN	7.7	3.6	88.7	0.0
Normal delivery with episiotomy and P repair	31.2	33.7	35.1	0.0
3rd ANC check-up(USG Screening blood test medicines) 1 Visit	3.9	38.1	58.1	0.0
2nd ANC check-up(USG Screening medicines) 1 Visit	7.3	36.8	55.9	0.0
1st ANC check-up (USG Blood test medicines) 1 Visit	12.7	51.5	35.8	0.0
Lower Segment Caesarean Section	7.3	0.0	91.9	0.8
Viral Fever	29.4	56.3	14.3	0.0

The majority (44.9%) of claims under the General Ward Unspecified package were made in private hospitals, compared to 29.8% of claims in district hospitals and 23.8% of claims in PHC/CHCs. Among those claims made from a private hospital under the General Ward Unspecified package, 64.01% were from the hospitals of the East Khasi Hills district.

Almost half of all claims made by PHC & CHCs were for the Dog/Cat Bite package (42.1%).

Six of the top ten packages related to pregnancy and delivery. These are Normal Delivery, Normal delivery with episiotomy and perineum repair, 3rd ANC check-up (USG Screening blood test medicines) 1 Visit, 2nd ANC check-up (USG Screening medicines) 1 Visit, 1st ANC check-up (USG Blood test medicines) 1 Visit and Lower Segment Caesarean Section.

2.4 Deep Dive: Examining Maternity Care Claims

Claims for availing Ultrasound /ultrasonography were mostly aggregated in private hospitals (88.7%), 89% of which were conducted in the East Khasi Hills district, which also houses the state capital. Furthermore, 58.1% of claims for the 3rd ANC check-up were made by a private hospital, compared to 35.8% for the first ANC check-up. 91.9% of all claims for a lower Segment Caesarean were made in a private hospital.

Given that over half of the top ten high volume packages were related to maternal services, a deep-dive was undertaken in relation to maternity care claims. Analysis of MHIS claims data for maternal care can

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[5] Research and Medical Institutes

provide useful insights into the quality of maternal care practices in the State, with maternity care being one of the highest volume services claims for under MHIS. Table 2.16 shows the distribution of volume of claims across the different maternal care packages.

Table 2. 16: Distribution of Highest Volume of Maternity Care Claims

MHIS III Maternal Packages	Volume of maternal care claims	(% of total maternity claims)
Normal Delivery	7,804	29.3
Normal delivery with episiotomy and P repair	3,839	14.4
Lower Segment Caesarean Section and Caesarean delivery	3,607	13.5
3rd ANC check-up (USG Screening blood test medicines) 1 Visit	2,985	11.2
2nd ANC check-up (USG Screening medicines) 1 Visit	2,754	10.3
1st ANC check-up (USG Blood test medicines) 1 Visit	2,096	7.9
D&C (Dilatation & curettage) and D&C (Dilatation & curettage) up to 8 weeks	966	3.6
Conventional Tubectomy	821	3.1

Approximately half of all maternal care claims were made for normal delivery (with or without episiotomy) (43.7%), compared to 13.5% caesarean section delivery. This is broadly in line with international best practice, which recommends   vaginal delivery for all births unless contraindicated or in emergency circumstances (21). As expected, majority of all claims made under "Normal Delivery" package are for those within the 19-45 years age group (97.4%). Of the total number of claims made under the 'Normal Delivery' package, 43.9% were made from PHC & CHC facilities, with 31.2% claimed from private hospitals. There was an almost equal distribution of claims for normal delivery with episiotomy between CHC and PHC (33.7%) and private facilities (35.1%). Approximately 26% of all maternal care claims were made within the East Khasi Hills district, with the second highest maternal care claims made in the West Jaintia Hills district (17.3%), as shown in Table 2.17.

Table 2. 17: Distribution of Volume of Maternity Care Claims by Member Districts

Member Districts	Volume of Maternal Care Claims (% of Total Maternity Claims)
East Khasi Hills	6827 (25.6)
West Jaintia Hills	4599 (17.3)
Ri Bhoi	3491 (13.1)
West Khasi Hills	2800 (10.5)
East Jaintia Hills	2685 (10.1)
South West Garo Hills	1928 (7.2)
West Garo Hills	1713 (6.4)
South West Khasi Hills	792 (3.0)
South Garo Hills	788 (3.0)
North Garo Hills	715 (2.7)
East Garo Hills	438 (1.6)

Figure 2. 27: Graphical Representation of Age-Sex Distribution of Enrolment and Claims in MHIS I, MHIS II and MHIS III
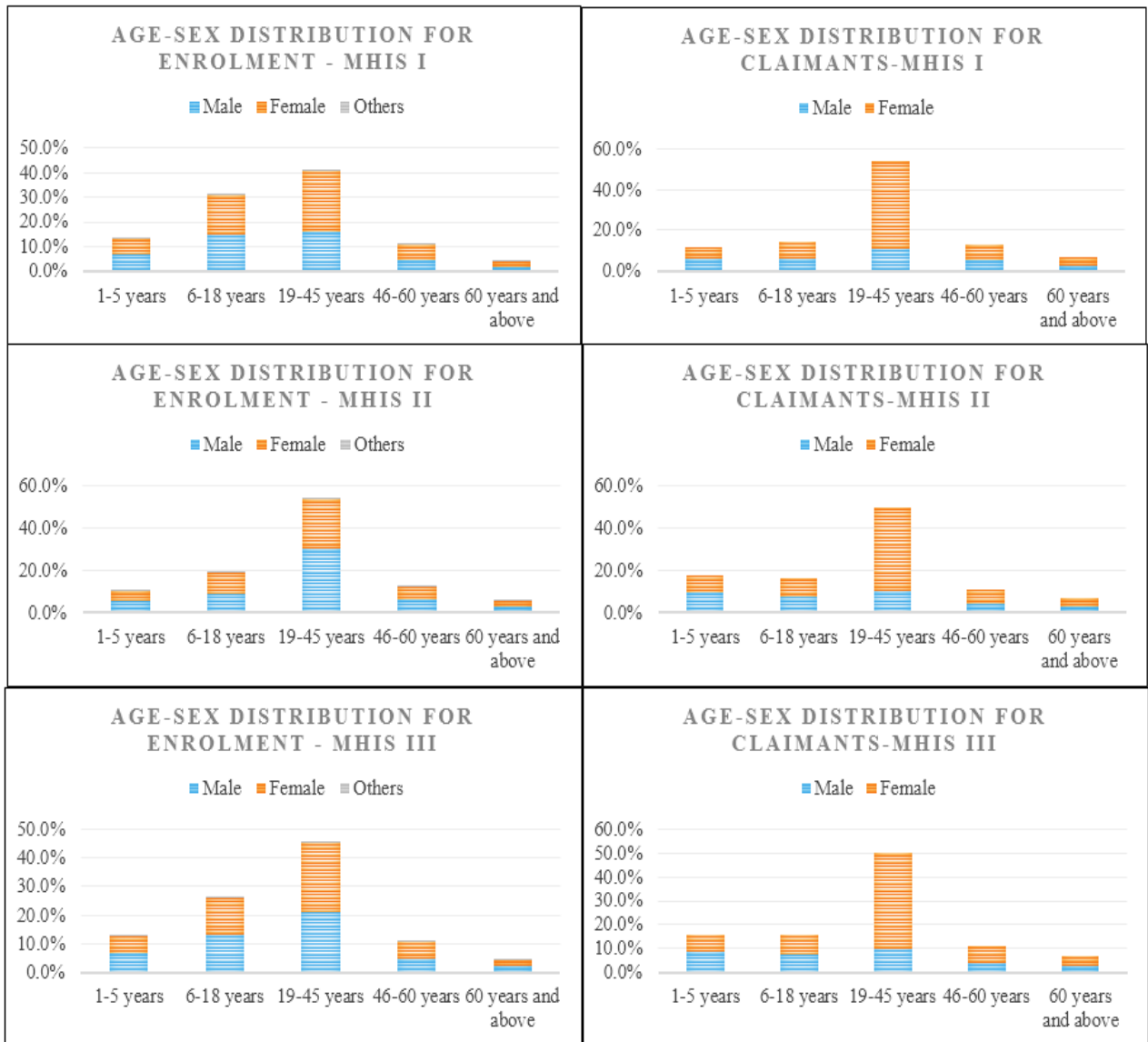
Table 2. 18: Tabular Representation of Age-Sex Distribution of Enrolment and Claims in MHIS I, MHIS II and MHIS III

Age-Sex Distribution for Enrolment in MHIS I

Age Groups	Male	Female	Others	Total
1-5 years	6.7%	6.7%	0%	13.4%
6-18 years	15.1%	16.0%	0%	31.1%
19-45 years	16.3%	24.3%	0.1%	40.6%
46-60 years	4.7%	5.9%	0%	10.7%
60 years and above	1.9%	2.3%	0%	4.2%
Total	44.7%	55.2%	0.1%	100%

Age-Sex Distribution for Claims in MHIS I

Age Groups	Male	Female	Total
1-5 years	5.9%	5.5%	11.4%
6-18 years	6.4%	8.1%	14.5%
19-45 years	10.8%	43.3%	54.0%
46-60 years	5.2%	7.9%	13.0%
60 years and above	3.0%	4.0%	7.0%
Total	31.3%	68.7%	100%

Age-Sex Distribution for Enrolment in MHIS II

Age Groups	Male	Female	Others	Total
1-5 years	5.2%	5.0%	0%	10.2%
6-18 years	9.0%	9.5%	0%	18.6%
19-45 years	29.9%	23.7%	0.2%	53.8%
46-60 years	6.4%	5.8%	0%	12.3%
60 years and above	2.8%	2.4%	0%	5.2%
Total	53.3%	46.4%	0.3%	100%

Age-Sex Distribution for Claims in MHIS II

Age Groups	Male	Female	Total
1-5 years	9.3%	7.9%	17.2%
6-18 years	7.3%	8.6%	15.9%
19-45 years	10.1%	39.3%	49.4%
46-60 years	4.1%	6.7%	10.9%
60 years and above	2.8%	3.8%	6.6%
Total	33.6%	66.4%	100%

Age-Sex Distribution for Enrolment in MHIS III

Age Groups	Male	Female	Others	Total
1-5 years	6.6%	6.2%	0.0%	12.9%
6-18 years	13.0%	13.1%	0.0%	26.2%
19-45 years	21.2%	24.4%	0.2%	45.8%
46-60 years	4.8%	5.9%	0%	10.7%
60 years and above	2.0%	2.4%	0%	4.5%
Total	47.7%	52.0%	0.3%	100%

Age-Sex Distribution for Claims in MHIS III

Age Groups	Male	Female	Total
1-5 years	8.6%	7.0%	15.6%
6-18 years	7.5%	8.3%	15.8%
19-45 years	10.0%	40.4%	50.4%
46-60 years	4.1%	7.0%	11.1%
60 years and above	3.0%	4.1%	7.1%
Total	33.2%	66.8%	100%

2.5 Claims Data Analysis: Summary and Conclusions

The MHIS claims data serve as a useful source of rich information on the health of the Meghalaya population, and the functioning of the health insurance system. The primary trends observed in the data indicate that the "General Medical' package which includes treatment services for acute gastroenteritis with moderate dehydration, recurrent vomiting with dehydration, dysentery, severe anaemia, accelerated hypertension, etc. is being used as a cover-all for a very wide range of health problems, obscuring information on the true health of the population and of the quality of care provision. There also appears to be a high rate of claims for dog/cat bites, and this is driven especially by certain districts such as East Khasi Hills (20%) and West Garo Hills (12.5%). This requires further investigation to better understand whether there is a problem with stray dogs and cats and associated bites, or an overuse of this package unnecessarily with the potential for fraud.

Maternal care appears to be in line with international regulations stipulated by the World Health Organisation (WHO) with a high rate of   vaginal delivery, compared to caesarean deliveries. Attendance at ANC visits is low compared to overall delivery statistics, and this should be addressed in order to improve maternal and neonatal health outcomes. While the MHIS shows impressive care provision, there is some room for improvement, including a reduction in use of general package and improved use of specific coding; extending antenatal service provision and engaging in outreach to local women; Increasing public awareness of the MHIS to inform beneficiaries about what they are entitled to and improve patient empowerment in engaging with the health system.

2.6   Claims Processing, Monitoring, and Fraud Management

The Monitoring and Control officer is responsible for developing the monitoring mechanisms for analysing, improving and maintaining quality parameters related to claims. There are two ways in which claims are processed: Point of Service (PoS) claims and Manual claims. PoS claims are more relevant for secondary care services, where treatment is less than or equal to ₹ 30,000. Manual claims are for critical illnesses and when the treatment exceeds the ₹ 30,000 available or there is not sufficient balance in the smart card. This cap of ₹ 30,000 in the smart card is to avoid any misuse or fraud. Claims made at secondary and tertiary private hospitals empaneled under MHIS, which are located outside Meghalaya falls under manual claims, as they mostly provide super-specialty services.

Under PoS only three packages can be blocked at one time. In a case where more than three packages need to be blocked the claims will go under manual claims. When one person blocks more than 1 package; the first package will be paid for the full amount 100%, the 2nd package will be paid for 75% and the 3rd will only be paid for 50%, this decrease in the percentage amount paid is because all package rates include accommodation, food, etc. and therefore would have been paid by the first packaged blocked. Packages only pay for general ward and ICU stay – if a patient desires to stay in a private ward then that is an out-of-pocket expenditure but the treatment is still paid for.

Claims monitoring is carried out continuously by observing the pattern or characteristics of the claims made. Whenever there is an unusual trend of claims, the system (Claims monitoring system) activates the Fraud-triggers and highlights the cases as 'suspects' according to the pre-defined 'indicative list of frauds' as listed in the annexure, for example "deliberate blocking of higher priced Package Rates to claim higher amount". These cases are reviewed and verified by the monitoring officer and if the cases are still suspicious, detailed investigation is carried out by the Medical audit or field investigations. On investigation, if the empaneled hospital is found guilty, the nodal agency would advise the Government to either counsel or issue the particular hospital a formal warning. In instance of repeat offense, a show-cause notice is issued by the Government and on unsatisfactory response to the charges, the particular hospital could be suspended as per guideline issued by RSBY.

A medical Audit is defined as a detailed review and evaluation of selected clinical records by qualified professional personnel for evaluating quality of medical care (22). MHIS conduct the audit on a random basis and /or when the system encounters fraud. The committee goes to the hospital and assess the Medical records according to the medical audits developed. Previously a general medical audit was used to carry out the claims monitoring, however recently with experience and practice, two types medical audits were developed, which are:

● Format of Medical audit for Day-care procedures/OPD
● Format of Medical audit for Inpatient stay

The cases selected to be carried out for investigations are selected randomly and scored '0' or '1' for non-error (complete medical record) and error (incomplete medical documentation), respectively for each parameter indicated in the audit. The total scores are combined and the percentage of error committed by particular hospitals are generated and necessary actions are taken by the Nodal Agency.

Figure 2. 28: Flow Chart of Process of Claims Monitoring

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                    ┌─────────────────────────┐
                    │     Triggered cases     │
                    └─────────────────────────┘
                                │
                    ┌─────────────────────────┐
                    │  Verification in the system │
                    └─────────────────────────┘
                                │
                    ┌─────────────────────────┐                No
                    │     Fraud suspect       │──────────────────────────▶  Case close
                    └─────────────────────────┘
                     ╱                       ╲
        ┌──────────────────┐        ┌──────────────────┐
        │  Medical audit   │        │ Field investigation │
        └──────────────────┘        └──────────────────┘
                     ╲                       ╱
                    ┌─────────────────────────┐                No
                    │  Keeping in Watch list  │──────────────────────────▶  Case close
                    └─────────────────────────┘
                                │
                    ┌─────────────────────────┐
                    │ Show cause notice /suspension │
                    └─────────────────────────┘
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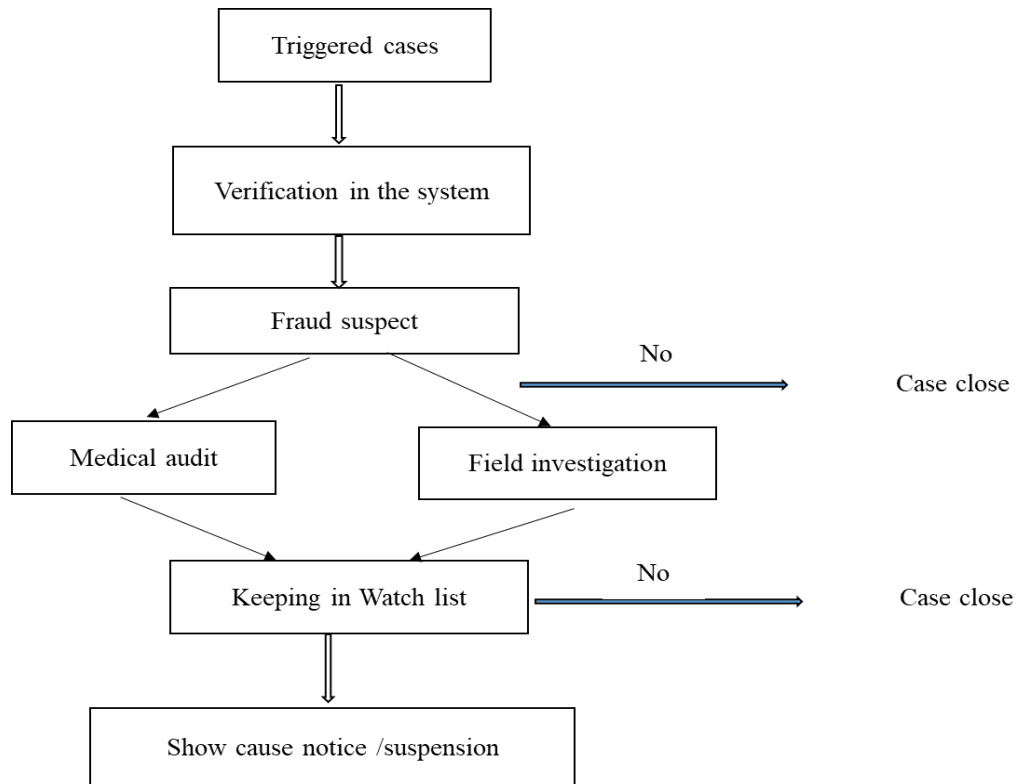
(Mr.Naytus Ladia, Monitoring and Control Officer, MHIS, Jan 2019)

3. MHIS- Grievances

Grievances under MS are mainly related to enrolment, delay in claim settlement and payment of premiums to the insurance company etc. In addition to this, other type of grievances are also being recorded.

There are four ways through which complaints can be lodged- toll free number, help desk, MHIS website, by sending an email and walk-in the MHIS office. Complaints may come from any Stakeholder such as Beneficiary / Hospital / IC / TPA / NGO or any other party.

Figure 3. 1: Grievance Mechanism Flow

Grievance Mechanism Flow:
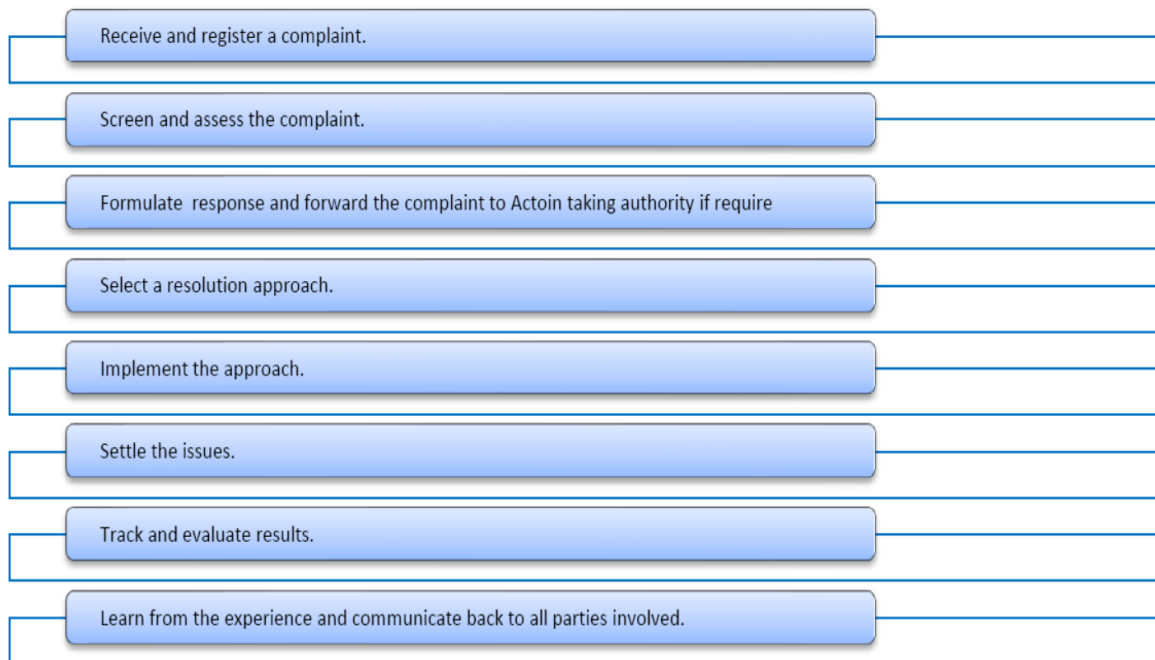
Source: Grievance Redressal Department, Summary report- 2015-16, MHIS-II

3.1 Common Grievances Raised by Empanelled Hospitals and Beneficiaries

The health care providers raise their problems mainly through emails, letters, telephones and occasionally, through walk-in meetings.

The major types of complaints received from health care providers at empaneled hospitals are:

1. Delay in claims settlement by the Insurance Company
2. Delay in receiving the approval for pre-authorization cases by the Third Party Administrator (TPA)
3. Late information on rejected claims
4. Low rates for certain packages such as cataract surgery, throat cancer, radiation therapy, gall bladder removal, etc.
5. Hardware and Software issues
6. Late update on FPO /BCP code etc.

The majority of the beneficiary grievances are made via walk-in complains. The major types of complaints received from beneficiaries are:

1. Smart Card not received after enrolment.
2. Updation service in district kiosk not functioning in most of the districts.
3. Hospitals to which cases have been referred to are not empaneled with MHIS.
4. Enrolment is not done in village
5. Card is not accepted in the hospital.
6. Insufficient balance in the card.

7. Reimbursement from hospitals.

As per MHIS-II summary report, 61% complaints are lodged in East Khasi Hill district alone. Among all walk-in complains; 37% of the complaints were related to the addition of a family member to an existing smart card.

3.2 How Grievances are Resolved
The centralized Complaint and Grievance Redressal System aims at registering, monitoring and managing the complaints by the beneficiaries and stakeholders.

The toll free number is handled by the insurance company. The staff operating the Toll Free Number coordinate with the Grievance Redressal Department with regards to the enquiry received. Most of the complainant cases are also referred to the State Nodal Authority (SNA) office through walk in or via telephone call.

Any beneficiary who walks in to the State Nodal office to register a complaint is recorded in a register maintained by the department; this register contains a pre-defined format such as including Name of the complainant, Address, Contact Number, Details of complaints and Status. For most complaints from beneficiaries, these are solved on the spot. However, a deadline of usually 15-30 days is set by the MHIS for complaints made by hospitals, and if there is any difficulty in meeting the deadline, it goes to the State or District Grievance Nodal office.

4. Public Financing of Health in Meghalaya – An Overview

Public financing and provisioning of health care is mandated in the Constitution of India, in the State List as well as in the Concurrent List. Public healthcare system is financed both by Central and State governments, while the responsibility of delivering most services rests on State Governments. Central government also delivers certain services directly through its own network of facilities, but in a limited way. The framework of the present health care system in India, including importance of public provisioning can be found in the recommendations of the Bhore Committee (1946) and the Mudhaliar Committee (1962) .

Public spending on health, continues to be a subject of debate, be it the level of spending or composition of spending. Invariably all the commissions/ committees recommended strongly for an increased volume of spending. This assumed importance in the context of growing out-of-pocket expenditure of households on health which pushed many households into poverty trap.

One of the recent initiatives to protect households from increasing burden of out-of-pocket spending on health is the introduction of Pradhan Mantri Jan Arogya Yojna (PM-JAY) by the Government of India in coordination with state governments. PM-JAY is extending health insurance coverage for select vulnerable households such as, artisans, construction workers, BPL households, etc. The Government of Meghalaya decided to cover all the households in the state under this scheme under the overall ambit of the Megha Health Insurance Scheme (MHIS). The implications of such a decision for the State government is that, the State Government will have to finance the scheme for households which are not listed in the Socio-Economic Caste Census (SECC) records. Those households listed in SECC records will be financially supported by the Central Government on a sharing basis with state government.

MHIS which was launched in 2012 as per Rashtriya Swasthya Bima Yojna (RSBY) guidelines has so for been implemented under three phases in the state and continuing under Phase-IV. Ever since its launch, both coverage as well as benefits of MHIS have expanded considerably. As the scheme covered

more than 50% of the State population by the end of MHIS-3, analysis of the functioning of the scheme including its financial sustainability was considered ideal at this point in time. The section below delves into aspects of public financing of health in the state, financing of MHIS and its sustainability.

4.1. Public Financing of Health among Selected States

The governments have traditionally been financing public health care services through state budgets which includes states own resources and central government grants. Numerous reports in the past have reported the declining priorities accorded to health care in most states in India[6],[7],[8]. One of the indicators to assess the priority has been the extent of budget allocated to health sector. During the 1990s, states on average were allocating nearly 7 to 8 percent of their total budgets to health care. But overtime, this share declined to 5 percent or below in many states in India. However, with the introduction of NRHM in 2006, this trend has been reversed to some extent. Another commonly used indicator across the world to assess the priority is the proportion of Gross Domestic Product (GDP) spent on health care. On this measure as well, many states reported a deteriorating trend till mid-2000, but improving afterwards as can be seen from Figures 4.1a and 4.1b below. Similar is the trend in terms of per-capita health expenditure as well across states as depicted in Figure 4.1c. In sum, Meghalaya has been allocating a much higher share for health care compared to other states both in GSDP as well as total state budget and also in per-capita terms.

Figure 4.1 a: Share of GDP/GSDP Spent on Health in Selected States

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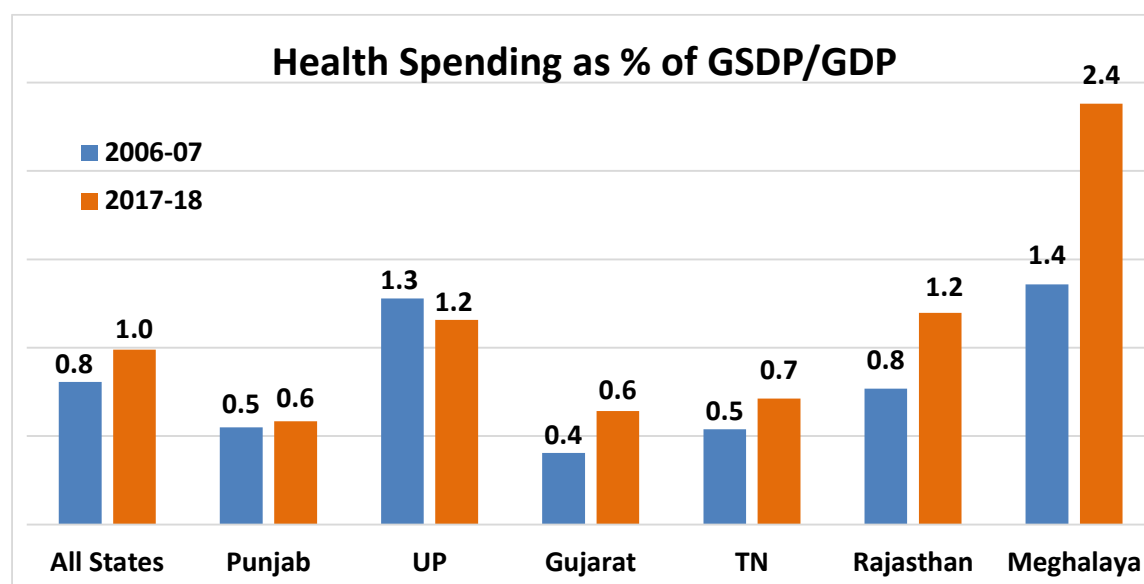
[6] Commission on Macroeconomics and Health, WHO
[7] National Commission on Macroeconomics and Health, Ministry of Health and Family Welfare
[8] High Level Expert Group, Planning Commission

Figure 4.1 b: Health as share of Total Revenue Budget in Selected States

Health in Total Revenue Budget of States (%)

- 2006-07
- 2017-18

State	2006-07	2017-18
All States	2.7	3.4
Punjab	3.7	4.4
UP	5.1	5.6
Gujarat	3.7	5.9
TN	4.1	6.0
Rajasthan	5.0	6.4
Meghalaya	5.2	7.9
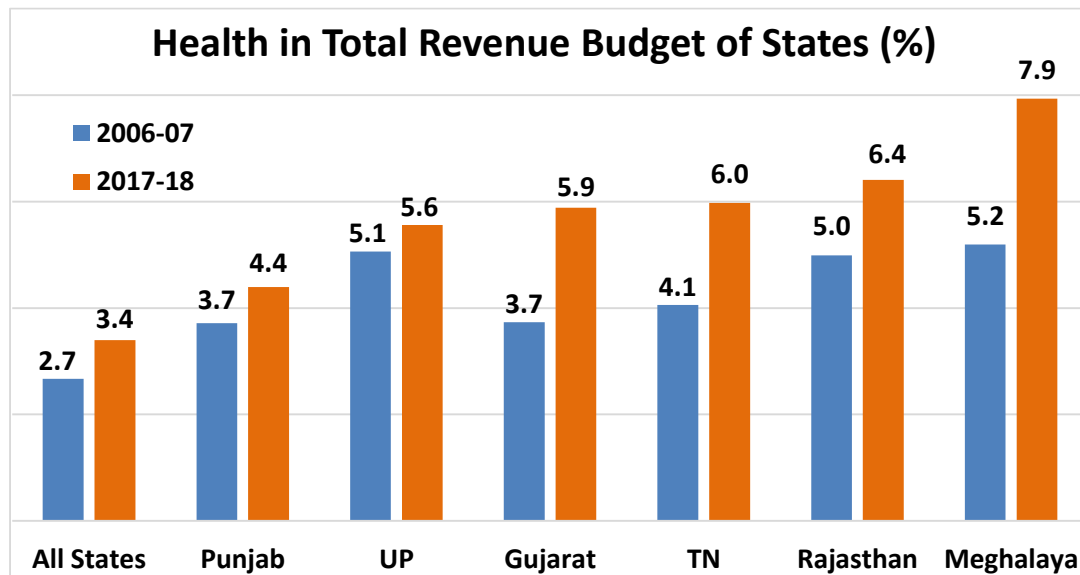
Figure 4.1 c: Per-Capita Health Expenditure in Selected States

Per-Capita Health Expenditure (Rs)

- 2006-07
- 2017-18

State	2006-07	2017-18
All States	309	1,295
Punjab	275	909
UP	219	765
Gujarat	217	1,278
TN	256	1,388
Rajasthan	218	1,327
Meghalaya	406	2,058
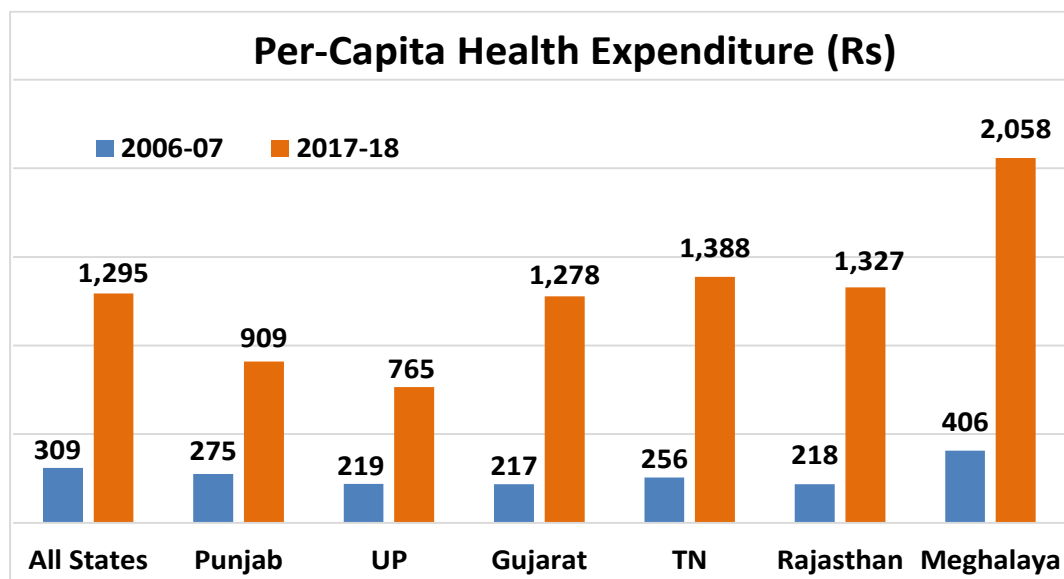
4.2. Public Financing of Health in Meghalaya

Health budget analysis of Meghalaya has been carried out for the years from 2014-15 onwards, in order to assess the changes in the structure of budget allocation to various healthcare services in the state after MHIS became effective in May 2013, The analysis reveals that the state spends nearly 7.5 percent of its total revenue budget on health care (Figure 4.2a). Similarly, out of the total capital expenditure, the state allocated about 8 percent to health during 2014-15 and 2015-16 and declined steadily afterwards to about 3.23 percent in 2019-20. Generally, capital expenditures on health care are sporadic and does not follow

any linear pattern in most states in India as in Meghalaya. In terms of state gross domestic product, the share of health spending in the state increased from 2.08 percent in 2014-15 to 2.76 (projected) percent in 2020-21. This also remains higher than the national average of less than 2 percent.

Figure 4.2 a: Budgetary Allocation to Health in Meghalaya (Revenue, Capital & GSDP)
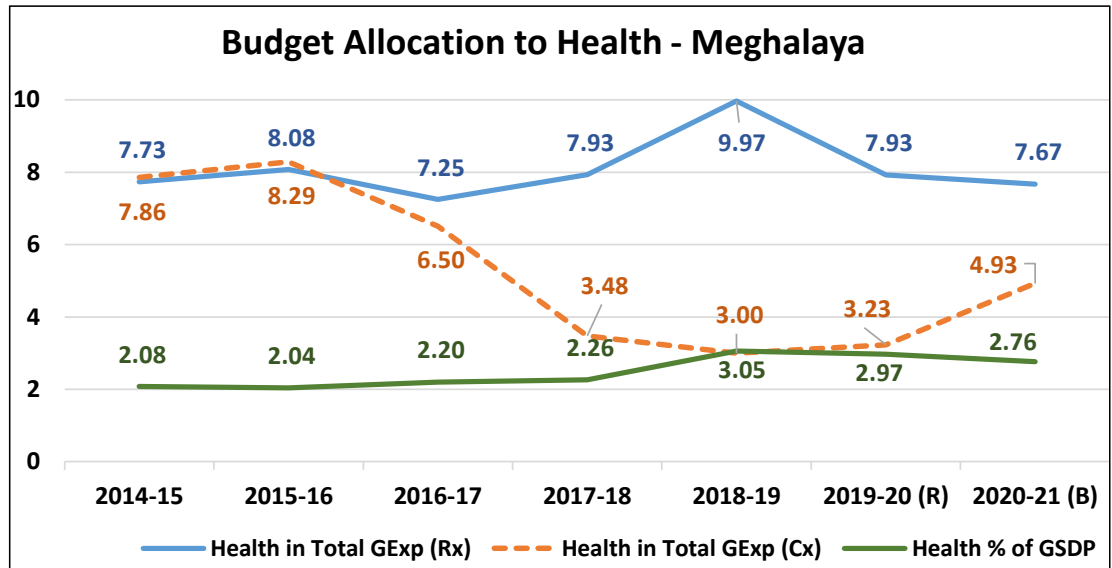
Source: Budget documents, Government of Meghalaya

Another interesting trend observed in the composition of health spending suggests that the share of capital expenditures declined considerably from about 15 percent in 2014-15 to about 4 percent on 2018-19 (Figure- 4.2b). This is an interesting trend for the reason that the public hospitals have the provisions to spend about 70 percent of the funds claimed from MHIS to improve infrastructure in health facilities. This is expected to reduce the demand for capital expenditures by public health facilities from the state budget. Though there is little evidence to directly correlate the decline in the capital budget of the state with the spending on infrastructures by public health facilities out of MHIS claims, the trend exhibited in Figure 4.3 leads to such an inference. Ideally, this is expected to happen in the long run. Otherwise, State would be duplicating the spending on infrastructure improvements at public health facilities through budgetary allocation under capital account.

Figure 4.2 b: Composition of Revenue and Capital Expenditures on Health (in %)

Revenue and Capital in Total Health Expenditure - Meghalaya

Year	% of Capital Exp - Health	% of Revenue Exp - Health
2014-15	15.38	84.62
2015-16	15.23	84.77
2016-17	12.04	87.96
2017-18	4.87	95.13
2018-19	3.99	96.01

■ % of Revenue Exp - Health   ■ % of Capital Exp - Health
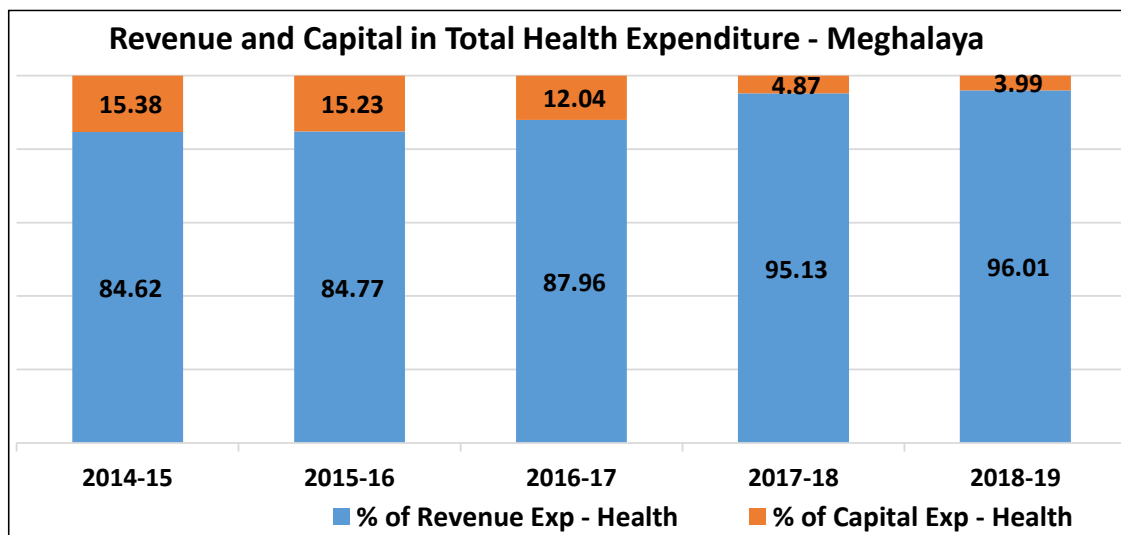
Source: Budget documents, Government of Meghalaya

Another dimension to assess the increasing spending on health care is to analyse health care in per-capita terms. The per-capita expenditure estimates presented in Figure 4.2c clearly indicate that allocation to health care services is accelerating year by year. The per-capita public health expenditure increased from Rs 1513 in 2014-15 to Rs 2989 in 2020-21. It is important to note that the cost of service delivery is likely to be higher in the State on account of low density of population and difficult geographical conditions. Health expenditures in other north eastern states also exhibit a similar trend. These numbers are far higher compared to states such as Haryana, Maharashtra and other larger states. While the per-capita public health expenditure for India remained at Rs 1042 for the year 2013-14, the figure for Meghalaya was at Rs 1491. Spending on health care in Meghalaya as assessed through different indicators suggest that the State has been allocating a sizable share of its budget, comparable to other north eastern states but higher than national average.

Figure 4.2 c: Trends in Per-capita Health Expenditure (Nominal)
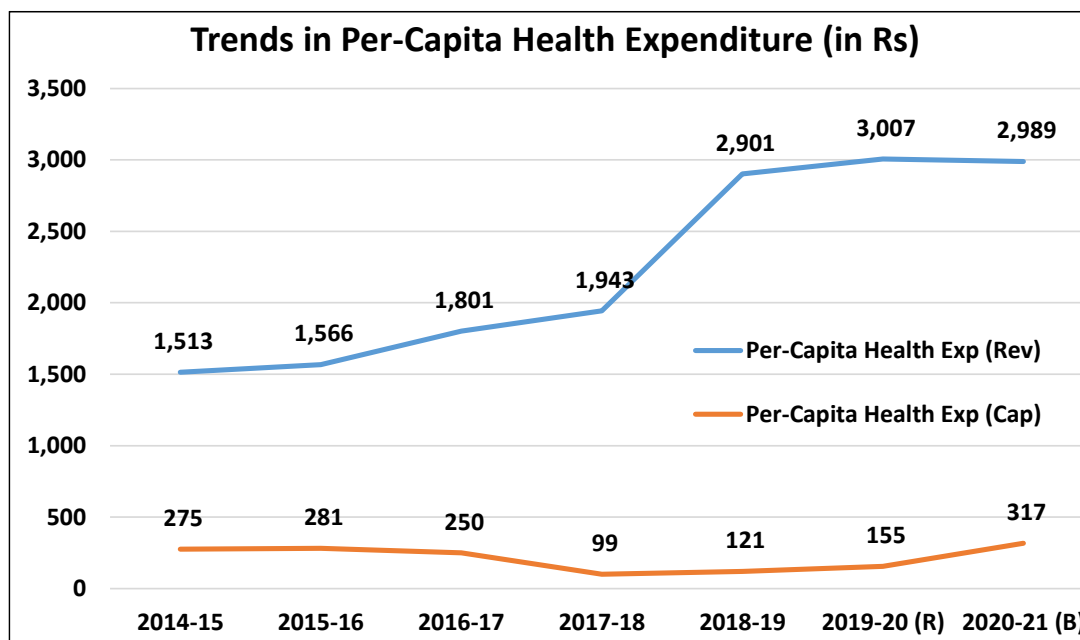
Source: Budget documents, Government of Meghalaya

It is important to understand, where the money allocated to health care is spent? This will help in assessing if the increasing MHIS premium payments crowd out the spending on public health programs in the state? In other words, is the health spending skewed towards medical care? To understand this, allocation under major budgetary heads of health have been estimated and presented in Figure 4.2d.

State budget for health care is allocated under budget heads such as, (1) medical which consists of hospitals and dispensaries, including medical education across the state, (2) public health which covers all disease control programs, public health laboratories, etc., (3) general which includes collection and maintenance of statistics, surveys, research, etc., and (4) family welfare which includes programs such as maternal and child health, compensation for family planning, etc.

Disaggregation of state health spending under the above heads of budgets reveal that more than 50 percent of total health budget is spent on facility based medical (curative care) care services in the state (Figure 4.2d). The allocation under General head accounts for a share between 22 and 35 percent of the state health budget, and the remaining is shared between public health and family welfare to the tune of 6 and 7 percent of the budget.

Figure 4.2 d: Distribution of Health Expenditure (Revenue Ac)
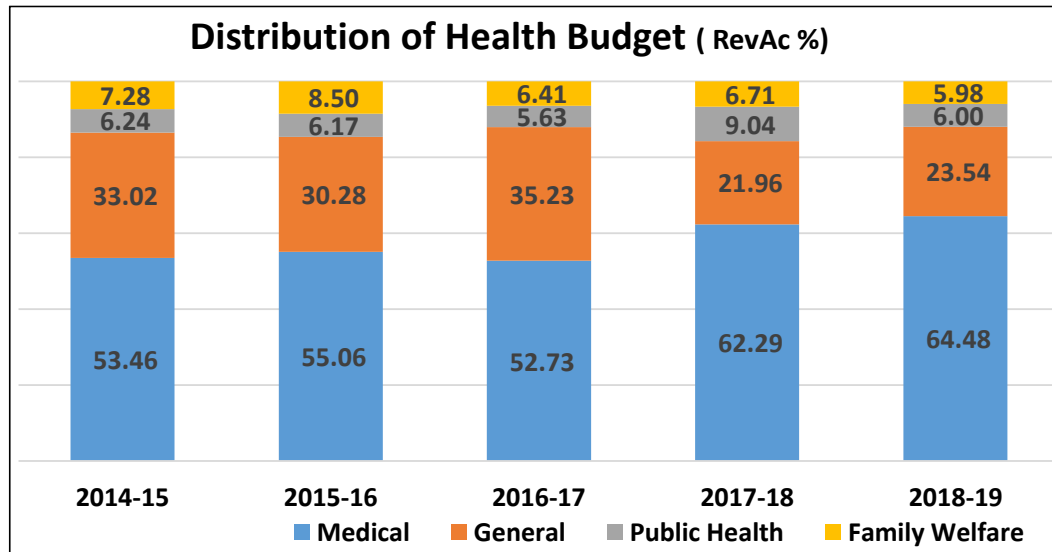
Source: Budget documents, Government of Meghalaya

When compared to few selected states in India (Annex Figure A-1), the distribution of health budget among different functional heads in Meghalaya indicates a skewed **allocation towards curative facility based medical care and almost miniscule share for public health and family welfare programs**. Most states in India allocate more than 10 percent of health budget each for public health and family welfare; allocation for general head does not exceed 20 percent of total health budget. In an attempt to understand the reasons for a much higher allocation of health budget to the General head in Meghalaya, we attempted further disaggregation of expenditure under this category. Review of the detailed budget document of the state revealed that funds allocated for health insurance, including MHIS are booked under this particular budget head. This may have inflated the share of General head within the state health budget.

4.3 Financing Health Insurance in Meghalaya

Publicly provided health insurance broadly covers two segments of population; a) those covered under state and central government employees' schemes, and b) covered under MHIS. The coverage under MHIS is financed by both Central and State governments. While the Centre finances the premium for population belonging to select categories as per SECC-2011 list to the extent of 90 percent, the State finances the premium for the remaining population of the state.

Given these dynamics and the state's commitment to universalise health insurance, it is important to assess the financial sustainability of the scheme in the coming years. Towards this objective, the analysis above tried to gauge the existing levels of public spending on health. Because of its initial stages of MHIS, state would not have paid much attention to the fact that the state is paying the premium to purchase all curative medical care services through an insurance company, while at the same time financing public curative medical care facilities as usual through the state budget. For instance, a district hospital receives a regular budget allocation for salaries, drugs and supplies, maintenance, etc. The same hospital also earns revenue through claims for services rendered under MHIS. A detailed review of these will help in understanding whether these are complementary or duplicates.

The fact that health budget has been increasing, in terms of per-capita, as share of total state budget as well as the share of GSDP, suggests that state is financing medical care at both levels. Being in the early stages, the funds received by the public facilities through claims are probably spent on equipment and in improving required infrastructure. But over time, the state may have to devise a mechanism to rationalise the budget allocation to medical care and divert towards public health which is highly under-funded as of now.

Another important aspect of PM-JAY and MHIS is that Centre contributes 90 percent of premiums for the identified population groups. In the absence of actual data on categories of population covered under MHIS, this study **triangulated data** available from **different sources** to estimate the premiums paid by Centre, State and households by categories for MHIS-III. Purpose of this calculation was to understand the total financial burden of MHIS on the state and Centre. Also to understand, the actual beneficiaries for whom premiums are paid by the governments. The results indicate that the share of premiums paid towards MHIS-III by Centre, State and households are 59%, 35% and 6% respectively (Table 4.1). Further, nearly 60 percent of the households enrolled belong to NREGA and hence account for a major share of premium as well. About 30 percent of the households belong to APL category.

Table 4. 1: Share of Premium Paid for Different Categories of Population under MHIS-III for July 2017 to June 2018 (in %)

Household Categories		State Share	Centre Share	Family Contribution	Total Premium
1	Above Poverty Line	28.96	-	1.68	30.64
2	Below Poverty Line	0.84	8.22	0.53	9.59
3	BOCW	0.46	-	0.03	0.49
4	NREGA	5.14	50.15	3.21	58.50
5	Weavers	0.01	0.14	0.01	0.16
6	Handicraft	0.01	0.06	0.00	0.07
7	ASHA	0.04	0.38	0.02	0.45
8	Domestic Workers	0.01	0.09	0.01	0.10
All Households		35.47	59.04	5.49	100

Note 1: The state share for BOCW is paid by State Department of Labour
Note 2 Above estimates are based on:
    a. Number of households enrolled by categories
    b. Premium rate and the shares between Centre and State for different categories.					

Tentative calculation based on enrolment data suggests that the State government bears nearly 35 percent of financial liability on MHIS premiums. The State pays about 30 percent of total premium for the coverage of APL households. About 6 percent of the total health budget of the state is spent towards premium to provide insurance cover to about 50 percent of the population. To achieve universal coverage, the State needs to cover the remaining 50 percent of the population. Assuming a similar (category) composition for the remaining uninsured population, the state may have to spend additional 6 percent or more of the health budget to universalise MHIS. But given the extent of hike in premium of MHIS-IV and increasing complexities and coverage, the additional resources required will be much larger than 12 percent. The challenge for the state in this context is, whether it will be able to increase the allocation to health, which is already on the higher side as measured by key indicators.

4.4 Financial Projections and Sustainability of MHIS

The state has been spending a reasonable amount on heath through the budgets and successfully moving ahead with Phase- IV of MHIS. Having covered about 50 percent of the state population during MHIS Phase-III, the state launched MHIS-IV in 2019 with additional packages drawn from PM-JAY and enhanced premium rate with a new health insurance provider. In this context, this study tries to assess:

      a. How much the coverage of population would be in the next 3 to 4 years
      b. How much would it cost the government as premium to the above cover, and
      c. How much is the fiscal space in the government to achieve the above

Owing to data limitations such as,
    (i)   differences in the number of households between MHIS, Census-2011 and to some extent SECC-2011,
    (ii)   lack of clarity on the Central share for MHIS (SECC categories),
    (iii)   booking of state spending on MHIS in the state budget heads, a number of assumptions were necessary to assess the financial aspects.

4.4.1 Key Assumptions

1. Projection of number of households from 2021-22 to 2024-25 is based on the growth rate (2.67%) of Census Households between 2001 and 2011.

2. Number of households Eligible under PM-JAY for 2011 is 347,013. This is 62.62 percent of total households reported in SECC-2011. For years from 2021, same 62.62 percent of Census households (projected) are assumed to be eligible under PM-JAY.

3. Eligible households enrolled in MHIS-4 is 55.98 percent. It is assumed that the State will increase MHIS enrolment by 5 percent in 2021-22 and 2022-23; by 3 percent in 2023-24 and 2024-25.

4. Eligible population enrolled in MHIS-4 is 47.35 percent. It is assumed that the State will increase MHIS enrolment by 5 percent in 2021-22 and 2022-23; by 3 percent in 2023-24 and 2024-25.

As of November 2020, MHIS reported to have enrolled about 56 percent of eligible households covering about 47 percent of the population in the state. Eligible households list excludes those covered under other government health insurance schemes such as government employees. Projected number of households and population obtained from MHIS and Census sources along with volume of premium pay out by the government for the years from 2021-22 to 2024-25 are presented in Table 4.2.

The projections on a paced manner has been visualised in this exercise and MHIS is projected to cover nearly 72 percent of the households with 63 percent of population by 2024-25. Also the annual increment in the rate of premium is assumed at a conservative 15 percent. However, the premium from MHIS-III to MHIS-IV has seen a phenomenal hike of about 80 percent. This is possibly an aberration as MHIS is in the phase of learning and stabilisation.

Estimated premium pay out from the government for the year 2024-25 would be around Rs 172 crores if the scheme continues to count the number of households as in practice by MHIS. If the actual number of households as reported in Census and SECC are used as base for enrolling, then the premium pay out would come down to Rs 146 crores. This is a reasonable amount for s state like Meghalaya with about Rs 1,100 crores budget for health.

In both the scenarios, the state government needs to find additional resources for health. As noted in the previous paragraphs, Meghalaya is already spending a substantial share, about 6 percent, of its total state budget, which is much higher than national average. An immediate question would be, will the state be in a position to manage this fiscal space? As a special category state, Meghalaya is entitled for a 90 percent share of premium for identified categories. But a review of State budget reveals that only less than 22 percent of Central grants has been received by the state as compared to more than 55 percent due by way of insurance premium share.

Another important aspect that needs attention by the state is the way health budget is allocated for MHIS premium. State has been booking payments for MHIS under the sub-head called Research, Statistics, Evaluation etc, under the broad head of 'General'. But in reality, payments for MHIS in effect are for purchase of curative medical care services from health care facilities. This raises a question, whether government is paying twice the public health facilities, once through regular budget allocations to meet the salaries, maintenance, etc. and through another mode of premiums for purchase of services from the same health facilities. A detailed review of budget allocations to public health facilities and claims made by these facilities would shed more light on this. A review of this kind would help in rationalising public spending and identify avenues for additional fiscal space to meet the growing MHIS premium payments.

Table 4. 2: MHIS Coverage and Premium Projections: 2021-22 to 2024-25

Year	Based on MHIS household (HH) Data		Based on Census HH Data		Based on Census Population	
	Total No. of HHs	Total Premium (Rs Lakhs)	Total No. of HHs	Total Premium (Rs Lakhs)	Total Population	Total Premium (Rs Lakhs)
MHIS-3	8,86,034	3,979	8,86,034	3,979	35,25,535	3,979
MHIS-4	8,37,283	6,876	8,37,283	6,876	37,03,666	6,876
2021-22	8,59,600	8,844	7,28,938	7,499	37,96,078	8,961
2022-23	8,82,511	11,297	7,48,329	9,580	38,90,797	11,571
2023-24	9,06,033	13,945	7,68,236	11,824	39,87,879	14,352
2024-25	9,30,182	17,180	7,88,672	14,566	40,87,383	17,758

Note:
a. Data on number of households in MHIS-IV as on Nov 2020 (MHIS website)
b. Numbers in shaded area are based MHIS III & IV and Census.
c. MHIS-4 data presented above are only upto Nov 2020.

4.5 Public Financing of Health - Summary and Conclusions

State spending on health care has been fairly higher in Meghalaya as compared to national average in India. Higher spending is often justified on the grounds of inaccessibility and higher cost of delivering services. In spite of this ground reality, the structure of budget allocation for health in the state appear as an outlier. Because, allocations to public health and family welfare activities are disproportionately low in the state budget. Growing volume of MHIS premiums are likely to affect public health services (e.g. public disease control, drug safety/ sanitation/ hygiene programs categorised in budget as Public Health Programs) further in the state.

Share of premiums for MHIS as per RSBY and PM-JAY guidelines from the Centre is another area of concern for the state. Review of state health budget reveal a grey picture warranting the state to asses and fix the loopholes in grants receivable.

The present analysis on financial sustainability is based on limited available data. This can be strengthened further by complementing through an analysis of the way the funds claimed by public health facilities are utilised. Similarly, analysing utilisation by patient characteristics such as age, occupation, social group, education, etc. will help in assessing if the needy patients actually utilise the services provided through insurance. A social audit or a random survey at regular intervals probing whether the people are able to utilise the facilities, if not what are the barriers; satisfaction levels and related aspects from those who utilised services, and other related aspects will help in strengthening the scheme.

5. Recommendations

Based on our analysis, we present the following recommendations:

1. The benefit package of services offered under MHIS should be consolidated in order to remove duplicate, redundant, and low value care packages and streamline what is offered into a more cost effective package of services.
2. The use of the GWU package should be put under scrutiny and its use further investigated In order to reassess its appropriateness, and consider whether it could be disbanded, or its use discouraged except in highly special circumstances.
3. The extremely high rate of claims for dog and cat bites warrants immediate and thorough investigation. It should also be noted that there is an anti-Rabies control programme funded by the public health scheme, indicating potential for duplicate expenditure by the Government. If assessed as feasible, combining these schemes and removing the dog/cat bite package from the MHIS could leverage significant funds for the wider health sector.
4. Data collection and maintenance infrastructure could be improved by investment in modern technology and training of staff in order to streamline the process of claims management, payment, and assessment. Though this will require upfront investment, it is likely to be cost-saving in the long term by creating a more efficient, streamlined, and transparent process.
5. Spending through state health budget is highly skewed towards medical care services. A detailed review of allocation to various budget heads on health is recommended to rationalise and improve the efficiency of spending.
6. Synchronising the data base of households with national level data bases such as Census, SECC, would help in contextualising Meghalaya with other states.
7. Periodic assessment of the scheme through analysis of State spending on health and budgetary documents, in combination with claims data, is strongly encouraged in order to continually assess the performance of the MHIS against its objective to provide Universal Health Coverage to the population of Meghalaya.

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7. Annexures

Annexure 1: Indicative List of Hospital Related Frauds

- Conversion of out-patient cases to in-patient cases.
- Deliberate blocking of higher-priced Package Rates to claim higher amounts.
- Blocking of multiple packages even though not required.
- Non-payment of transportation or economic loss compensation benefits to Beneficiaries.
- Transaction description not clear.
- Unwarranted ICU admissions.
- Not dispensing post-hospitalization medication to Beneficiaries.
- Not making medicines available to Beneficiaries on utilization of OPD Benefits or Follow-up Care
- Irregular or inordinately delayed synchronisation of transactions to avoid concurrent investigations.
- Treatment of diseases, illnesses or accidents for which an Empaneled Health Care Provider is not equipped or empaneled for.
- Showing admission in ICU th0.ough treatment is given in general ward.
- Huge number of complex surgeries likes amputation, joint reconstruction surgeries, abdomen-perineal resection, spinal fixation etc. reported to be carried out by Empaneled Health Care Provider without having necessary infrastructure to conduct such complex high-end surgeries.
- Admission of Beneficiaries in excess of the bed capacity.
- Single Procedure done but multiple procedures selected e.g. Hysterectomy as Hysterectomy with oophorectomy etc.
- Substitution of packages e.g.- Hernia as Appendicitis, Conservative treatment as Surgical
- Part of the expenses collected from Beneficiary for medicines and Screening in addition to amounts received by the Insurer.
- Extra Charging - charging more than Package Rate or Admission for 2 days in General Ward/ICU but charged for 3 days.
- Unnecessary surgery done, without actual requirement of the Beneficiaries.
- Non-enrolled member of family taking treatment with enrolled Beneficiaries' thumb impression, other than for utilization of new-born or child care benefits.
- Retaining the Smart Card with wrongful intention by the Hospitals for unethical transaction.
- Recruiting Beneficiaries through touts and unethical means.
- Transaction at Empaneled Health Care Provider but treated/ operated at different hospital.
- Dummy Smart Cards used.
- Fabricated medical/diagnostic reports and OT notes/ medical details.
- Diagnosis and treatment contradict each other.
- Excessive Screening.
- Empaneled Health Care Provider making Claims for more than one OPD diagnostics services to one or more members of the same Beneficiary Family Unit in any consecutive 7 day period
- Empaneled Health Care Provider paying a commission or fee to the Beneficiaries for making Claims in relation to any of the OPD Benefits.

Indicators/Triggers to Identify Hospital Fraud

- High Bed vs. Occupancy ratio.
- Disease not related to gender/age.
- Frequent blocking of multiple disease codes.
- Frequent blocking of high-end disease codes.
- Hospitals having unusual high number of Day Care Treatments/procedures.
- Frequency and gaps in uploading data on server.
- High average Claim size.
- Gender v/s ailment mismatch.
- General Ward admissions v/s ICU.
- Hospital facilities v/s type of admissions.
- Normal Delivery Claims v/s LSCS.
- Districts with low enrolments but high Claim intimations.
- Empaneled Health Care Providers involving frequent incidents of customer grievances or malpractices.
- Claims from multiple hospitals with same owner.
- Number of members enrolled in particular panchayat / block v/s no of admissions.
- Repeated admissions in single URN.
- Treatment of diseases mismatching general health profile of a district / state.
- Districts having low enrolments but high Claim intimations.
- Same diagnosis for all Beneficiaries.
- ICU/Medical Treatment blocking done for more than 5 days stay, other than in the case of Critical Illness.
- Overall medical management exceeds more than 5 days, other than in the case of Critical Illness.
- Blocking packages during odd hours - between 10 pm to 6 am the next day.
- Members of the same Beneficiary Family Unit getting admitted and discharged together.
- Multiple Claims for same Beneficiary in different hospitals.
- 2 or more chip serial numbers for a single URN.
- Single hospital with 2 hospital codes and vice versa – MHC Card misuse

Annexure 2: Figures and tables on Financials

Figure A-1: Distribution of Health Budget among Selected States: 2017-18

Distribution of Health Budget (Rx%): 2017-18

	Gujarat	Punjab	Rajasthan	TN	UP	Meghalaya	All States
Family Welfare	19.72	7.74	28.31	20.32	35.78	6.71	14.24
Public Health	21.38	7.31	18.40	5.42	3.87	9.05	12.58
General	0.24	0.21	-	18.98	0.08	21.96	3.62
Medical	58.66	84.74	53.29	55.29	60.27	62.29	69.56

Legend: Medical, General, Public Health, Family Welfare
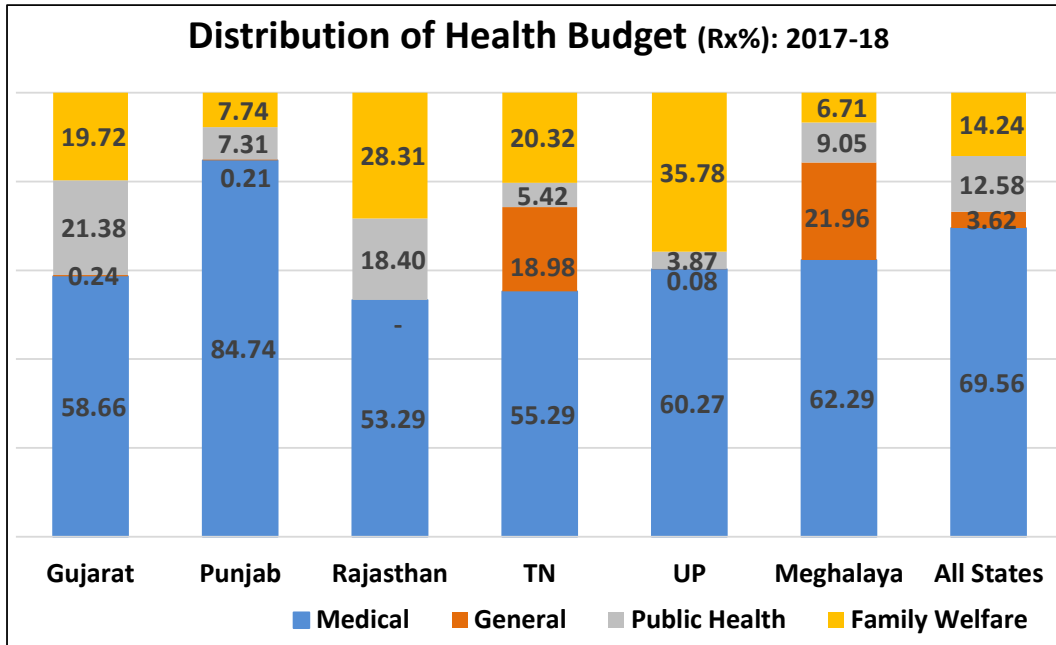
Figure A-2: Allocation for Health Insurance in State Budget (Shares in %)

Share of State and Centre in Health Insurance Budget (%)

	2018-19 (A)	2019-20 (R)	2020-21 (B)
Central Grant	12.09	22.46	11.11
State Allocation	87.91	77.54	88.89

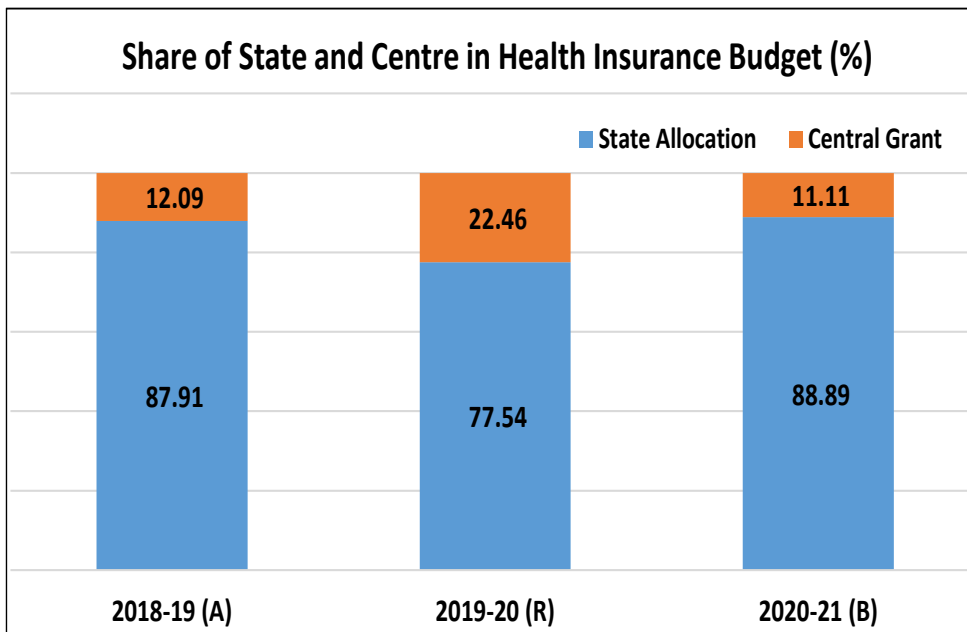Legend: State Allocation, Central Grant

Figure A-3 Premiums paid by State, Centre and Families for MHIS III (in %)
(Estimates based on Enrolment in MHIS-III)

Share of Premiums paid by State, Centre and Families for MHIS-III (in %)

	Value
State Share	35.47
Centre Share	59.04
Family Contribution	5.49
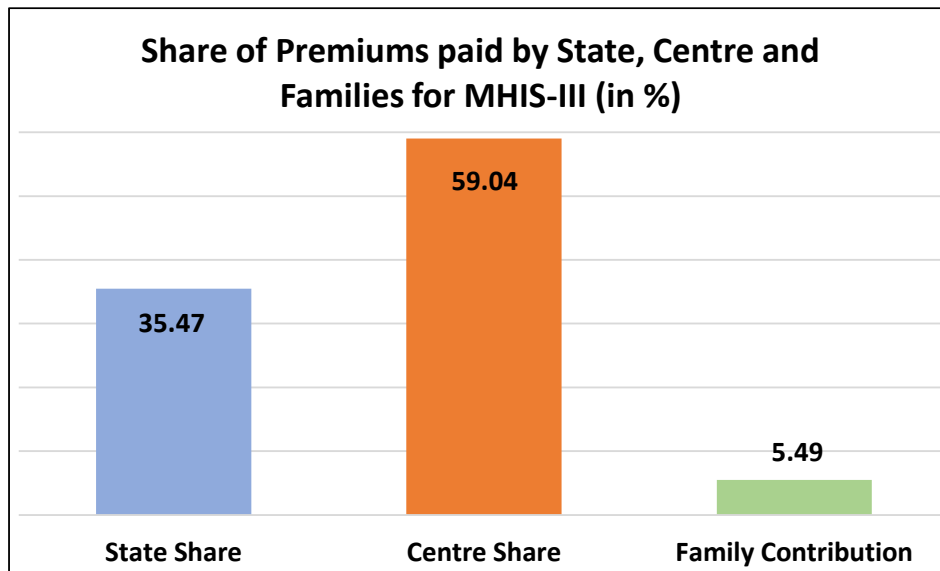
Table I: Type of Care the Scheme Provides

Insurance Scheme	Chronic Diseases	Maternity	Preventive & Wellness care	AYUSH	Out-Patient	Inpatient
CGHS	✔	✔	✔	✔	✔	✔
ESIS	✔	✔	✔	✔	✔	✔
Yeshasvini	✔	✖	✖	✖	✖	✔
Rajiv Aarogyasri Scheme (AP)	✔	✖	✖	✖	✖	✔
RSBY	✔	✔	✖	✖	✖	✔
Kalaignar (TN)	✔	✖	✖	✖	✖	✔
Vajapayee Aarogyasri Scheme (KN)	✔	✖	✖	✖	✖	✔
Commercial Health Insurance	✖	✖	✖	✖	✖	✔

Source: Subramanian (2016)[16]

Table II: Distribution of Enrolled Persons by Age Groups (in %)

	Age Groups	MHIS I (2013-15)	MHIS II (2015-16)	MHIS III (2017-19)
1	1-5 years	13.4	10.2	12.9
2	6-18 years	31.1	18.6	26.2
3	19-45 years	40.6	53.8	45.8
4	46-60 years	10.7	12.3	10.7
5	60 and above	4.2	5.2	4.5
	All Age Groups	100	100	100
	Number of persons enrolled - Total	7,28,028	15,48,617	15,57,008

Table III: Distribution of Amount Claimed (in INR) by Top Fifteen Packages in MHIS II and MHIS III

	MHIS II					MHIS III			
Package Names	Total Amount Claimed (in INR)	Number of Claims (n)	Average Amount Claimed (in INR)	%	Package Names	Total Amount Claimed (in INR)	N0. of Claims (n)	Avg Amt Claimed (INR)	%
General Ward Unspecified	19,56,32,000	45,271	4,321	51.8	General Ward Unspecified	23,92,46,000	57,340	4,172	47.6
Normal Delivery	2,74,80,000	5,501	4,995	7.3	Dog/Cat Bite	1,16,43,515	14,995	776	2.3
Normal P-repair	1,33,15,500	2,422	5,498	3.5	Normal Delivery	4,48,34,175	7,804	5,745	8.9
PF Malaria	3,03,44,000	2,370	12,803	8.0	USG Whole Abdomen	42,01,500	4,238	991	0.8
Caesarean delivery	2,37,69,000	1,321	17,993	6.3	Normal P-repair	2,41,97,011	3,839	6,303	4.8
Dog/Cat Bite	43,86,375	1,255	3,495	1.2	ANC:3	99,35,053	2,985	3,328	2.0
LS C Section	2,09,79,000	1,166	17,992	5.6	ANC:2	76,36,104	2,754	2,773	1.5
GW:ICU	1,11,85,000	1,009	11,085	3.0	ANC:1	69,76,348	2,096	3,328	1.4
Neonatal Care: Basic	34,53,750	850	4,063	0.9	LS C-Section	3,76,71,015	1,867	20,177	7.5
Cataract IOL	1,17,75,000	785	15,000	3.1	Viral Fever	2,19,61,387	1,853	11,852	4.4
Laparoscopic Cholecystectomy	1,42,29,000	678	20,987	3.8	Caesarean delivery	3,50,98,065	1,740	20,171	7.0
Viral Fever	69,72,000	664	10,500	1.8	LRTI	2,06,48,420	1,529	13,505	4.1
Conventional Tubectomy	24,08,750	585	4,118	0.6	Cataract: IO Uni	2,25,73,237	1,356	16,647	4.5
LRTI	62,13,000	519	11,971	1.6	General Ward ICU	1,35,45,000	1,343	10,086	2.7
Appendectomy	54,96,000	461	11,922	1.5	Renal Dialysis	129,67,363	1,273	2,331	0.6
Totals	**37,76,38,475**	**64,857**	**1,56,744**	**100**	**Totals**	**50,31,34,193**	**1,07,012**	**1,22,186**	**100**

Table IV: Distribution of claims in MHIS III across top ten packages and member districts (%)

MHIS III Packages/Member Districts (% of Total)	East Garo Hills	East Jaintia Hills	East Khasi Hills	North Garo Hills	Ri Bhoi	South Garo Hills	South West Garo Hills	South West Khasi Hills	West Garo Hills	West Jaintia Hills	West Khasi Hills
General Ward Unspecified	1.7	9.5	25.0	4.0	10.6	5.7	5.1	4.3	5.2	18.0	11.0
Normal Delivery	3.4	10.8	14.5	4.9	9.3	6.6	9.2	3.4	7.4	19.3	11.1
Dog/Cat Bite subjected to completion of 5 injections plus dressing (₹ 777 Per Injection Plus Dressing)	4.1	10.5	20.0	6.5	9.8	7.8	10.4	2.2	12.5	8.9	7.2
Ultrasound Sonography Test – Whole Abdomen	0.1	13.3	39.9	0	9.5	0	2.6	0	0	27.0	7.4
Normal delivery with episiotomy and P repair	1.0	4.5	27.8	4.8	8.9	2.4	14.2	2.8	12.9	9.8	10.7
3rd ANC check-up(USG Screening blood test medicines) 1 Visit	0	14.1	29.3	0.8	17.9	0.1	3.4	3.1	0.1	18.9	12.3
2nd ANC check-up(USG Screening medicines) 1 Visit	0.1	13.4	33.0	0.8	16.2	0.1	2.5	4.0	0.1	19.8	10.1
1st ANC check-up (USG Blood test medicines) 1 Visit	0	7.9	24.7	0.4	36.0	0.2	4.3	3.0	0	13.0	10.4
Lower Segment Caesarean Section	0.9	4.8	49.0	0.4	11.2	1.2	2.4	2.9	4.7	14.5	8.1
Viral Fever	23.2	5.8	15.7	5.3	29.1	1.7	7.6	0.4	3.1	4.5	3.7

Table V: Projected Population, Coverage and Premium: 2021-22 to 2024-25 (MHIS Household Based)

Year	Total No. of Households	Eligible Households (minus 10%)	No of Hhs Enrolled in MHIS	Rate of Premium (Rs)	Total Premium (Rs Lakhs)	Enrolled Hhs. as % Eligible Hhs
2021-22	8,59,600	7,73,640	4,71,792	1,875	8,843.75	60.98
2022-23	8,82,511	7,94,260	5,24,080	2,156	11,297.47	65.98
2023-24	9,06,033	8,15,430	5,62,512	2,479	13,944.82	68.98
2024-25	9,30,182	8,37,164	6,02,620	2,851	17,179.97	71.98

Table VI: Projected Population, Coverage and Premium: 2021-22 to 2024-25 (Census Household Based)

Year	Total No. of Households	Eligible Households (minus 10%)	No of Hhs Enrolled in MHIS	Rate of Premium (Rs)	Total Premium (Rs Lakhs)	Enrolled Hhs. as % Eligible Hhs
2021-22	7,28,938	6,56,044	4,00,079	1,875	7,499.47	60.98
2022-23	7,48,329	6,73,496	4,44,396	2,156	9,579.74	65.98
2023-24	7,68,236	6,91,412	4,76,960	2,479	11,823.97	68.98
2024-25	7,88,672	7,09,805	5,10,942	2,851	14,566.35	71.98

Table VII: Projected Population, Coverage and Premium: 2021-22 to 2024-25 (Population Based)

Year	Total Population	Pop Eligible for MHIS (minus 10%)	No of Enrolled Beneficiaries	Premium per Enrolled Beneficiary (Rs)	Total Premium (Rs Lakhs)	Enrolled Beneficiary as % Eligible Pop
2021-22	37,96,078	34,16,471	17,88,565	501	8,961	52.35
2022-23	38,90,797	35,01,717	20,08,279	576	11,571	57.35
2023-24	39,87,879	35,89,091	21,66,061	663	14,352	60.35
2024-25	40,87,383	36,78,645	23,30,468	762	17,758	63.35