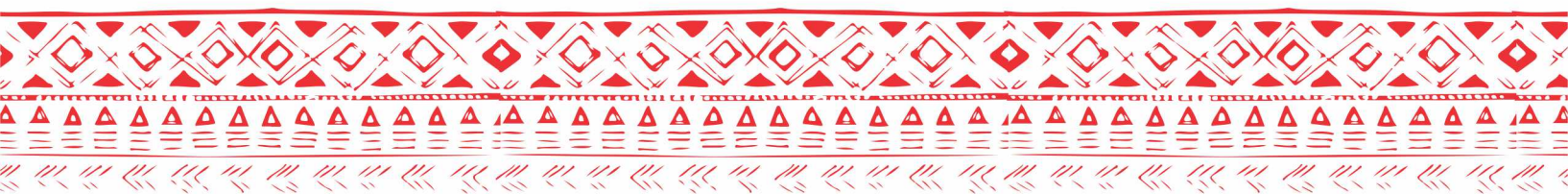




Demand-side assessment
study of access to
**primary health care
in Assam**



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ISBN 978-92-9020-970-6

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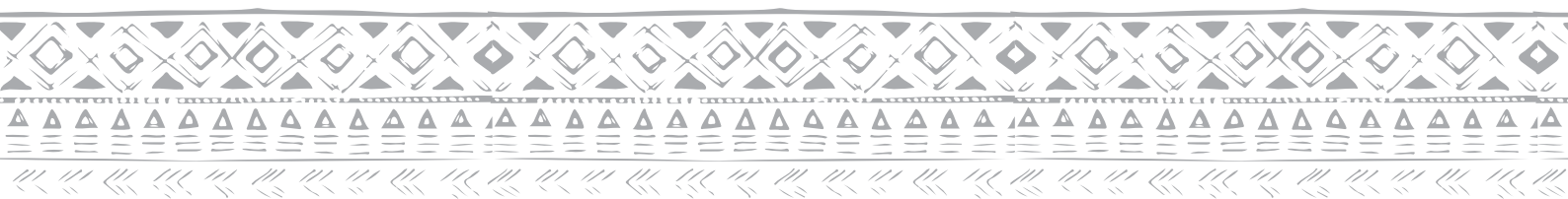
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Abbreviations



A	AHS	Annual Health Survey	
	ASHA	Accredited Social Health Activist	
	ANC	antenatal care	
	ANM	Auxiliary Nurse Midwife	
	APL	above poverty line	
	AYUSH	Ayurveda, Yoga & Naturopathy, Unani, Siddha and Homoeopathy	
B	BCG	bacillus calmette guérin	
	BPHC	block primary health centre	
	BPL	below poverty line	
C	CAG	Comptroller and Auditor General	
	CAH	community action for health	
	CDPO	Child Development Project Officer	
	SDMO	sub-divisional medical officer	
	CDR	crude death rate	
	CHC	community health centre	
	CHO	community health officer	
	CPHC	comprehensive primary health care	
	CSO	civil society organization	
	COPD	chronic obstructive pulmonary disease	
	D	DH	district hospital
		DVDMS	drugs and vaccines distribution management system
E	EAG	empowered action group	
	EDL	essential drug list	
	ETL	epidemiological transition level	
	E-PDS	electronic public distribution system	
	ENT	ear nose and throat	
F	FGD	focused group discussion	
G	GP	Gram Panchayats	
H	HMIS	health management information system	
	HWC	health and wellness centre	
	HQ	head quarters	
I	ICMR	Indian Council of Medical Research	
	IDI	in-depth interview	
	IEC	information, education and communication	
	IFA:	iron and folic acid	
	IHME	The Institute for Health Metrics and Evaluation	
	IMR	infant mortality rate	

	INR	Indian National Rupee
	IPD	inpatient department
	IPHS	Indian Public Health Standards
	IT	information technology
	IUCD	intra-uterine contraceptive device
J	JSY	Janani Suraksha Yojana
K	Km	kilometres
L	LPG	liquefied petroleum gas
M	MCH	maternal and child health
	MMR	maternal mortality ratio
	MO	medical officer
	MLHP	mid-level health provider
	MMU	mobile medical unit
	MLHW	mid-level health worker
	MPHW/MPW	multi-purpose health worker
N	NA	not applicable
	NCDs	noncommunicable diseases
	NFHS	National Family Health Survey
	NGO	nongovernmental organization
	NHM	National Health Mission
	NHS	National Health Service
	NHSRC	National Health Systems Resource Centre
	NMR	neonatal mortality
	NRHM	National Rural Health Mission
	NSC	notional sub-centre
	NSSO	National Sample Survey Organisation
O	OBC	other backward classes
	OOPE	out of pocket expenditure
	OPD	outpatient department
	ORS	oral rehydration solution
P	PG	post-graduation
	PHC	primary health centre
	PHFI	Public Health Foundation of India
	PMMVY	Pradhan Mantri Matru Vandana Yojana
	PPP	public private partnership
	PUC	pre-university certificate
	PW	pregnant women
Q	QUT	Queensland University of Technology
R	RCT	randomized control trial
	RCH	reproductive and child health
	RKS	Rogi Kalyan Samiti
	RHS	rural health statistics
	RMNCH+A	reproductive, maternal, newborn, child and adolescent health
	RTI	right to information

S	SBA	skilled birth attendant
	SC	scheduled caste
	SHC	sub-health centre
	SMS	short message service
	SRS	sample registration system
	ST	schedule tribe
T	TB	tuberculosis
	TT	tetanus toxoid
U	UK	United Kingdom
	UT	union territory
V	VHNSC	Village Health, Nutrition and Sanitation Committee
W	WHO	World Health Organization

Contributors

This report on the demand-side assessment of primary health care in Assam is essentially based on the inputs provided by the villager survey respondents, community focus group discussion (FGD) participants, health systems functionaries and numerous other key stakeholders, who were interviewed. The entire study team is extremely grateful to all the respondents at the grassroots, who generously shared their rich experiences and insights, which have helped in preparing this report.

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Executive summary . . .



The National Health Policy of India, 2017 has laid down the goal of universal health coverage (UHC) and suggested free primary care as one of the means to achieve UHC. Available secondary data, however, reveals that low rates of utilization of public primary health care and reliance on private health providers (70% spells of ailment are treated in the private sector), according to the findings of the 71st round of the survey conducted by National Sample Survey Organization (NSSO). The NSSO data shows that 11.5% households in rural areas and only about 4% in urban areas, seek OPD care at or below the level of community health centre (CHC) (except for childbirth). Such insights raise the question as to why people are not availing of primary health care or getting left out. The literature reveals that a range of determinants (both demand and supply side), including out-of-pocket expenditures (OOPE) and the quality of care offered by primary health care facilities, shape the utilization of primary health care. There is need to conduct an in-depth study to reveal the demand and supply side factors that interact to shape the utilization of primary health care and to focus on a comprehensive range of supply and demand-side enablers and barriers.

World Health Organization (WHO) engaged Grassroots Research And Advocacy Movement (GRAAM) to carry out a demand-side assessment of primary health care in the state of Assam, specifically focusing on the three districts of Barpeta, Golaghat and Nagaon. The primary data for the study was collected by WHO's Assam-based local partner, (The ANT) GRAAM prepared the study design and instruments, trained the local data collection team, monitored data collection, analysed the data and wrote the study report.

The objectives of the study are as follows:

- a) To reveal the factors/determinants (both enablers and barriers) that influence the uptake and utilization of primary health care facilities in each of the chosen districts of Assam, covered by the study.
- b) To shed light on the sections of the population being left out as far as coverage of the primary health care facilities is concerned (from the point of view of gender, caste, tribal status, income (BPL/APL).
- c) To examine the current design and status of the comprehensive primary health care (CPHC) reforms - specifically of the recently established health and wellness centres (HWCs), and what level of community demand they have been able to meet.
- d) To shed light on the nature and extent of community participation in the planning, implementation and monitoring of primary health care.
- e) To provide policy recommendations for enhancing access to and utilization of primary health care.

This **study employed a cross-sectional research design**. Quantitative data for this mixed-methods study was primarily collected through a survey of villagers residing in the catchment areas of the selected sub-centres and block PHCs (BPHCs). Health management information system (HMIS) data on facilities and footfalls supplemented the quantitative insights obtained from the survey.

Qualitative data was collected through methods such as focus group discussions (FGDs) of members of the community (men and women) and in-depth interviews (IDIs) of key stakeholders including health functionaries such as medical officers in PHCs, CHOs in sub-centres or HWCs and accredited social health activists (ASHAs). Given that the demand for primary health care is linked to the users' preference (or lack of preference) for other health providers such as private doctors and traditional healers, the latter have also been covered as stakeholders under this study.

Findings

The major findings of the study are thematically presented below:

Seeking health care: Demand for primary health care depends majorly on whether members of the community seek care or medical attention at the onset of illness. The survey finds postponement of care to be less frequent; overall, only 7.63% respondents postponed seeking care at the onset of illness. pivotal

element that influences demand is whether the community seeks continued health care for noncommunicable diseases (NCDs)/chronic ailments. The extent of seeking continued care for chronic diseases is only 34.74% in all the three districts, which points to an important gap in health care seeking. Amongst the three districts, Golaghat has the highest rate of continued care seeking for chronic ailments (75%), while Barpeta has the lowest (only 2.27%). **The lack/shortage of medicines in public facilities from sub-centre to district hospital level is creating gaps in the continuation of medication for chronic ailments.**

Health provider choice: Once people have decided to seek care, people have to choose a particular provider. **Survey findings for this study illustrate that the individual may have more than one provider as first choice.** While the largest share of respondents in Barpeta and Golaghat chose the PHC as the first-choice provider, the largest share of respondents in Nagaon selected the district hospital as first-choice provider. Overall, only 6% respondents in all the three districts combined ever consulted a traditional healer.

Combining Barpeta, Nagaon and Golaghat, 12.47% respondents had consulted a private practitioner in the last one month. The survey revealed that the most common reason for consulting a private provider was the poor quality of services in government facilities, followed by experience of effective treatment by private doctor and ease of reach and accessibility. FGD findings made clear that people sometimes prefer to visit private doctors because “they give more importance to patients than doctors of government hospitals”.

In the three districts, 46.35% respondents said that they regularly visited primary health care facilities (PHC/sub-centre/HWC). Golaghat district had the highest share of survey respondents regularly visiting such facilities (83.67%), while Barpeta district had the lowest. Proximity, free or cheap services, and good experience in the past were among the reasons stated by FGD participants for visiting PHCs, HWCs or sub-centres. Out of all the outpatient cases among respondents and their families in the last 15 days, 66.67% were in public facilities, whereas 33.33% were in nongovernment/private facilities. **This fits in with the NSSO 2014 Survey finding that 67% of outpatient cases in rural Assam were in public facilities.** Putting together the three districts, a secondary care facility (district hospital) is the most preferred choice for emergency and chronic care consultation.

Social category of people impacts utilization of PHC: The utilization of primary health care facilities by different socio-economic groups was examined on the basis of survey data.

The Scheduled Tribe (ST) group (which is among the most marginalized social categories) has the highest rates of people regularly visiting PHC facilities, while the most advanced social category (general category) has the lowest rates of regular utilization of such facilities. The gender distribution for PHC facility visits shows that the share of men and women visiting are very close to each other. The two economically poorest categories (below poverty line (BPL) and Antyodaya) have a lower ratio of people regularly visiting PHC facilities, compared to the above poverty line (APL) category. Regression findings show that the **social category of the respondents has significant effect on the demand for PHC facilities.** Respondents belonging to ST and other backward castes, or minorities are more likely to visit primary health care facilities. Also, those with no landholding are more likely to visit such facilities.

Available and expected services: The fit between services available at PHC centres and those expected and preferred by the community has a significant effect on acceptability of PHC to the community. Delivery related information is available in HMIS only for 25 out of 34 sampled sub-centres, but of these only five centres have had any deliveries. Three HWCs (one each in Barpeta, Golaghat and Nagaon) were examined in detail in this study for their service availability. All the three are providing services for the management of NCDs. Though they are all dispensing medicines for NCDs, not all of them are engaging in proactive screening for early detection. Two out of the three HWCs are also handling emergencies to a limited degree. However, so far there is no provision of service on the other extended-service buckets under CPHC, such as elderly and palliative care, oral care, mental health, and ophthalmic and ENT care. Going beyond HWCs, FGD participants in catchment villages of different sub-centres pointed out major need/gap areas such as diagnostics, medicines, specialist doctors and emergency care.

Enablers and barriers to utilization: The study also focused on a number of demand and supply side factors that shape health care utilization. These included financial status of users, access and location, service experience at various PHC facilities, empowerment and engagement of communities and elements of the ‘reinvented model of care’ as per WHO’s people-centred care framework.

Financial barriers: Overall, 76.55% of the respondents of all three districts stated that they sometimes face

financial difficulty as a result of spending on health care, while almost 15% said that they always face such difficulties. Medicine cost is the largest component of outpatient expenses and is, therefore, a notable financial challenge to the utilization of outpatient care. The problem of having to buy medicines from outside because of frequent non-availability of medicines in PHC centres was consistently mentioned by FGD participants. The participants also repeatedly pointed to distance as a consideration in choosing providers of choice. For all the three districts, sub-centres are the facilities mentioned by the largest number of respondents as being closest to their homes. None of the respondents in Barpeta district said that PHC was the nearest facility for them. A majority of survey respondents said that they have to travel 15 minutes or less to reach the nearest health care centers. Regression findings show that the distance travelled by the individuals to reach the nearest health care facility and waiting time to see doctors after reaching the facility have significant negative impact on visiting the PHC facilities. The study findings also show that a large portion of the respondents from Barpeta (55.66%) and Nagaon (49.31%) districts had to travel more than 10 Km for getting medicines.

Service experience and service perception: Service quality at PHC institutions is a supply side factor that also shapes whether people would use such services repeatedly or recommend them to others. About 50% respondents of Golaghat and 38.31% respondents of Barpeta said that their waiting time falls in the range of 30 minutes to two hours, whereas a large share of respondents in Nagaon district (43.98%) had waited less than 30 minutes. A majority of FGD participants said that the PHC/HWC staff were respectful of their culture and customs. Across the board, participants in all three districts expressed their ability to follow spoken communication by the doctors and staff, which was in the Assamese language. Not all participants were, however, able to follow the notice boards, information education and communication (IEC) materials etc (including non-Assamese speaking participants). Shortage of medicines and long waiting time were highlighted as common problems by FGD participants, but they were overall pleased with the regularity and opening hours. Negative views across the board were expressed with respect to the inpatient facilities at PHCs centres.

In a women's FGD in Golaghat district, participants said that, "Everyone visits the PHC facilities because there is no other option for them." Nevertheless, some participants in the three districts did state that they don't visit such facilities. Non-availability of doctors and specialists, lack of medicines, long waiting, lack of cleanliness and disease not being cured completely were mentioned as reasons for not visiting PHCs. Overall, 49.56% stated that they would not go to same doctor/CHO again. In Barpeta district as many as 62.17% survey respondent stated that they would not visit the same doctor/CHO at the PHC/HWC/sub-centre again.

Empowerment and engagement of communities: FGD Participants had commonly encountered information on disease prevention given by the ASHAs. Some male participants, however, felt that ASHAs and auxiliary nurse midwives (ANMs) never told them about how to prevent disease. The gap in surveillance/testing for early detection of communicable diseases such as TB is evident from the survey findings. On both referrals and back referrals, actual gaps were expressed by stakeholders. While patients sometimes were unable to travel to referred, more distant higher facilities because of economic issues, not all referred NCD patients were coming back to sub-centres for refills and follow-ups.

Gaps in meeting health needs: This study examines gaps in meeting health needs for certain vulnerable sections of the population such as adolescent girls and pregnant women. Overall, only 30.29% adolescent girls got information about menstrual hygiene from the ASHA/ANM. While iron and folic acid (IFA) tablets are required to be consumed for 100 days, on an average, pregnant women in Barpeta district consumed it for 67 days only, which is the lowest among the three districts. Among the mothers who gave birth in the last year, the extent of home delivery is highest in Barpeta district (18.18%).

Participation and engagement: People's participation in the planning, monitoring and implementation of PHC is critical to people-centred health care. National Health Mission (NHM) has laid down a framework for community participation in health through its 'communitization' component. Village Health, Nutrition and Sanitation Committee (VHNSC) is one of the main structures in the NHM communitization framework. VHNSC's expected role is to take collective actions on issues related to health and its social determinants at the village level and carry out community-based planning and monitoring.

Regarding the overall functionality and utility of VHNSCs, some members mentioned problems such as members not being aware or active, and limited effort by the ASHA (member secretary of VHNSC) to engage the VHNSC members.

Lack of stake in work, lack of coordination among members and limited NGO role in facilitating the work of VHNSCs all hamper the effectiveness of these bodies as platforms of community action for health and accountability of services to the community.

Major study recommendations

Major recommendations of the study, many of which are based on CPHC best practices being applied by other states, are presented below:

- There should be a transition from centre-based to need-based provision of medicines to PHC facilities so that the supply of medicines to each centre is better aligned to the population it caters to. Implementing the IT-enabled drugs and vaccines distribution management system (DVDMS) can provide real-time information on the status of drugs and vaccines in different health facilities including actual or impending stock outs, and thus can help in the better planning and execution of drug distribution and supply at all levels.
- The hub and spokes model should be implemented to ensure that users are not inconvenienced even in the absence of diagnostic services at facilities. Under this model, samples are collected from the 'spokes' during OPD hours, transported to the nearest 'hub', and the reports brought back to the 'spokes' in the evening.
- Online tracking of patient referrals and back referrals is recommended.
- Use of teleconsultation to bring specialist services close to the people.
- Expedition of the development of training modules for the extended service buckets under CPHC (beyond service seven on NCD care) and widely deliver them to HWC team members.
- Use of innovative and efficient methods for population enumeration such as drawing on the ration card/E-PDS database.
- Making delivery facilities available more widely at sub-centres, especially in Barpeta district.
- Adoption of appropriate measures for supportive supervision and motivation of ASHAs.
- Delivery of capacity building programmes for VHNSC members to strengthen the clarity of their role and involvement in community monitoring and community grievance redressal.
- Involving key community representatives such as VHNSC members in scoring/rating the facilities and arriving at a consequent ranking of facilities/centres.
- A larger role for civil society organizations (CSOs) including NGOs, either by themselves or through the VHNSC, in making the users more aware of their rights and entitlements as citizen users of PHC facilities.



Chapter 1

Introduction and methodology



This chapter deals with the study rationale, objectives, methodology, sampling and limitations of the study.

1.1 Background and rationale

The National Health Policy, 2017, has laid down the importance of preventive and promotive health care. It has laid down the goal of universal health coverage (UHC) and free primary care as one of the means to achieve UHC. National Sample Survey Organization (NSSO) data reveals the low rates of utilization of public primary health care. The data shows reliance on private practitioners (70% spells of ailment are treated in the private sector, according to NSSO 71st round survey). The data shows that 11.5% households in rural areas and only about 4% in urban areas, reported seeking any form of OPD care, at or below CHC level primary care facilities (except for childbirth). This clearly shows low utilization of the public health systems for common ailments.

The above data gives rise to the question of why people are not using primary health care or are getting left out. The literature reveals that a range of determinants (both demand and supply side) including cultural factors, costs and OOP expenditures and the quality of care offered by primary health care institutions shape the uptake and utilization of primary health care. There is a need to find out which sections of population are being left out and why.

On the supply side, the recent establishment of HWCs is one attempt towards achieving UHC. An expanded package of services has been laid down for the HWCs, comprising care in pregnancy and childbirth, neonatal and infant health care services, childhood and adolescent health care services, family planning, contraceptive services and other reproductive health care services. HWCs also deal with management of communicable diseases, including national health programmes and outpatient care for acute simple illnesses and minor ailments. The expanded package of services also include screening, prevention, control and management of noncommunicable diseases, care for common ophthalmic and ENT problems, basic oral care, elderly and palliative care and emergency medical services. The screening and basic management of mental health ailments (NHSRC, n.d. (a)) must also now provided at the HWCs. However, it remains to be known whether all the above-mentioned intended services are really being offered at the centres.

There is, therefore, a need for a study to help understand the demand and supply side factors that come together to shape the utilization of primary health care and focus on a comprehensive range of supply and demand-side enablers and barriers.

The National Health Mission (NHM) has defined a number of participatory entities and endeavoured to achieve the 'communitization' of primary health care. The existence of these entities does not assure that they are active and functional.

The examination of people's participation in planning, monitoring and implementation would reveal insights about the actual nature and extent of people's voice, influence and control over PHC institutions. A related fundamental question that arises is - to what extent are PHC facilities in India providing people-centred health care, i.e. to what extent are they empowering individuals and communities.

In view of such a background, WHO engaged "GRAAM" to carry out a demand-side assessment of primary health care in the state of Assam. The primary data for the study was collected by WHO's Assam-based local partner "The Ant". GRAAM prepared the study design and instruments, trained the local data collection team, monitored data collection, analysed the data and wrote the study report.

1.2 Scope of the study

Thematic: a) Utilization and uptake of primary health care b) demand and supply side factors that shape each level of access/utilization.

Institutions/Facilities: PHC centres, sub-health centres, HWCs were covered.

Stakeholders: beneficiaries/users, health care providers and health personnel (medical officers, MPHWs, ANMs, mid-level health providers, ASHA, and Anganwadi workers), members and heads of participatory bodies such as the VHSNC and Rogi Kalyan Samiti, traditional healers, private health care providers and state, district, and taluka health officials.

Geographical: Three districts of Assam - Golaghat, Barpeta and Nagaon.

1.3 Objectives

The objectives of the study are as follows:

- a) To reveal the factors/determinants (both enablers and barriers) that influence the uptake and utilization of PHC facilities in each of the chosen districts of Assam covered by the study.
- b) To shed light on which sections of the population are being left out as far as coverage of the PHC facilities is concerned (from the point of view of gender, caste, tribal status and income (BPL/APL).
- c) To examine the current design and status of the CPHC reforms (specifically of the recently established HWCs) and what level of community demand they have been able to meet.
- d) To shed light on the nature and extent of community participation in the planning, implementation and monitoring of PHC.
- e) To provide policy recommendations for enhancing the access to and utilization of PHC and enhancing the levels of people's participation in planning, implementing and monitoring primary care.

1.4 Literature review

This brief literature review covers both the theoretical and empirical literature on utilization of primary health care.

Tanahashi (1978) has proposed a conceptualization of 'coverage ratio', which is not the same as utilization¹. While 'coverage ratio' (ratio of actual coverage of service-to-service target) may be simplistically measured in terms of number of people covered divided by number of people targeted, a better way proposed by Tanahashi is to operationalize service target in terms of need. He elaborates that there are two types of health care needs viz. prevention-oriented need (which is intrinsic in nature) and care-oriented need (which is incidental since it depends on the occurrence of illness).

For prevention-oriented services, the individual or household may be the appropriate unit and the service target is determined by the demographic characteristics of the population. For care-oriented services, however, the appropriate unit is the episode or case of illness, and the service target is shaped by the 'prevalence rate' of the concerned disease. For the prevention-oriented services, number of people/households reached divided by the number of people/households in the population defines the coverage ratio. For care-oriented services, the number of episodes for which care is provided divided by the

¹While mere utilization is not related to size of population, coverage ratio is related to the size of the population (Tanahashi, 1978).

actual number of episodes/cases defines the coverage ratio.

Having looked at the concept of coverage, which provides a nuanced notion of utilization, it is pertinent to look at the proposed frameworks related to the enablers and barriers of utilization. A few major frameworks related to the factors shaping utilization include works of Andersen and Newman (2005), Gelberg, Andersen and Leake (2000) and Levesque et al. (2013). Additionally, the integrated people-centred health services framework, WHO and the co-production framework (Batalden et al., 2016) are also brought to shed light on factors that health care services should address to give more support to people and become more responsive to people's needs and preferences.

Andersen and Newman (2005) have conceptualized health care utilization as being shaped by three types of factors: predisposing factors, enabling factors and need factors. These three kinds of demand-side determinants are described below:

- a) Predisposing factors: These refer to individual factors that exist prior to onset of illness, which make certain types of persons more likely to use health services. These include demographic factors (age and sex), social structural factors (educational, occupation, ethnicity) and attitudes and beliefs related to health services.
- b) Enabling factors: These refer to the means available to the individual for making use of health services. These include income, health insurance coverage, whether the individual has access to a regular source of health care and the accessibility of that regular source.
- c) Need factors: This refers to the perception of illness; the individual or family must perceive illness or the likelihood of its occurrence for utilization to take place. Such need is of two types: need as perceived by the individual and need as evaluated by medical professionals. Need also has a population/community level dimension, in which sense it refers to population health indices, such as morbidity, disability and mortality levels.

The framework by Gelberg and colleagues (Gelberg, Andersen and Leake, 2000) includes the predisposing, enabling and need-based factors stated above.

However, their paper goes further in defining 'vulnerable domain' factors under each category of predisposing, enabling and need-based that are relevant to the extremely marginalized populations such as homeless people. Their paper supplements the 'traditional domain' factors already defined in Andersen and Newman (2005). Some of the 'vulnerable domain' factors covered by Gelberg and colleagues are listed below:

- i) Predisposing factors: living conditions, mobility, substance abuse.
- ii) Enabling factors: transport access, telephone access, ability to negotiate system/knowledge of health system navigation, competing needs.
- iii) Need-based factors: perceived and evaluated health conditions of vulnerable populations

Additionally, the model by Gelberg and colleagues brings in health behaviour as a factor that includes personal health practices that shape health seeking and in turn utilization. These include self care, diet and exercise and adherence to care.

Levesque et al. (2013) have devised a comprehensive conceptual framework regarding the determinants of access to health care. Access is defined as "the opportunity to reach and obtain appropriate health care services in situations of perceived need for care". The features of this framework are as follows:

- a) The framework does not see access merely as utilization/non-utilization but lays down different steps/levels of access: i) health care needs, ii) perception of health needs and the desire for care, iii) health care seeking, iv) health care reaching v) health care utilization and vi) health care consequences (satisfaction, health consequences, economic consequences).
- b) Access is seen as being shaped by an interplay of demand-side and supply side factors, or as the "interface between health systems and populations". The transition to the next level of access (for e.g., from presence of health needs to perception of health care needs) is shaped by the following factors on the supply side and demand-side:

Table 1.1: Interface between health systems and populations.

Sr. No.	Supply Side		Demand Side	
i.	Approachability	Approachability relates to the identification of existence of health services that can be reached and have an impact on individual's health	Ability to perceive need	Complementing this notion on the demand side is the ability to perceive the need for health care
ii.	Acceptability	Acceptability refers to the cultural and social characteristics of services that determine whether people will accept the services	Ability to Seek	Ability to seek health care is shaped by knowledge of health care options, personal autonomy and capacity to choose health care
iii.	Availability and accommodation	Availability and accommodation mean that health care facilities and personnel can be reached physically and in a timely way	Ability to reach	Ability to reach health care facilities complements this notion on the demand side, and is shaped by factors such as availability of transportation, personal mobility etc
iv.	Affordability	Affordability of health care is shaped by the price and other costs of health care, including direct costs, indirect costs, informal costs and opportunity costs	Ability to pay	The notion of ability to pay which is shaped by factors such as income and savings
v.	Appropriateness	Appropriateness covers factors such as the fit between services and client need, and the technical and interpersonal quality of services	Ability to engage	Ability to engage refers to the “participation and involvement of the client in decision-making and treatment decisions, which is in turn strongly determined by capacity and motivation to participate in care and commit to its completion.”

WHO has laid down the Framework of Integrated People-centred Health Services, which has the following elements (WHO, n.d.):

- i) Engaging and empowering people and communities: this includes providing the appropriate health education, shared clinical decision making, self-care, knowledge of health sense navigation, community delivered health care, and development of civil society.
- ii) Strengthening governance and accountability: it includes community participation, health rights and entitlements, population registration and provider report cards
- iii) Reorienting the model of care: it includes local needs assessment, gender, cultural and age-sensitive services, monitoring population health status and surveillance, health promotion and disease prevention. The model also proposed multi-disciplinary primary care teams, gate-keeping to access other specialized services, shared electronic medical records, telemedicine and M-health.
- iv) Coordinating services within and across sectors: it includes referral and counter-referral services, incentives for care coordination, integrating traditional medicines with modern health system.
- v) Creating and enabling environment: it includes establishing a culture of safety and quality assurance and continuous quality improvement, tackling health workforce shortages, health workforce training and improved working conditions and compensation for health workforce.

The co-production framework “Batalden et al., 2016” has some elements of commonality with the integrated

people-centred health services framework. Co-production involves the idea of support for both patients and professionals in the health service delivery process. It includes elements such as civil discourse, respectful interaction and effective communication, along with co-planning, co-management, co-monitoring and co-evaluation. Successful examples tried out in practice in the UK and other countries reveal the concrete dimensions of co-production. One such dimension is self-care training provided to patients under UK's NHS. Another dimension is shared medical appointments or patient groups in which patients collectively devise concrete strategies to meet their health conditions, share mutual experiences of illness, and benefit from other patients' advice.

Such an empowered setting involves a shifting of the power dynamic and enables the facilitating providers (if any) to become more aware of the challenges, patients face in adhering to treatment².

In addition to the frameworks proposed above, the literature shows different studies that have examined various determinants of access and utilization of PHC. These fall into different categories such as financial factors and demand side financing, socio-cultural factors, other demand side factors such as distance, and supply side factors including the quality of care.

Financial factors

With reference to financial factors/costs as a determinant of utilization, there is an interesting finding from the study by Vargese et al. (2013) of Satara district, Maharashtra. For urban areas, one of the reasons found for utilization is that services are free. For rural areas, on the other hand, taking money for treatment is found as a reason for not using.

Financial barriers have, therefore, been seen as a factor that hinder the utilization of health services. A paper by Mishra and Mohanty (2019), for instance, points to the persisting high OOPE on institutional deliveries in spite of the presence of central and state schemes on maternal health. This study found that 25% mothers resorted to borrowing or selling of assets to meet OOPE on institutional deliveries. High OOPE on institutional delivery, delivery in private centres and caesarean delivery were associated with such distress financing. Furthermore, spending on tests, medicines, and other charges even in public health facilities varies from one state to another. In some poorer states such as Bihar and Uttar Pradesh, inadequate availability of medicines and diagnostic facilities at public health centres leads to high distress financing on institutional delivery. Furthermore, the authors argue that the amount supposed to be provided under schemes such as Janani Suraksha Yojana is not sufficient to meet the costs of delivery care (Mishra and Mohanty, 2019).

Cultural factors

The literature examines concepts such as cultural competence and cultural sensitivity of health care. Betancourt et al. (2003) in their review of cultural competency mention three types of socio-cultural dimensions of cultural competency:

- a) Organizational (leadership and workforce): The authors argue that “lack of diversity in the leadership and workforce of health care organizations results in structural policies, procedures and delivery systems inappropriately designed or poorly suited to serve diverse populations.” They point to research that shows that for racial minority patients, when patient and doctor are from the same race, then there is greater patient satisfaction and higher self-rated quality of care.
- b) Structural factors (related to the process of care): Interpreter services, culturally and linguistically appropriate health education materials and intake and appointment processes that take into account community work patterns are mentioned as structural aspects of the cultural competency of health care.
- c) Clinical factors (interaction between provider and patient): The authors mention cross-cultural training as a means of inculcating knowledge of culturally bound health beliefs and behaviours and the skills to manage them in health care provision. Such training may encompass dimensions such as folk illnesses, ethnopharmacology, use of home remedies, trust in doctors, communication styles, family, sexual and gender issues, and issues of prejudice, mistrust and racism.

The concept of cultural sensitivity is analysed by Foronda (2008). The analysis highlights five aspects of cultural sensitivity:

- a) Knowledge of culturally grounded values, beliefs and practices.

²There are insights on the working of patient groups from the Indian context as well. In Bilaspur district of Chhattisgarh, near the Achanakmar Tiger Reserve, patient groups for NCDs such as diabetes, hypertension, mental illness and also for alcohol addiction are helping to improve patient compliance and motivating people to make lifestyle changes (Samant and Agarwal, 2018).

- b) Consideration: Avoiding cultural stereotyping, being “open, authentic, sensitive and caring”, considering diet, custom and tradition.
- c) Understanding: Appreciating the importance of another person's beliefs and values, openness towards caregiving practices of the concerned community, trying out culturally grounded care giving practices.
- d) Respect
- e) Customizing the intervention to the client in terms of way of approaching patients, selection of treatment and way of providing care.

The concept of cultural safety is related to the concept of cultural sensitivity. Cultural safety is concerned with providing an environment that is “spiritually, socially, physically and emotionally safe” (Eckermann et al., 1994). In such an environment, there is no denial or threat to the identity of persons from any ethnic group, and people can safely meet their needs and expectations. Cultural safety also includes 'shared respect', 'shared learning with dignity' and 'truly listening' (Eckermann et al., 1994). The unique element in the concept of 'cultural safety' is that one must examine one's own attitudes, ideas and behaviours towards the persons of other cultures, especially indigenous persons. One must be mindful of the impact of one's own ideas and attitudes and be open-minded and flexible towards other cultures. Cultural safety involves recognizing and rejecting stereotypes, developing trust, and valuing free, open and respectful communication (Faculty of Health, QUT, 2013). Cultural safety can be further bolstered by having strategies and pathways for the empowerment of indigenous peoples and laying down community control and ownership (Williams, 1999).

As far as empirical findings related to cultural factors and utilization are concerned, Vidler (2016) presents findings from the Karnataka context regarding the effect of cultural beliefs. He points out that cultural beliefs regarding the concealment of pregnancy lead to late and fewer ANC visits.

Other demand-side factors

Dar (2015) has pointed to distance, physical barriers and transport availability as factors that hinder the utilization of PHC centres in India. Vargese et al (2013) in their study of Satara district, Maharashtra, point out that one of the demand-side reasons people in rural areas use PHCs is non-seriousness of disease, while in urban areas distance is a demand reason for non-use. They also say that distance/proximity is a reason for use of PHCs in rural areas.

Rushender et al. (2016) have disaggregated PHC utilization in Cuddalore District of Tamil Nadu. They found that for acute illness, only 45.4% survey respondents used the PHC.

For chronic illness, 58.8% used PHC. While usage of PHCs by ANC mothers is 81.65%, only 24.76% deliveries were conducted at PHCs. For family planning services, 64.86% respondents used PHCs. The prime reasons for non-utilization, the authors say, is distance, inconvenient timing, and the inconvenience caused by disbursal of small quantities of medicines at one time. Overall, the authors argue, that people prefer PHCs for preventive and promotive services, such as IFA nutrition supplement, TT immunization and child immunization due to awareness, availability, incentives and motivation. However, for acute illness, intra-natal care, family welfare and special investigation, people prefer other services, they say.

Supply side factors

Dar (2015) in his study of PHC utilization in India, argues that inpatients are less in PHCs because of poor quality of infrastructure. About 46% of the patients seeking treatment come for maternal and child services because of the strong linkage of PHCs with National Rural Health Mission (NRHM).

Poor medicine supply and leakages in supply, lack of doctor and nonavailability of emergency care at PHCs after 4pm are supply side impediments observed by the author. Availability of basic lab facilities, short waiting time and satisfaction with consultation time are highlighted as enablers.

Vidler (2016) reports the following supply side factors from his study of MCH utilization at PHCs in Karnataka: cleanliness of infrastructure, power availability, provision of tea and food, behaviour of staff and transport (108 Ambulance) facility. O'Donnell (n.d.) adds variables such as irregular opening and closing, absenteeism, misdiagnosis, informal charges and inappropriate prescription and treatment. Vargese et al (2013) add that non-effectiveness of treatment is a reason for non-utilization in both rural and urban PHCs of Satara, Maharashtra. O'Donnell proposes two competing hypotheses regarding the effect of supply side factors on utilization:

- “Demand will diminish in response to poor quality of care”
- “It is the convenience of private sector - people know they will find the clinic open and staffed – rather

than the effectiveness of the care that attracts patients away from public sector”

Two root causes are highlighted for the various supply side barriers seen above: insufficient resources and inappropriate allocation of resources across levels of care (O'Donnell, n.d.)

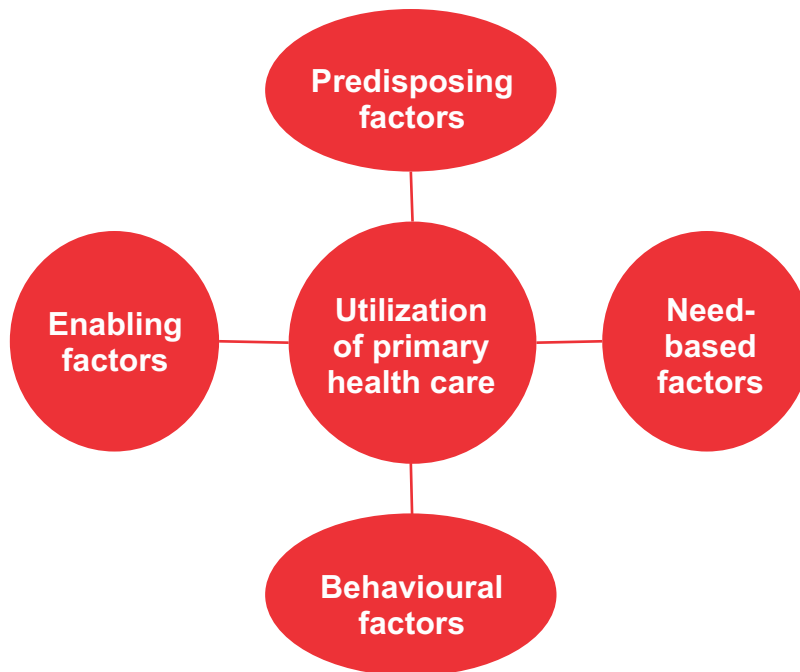
1.5 Conceptual framework

A blended conceptual framework has been developed which incorporates elements from various frameworks reviewed in the literature. The dependent variable in the framework is the utilization of health care. The dependent variable is shaped by supply side and demand side factors. The demand side factors have largely been taken from Gelberg, Andersen and Leake (2000), with minor additions from Levesque et al (2013). The supply side factors included have largely been borrowed from WHO's integrated people-centred health services framework, with additional elements taken from Levesque et al. (2013), Batalden et al. (2016) and Gelberg, Andersen and Leake (2000). For the sake of readability, the demand side and supply side factors shaping utilization have been separated in this section.

Demand-side determinants

The demand-side factors are summarized in the figure below and detailed in the narrative listing that follows.

Figure .1: Framework of demand-side determinants



Demand-side factors

a. Pre-disposing factors

- Age
- Gender
- Marital status
- Health beliefs: values concerning health and illness (culture), attitudes towards health services (includes trust)
- Health knowledge/knowledge about disease
- Ethnicity
- Education
- Employment
- Religion
- Social networks

- Living conditions
- Mobility
- Substance abuse

b. Enabling factors

- Regular source of care
- Income
- Social support/social capital
- Perceived barriers to care
- Transport access
- Ability to negotiate system/knowledge of health system navigation
- Competing needs
- Autonomy

c. Needs-based factors

- Perceived health
- Prevalence of disease

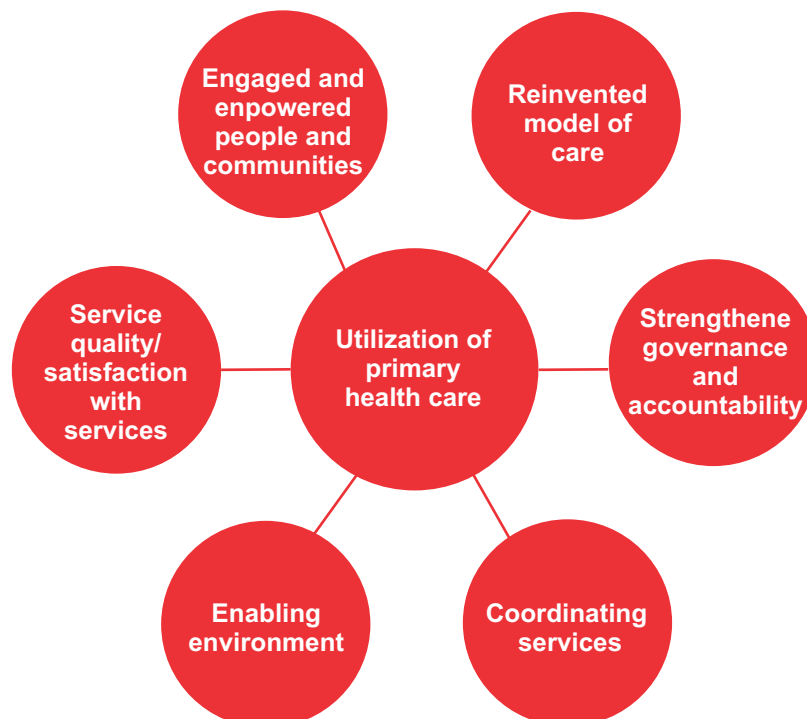
d. Behavioural factors

- Self care
- Adherence to care
- Personal health practices, including diet
- Empowerment and engagement (participatory health planning and functioning of participatory structures, grievance system, public hearings)

Supply side determinants

The supply side factors are summarized in the figure below and detailed in the narrative listing that follows.

Figure 1.2: Framework of supply side determinants



Supply side factors

a. Engaging and empowering people and communities

- Co-production/greater patient assistance - civil discourse i.e. respectful interaction and effective communication, co-planning, co-execution
- Health education
- Information and explanation to patients³
- Building patients' capacity for self care
- Health care delivered to community
- Civil society/community organization's role
- Peer support and patient groups
- Health system navigation

b. Strengthening governance and accountability

- Community participation
- Health rights and entitlements (citizen's charter and awareness of same)⁴
- Population empanelment
- Information/transparency

c. Reinventing the model of care

- Gender sensitive care, culturally sensitive services/cultural safety (acceptability)
- Health needs assessment
- Monitoring population health status and surveillance
- Population empanelment
- Health promotion and disease prevention (e.g. promotion of handwashing, presence of preventive services)
- Multidisciplinary primary care teams/availability of sufficient manpower of different categories
- Gatekeeping to access other specialized services
- Shared electronic medical records, unique health id and other technological solutions
- M-health (e.g., SMS/WhatsApp alerts)

d. Coordinating services within and across sectors

- Referral and counter referral
- Incentives for care coordination
- Integrating traditional medicine with modern health system

e. Creating an enabling environment

- Fully functional PHC/SHC/HWC with appropriate staff
- Tackling health workforce shortage
- Health workforce training
- Improved working conditions and compensation

f. Service quality/satisfaction with services⁵

- Location/access/availability
- Opening hours
- Waiting time
- Direct costs/user charges
- Indirect costs

³This indicator has been substituted for "shared clinical decision making" from WHO's integrated people centred health services framework

⁴Awareness of services that they can expect

⁵Taken from Gelberg, Andersen and Leake (2000)

- Informal costs
- Technical quality
- Interpersonal quality
- Time spent with clinic staff
- Comprehensiveness
- Waiting time
- Infrastructure and cleanliness

1.6 Research questions

What is the extent of utilization and uptake of primary health care (PHC) facilities?

1. Which sections of the population are showing lower levels of utilization and uptake of PHC facilities?
2. Who uses which kind of facilities? In other words, what is the level of uptake and utilization for various kinds of services offered at PHC facilities?
3. At the onset of illness, do people choose to see a provider, or do they delay seeing a provider? What are the reasons for delaying going to a provider?
4. Which is the first-choice provider for beneficiaries and why?
5. What are beneficiaries' reasons for choosing different providers such as PHCs, traditional providers, and private providers? For which conditions do they visit these different providers?
6. What factors enable or hinder people's utilization of PHC centres? What are the factors on the demand-side and supply side that shape such utilization?
7. What is the extent of implementation of various components of the people-centred health care paradigm?
8. Is there a gap between people's health needs and the uptake/utilization of the required services to meet these needs? What is the nature of the gap?
9. What is the state of availability of each of the services in the intended package of CPHC services to be provided by HWCs?
10. What are the services and facilities that people expect in the PHC facilities, and how do the available services compare with the expected services?
11. In what ways are people participating in planning, implementation and monitoring of facilities? Are the participatory structures set up under NHM existing and functional in the areas covered under this study? Are they promoting meaningful people's participation?

1.7 Methodology

1.7.1 Approach

This study employed a cross-sectional research design. It uses a mixed method approach i.e. both qualitative and quantitative methods to investigate the research questions. The quantitative and qualitative methods to be used have been elaborated.

This study also encompasses an examination of the PHC system using the situational analysis methodology. The situational analysis methodology used in this study, based on Rajan (2016), includes the following characteristics:

- i) A comprehensive analysis of the current PHC system,
- ii) Participatory, with inclusion of a wide range of significant stakeholders including community and users. This is expected to shed light on the constraints and challenges faced by stakeholders on the provider side and the user side.
- iii) Analytical and comparative approach. Not only understand the current situation with respect to utilization and other variables, but also the causes and contextual factors behind the current situation.
- iv) Providing evidence that can be used to respond to the health needs and expectations of the community and to formulate or modify policy.

1.7.2 Data collection methods

Quantitative data collection

The quantitative data for this study comes from two main sources:

- a) This study has made use of primary data collected by means of a tab-based survey of beneficiaries.
- b) Available secondary data regarding state of services and facilities at HWCs/SHCs/PHC and the footfalls (HMIS)

Qualitative data collection

The qualitative data for this study was collected from FGDs and IDIs. The following kinds of FGDs and IDIs were conducted:

1. FGDs of women beneficiaries
2. FGDs of men beneficiaries
3. Provider IDIs - ANMs, ASHAs, MLHPs, MO of PHCs, MPHWs of HWCs
4. Semi-structured interviews of VHSNC head/members
5. IDIs of RKS members
6. IDIs of sarpanch/head of health sub-committee of Gram Panchayat (GP)
7. IDIs of government officials (block, district and state levels)
8. Beneficiary IDIs
9. Traditional healer and private provider IDIs

1.8. Sampling principle and sample size

State: Assam

Districts: Barpeta, Nagaon and Golaghat.

1.8.1 Sampling of health centres and survey respondents

In each selected district, 10% of the rural PHCs or four rural PHCs were selected (whichever is greater). Under each selected PHC, two sub-centres or SHCs were selected. Selection of both PHCs and SHCs were random. The PHCs were selected randomly at district level. Within the selection of PHCs and SHCs, the selection of HWCs were incidental and not purposive. For the purposes of the beneficiary survey, the beneficiary sample in each district was selected from the district population on the basis of 5% margin of error (MoE) using Slovin's formula. The beneficiary sample in each district is to be equally apportioned/allocated between the catchment areas of the selected PHCs.

Beneficiary sample size (for the survey) is shown in the following table:

Table 1.2: Sample size for beneficiary survey

District	Total population size	Sample size (5% MoE) for district
Barpeta	1 693 622	400
Golaghat	1 066 888	400
Nagaon	2 823 768	400
Total		1 200

Beneficiary sample in each district was equally apportioned/allocated between the catchment areas of the selected PHCs. For example in Barpeta district, the sample of 400 was equally allocated between five PHCs, which means that 80 beneficiaries were surveyed per PHC area).

Chapter 3 of this report presents the demographic composition of the survey respondents reached in all the three districts.

Table 1.3: Sampled health centres

Berpeta	Barpeta Road BPHC	Borbarijhar sub health centre (SHC)
		Kumuria SHC
	Bhawanipur BPHC	Jogirpam SHC
		Pakabetbari Pam SHC
	Kalgachia BPHC	Lachanga SHC
		BalaBhitha SHC
	Mandia BPHC	Kadamtola SHC
		Pathlikuchi SHC
	Nagaon BPHC	SuhaBaradi SHC
	Batikuriha SHC	
Golaghat	Bokakhat BPHC	Dhanshrimukh SHC
		Siljuri SHC
	Charingia BPHC	Aka Dulakhoria SHC
		Khumtai MPHC notional sub-centre (NSC)
	Kamarbondha Ali BPHC	Kakotygaon SHC
		Teteliguri SHC
	Missamora BPHC	Dergaon CHC NSC 1
	Khanikar SHC	
Nagaon	Buragohainthan BPHC	MazPathari SHC
		Mazgaon SHC
	Dagaon BPHC	Borpam SHC
		Tinsukia-2 SHC
	Jakhalabandha BPHC	Pubthoria 1 SHC
		Borghuli SHC
	Kathiatoli BPHC	Pallasha SHC
		Pub Borpathar SHC
	Lanka BPHC	Pub Samarali SHC
		Kapilipar SHC
	Samaguri BPHC	UdmariSD
		NizBheleuguri SHC
	Simonabasti BPHC	Lakhanabandha SHC
		Borhola SHC
Singimari BPHC	Hatipukhuri 1 SHC	
	Teliachaporitup SHC	

Table 1.4: Coverage of villages and population

District	Random selected BPHCs	Number of randomly selected SHCs under each PHC	Number of villages (two under each SHC area)	Village selection principle	Persons to be surveyed per PHC (400/no of BPHCs)	Number of persons to be surveyed per village
Barpeta	5	10	20	10 villages in which concerned SHC is located plus 10 remote villages, far away from the concerned SHC	80	20
Golaghat	4	8	16	8 villages in which concerned SHC is located plus eight remote villages, far away from the concerned SHC	100	25
Nagaon	8	16	32	16 villages in which concerned SHC is located plus 16 remote villages, far away from the concerned SHC	50	12-13

1.9: Qualitative interview numbers and types

Table 1.4: Coverage of villages and population

Stakeholder/IDI type	Berpeta		Golaghat		Nagaon		Total	
	Allocated	Completed	Allocated	Completed	Allocated	Completed	Allocated	Completed
IDIs of ANMs (one per PHC area)	5	5	4	4	8	8	17	17
IDI of ASHA workers (one per PHC area)	5	5	4	4	8	8	17	17
IDI of Anganwadi workers (one per PHC area)	5	5	4	5	8	7	17	17
IDIs of MLHPs of HWCs (one per PHC area)	5	2	4	1	8	2	17	5
IDIs of MO of PHCs (one per PHC area)	5	4	4	4	8	7	17	15
IDIs of MPHWs of HWCs (one per PHC area)	5	4	4	4	8	5	17	13

Stakeholder/IDI type	Berpeta		Golaghat		Nagaon		Total	
	Allocated	Completed	Allocated	Completed	Allocated	Completed	Allocated	Completed
Semi-structured Interview of VHSNC heads and members (one VHSNC in each PHC area. Head plus one member (barring ASHA) from each VHSNC)	10	10	8	8	16	7	34	25
IDI of RKS members (One per PHC area, if available)	5	1	4	4	8	8	17	13
Semi structured interview of sarpanch/ head of health subcommittee of GP (Three in each district)	3	3	3	3	3	3	9	9
State level Interview	1							1
IDI of taluka level health official - two taluka health officers in each district	2	2	2	2	2	2	6	6
IDI of government officials (district levels)	1	1	1	1	1	1	3	3
Beneficiary IDIs - women	5		5		5		15	
Five per district (adolescent, reproductive age, aged, middle-aged/chronic disease, disabled)		5		5		5		15
Beneficiary IDIs - men	5		5		5		15	
Five per district (adolescent, reproductive age, aged, middle-aged/chronic disease, disabled)		5		5		5		15
Traditional healer IDIs- two per district	2	2	2	2	2	2	6	6
Rural Private doctor IDIs	2	2	2	2	2		6	4
Men FGD	5	5	4	3	8	8	17	16
women FGD	5	4	4	4	8	8	17	16
Total	76	65	64	61	108	86	247	213

1.10 Limitations of the study

1. The study does not make use of a longitudinal design to trace utilization and relies on the memory of participants regarding utilization and uptake experience for a limited period of time.
2. The study does not make use of the randomized control trial (RCT) or experimental design with randomized assignment, therefore, the results of regression should not be interpreted as a confirmation of causality but only indicative of association.
3. As far as utilization of services provided by PHC facilities are concerned, this programme only covers a limited range of services. The study does not cover the entire range of services delivered by PHCs, SHCs and HWCs and entire range of programmes implemented by them.
4. The districts for the study are prescribed/pre-decided; as district selection is not random, the findings from three districts in a state cannot be generalized for the whole state.

1.11 Report structure


This report has the following chapters:

- Chapter 1 - Introduction and methodology
- Chapter 2 - Understanding Assam's health system: a secondary data-based analysis
- Chapter 3 - Demographic profile of the survey respondents
- Chapter 4 - Prevalent health issues and health care seeking
- Chapter 5 - Provider choice
- Chapter 6 - The extent, nature, and composition of PHC service utilization
- Chapter 7 - Available and expected services at PHC facilities
- Chapter 8 - Enablers and barriers to utilization
- Chapter 9 - Health needs and the gaps in meeting health needs
- Chapter 10 - Participation and engagement
- Chapter 11 - Summary of findings
- Chapter 12 - Best practices and recommendations



Chapter 2

Understanding Assam's health system: a secondary data-based analysis



2.1 Introduction

This chapter presents secondary data related to Assam's health system acquired from different databases like Annual Health Survey, Rural Health Statistics, Health Information Management Systems, National Health and Family Survey, National Sample Survey and Census of India. The presented analysis intends to summarize information about population health and health system performance.

Certain indicator categories such as health infrastructure access, health care utilization and expenditure are specially, relevant to the demand-side assessment of PHC. Health care related need is assessed through the examination of key outcome indicators and disease burden.

In this chapter, the prevalent status on relevant indicators for Assam has been compared with the nationwide status and also, wherever possible, with two empowered action group (EAG) states - Bihar, and Odisha - to see what actual difference exists with respect to the indicators.

Data on relevant indicators is also presented for the three districts chosen for this study - Barpeta, Golaghat and Nagaon. On some indicators, these districts are also compared with Cachar, Dibrugarh and Tinsukia districts of Assam, which are comparable on population and geographical area.

The secondary data-based analysis in this chapter covers the following:

- Demographic indicators
- Utilization of health services and expenditure on health services (hospitalization, outpatient and maternal care)
- Health infrastructure availability and access
- Key health outcome indicators: infant, child and maternal mortality
- Disease burden

2.2 Demographic indicators

This section on demographic indicators includes indicators that measure the population size, sex ratio and density, while vital statistics include indicators such as birth rate, death rate and life expectancy at birth. The data for these indicators has been taken mainly from the Census of India and Annual Health Survey.

Table 2.1: Demographics of Assam

Assam population parameters	2011	2001
Actual population	31 205 576	26 655 528
Male	15 939 443	13 777 037
Female	15 266 133	12 878 491
Population growth	17.07%	18.85%
Percentage of total population	2.58%	2.59%
Sex ratio	958	935
Child sex ratio	962	965
Density/sq km	398	340

Source: Census of India (2011 and 2001)

Assam has a population of 31.2 million, constituting 2.58% of the total population of India. Nearly 400 people reside per square kilometre. Overall sex ratio is 958, while the child sex ratio is 962.

Table 2.2: Demographics of Nagaon, Golaghat and Barpeta districts

Districts	Nagaon		Golaghat		Barpeta	
Year	2011	2001	2011	2001	2011	2001
Actual population	2 823 768	2 314 629	1 066 888	946 279	1 693 622	1 394 755
Male	1 439 112	1 190 950	543 161	490 286	867 004	720 069
Female	1 384 656	1 123 679	523 727	455 993	826 618	674 686
Population growth	22.00%	22.26%	12.75%	14.27%	21.43%	19.62%
Area Sq. km	3 973	3 973	3 502	3 502	2 282	2 282
Density/sq km	711	582	305	270	742	521
Proportion to Assam population	9.05%	8.68%	3.42%	3.55%	5.43%	5.23%
Sex ratio (per 1 000)	962	944	964	930	953	937
Child sex ratio (0-6 Age)	964	975	963	963	961	961

Source: Census of India (2011 and 2001)

Amongst the three districts chosen for this study, Nagaon is the largest district in terms of area, followed by Golaghat and Barpeta. Population is highest in Nagaon followed by Barpeta, and Golaghat is the least populated amongst the three districts. Barpeta has the highest population density.

Table 2.3: Literacy rate of Assam compared to other states

Category	2001 (%)			2011 (%)		
	Person	Male	Female	Person	Male	Female
India	64.83	75.26	53.67	74.04	82.14	65.46
Assam	63.25	71.28	54.61	63.82	78.81	67.27
Bihar	47	59.68	33.12	73.18	73.39	20.06
Odisha	63.08	75.35	50.51	73.4	82.4	64.31

Source: Census of India (2011 and 2001)

In this table the literacy rates of Assam, Bihar and Odisha are compared for the years 2001 and 2011. In 2001, Assam had the highest literacy rate, when compared to these other states, but less than the Indian literacy rate. However, in 2011, Odisha achieved the highest literacy rate and Assam slipped to the third place, showing that Assam was unable to achieve the same level of improvement in literacy as the other two states. In both the years, males have shown a higher literacy rate than the females for all the states, and for India as a whole. But in the 10-years period, the rate of literacy among women has increased, except in Bihar.

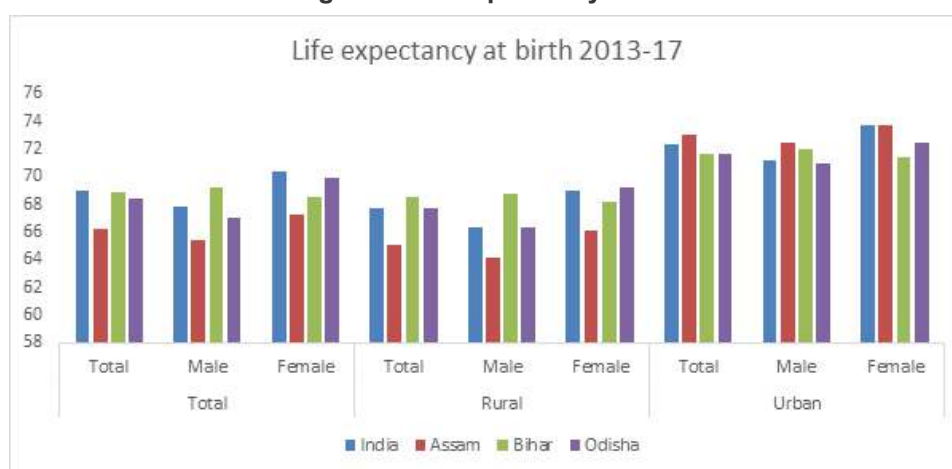
Table 2.4: Literacy rate in Assam by district

Category	2001 (%)			2011 (%)		
	Person	Male	Female	Person	Male	Female
Barpeta	56	64.23	47.16	65.03	70.72	59.04
Golaghat	69.38	77.14	60.99	78.31	84.20	72.18
Nagaon	61.73	68.27	54.74	73.78	78.19	69.21
Cachar	67.82	75.73	59.41	80.36	85.85	74.62
Dibrugarh	68.96	77.30	59.95	76.22	82.59	69.52
Tinsukia	60.95	70.15	50.78	70.92	77.89	63.54

Source: Census of India (2011 and 2001)

In the year 2001, the highest literacy rate was in Golaghat and the lowest was in Barpeta. In the year 2011, the highest rate was in Cachar and the lowest was again in Barpeta. The literacy rates were higher for males than the females for all the districts for both years.

Fig. 2.1: Life expectancy at birth



Source: SRS abridged life tables

When the life expectancy of Assam at birth is compared to that of India (overall and for rural areas), Assam shows a lower life expectancy rate both for males and females. However, among the urban population, Assam's life expectancy is slightly higher than India's. Similarly, when Assam's life expectancy at birth is compared to Bihar's, it shows that Bihar has a relatively higher life expectancy (for men and women and both genders combined and also overall in rural areas). But in urban areas life expectancy is higher in Assam compared to Bihar.

When life expectancy at birth in Assam is compared with Odisha's, it is higher in Odisha - both overall and male and female in rural areas. But the exception is again seen at the urban level - where Assam's life expectancy is higher.

Table 2.5: State-wise crude birth rate (2010-2012)

State	2010-11	2011-12
Assam	21.9	21.3
Bihar	26.7	26.3
Odisha	20.0	19.8

Source: Annual Health Survey

Crude birth rate in Assam decreased by 0.6% in the year 2011-12 as compared to the year 2010-11. In Bihar, it declined by 0.4% and in Odisha it declined by 0.2% for the same period.

Table 2.5b: District-wise crude birth rate (2010-2012)

Districts	Crude birth rate 2011-12			Crude birth rate 2010-11		
	Total	Rural	Urban	Total	Rural	Urban
Barpeta	20.6	21.3	14.6	20.8	21.5	15.3
Nagaon	23.7	25.2	17.7	24.6	26	17.9
Golaghat	21.4	21.4	21.3	21.9	21.9	21.8

Source: Annual Health Survey

For 2011-12, Nagaon has the highest crude birth rate and Barpeta the lowest. In the district of Barpeta, there has been change of - 0.2 in the total crude birth rate from the period 2010-2011 to 2011-2012.

The same degree and direction of change is seen in the crude birth rate in rural areas in the same time frame. A decrease of 0.7 is seen in the same time period in the urban areas of the district.

In the district of Nagaon, the total crude birth rate had gone down by 0.9 points. In the rural areas, there has been a decrease of 0.8 and in the urban areas, a decrease of 0.2 is seen.

In the district of Golaghat, the total crude birth rate has decreased by 0.5 points. In both the rural and urban areas, there has been a drop of 0.5 points from 2010-2011 to 2011-2012.

Table 2.6: State-wise crude death rate (2010-12)

			Assam	Bihar	Odisha
2010-11	Total	Total	6.7	7	8.2
		Male	8	7.1	8.8
		Female	5.3	6.9	7.6
	Rural	Total	6.7	7.2	8.6
		Male	7.9	7.3	9.2
		Female	5.5	7.1	8
	Urban	Total	6.5	5.6	6.5
		Male	8.6	5.8	7.1
		Female	4.3	5.4	5.9
2011-12	Total	Total	6.8	7.2	8.3
		Male	8.4	7.4	8.9
		Female	5.1	7	7.7
	Rural	Total	6.9	7.4	8.7
		Male	8.3	7.7	9.3
		Female	5.4	7.2	8.1
	Urban	Total	6.2	5.7	6.4
		Male	8.9	5.9	7
		Female	3.3	5.5	5.7

Source: Annual Health Survey

Overall, for 2010-11 and 2011-12, it can be seen that Odisha has the highest CDR and Assam has the lowest. At the rural level, Odisha had the highest CDR in both years. In all the cases, males have a higher CDR than females.

Table 2.7: District-wise crude death rate (2010-12)

Districts		Barpeta	Golaghat	Nagaon	Cachar	Dibrugarh	Tinsukia	
2010-11	Total	Total	6.7	8	8.1	7.5	8	7.5
		Male	8	9	9	8.6	9	8.4
		Female	5.3	6.9	7.2	6.4	6.9	6.5
	Rural	Total	6.7	8.3	8.5	7.8	8.3	7.8
		Male	7.9	9.4	9.3	8.9	9.4	8.7
		Female	5.5	7.1	7.2	6.7	7.1	6.8
	Urban	Total	6.5	5.8	6.4	6.5	5.8	6.3
		Male	8.6	6.1	7.9	7.8	6.1	7.7
		Female	4.3	5.6	4.8	5.3	5.6	5.2
2011-12	Total	Total	6.8	7.9	8.1	7.4	7.3	7.3
		Male	8.4	8.7	9.1	8.5	8.5	8.1
		Female	5.1	7.1	7	6.4	6	6.4
	Rural	Total	6.9	8.2	8.5	7.6	7.8	7.5
		Male	8.3	9.1	9.4	8.6	9	8.3
		Female	5.4	7.3	7.6	6.6	6.6	6.7
	Urban	Total	6.2	5.8	6.3	6.7	5.8	6.4
		Male	8.9	5.8	8	7.9	7.2	7.4
		Female	3.3	5.7	4.6	5.4	4.4	5.4

Source: Annual Health Survey

Nagaon has the highest CDR and Barpeta has the lowest CDR for 2010-11 and 2011-12. At the rural level, the highest rate is shown by Nagaon and the lowest by Barpeta for both years. In 2011-12, at the urban level, the highest CDR is in Cachar and Barpeta and the lowest in Golaghat and Dibrugarh. The trend of females having a lower CDR than males continue at the district level too.

2.3 Health care expenditure and utilization

This section touches on macro-level health expenditure, and subsequently delves into the detailed picture on health care utilization and expenditure.

2.3.1 Macro perspective on health expenditure

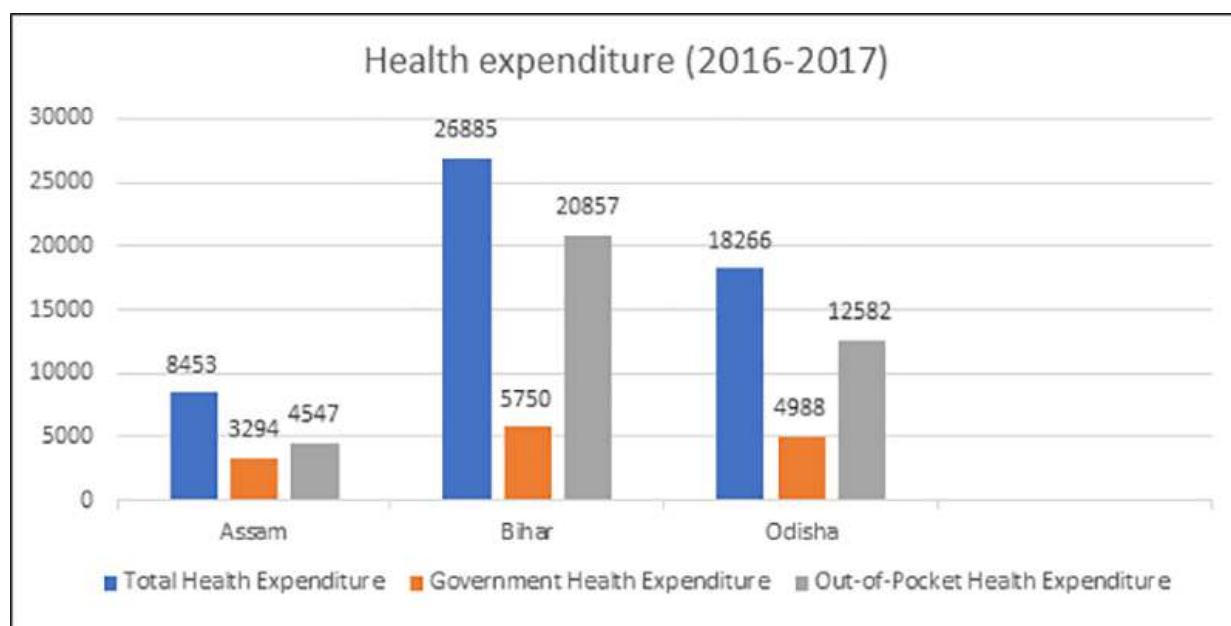
The table and figure below give a macro picture of health expenditure, in terms of total expenditure, government expenditure and out of pocket expenditure (OOPE) on health care.

Table 2.8: Health expenditure for the year 2016-2017 (\$1 = ₹73.89)

State	Total health expenditure		Government health expenditure		Out of pocket health	
	Total (in ₹ billion)	Per capita	Total in (₹ billion)	Per capita	Total in (₹ billion)	Per capita
Assam	84.53	2 562	32.94	990	45.47	1 366
Bihar	268.85	2 358	57.40	503	208.57	1 826
Odisha	182.66	4 059	49.88	1 116	125.82	2 815

Source: National Health Profile (2016-2017)

Fig. 2.2: Health expenditure for the year 2016-17



Source: National Health Profile (2016-2017)

The highest total health expenditure is in Bihar which is \$3.63 billion (₹268.85 billion). But the highest total per capita expenditure is in Odisha. The government expenditure on health is the highest in Bihar, but due to its much larger population, the per capita government expenditure is again highest in Odisha. The highest total OOPE is in Bihar and the highest OOPE per capita is in Odisha. Assam has the lowest OOP health care expenditure (total and per capita).

2.3.2 Health utilization and expenditure: outpatient and hospitalized care

Since the focus of this study is demand for health care, especially public primary health care, it is pertinent to look at core indicators of health care utilization and expenditure. The tables below present data on core utilization and expenditure indicators pertaining to outpatient and hospitalized care at the national level and for the State of Assam. The data is from the NHSRC state factsheets on household health care utilization and expenditure in India (based on NSSO's Health and Morbidity Survey 2014, Health and Morbidity Survey 2004 and Consumer Expenditure Survey 2011).

Table 2.9: Indicators on health care utilization and OOPE, 2014 (All India and Assam compared)

Indicators	Assam		All India	
	Rural	Urban	Rural	Urban
Utilization indicators				
Proportion (per thousand) of ailing persons	31	47	89	118
Non-hospitalization				
% of non-hospitalized cases using public facility	67	31	25	20
% of non-hospitalized cases using private facility	12	37	64	73
% of non-hospitalized cases using informal care (friends/relatives/medicine shops/others)	21	32	11	7
Hospitalization				
Proportion (per thousand) of hospitalized persons	28	36	44	49
% of hospitalized cases using public facility	89	52	42	32
% of hospitalized cases using private facility	11	48	58	68
Out of pocket expenditures (OOPE) on Health care				

Indicators	Assam		All India	
	Rural	Urban	Rural	Urban
Utilization indicators				
Hospitalization expenditure (excluding childbirth) (in ₹)				
OOPE per hospitalized case (in ₹) - all	6 938	43 688	14 473	21 985
OOPE per hospitalized case (in ₹) - public	5 080	16 181	5 369	7 189
OOPE per hospitalized case (in ₹) - private	22 285	72 884	21 034	28 958
Non-hospitalization expenditure (in ₹)				
OOPE per non-hospitalized ailing person (in ₹) in last 15 days - public	446	662	404	395
OOPE per non-hospitalized ailing person (in ₹) in last 15 days - private	746	4 284	649	778
% of diagnostics expenditure as a proportion of outpatient medical expenditure	13%	30%	11%	12%
% of drugs expenditure as a proportion of outpatient medical expenditure	66%	53%	73%	68%
% of drugs expenditure as a proportion of outpatient medical expenditure-public	65%	73%	76%	67%

Source: NHSRC State factsheets on household health care utilization and expenditure in India(NHSRC, n.d. (b))

Outpatient/non-hospitalized care: Table 2.9 shows that in rural Assam, the dependence on public facilities for OPD care is much higher compared to the rural areas of the country as a whole; 67% of outpatient cases use public facilities in rural Assam compared to 25% in rural India. Interestingly, a higher share (21%) of OPD cases in rural Assam depend on informal care compared to 11% for rural India.

For OPD cases that use public facilities, the average medical OOPE per case⁶ for rural Assam is slightly higher (₹ 466) than the corresponding figure for rural India \$5.5 (₹404). For urban areas, however, the average medical OOPE for Assam per outpatient case is almost 68% higher \$9 (₹662) than that for India \$5.34 (₹395). In both India and Assam, medicine expenses account for the dominant share of OPD expenses in public facilities in rural areas. However, the share of medicine expenses in OPD expenditure in public facilities in rural Assam is much lower (65%) than that of rural India (76%).

Hospitalization: A much higher ratio of hospitalizations in rural Assam are in public facilities (89%) compared to 42% in rural India.

The average medical OOPE per hospitalization case (combining public and private)⁷ for rural Assam is \$94 (₹6 938) compared to a much higher figure of \$195.38 (₹14 473) for rural India.

The average medical OOPE per hospitalization case in public facilities is slightly lower for rural Assam \$68.75 (₹5 080) compared to rural India \$72.66 (₹5 369).

2.3.3 Utilization and expenditure indicators related to maternal care

Table 2.10: ANC visit during first trimester (Assam and India)

All values in %				
	Urban	Rural	Total	National Family Health Survey (NFHS) 3
Assam	68.3	53.5	55.1	40
India	80.6	63	68.8	58.3

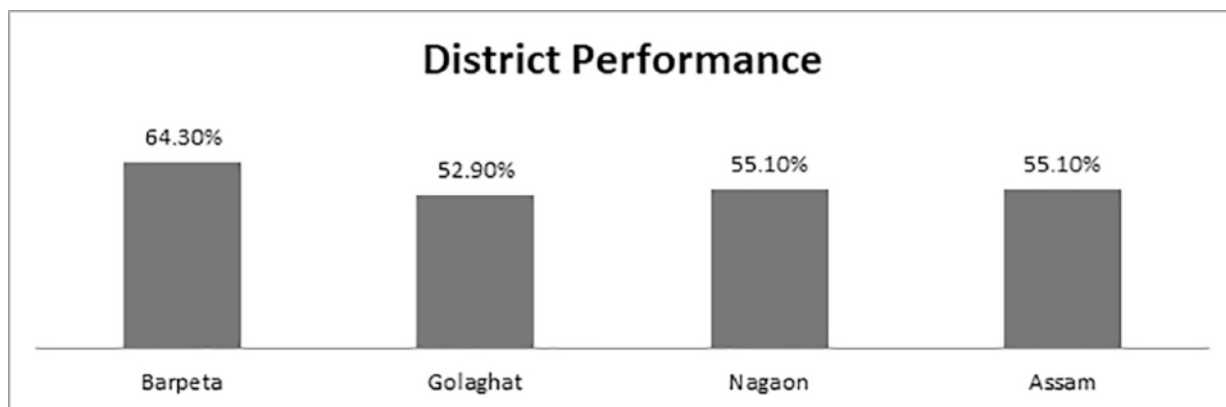
Source: NFHS-3 and NFHS-4 data

⁶Average medical OOPE for non-hospitalized cases refers to all payments made towards outpatient treatment of a person during the last 15 days at any facility (NHSRC, n.d. (b))

⁷Average medical OOPE for hospitalized case refers to all payments made towards treatment of a person during all episodes of hospitalization in the last one year at any facility. (NHSRC, n.d. (b))

The table above shows that overall, 55.1% pregnant women and 53.5% rural pregnant women in Assam made the required ANC visits in the first trimester. Both these figures are below the national average. However, as compared to NFHS 3, Assam has made progress and the situation on this indicator had changed for the better in NFHS 4.

Figure 2.3: District-wise ANC visits in first trimester



Source: NFHS-4 data

The graph above shows the percentage of mothers who had their ANC check-up in the first trimester in the study districts. Barpeta district had the highest proportion of mothers completing their ANC visits in the first trimester, while Golaghat had the lowest.

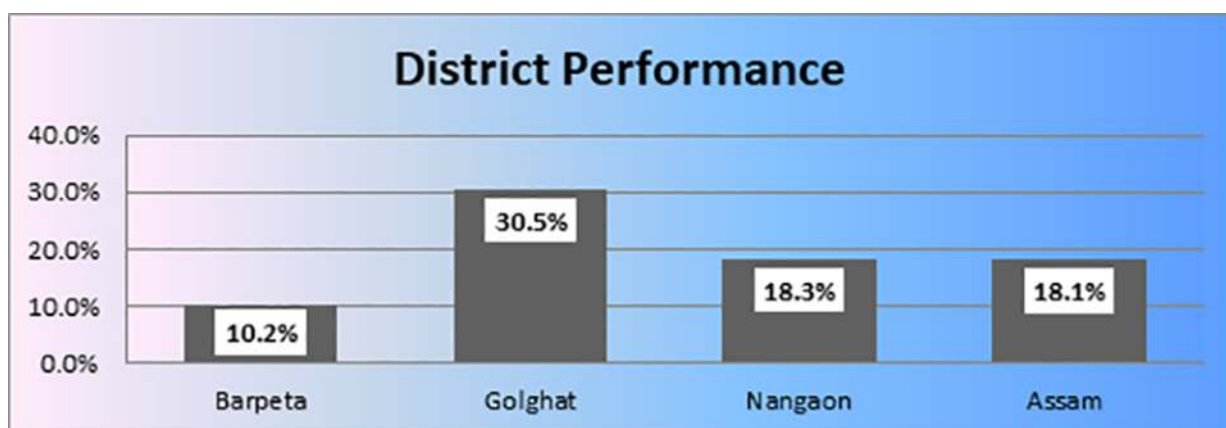
Table 2.11: Mothers who received their full ANC (Assam and India)

All values in percentages

	NFHS 4			NFHS 3
	Urban	Rural	Total	Total
Assam	30.4	16.6	18.1	6.7
India	31.1	16.7	21	11.6

Source: NFHS-3 and NFHS-4 data

Figure 2.4: Mothers who received their full ANC



Source: NFHS-4 data

Full ANC refers to four ANC check-ups and at least one TT vaccine with respect to full antenatal care⁸. The table above shows that the difference between Assam's and India's performance is about 3 per cent, considering NFHS-4 data. Although, situation in Assam has improved compared to NFHS-3 results.

⁸The operational guidelines for maternal and newborn health mention that all women must have access to a package of antenatal services provided in the community or in the facility by a skilled provider who has all the necessary equipment and supplies(NRHM, n.d.)

There is variation in the performance of the three districts. Nagaon is performing on a par with Assam average, Barpeta is far below as compared to the state average and Golaghat outperforms the state by almost 12 per cent.

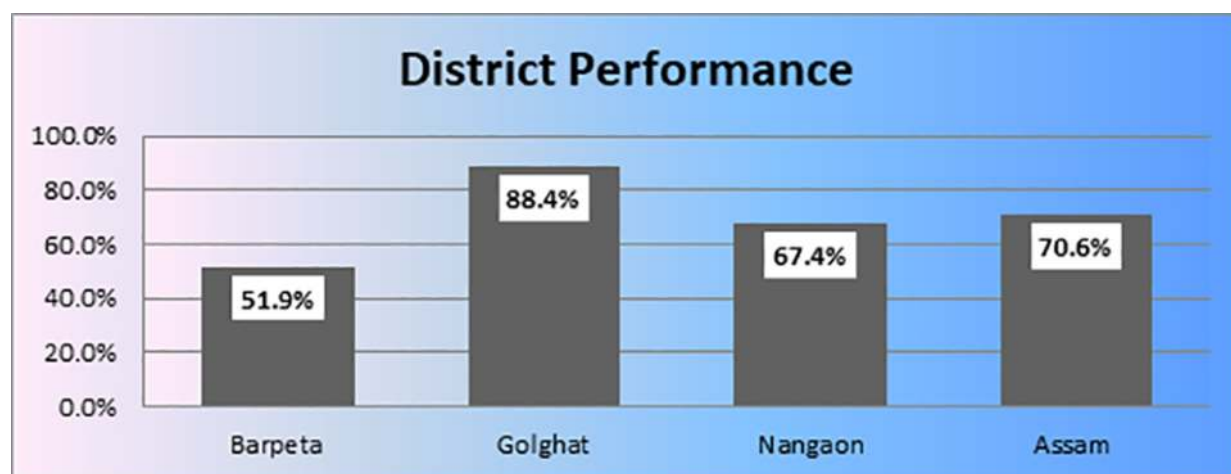
Table 2.12: Institutional deliveries (Assam and India)

	NFHS 4			NFHS 3
	Urban	Rural	Total	Total
Assam	92.7	68.2	70.6	22.4
India	88.7	75.1	78.9	38.7

Source: NFHS-3 and NFHS-4 data

District performance is varying. Nagaon is nearest to the Assam average. Golaghat has achieved remarkable success with 88.4% institutional deliveries. In Barpeta, the performance is most adverse, with almost 48% women not undergoing institutional delivery.

Fig. 2.5: District-wise institutional deliveries



Source: NFHS-4

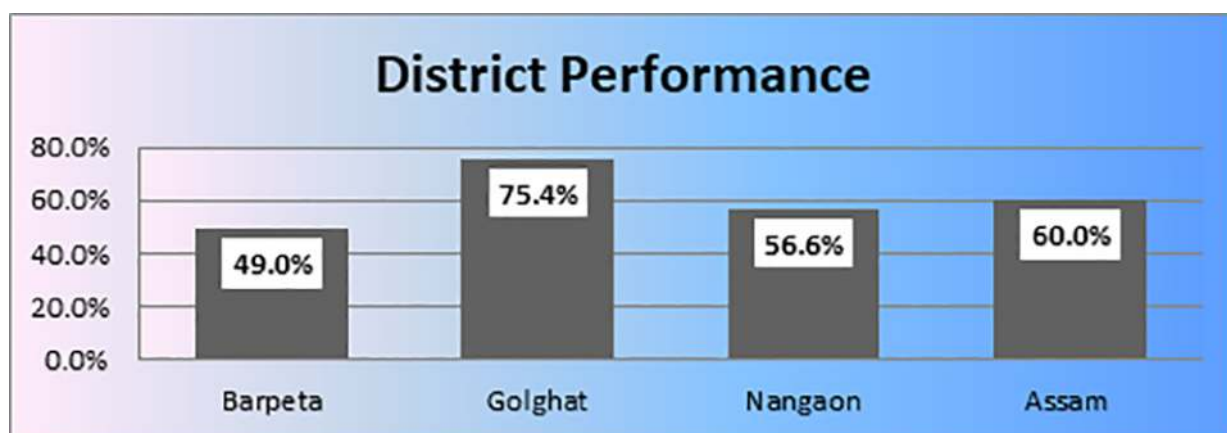
Institutional deliveries refer to births in institutes/hospitals or any other institutional setting (public and private). This is a strategy adopted by Government of India to ensure safe deliveries. The NFHS-4 data for Assam shows the low extent of institutional deliveries in rural areas, as it is not performing at par with India. For rural Assam, almost 30 per cent women are not giving birth in the institutions. But this performance is better when compared to NFHS-3. During that time almost 78 per cent women used to be left out of institutional delivery.

Table 2.13: Institutional births in public facility (Assam and India)

All values in percentages

	NFHS 4			NFHS 3
	Urban	Rural	Total	Total
Assam	61.6	59.8	60	13
India	46.2	54.4	52.1	18

Fig. 2.6: District-wise institutional deliveries in public facility



Source: NFHS data

Institutional deliveries by public facility refer to births in public health care facilities. Around 60% births are happening in public facilities in Assam as compared to about 52% in India. Also, Assam has strengthened its health systems since NFHS-3 was conducted. During NFHS-3 only about 13 per cent births were taking place in in public facilities.

Out of the three selected districts, only Golaghat is seen outperforming the Assam average on this indicator. The other two, Barpeta and Nagaon are performing below the state average.

Table 2.14: Average OOP expenditure per delivery in public health facility (Assam and India)

All values in ₹

	NFHS 4		
	Urban	Rural	Total
Assam	5 244	3 646	3 821
India	3 913	2 946	3 197

Source: NFHS-4 data

Table 2.15: Average OOP expenditure per delivery in public health facility (district performance)

All values in ₹

District	OOP expenditure
Barpeta	2 448
Golaghat	2 449
Nagaon	3 764
Assam	3 821

OOP expenditure in Assam for delivery in a public facility is higher than India by \$8.7 (₹624). At district level also there is variation. Barpeta and Golaghat have almost same OOPE but around \$18.6 (₹1 373) lower than the Assam average. Nagaon's OOPE is closer to that of the state.

2.4 Health infrastructure

Availability of and access to primary health care facilities are important elements shaping the demand for or utilization of such facilities. This section examines the availability of PHC facilities in Assam and some of its districts (study districts and comparison districts).

Table 2.16: State-wise pre-NRHM primary health infrastructure (2004)

	Assam	Bihar	Odisha
Sub-centres	5 109	10 337	5 927
Primary health centres	610	1 648	1 282
Community health centres	100	101	231

Source: Rural Health Statistics (2004)

Table 2.17: State-wise post-NRHM primary health infrastructure (2019)

	Assam	Bihar	Odisha
Sub-centres	4 034	9 865	6 595
Primary health centres	704	1 480	466
Community health centres	179	150	384

Source: Rural Health Statistics (2019)

Comparing numbers before and after NRHM, there has been a reduction in the number of sub-centres in Assam and Bihar. Barring Assam, both Bihar and Odisha have also seen reduction in the number of PHCs. There has been an increase in CHCs in all the three states, primarily because several PHCs and sub-centres have been into health and wellness centres.

Access to PHC facilities can be better understood by looking at the average population coverage. The Comptroller and Auditor General's (CAG) "Audit report on impact of NRHM on reproductive and child health (RCH) in Assam for the year ended 31 March 2016" (CAG, 2016) in its chapter on availability of health infrastructure in Assam has highlighted on the basis of data from the rural health statistics of 2015-16 that sub-centres, PHCs and CHCs in the state covered average populations of 5801, 26437 and 177530 respectively. The comparisons of these with the national average for the same year and Indian Public Health Standards (IPHS) norms is presented in the table below:

Table 2.18: Comparison of average population coverage of PHC facilities in Assam with national average and IPHS norms (2015-16)

	Average population covered in Assam as per RHS 2015-16	Average population covered in India as per RHS 2015-16	IPHS norm of population coverage (general)	IPHS norm of population coverage (hilly)
Sub-centres	5 801	5 377	5 000	3 000
PHCs	26 437	32 884	30 000	20 000
CHCs	177 530	151 316	120 000	80 000

Source: RHS data and IPHS norms presented in the CAG Audit Report on impact of NRHM on RCH in Assam (2015-16)

As of 2015-16, sub-centres and CHCs in Assam on an average covered population higher than the national average. Since sub-centres are the facilities closest to the community, this finding reflects adversely on the accessibility of PHC infrastructure. PHCs in Assam, however, covered average population less than the national average. Except for PHCs, the facilities also covered higher population than required by the IPHS norms (general). This finding reflects more positively on the access of PHC services, since PHCs are the first point of contact with medical doctor and also the point of availability of wider range of services compared to the sub-centre. The CAG audit report has, however, pointed to the problem of co-location of sub-centres and PHCs in the same premises, which is an inefficient solution to the problem of access (CAG, 2016)

The report also presented an analysis (based on data shared by NRHM Assam) of the availability of health centres vis-a-vis requirement as on 31 March 2016, considering the state population as per 2011 Census

and a decade's growth of 17.07% (i.e. increase in population by 1.707% per annum during the five year period 2011-16). This analysis is presented in the table below:

Table 2.19: Availability of health centres against requirement and shortfall (2015-16)

Category of Facility	Numbers required as per population as on 31 March 2016	Numbers available as on 31 March 2016	Shortfall numbers (in %)
SC	6 817	4 621	2 196 (32.21)
PHC	1 112	1 014	98 (8.81)
CHC	278	151	127 (45.68)

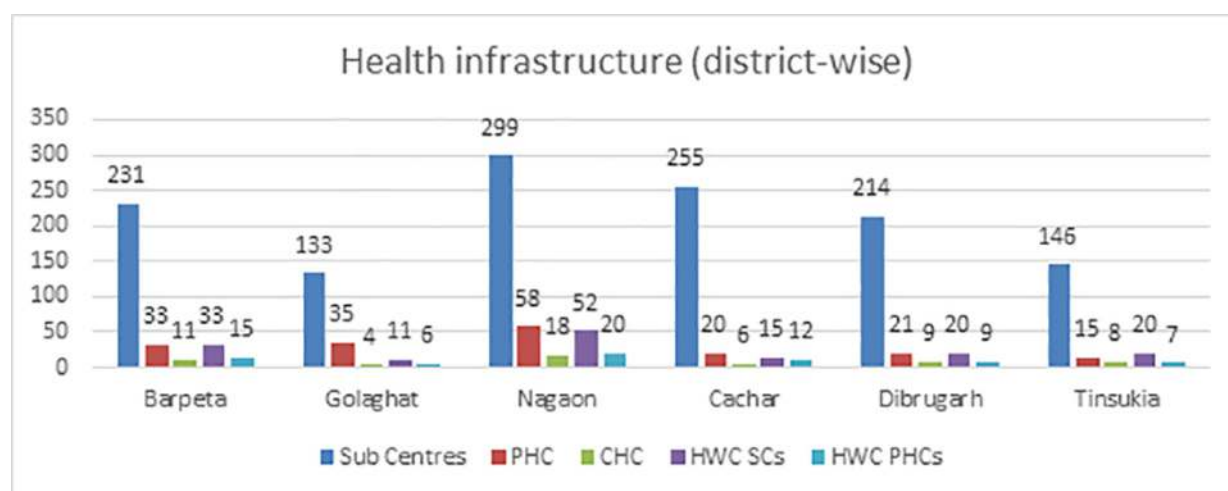
Source: Information from NRHM Assam presented in the CAG Audit report on impact of NRHM on RCH in Assam (2015-16)

The table above points to a shortage of almost 46% in CHCs, 32% in sub-centres and almost 9% of PHCs.

CAG audit report thus pointed to shortfall in respect of all the three types of primary health facilities in providing accessible health care facilities to the population. Keeping in mind the tables presented above, the situation with respect to availability of PHCs is less adverse because (a) the IPHS population coverage norm is met and the population coverage for PHCs was below the national average and (b) the shortfall in PHC numbers is lowest and is less than 10%.

However, given that sub-centres are the point of health care closest to the population, the shortfall in sub-centres is particularly a matter of concern.

Fig. 2.7: Primary health care infrastructure in districts (2019)



Source: Rural Health Statistics 2019

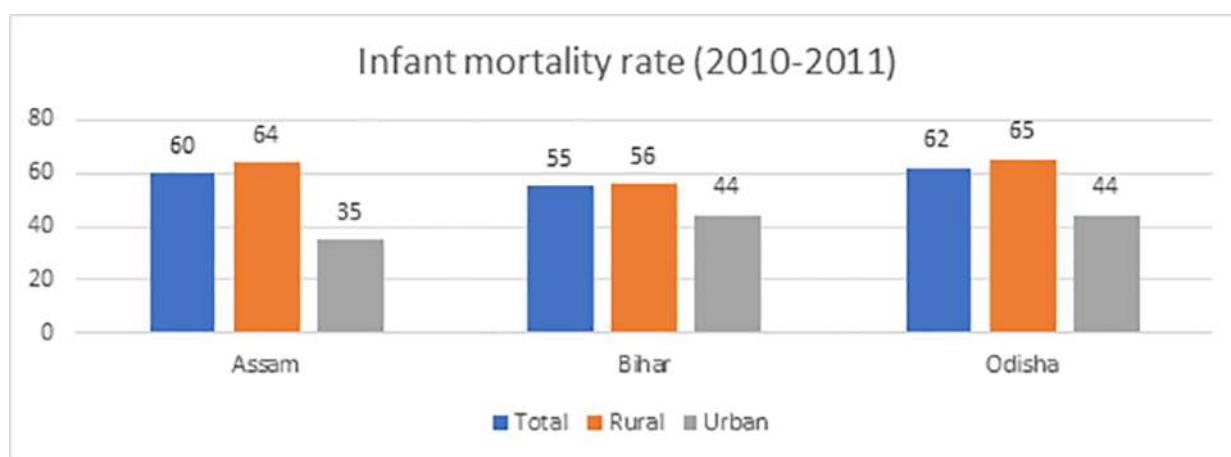
This table compares three districts of Assam, Barpeta, Golaghat, Nagaon to three more districts of the same state, Cachar, Dibrugarh and Tinsukia. Among the mentioned districts, Golaghat has the least number of sub-centres. Barpeta, Golaghat each have a sub district hospital and except for Dibrugarh, all the districts have a district hospital. Nagaon has the maximum number of sub-centres, PHCs, CHCs, HWC SCs and HWC PHCs; however, it is also the most populous district, while Golaghat has the least population⁹.

2.5 Health indicators: child and maternal mortality

The basic health indicators presented below such as infant mortality rate (IMR) and maternal mortality rate (MMR) shed light on the achievement of fundamental health outcomes, which reflect the status of health, functioning of health systems and social factors such as gender inequalities (measure evaluation.org, n.d.).

⁹Refer Table 1.1 for populations of the three study districts. Populations of the comparison districts are as follows: Cachar: 1.73 million, Dibrugarh: 1.32 million and Tinsukia: 1.32 million

Fig. 2.8: State-wise infant mortality rates (2010-11)



Source: Annual Health Survey report (2010-11)

The IMRs are considered for the year 2011 as district level estimates are available from AHS for that year. The graph above shows that highest IMR (overall, rural and urban) is in Odisha, followed by Assam and Bihar. The rural IMR in Assam is close to the rural IMR in Odisha. For male infants, the highest IMR is in Assam and Odisha, and for female infants, Odisha stands highest.

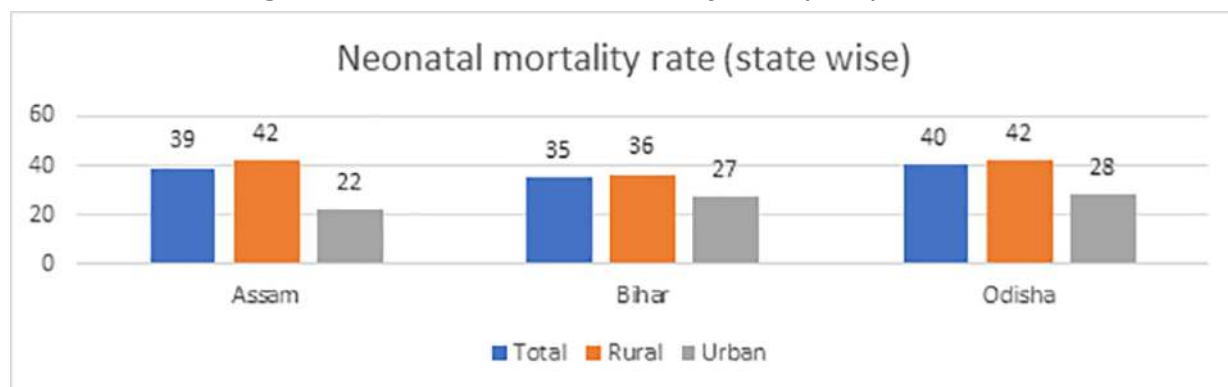
Table 2.20: Infant mortality rate in districts (2010-2011)

District	Total			Rural			Urban		
	Total	Male	Female	Total	Male	Female	Total	Male	Female
Barpeta	48	47	49	51	48	54	-	-	-
Golaghat	62	58	66	64	61	69	-	-	-
Nagaon	66	64	69	69	67	71	49	43	55
Cachar	57	56	58	60	58	61	44	42	46
Dibrugarh	55	53	57	56	56	57	-	-	-
Tinsukia	55	52	58	57	53	60	45	43	48

Source: Annual Health Survey Report (2010-2011)

Among the above-mentioned districts, Nagaon shows the highest infant mortality rate. At the rural level again, Nagaon shows the highest IMR of 69. Urban IMR data in Golaghat and Barpeta was not available.

Fig. 2.9: State-wise neonatal mortality rates (NMR) in 2010-11



Source: Annual Health Survey Report (2010-2011)

Odisha has the highest NMR (overall, rural and urban). At the rural level, both Assam and Odisha have the same NMR of 42. At the urban level, Odisha shows an NMR of 28, which is the highest.

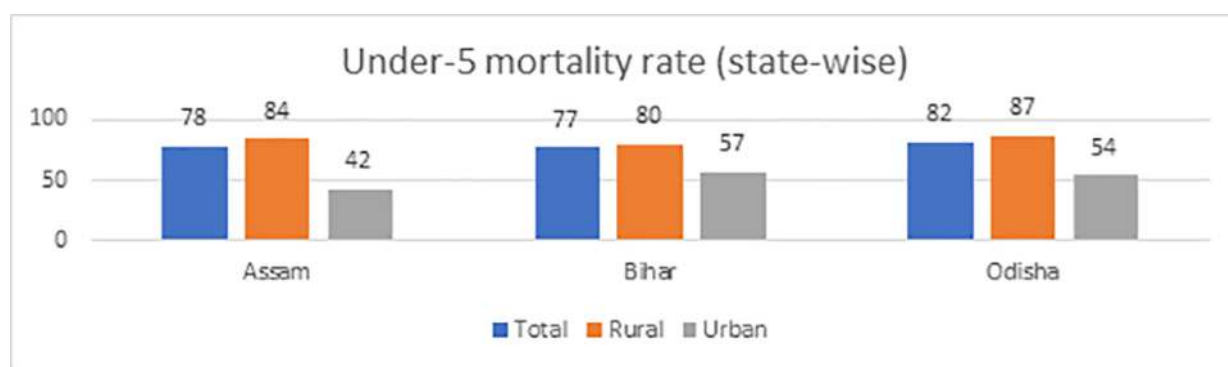
Table 2.21: Neonatal mortality rate in districts (2010-11)

District	Total	Rural	Urban
Barpeta	33	35	-
Golaghat	47	49	-
Nagaon	41	42	33
Cachar	36	40	20
Dibrugarh	37	40	-
Tinsukia	39	40	37

Source: Annual Health Survey Report (2010-2011)

Among the six districts considered for the comparison of neonatal mortality rate, Golaghat shows the highest overall NMR. At the rural level, Golaghat shows the highest NMR. Barpeta, Golaghat and Dibrugarh do not have the statistics for urban NMR.

Figure 2.10: State-wise under-5 mortality rates (2010-11)



Source: Annual Health Survey Report (2010-2011)

This table displays the under-5 mortality rate, for Assam and two EAG states, Bihar and Odisha. The highest under-5 mortality is in Odisha, followed by Assam and Bihar. At the rural level, the highest is in Odisha for both females and males. At the urban level, Bihar shows the highest under-5 mortality rate.

Table 2.22: Under-5 mortality rate by district-wise (2010-11)

District	Total			Rural			Urban		
	Total	Male	Female	Total	Male	Female	Total	Male	Female
Barpeta	65	64	66	70	67	73	-	-	-
Golaghat	82	78	86	86	82	90	-	-	-
Nagaon	86	83	89	92	89	95	51	46	55
Cachar	79	78	81	83	82	84	62	58	65
Dibrugarh	71	69	74	76	75	78	-	-	-
Tinsukia	74	69	79	78	73	84	52	49	56

Source: Annual Health Survey Report (2010-2011)

This table shows the under-5 mortality rates in six districts of Assam. The highest figure is in Nagaon. As in previous tables, Barpeta, Golaghat and Dibrugarh do not have data for urban areas. The highest rural under-5 mortality rate is in Nagaon and for urban areas, the highest is in Cachar district.

Table 2.23: State-wise maternal mortality ratio (MMR) in 2010-12

State	MMR
Assam	381
Bihar	305
Odisha	277

Source: Annual Health Survey Report (2010-2011)

Obstetric deaths of women that occur during pregnancy, childbirth or within 42 days of delivery or at the end of pregnancy is referred to as maternal mortality. Maternal mortality ratio is the number of maternal deaths per 100 000 live births. Maternal mortality rate is highest in Assam, followed by Bihar.

Table 2.24: Maternal mortality ratio in districts

District	MMR
Barpeta	366
Golaghat	430
Nagaon	367
Cachar	342
Dibrugarh	430
Tinsukia	430

Source: Annual Health Survey Report (2010-2011)

Among the six districts of Assam, maternal mortality ratio is the same in Golaghat, Dibrugarh and Tinsukia. The lowest is in Cachar. The MMR of Barpeta and Nagaon are very close to each other.

2.6 Disease burden

The disease burdens of communicable and noncommunicable diseases (NCDs) and the contribution of specific diseases to mortality and disability shed light on an important dimension of health needs prevalent in the state and its districts.

The report on “Health of the Nation's States” reveals that for the year 2016, in the state of Assam, 51.2% of the disease burden was from NCDs, whereas 38.5% was from communicable, maternal and neonatal diseases (CMNNDs) and 10.3% was from injuries (ICMR, PHFI and IHME, 2017). In India as a whole, the contribution of NCDs was 55% of the total disease burden for the same year.

The “Health of the Nation's States” report essentially argues that the contribution of most of the major NCD groups to the total disease burden has increased all over India since 1990. The report focuses on the concept of epidemiological transition ratio, which is the ratio of the number of disability adjusted life years or DALYs¹⁰ in a population due to CMNNDs, to the number of DALYs due to NCDs and injuries together.

The advent of comprehensive primary health care (CPHC), the establishment of health and wellness centres and their focus on screening and management of NCDs are all linked to the epidemiological transition undergoing in the country, though the transition ratio varies between states.

A lower epidemiological transition ratio indicates a relatively higher burden from NCDs and higher epidemiological transition level (ETL). In India, the transition ratio ranges from 0.16 in Kerala to 0.74 in Bihar. The states with ratio 0.56–0.75 in 2016 are considered as having the lowest ETL, those with ratio 0.41–0.55 as lower-middle ETL, those with ratio 0.31–0.40 as higher-middle ETL, and those with ratio 0.30 or less as highest ETL.

Assam in 1990 had a ratio of 1.66 and in 2016 the ratio fell to 0.62, which puts it in the category of lowest epidemiological transition level for 2016, the same category in which Bihar and Odisha are placed. (ICMR, PHFI and IHME, 2017)¹¹. It is also apparent that between 1990 and 2016, there has been a significant

¹⁰DALYs are the sum of years of life lost and years lived with disability (ICMR, PHFI and IHME, 2017)

¹¹In Kerala, NCDs accounted for 74.6% of the disease burden. In Bihar and Odisha, NCDs accounted for 47.6% and 52.1% of the disease burden respectively.

enhancement of the contribution of NCDs to Assam's disease burden.

The leading (top 15) causes of DALYs (as of 2016) in Assam according to the Health of the Nation's States report 2017 are ranked below:

Table 2.25: Leading causes of DALYs in Assam (2016)

Disease/Health issue	Proportion of DALYs accounted for
Diarrhoeal disease	5.8%
Stroke	5.6%
Lower respiratory infections	5.1%
Chronic obstructive pulmonary disease (COPD)	4.1%
Ischaemic heart disease	4.1%
Preterm birth complications	3.8%
Tuberculosis	3.8%
Iron deficiency - anaemia	3.7%
Other neonatal disorders	2.4%
Sense organ diseases	2.3%
Road injuries	2.3%
Self-harm	2.2%
Hepatitis	2.1%
Neonatal encephalopathy	2.1%
Diabetes	2.0%
Asthma	1.2%
Malaria	1.2%
Intestinal infectious diseases	0.9%
Measles	0.6%

Source: Health of the Nation's States ((ICMR, PHFI and IHME, 2017)

In spite of undergoing epidemiological transition, the single highest cause of DALYs in Assam is diarrhoeal diseases. Strokes and lower respiratory tract infections are the second and third highest causes of DALYs.

The tables below present district wise data from HMIS not on the incidence of diseases, but on the number of OPDs owing to various health issues. It may be noted that the higher cases of diabetes and hypertension in a large district like Nagaon may be attributed to the higher population and not just the incidence of such NCDs. Furthermore, OPDs reflect health seeking behaviour and not just the incidence of disease. Nevertheless, it is interesting that districts with smaller populations have the highest OPDs for paralytic stroke (Barpeta) and mental illness (Golaghat).

Table 2.26: Diabetes outpatients in districts

District	2018-2019	2017-2018
Barpeta	5 580	5 262
Golaghat	2 263	3 568
Nagaon	9 671	11 822

Source: HMIS

The number of diabetes patients has been the highest in Nagaon in the year 2018-2019 and in the year 2017-2018.

Table 2.27: Hypertension outpatients in districts

District	2018-2019	2017-2018
Barpeta	8 663	8 893
Golaghat	7 672	9 428
Nagaon	20 857	24 520

Source: HMIS

The highest number of hypertension patients for 2017-18 and 2018-19 were reported in Nagaon. However, there is a clear trend of reducing number of hypertension patients in the consequent year.

Table 2.28: Stroke (paralysis) outpatients in districts

District	2018-2019	2017-2018
Barpeta	159	29
Golaghat	10	46
Nagaon	107	319

Source: HMIS

The highest number of stroke patients is seen in Barpeta in the year 2018-19. But in both Golaghat and Nagaon, there has been a significant reduction in the number of stroke patients in the subsequent year.

Table 2.29: Acute heart disease outpatients in districts

District	2018-2019	2017-2018
Barpeta	188	144
Golaghat	23	974
Nagaon	782	1153

Source: HMIS

Acute heart diseases patients were the highest in Nagaon for both the years. But the number showed a reducing trend in the next year.

Table 2.30: Mental illness outpatients in districts

District	2018-2019	2017-2018
Barpeta	240	100
Golaghat	1377	1559
Nagaon	484	313

Source: HMIS

In spite of having the lowest population among the three districts under study, Golaghat has the maximum number of OPD turnout for mental illness for both the years.

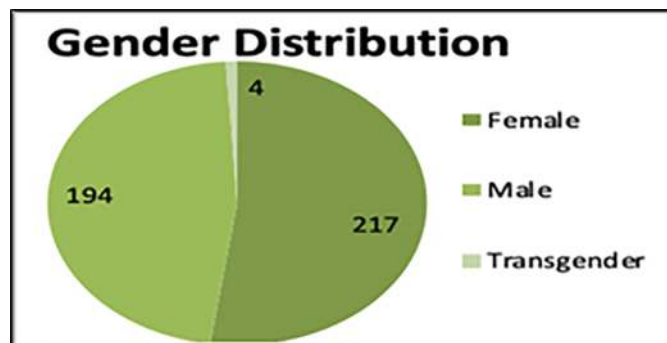
Chapter 3

Demographic profile of the survey respondents



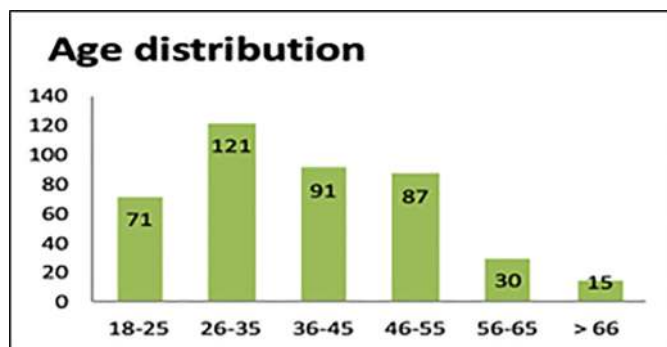
3.1 Demographic profile of survey respondents in Barpeta district

Fig. 3.1: Gender distribution



Out of the total sample of 415, 52.29% were female, 46.75% were male and 0.96% were transgender.

Fig. 3.2: Age Distribution



Youth (18-25 years and 26-35 years) dominate the sample. At the same time, there is a sizable share in the age group of 36-45 years and 46-55 years.

Fig. 3.3: Social Groups

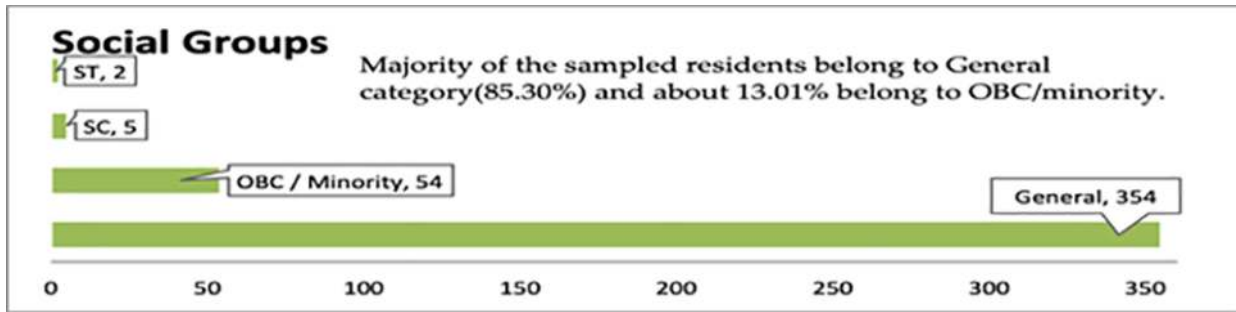
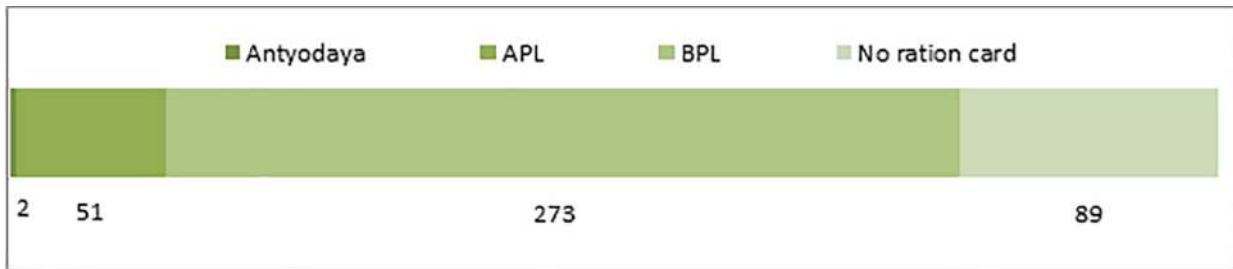


Table 3.1: Educational qualification

Educational qualification among sampled units	Illiterate / no schooling	Schooling (1-10)	PUC / diploma	Bachelors degree	PG	Total
	122	256	5	31	1	415
	29.40%	61.69%	1.20%	7.47%	0.24%	100%

Among the sampled residents, 29.40% don't have any schooling, 20% went to primary school, 13.25% to middle school and 28.43% went to high school. Only 7.47% have a bachelors' degree.

Fig. 3.4: Type of Ration card



Among the sampled residents, 65.78% hold a below poverty line (BPL) card, whereas 21.45 don't have any type of ration card. The APL card is held by 12.29%.

Fig. 3.5: Occupation

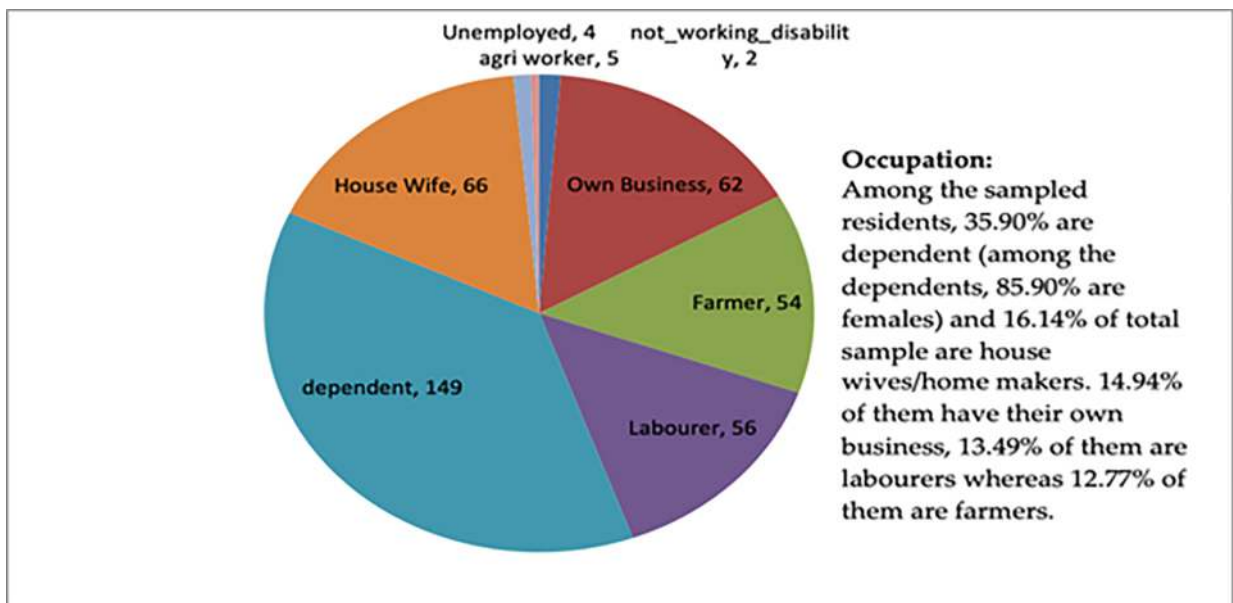
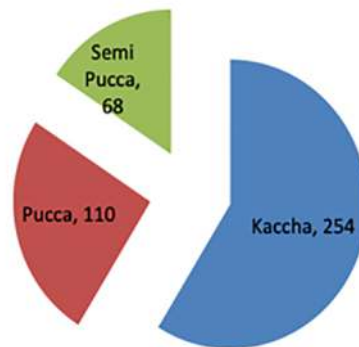


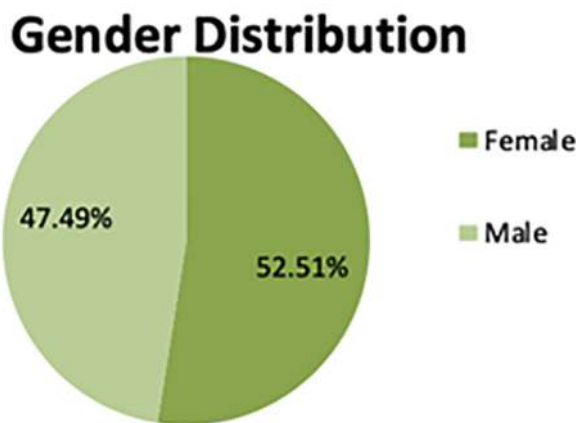
Fig. 3.6: Type of house



It is evident from the figure that majority live in kachha (mud) houses. Out of the total sampled residents, 86.02% live in kachha houses, Only, 7.47% live in pucca (brick/cement) houses and 6.51% live in semi-pucca houses. And 98.31% of them own these houses.

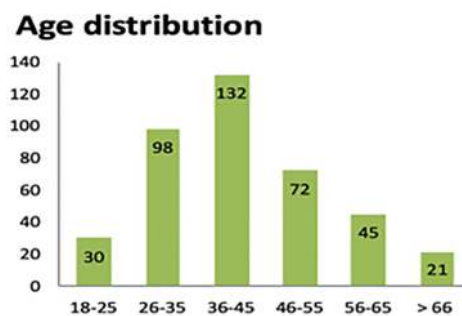
3.2 Demographic profile of survey respondents in Golaghat district

Fig. 3.7: Gender distribution



The pie chart shows that more than 52% of the respondents for the beneficiary survey in Golaghat district were women.

Figure 3.8: Age distribution



Middle aged persons dominate the sample, whereas the share of geriatric and teen-aged groups is less.

Fig. 3.9: Social groups in Golaghat

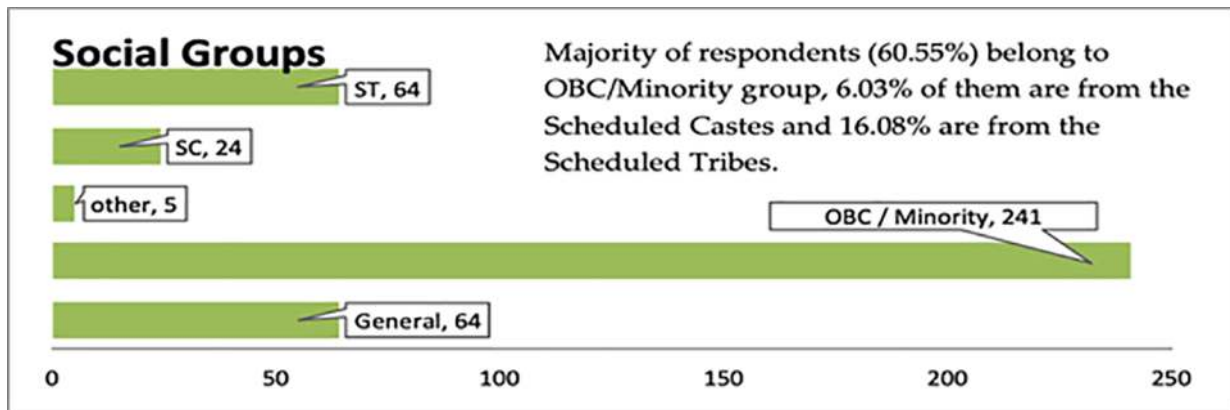
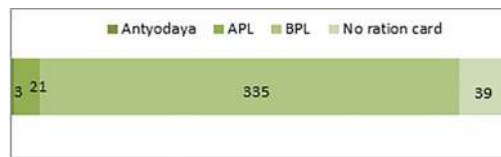


Table 3.2: Educational qualification - Golaghat

Education qualification among sampled units	Illiterate / no schooling	Schooling (1-10)	PUC / diploma	Degree and PG	Total
Number	86	221	70	21	398
Percentage (%)	21.61	55.53	17.59	5.28	100

About 21.61 % of the sampled residents have not attended school, while majority have done their school education. Among those who had schooling, 23 (10.41%) have attended primary school, 52 (23.53%) have attended middle school and 146 (66.06%) have done high school.

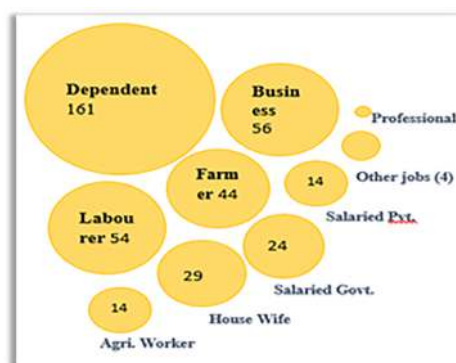
Fig. 3.10: Type of Ration card in Golaghat



Type of ration card:

About 84.17% of the sampled residents are BPL card holders while 9.8% of them do not have any ration cards.

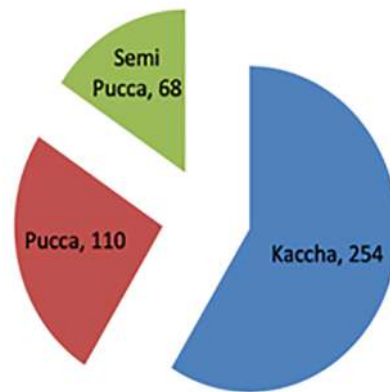
Fig. 3.11: Occupation in Golaghat



Occupational profile

About, 40.45% of the sampled residents are dependent for their livelihood on other family members, out of which 86.96% are females. While 14.32% of the respondents have their own business, 13.57% and 3.52% of them are wage labourers and agriculture workers respectively. Among the sampled females, 7.29% of them are housewives. Out of 349 respondents, 5.28% have secured Government job and 3.52% of them work in private sector.

Fig. 3.12: Type of house in Golaghat

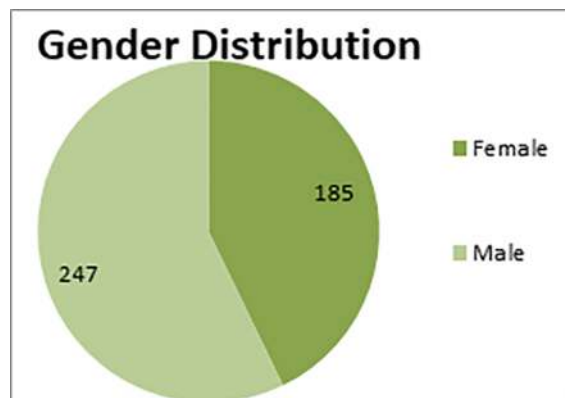


House Types:

Among the sampled residents, 64.57% live in kaccha house and 20.85% and 14.57% live in pucca and semi-pucca houses respectively while about 97.74% of them own the houses they live in.

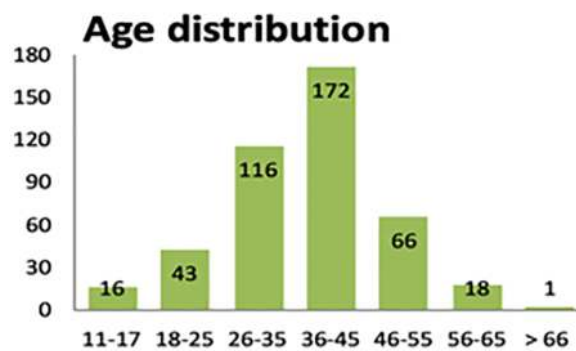
3.3 Demographic profile of survey respondents in Nagaon district

Fig. 3.13: Gender distribution in Nagaon



Out of total sampled residents (432), 42.82% were female and 57.18% were male.

Fig. 3.14: Age distribution: Nagaon



Middle-aged persons dominate the sample whereas the share of geriatric and teenaged groups is less.

Fig. 3.15: Social Groups in Nagaon

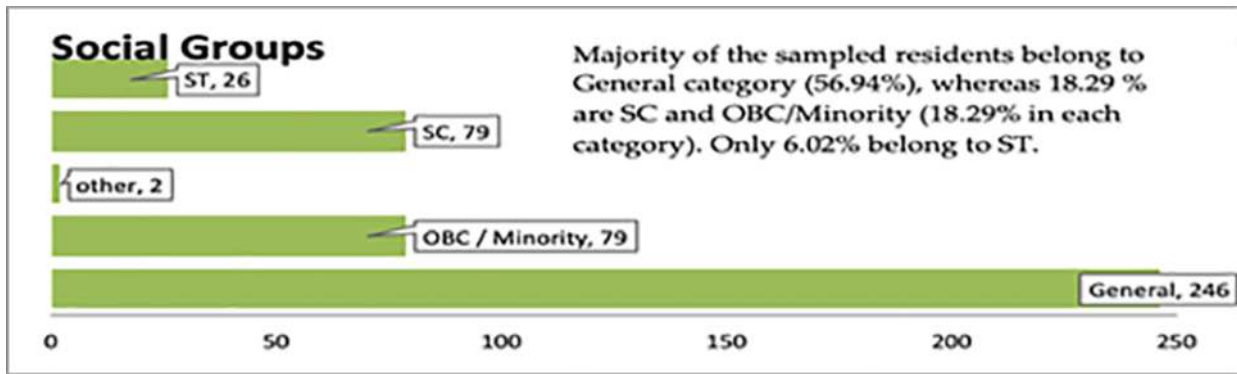


Table 3.3: Educational Qualification: Nagaon

Education qualification among sampled units	Illiterate / no schooling	Schooling (1-10)	PUC / diploma	Degree	Total
	201	205	25	1	432
	46.53%	47.45%	5.79%	0.23%	34.70%

Among the sampled persons, 46.53% don't have any school education, 23.61% attended primary school, 10.65% middle school and 13.19% high school.

Fig. 3.16: Type of Ration card in Nagaon



Type of ration card

About the same numbers of BPL (37.27%) and APL (38.89%) cardholders are there in the sample. 16.20% don't have any ration card.

Fig. 3.5: Occupation

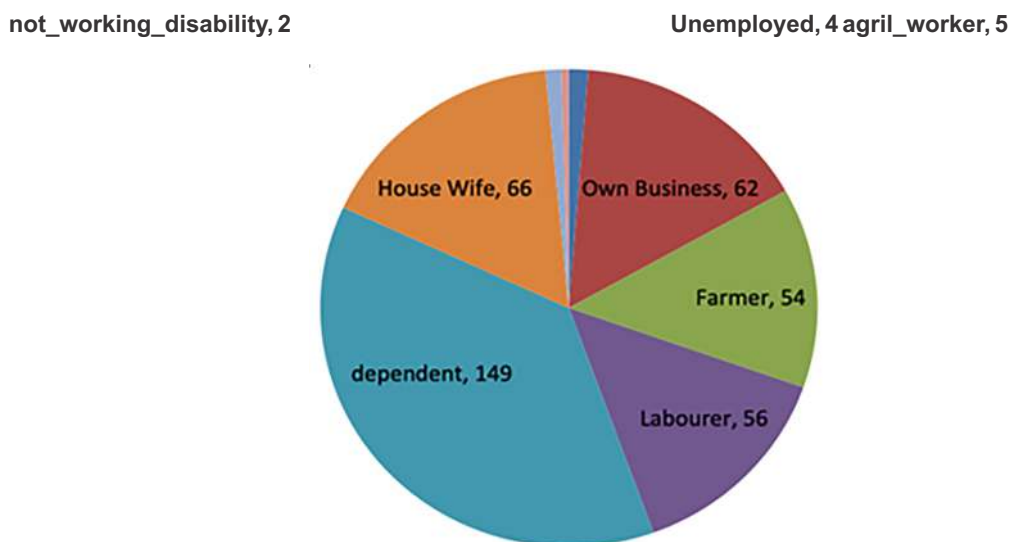
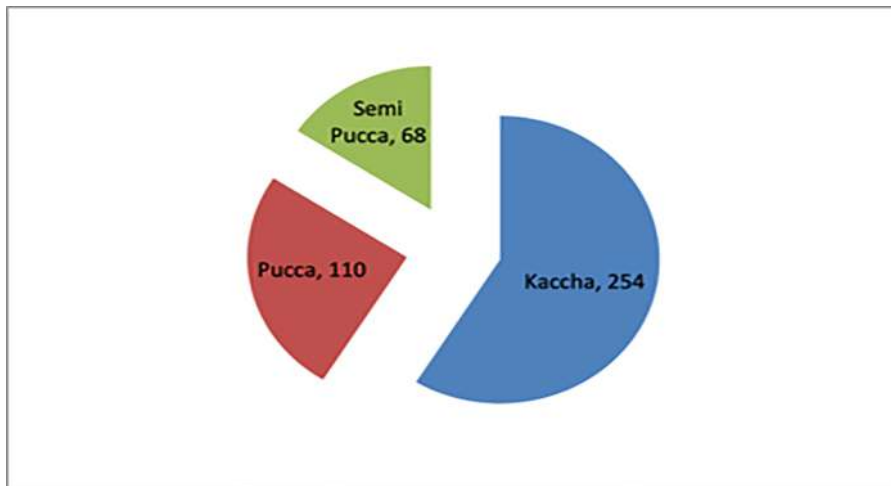


Fig. 3.18: Type of house in Nagaon



Type of house:

Out of surveyed residents, 58.80% stay in kaccha (mud) house, 25.46% stay in pucca (brick) house and 15.74% stay in semi-pucca house. About 91.43% of these houses are owned by family.



Chapter 4

Prevalent health issues and health care seeking



This chapter examines the demand for health care with special reference to:

- Prevalent health issues
- Patterns in health care seeking

Knowing local health issues can enable the health services to be better customized to the needs of the community and gives us an idea of the health problems for which members of the community frequently need and use health services.

Understanding whether members of the community opt to seek care or medical attention on the onset of illness and for other health care needs, is of primary importance for demand for primary health care. It is only after they have decided to seek such care or attention that the issue of provider choice (whom they would prefer to consult) comes in. Financial, cultural, access-related or familial factors may shape whether or not individuals choose to seek care in the first instance. Health care seeking also encompasses the ability to seek continued care for chronic health conditions.

4.1 Prevalent health issues

Insights on the health issues prevalent in the covered villages in each of the three districts were obtained through:

- A mapping of the common health issues faced in the villages
- Assessment of the incidence of communicable and noncommunicable diseases

4.1.1 Common health issues in the village

Participants of men's and women's FGDs were asked about the common health issues faced by them. Medical Officers of the PHCs were also asked about the prevalent health problems in their area. The common health problems for each district are summarized in the table below:

Table 4.1: Prevalent health problems in the three districts

District	Common health problems mentioned by women (women's FGD)	Common health problems faced by men (men's FGD)	Health issues mentioned by medical officer of PHC
Barpeta	Cold and fever, cough, headache, high blood pressure, muscle pain, gastric issues, typhoid, stone, diabetes, joint pain	Fever, hay fever, cough and cold, heart disease, high blood pressure, eye disease, nerve diseases, typhoid, stone, gastric issues, diabetes, joint pain allergy, diarrhoea, piles, skin problems, headache	High blood pressure, joint pain, different kind of flu, fever, skin diseases, nutritional deficiency, weakness, joint pain, white discharge, diabetes
Golaghat	Skin diseases/itches, cough, menstrual disorders/heavy bleeding in menstruation, headache, eye problem, joint pain for older women, fever, cough, high blood pressure, diabetes, stomach ache. In one village (Nobojyoti), several recent cancer related deaths were mentioned.	Weakness, blood pressure, diabetes, heart disease, itches/skin problems, gastric issues, uric acid, thyroid problems, TB, fever, cough, diarrhoea. Cancer and cancer related deaths were mentioned.	diarrhoea, high blood pressure, RTI, fever, cough, skin diseases, joint pains, and flu. Malaria and diarrhoea were mentioned as common summer ailments, though incidence of malaria was said to have reduced.
Nagaon	High blood pressure, nerve problems, joint pain, stomach problems/gas, eye problems, headache, body pain, liver and kidney disorders, fever, cough, weakness, diarrhoea, menstruation problem, diabetes, back pain, jaundice, heart problems, skin problems	headache, fever, stomach pain, gas and constipation, diarrhoea, joint pain, high blood pressure, nerve problems, scurvy, eye problem, body pain, liver problems, diabetes, typhoid, skin problems, weakness, dysentery, gall bladder disorder, cough	Fever, cold, cough, diarrhoea, TB, high blood pressure, malaria, Japanese Encephalitis, viral fever, food poisoning, menstrual problems, head ache

Source: Data from women's and men's FGDs and medical officer IDIs

The health problems mentioned by the village residents in the three districts are a mixture of common symptoms (such as cold, cough, headaches, stomach pains and joint and body pains) and diseases. Hypertension (high blood pressure) and diabetes were the most frequently mentioned NCDs. Heart diseases were mentioned in all the districts and nerve problems were pointed to in FGDs in Barpeta and Nagaon districts. Communicable diseases such as typhoid, TB and dysentery were also mentioned, though in a fewer number of FGDs.

Skin problems were also spoken about by men and women in all the districts (barring the women in Barpeta district). Men in the Geleki Village of Golaghat and women in the Dhansirimukh village of the same district described suffering from a problem of persistent itches which were not getting cured even after treatment. Even children were suffering from the same skin condition.

Medical officers in the three districts were asked about the prevalent health issues, which overlap with the problems mentioned in the FGDs. However, doctors pointed to vector-borne diseases such as malaria and Japanese encephalitis, which were not mentioned as common health problems in the FGDs.

4.1.2 Incidence of communicable diseases

In the survey, the respondents were asked whether there was any sudden outbreak of communicable disease in their community within the last one year.

Table 4.1: Prevalent health problems in the three districts

Was there a sudden outbreak of communicable diseases in the last one year?	Barpeta	Golaghat	Nagaon	Total
Yes	25 (6.02%)	13 (3.27%)	56 (12.97%)	94
No	290 (69.88%)	367 (92.21%)	368 (85.19%)	1 025
Don'tknow	100 (24.10%)	18 (4.52%)	8 (1.85%)	126
Grand total	415 (100.00%)	398 (100.00%)	432 (100.00%)	1 245

Source: Survey data

In Nagaon district, a majority of respondents reported an such outbreak (12.97%). In Golaghat district, the lowest share of respondents reported such an outbreak (3.27%) whereas 6.02% respondents in Barpeta district said an outbreak had occurred.

Respondents who reported such outbreak were also asked whether any person in their family experienced communicable diseases in the last one year.

Table 4.3: Extent to which families of respondents were affected by communicable diseases in last one year (in communities where there was outbreak of communicable diseases)

	Barpeta	Golaghat	Nagaon	Total
Affected	13 (52.00%)	3 (23.08%)	43 (76.79%)	59 (62.77%)
Not affected	12 (48.00%)	10 (76.92%)	13 (23.21%)	35 (37.23%)
Grand total	25 (100.00%)	13 (100.00%)	56 (100.00%)	94 (100.00%)

Source: Survey data

For respondents who reported outbreak of communicable disease in their community in the last one year, overall, 62.77% had at least one family member affected by the communicable diseases within the last one year. More than three-fourths of the respondents in Nagaon (76.79%) stated that at least one family member was affected by communicable diseases in the last one year. In Barpeta district also, a majority of respondents (52%) reported that their families were affected by communicable diseases. In Golaghat, however, the corresponding figure was less than one-fourth (23.08%).

4.1.3 Incidence of NCDs or chronic diseases

The survey respondents were questioned about the extent of incidence of NCDs among them and their families. Respondents were accordingly asked whether any family member had experienced NCDs/chronic diseases in the last one year.

Table 4.4: Extent to which families of respondents were affected by NCDs/chronic diseases in last one year

	Barpeta	Golaghat	Nagaon	Total
Yes	44 (10.62%)	132 (33.16%)	227 (52.55%)	403 (32.37%)
No	371 (89.40%)	265 (66.58%)	205 (47.45%)	841 (67.55%)
No Response	0 (0.00%)	1 (0.25%)	0 (0.00%)	1 (0.08%)
Grand total	415 (100.00%)	398 (100.00%)	432 (100.00%)	1 245 (100.00%)

Source: Survey data

The table above reports on the extent to which families of survey respondents are affected by NCDs or chronic diseases in Barpeta, Golaghat and Nagaon districts of Assam. In Nagaon, the highest share of respondents among the three districts (52.55%) reported that at least one family member is facing NCD or chronic disease. In Golaghat and Barpeta, 33.16% and 10.62% respondents respectively reported that at least one family member was facing NCDs or chronic diseases.

4.2 Health care seeking

Health care seeking has been examined in terms of:

- Extent of postponement of care
- Respondents' use of herbal/home remedies
- Extent of health care seeking for chronic conditions
- Extent of seeking outpatient care for illnesses experienced in the last 15 days
- Perceived affordability of various health services, which has implications for health care seeking

4.2.1 Postponement of health care seeking

Respondents were asked whether they ever postponed visiting a doctor/provider on the onset of illness. Response patterns can be seen below:

Table 4.5: Extent of postponement of care and reasons for postponement

	Barpeta	Golaghat	Nagaon
Postponement in visiting doctor/provider			
Postponed	13 (3.13%)	33 (8.29%)	49 (11.34%)
Did not postpone	402 (96.87%)	365 (91.71%)	383 (88.66%)
Total	415 (100.00%)	398 (100.00%)	432 (100.00%)
Major reasons for the postponement			
Distance	7(53.85%)	3(9.09%)	27(55.10%)
Financial problems	11(84.62%)	21(63.64%)	42(85.71%)
Someone should accompany	2(15.38%)	4(12.12%)	12(24.49%)
Transportation facility	6(46.15%)	2(6.06%)	13(26.53%)
No permission to go alone	2(15.38%)	0 (0.00%)	4(8.16%)
Other reasons (doctor not available, personal reasons, time availability)	1(7.69%)	5(15.15%)	3(6.12%)

Source: Survey data

To sum up all three districts, financial problems is the most common and most cited reason for not seeking clinical advice when facing symptoms/conditions. In two districts (Barpeta and Golaghat) more than 90% people see a provider/doctor at the onset of illness while in Nagaon about 89% do so.

The views expressed in the men's and women's FGDs in the three districts bring out the variety of experiences as well as the range of reasons with respect to postponement of health care seeking. Not only women but also men postpone care for reasons such as financial pressures, transport issues and also household work.

Women FGD respondents in Barpeta district mentioned a number of reasons for postponement of care, such as responsibilities of household work, and caring for old people and children, need to get permission from husband and in-laws and money problems. However, in one women's FGD in Barpeta it was stated that, "nowadays society has changed, so family members support us." Men in Barpeta district mentioned lack of transport facility and household work as reasons for postponement of health care seeking.

Participants in one women's FGD in Golaghat district stated that sometimes few of them don't go for the treatment because of financial constraints and transport problems.

In another women's FGD, however, a very empowered view was expressed. The women said they were not postponing seeking health care, and there is no tendency or requirement of taking permission from other family members or taking others along with them for visiting health centres or hospitals. One section of men's FGD participants in Golaghat stated that they, as well as their family members, seek treatment on time because they are health conscious. Fear of diseases, and the close proximity of the district hospital and other health institutes were mentioned as reasons for timely seeking of care by another set of men. However, there was also a section of men in the FGD in this district who mentioned that they postponed visit to health centres because of financial problems.

In Nagaon district, women respondents of an FGDs mentioned household work, childcare, financial problems, need for permission from husbands and sometimes "own laziness" as reasons for postponement of health care. In one FGD, the women mentioned, "Most of the time, we get medical attention when we need it, but in some cases, we are not able to get it. The reasons are financial condition, distance and the fact that women, children and old people are not allowed to go alone to health facilities." Doing some sort of "business" at home is another reason for postponement of care. In an FGD, women also mentioned attending to "business" at home as a reason for postponement of care. Men's FGD participants in Nagaon district also mentioned attending to home "business" (leaving the business would result in income loss) and work, financial constraints, attending to household work, and sometimes own laziness as reasons for postponement of health care seeking.

4.2.2 Use of home remedies during sickness

The use of home remedies/herbal remedies has been used as an indicator of self care in this analysis (such self care, however, need not be exclusive of seeking intervention from a provider). The tables below show the extent of use of home-based/herbal remedies in each of the three districts:

Table 4.6: Respondents' use of home-based herbal medicines

	Barpeta	Golaghat	Nagaon	Total
Use home remedies	7 (1.69%)	56 (14.07%)	63 (14.58%)	126 (10.12%)
Don't use home remedies	408 (98.31%)	342 (85.93%)	369 (85.42%)	1119 (89.88%)
Grand total	415 (100.00%)	398 (100.00%)	432 (100.00%)	1 245 (100.00%)

Source: Survey data

Across all three districts, only 10.12% respondents use home remedies on average. When we look at trends in individual districts, in Golaghat and Nagaon about 14% of the respondents use home remedies. In Barpeta this rate is very low – only 1.69% of the respondents use home remedies.

Table 4.7: Extent of usage of herbal/home-based herbal medicines – by social category

	General	OBC /minority	Other	SC	ST	Total
Barpeta						
Use home remedies	3 (0.85%)	3 (5.56%)	-	0 (0.00%)	1 (50.00%)	7 (1.69%)
Do not use home remedies	351 (99.15%)	51 (94.44%)	-	5 (100.00%)	1 (50.00%)	408 (98.31%)
Total	354 (100.00%)	54 (100.00%)	-	5 (100.00%)	2 (100.00%)	415 (100.00%)
Golaghat						
Use home remedies	18 (28.13%)	28 (11.62%)	1 (20.00%)	1 (4.17%)	8 (12.50%)	56 (14.07%)

	General	OBC /minority	Other	SC	ST	Total
Do not use home remedies	46 (71.88%)	213 (88.38%)	4 (80.00%)	23 (95.83%)	56 (87.50%)	342 (85.93%)
Total	64 (100.00%)	241 (100.00%)	5 (100.00%)	24 (100.00%)	64 (100.00%)	398 (100.00%)
Nagaon						
Use home remedies	29 (11.79%)	19 (24.05%)	0 (0.00%)	9 (11.39%)	6 (23.08%)	63 (14.58%)
Do not use home remedies	217 (88.21%)	60 (75.95%)	2 (100.00%)	70 (88.61%)	20 (76.92%)	369 (85.42%)
Total	246 (100.00%)	79 (100.00%)	2 (100.00%)	79 (100.00%)	26 (100.00%)	432 (100.00%)

Source: Survey data

The table above elaborates on the social category wise usage pattern of home remedies in all three districts. In Barpeta district, the usage of herbal remedies is highest among the ST community, followed by the OBC/minority community. In Golaghat district, the general category has the highest usage of herbal remedies. In Nagaon district, the OBC/minority community has the highest use of herbal remedies. There is, therefore, no consistent pattern of association between social category and usage of home remedies.

Table 4.8: Extent of usage of home-based/herbal medicines by type of ration card

	Antyodaya	APL	BPL	No ration card	Total
Barpeta					
Use home remedies	0 (0.00%)	1 (1.96%)	2 (0.73%)	4 (4.49%)	7 (1.69%)
Do not use home remedies	2 (100.00%)	50 (98.04%)	271 (99.27%)	85 (95.51%)	408 (98.31%)
Total	2 (100.00%)	51 (100.00%)	273 (100.00%)	89 (100.00%)	415 (100.00%)
Golaghat					
Use home remedies	0 (0.00%)	3 (14.29%)	47 (14.03%)	6 (15.38%)	56 (14.07%)
Do not use home remedies	3 (100.00%)	18 (85.71%)	288 (85.97%)	33 (84.62%)	342 (85.93%)
Total	3 (100.00%)	21 (100.00%)	335 (100.00%)	39 (100.00%)	398 (100.00%)
Nagaon					
Use home remedies	13 (39.39%)	19 (11.31%)	24 (14.91%)	7 (10.00%)	63 (14.58%)
Do not use home remedies	20 (60.61%)	149 (88.69%)	137 (85.09%)	63 (90.00%)	369 (85.42%)
Total	33 (100.00%)	168 (100.00%)	161 (100.00%)	70 (100.00%)	432 (100.00%)

Source: Survey data

The above table examines the relationship between ration card ownership (an indicator of economic status) with usage of herbal remedies. In Barpeta and Golaghat districts, the highest use of home remedies (4.49% and 15.38%) is among those who have no ration card. In Nagaon district, the highest use of home remedies is among the poorest category of the Antyodaya card holders (39.39%).

Table 4.9: Conditions for which herbal medicine/home-based remedies are used

	Barpeta	Golaghat	Nagaon	Grand total
Body ache	5(71.43%)	7(12.50%)	20(31.75%)	32(25.40%)
Constipation	1(14.29%)	0(0.00%)	11(17.46%)	12(9.52%)
Cough	0(0.00%)	44(78.57%)	40(63.49%)	84(66.67%)
Diarrhoea	0(0.00%)	11(19.64%)	19(30.16%)	30(23.81%)
Fever	3(42.86%)	29(51.79%)	15(23.81%)	47(37.30%)
Headache	1(14.29%)	6(10.71%)	8(12.70%)	15(11.90%)
Joint pains	7(100.00%)	4(7.14%)	28(44.44%)	39(30.95%)
Menstrual problem	0(0.00%)	4(7.14%)	6(9.52%)	10(7.94%)
Runny nose	0(0.00%)	0(0.00%)	2(3.17%)	2(1.59%)
Sleeping problem	0(0.00%)	1(1.79%)	2(3.17%)	3(2.38%)
Sore throat	0(0.00%)	6(10.71%)	1(1.59%)	7(5.56%)
Stomach ache	0(0.00%)	7(12.50%)	14(22.22%)	21(16.67%)
Tooth ache	6(85.71%)	1(1.79%)	24(38.10%)	31(24.60%)
Wounds	0(0.00%)	0(0.00%)	11(17.46%)	11(8.73%)
Other	0(0.00%)	3(5.36%)	6(9.52%)	9(7.14%)

Source: Survey data

The above table shows 15 different ailments for which home-based herbal medicine was used. Three top ailments for which herbal medicine was taken across all the districts were cough, fever and joint pains. In Barpeta, the top three conditions for usage of herbal medicine were joint pains, body ache and fever. In Golaghat, the top three reasons were cough, fever and diarrhoea. In Nagaon, the top three ailments for which herbal medicines were used were cough, body ache and diarrhoea. It is evident that overall, cough is the most common condition for which herbal medicine is used.

Table 4.10: When respondents use herbal remedies

	Barpeta	Golaghat	Nagaon	Grand Total
Before the use of pharmaceuticals	4(57.14%)	43(76.79%)	45(71.43%)	92(73.02%)
In certain health conditions	4(57.14%)	21(37.50%)	24(38.10%)	49(38.89%)
In addition to pharmaceuticals	0(0.00)	0(0.00)	2(3.17%)	2(1.59%)
Other	0(0.00%)	1(1.79%)	0(0.00%)	1(0.79%)

Source: Survey data

In all the three districts, a majority of respondents mentioned that they consume herbal remedies before the use of pharmaceuticals. A majority in Barpeta district mentioned that they prefer to uniquely use such remedies for certain health conditions. Minor shares of respondents mentioned that they use herbal remedies in addition to pharmaceuticals.

4.2.3 Health care seeking for chronic conditions

Another dimension of health care seeking is related to continuing to seek care or follow-up care for chronic ailments. This dimension is examined specifically in terms of whether follow-ups for chronic diseases are taken and frequency of follow-ups, whether regular medicines are taken and frequency of purchase of medicines for chronic ailments. Respondents were also asked about whether they received diet or self-care related advice for prevention or management of chronic diseases.

4.2.3.1 Seeking of continued care for chronic conditions

Respondents who had any family member suffering from chronic illnesses were asked whether they or the concerned family members seek check-ups or advice on continuation of medication/dosage changes for chronic ailments.

Table 4.11: Extent of seeking continued care for chronic conditions

	Yes	No	Not Sure	Total
Get Check-ups/seek advice on continuation of medicine for NCDs				
Barpeta	1 (2.27%)	26 (59.09%)	17 (38.64%)	44 (100.00%)
Golaghat	99 (75.00%)	25 (18.94%)	8 (6.06%)	132 (100.00%)
Nagaon	40 (17.62%)	175 (77.09%)	12 (5.29%)	227 (100.00%)
Total (Overall %)	140 (34.74%)	226 (56.08%)	37 (9.18%)	403 (100.00%)
Whether follow-up date is fixed among those who seek continued care				
Barpeta	0 (0.00%)	0 (0.00%)	1 (100.00%)	1 (100.00%)
Golaghat	76 (76.77%)	14 (14.14%)	9 (9.09%)	99 (100.00%)
Nagaon	16 (40.00%)	21 (52.50%)	3 (7.50%)	40 (100.00%)
Total (Overall %)	92 (65.71%)	35 (25%)	13 (9.29%)	140 (100.00%)

Source: Survey data

Combining the three districts, the ratio of continued care seeking for chronic care is only 34.74%, which points to an important gap in health care seeking.

Out of those who seek continued care, follow-up date is overall fixed for 65.71% respondents. However, Golaghat is the only district where follow-up date is fixed for a majority of respondents.

The respondents, who seek continued care for chronic illnesses were also asked about the frequency of seeking such care. In Barpeta, the sole respondent seeking such care said that the date was dependent on availability of money and time. In Golaghat, the highest proportion of respondents seeking continued care (48.5%) sought such care on monthly basis, followed by those who sought such care depending on availability of time and money (14.14%). In Nagaon, the highest proportion of respondents sought such care depending on money and time availability (67.50%).

FGD responses shed light on the monitoring and continued care for chronic ailments. In Golaghat district, the need for continued care for joint pain was expressed in one women's FGD. In various FGDs in Golaghat district, men said that they were able to get continued check ups and care for diabetes or other chronic ailments from private doctors, district hospitals or the HWC. In one FGD, CHC was highlighted as the point of continued care, though it was mentioned that only prescriptions and no medicines were given at the CHC. In Barpeta, participants in all the men's and women's FGDs mentioned not being able to get regular monitoring and continued medicines for chronic health issues.

Participants of one women's FGD in Nagaon mentioned that they have some long-term diseases like diabetes, high blood pressure, nerve, kidney and liver diseases. However, they are unable to get regular monitoring because of need to take permission from husbands and financial constraints. From two women's FGDs, it emerged that regular check-up was possible at the sub-centre or PHC, but the whole course of medicines could not be obtained because of the limitations in medicine availability at these facilities.

In another FGD, women expressed inability to seek continued care because of poverty that constrained them from bearing treatment and transportation costs. The men participating in the FGDs in Nagaon district

mentioned constraints such as financial problems in continuing medication, though some of them were able to seek the doctor's advice. In one men's FGD, the respondents highlighted the problem of doctors in PHC and DH prescribing medicines that had to be bought from private pharmacies. From FGDs of both men and women in Nagaon district, it appears that the lack of availability of medicines in public facilities – from sub-centre to DH level – is creating gaps in the continuation of medication for chronic ailments.

4.2.3.2 Regular consumption of medicines for chronic ailments

Table 4.12: Extent of regular medical consumption for chronic ailments

	Yes	No	Not Sure	Total
Barpeta	15 (34.09%)	28 (63.64%)	1 (2.27%)	44 (100.00%)
Golaghat	100 (75.76%)	23 (17.42%)	9 (6.82%)	132 (100.00%)
Nagaon	26 (11.45%)	194 (85.46%)	7 (3.08%)	227 (100.00%)
Grand Total (overall %)	141 (34.99%)	245 (60.79%)	17 (4.22%)	403 (100.00%)

Source: Survey data

The above table displays adherence to treatment for chronic illnesses (whether respondents experiencing chronic illnesses consume medicines regularly for the same) in the three selected districts. Among the three districts, Golaghat has the highest treatment adherence where 75.76% of the respondents consumed medicine regularly for chronic illness. Nagaon has the highest proportion of respondents not adhering to medicine regime for the chronic illness (85.46%). In Barpeta, 63.34% respondents with chronic illness are not adhering to the medicine regime. These findings conform with the FGD data mentioned above regarding non-continuation of medication.

4.2.3.3 Self care and diet-related guidance received for chronic ailments

Respondents were asked whether any advice on healthy foods and diet was given to them or their family members (for prevention or management of chronic ailments). Response patterns can be seen below:

Table 4.13: Extent to which respondents or family members received diet-related advice relevant to chronic ailments

	Yes	No	Don't know	Not applicable and no response	Total
Barpeta	31 (7.47%)	343 (82.65%)	13 (3.13%)	28 (6.75%)	415 (100.00%)
Golaghat	34 (8.54%)	292 (73.37%)	1 (0.25%)	71 (17.84%)	398 (100.00%)
Nagaon	158 (36.57%)	269 (62.27%)	0 (0.00%)	5 (1.16%)	432 (100.00%)
Grand total (overall %)	223 (17.91%)	904 (72.61%)	14 (1.12%)	104 (8.35%)	1245 (100.00%)

Source: Survey data

In Nagaon, highest percentage of the respondents (36.57%) received advice related to healthy food and diet.

In Barpeta, 82.65% respondents said that they didn't receive any advice with respect to healthy food/diet, whereas in Golaghat 73.37% reported that they didn't receive any advice with respect to healthy food/diet.

4.2.4 Extent of outpatient care seeking

Seeking outpatient care is an important indicator to measure health care seeking. In the survey, respondents and their family members were asked about the episodes of illness undergone in the last 15 days, and whether outpatient care for the same was sought (the question asked: was treatment for the ailment experienced in the last 15 days taken on medical advice?)

Table 4.14: Extent to which treatment was taken on medical advice for ailments experienced in last 15 days

	Barpeta		Golaghat		Nagaon		Total	
Treatment taken on medical advice	7	(100.00%)	33	(100.00%)	62	(82.67%)	102	(88.70%)
Treatment not taken on medical advice	0	(0.00%)	0	(0.00%)	13	(17.33%)	13	(11.30%)
Grand Total	7	(100.00%)	33	(100.00%)	75	(100.00%)	115	(100.00%)

Source: Survey data

For 100% episodes of ailments in the past 15 days in Barpeta and Golaghat districts, treatment was taken on medical advice. In Nagaon, treatment was not taken on medical advice in 17.33% episodes. Combining the 3 districts, treatment was taken on medical advice for 88.7% episodes of illness. Out of the 13 respondents who did not take treatment on medical advice in Nagaon district, 10 respondents mentioned inability to wait to see the provider/doctor as the reason.

4.2.5 Ability to afford various categories of health care (doctor, specialist, medicine, diagnostics etc.)

Ability of respondents to afford basic health services such as doctors, medicines and diagnostics has implications for their health care. They were asked whether they could afford various health services.

Table 4.15: Ability to afford health services in Barpeta

Financial affordability of various health services	Always	Sometimes	Never	Not applicable	Total
Doctor	43 (10.36%)	359 (86.50%)	11 (2.65%)	2 (0.48%)	415 (100%)
Specialist	46 (11.08%)	348 (83.86%)	15 (3.61%)	6 (1.45%)	415 (100.00%)
Medicines	43 (10.36%)	354 (85.30%)	16 (3.86%)	2 (0.48%)	415 (100.00%)
Diagnostics	43 (10.36%)	349 (84.10%)	10 (2.41%)	13 (3.13%)	415 (100.00%)
Medical equipment	36 (8.67%)	366 (88.19%)	6 (1.45%)	7 (1.69%)	415 (100.00%)
Physiotherapy	34 (8.19%)	336 (80.96%)	1 (0.24%)	44 (10.60%)	415 (100.00%)

Source: Survey data

Importantly, doctors, medicines and diagnostics are always affordable to only 10.36% of the respondents. For more than 80% of the respondents each of the six services are 'sometimes' affordable.

Table 4.16: Ability to afford health services in Golaghat

Financial affordability of various health services	Always	Sometimes	Never	NA	No response	Total
Doctor	46 (11.55%)	294 (73.86%)	52 (13.06%)	3 (0.75%)	3 (0.75%)	398 (31.97%)
Specialist	37 (9.30%)	241 (60.55%)	117 (29.40%)	1 (0.25%)	2 (0.50%)	398 (100.00%)
Medicine	43 (10.80%)	273 (68.59%)	78 (19.60%)	2 (0.50%)	2 (0.50%)	398 (100.00%)
Diagnostics	38 (9.55%)	190 (47.74%)	150 (37.69%)	18 (4.52%)	2 (0.50%)	398 (100.00%)
Medical equipment	26 (6.53%)	131 (32.91%)	196 (49.25%)	43 (10.80%)	2 (0.50%)	398 (100.00%)
Physiotherapy	27 (6.78%)	118 (29.65%)	193 (48.49%)	58 (14.57%)	2 (0.50%)	398 (100.00%)

Source: Survey data

In Golaghat district, only 11.55% respondents find doctors always affordable; the corresponding figures for medicines and diagnostics are 10.80% and 9.55% respectively. More than 60% respondents find doctors, specialists and medicines sometimes affordable.

Almost 38% respondents find diagnostics never affordable. Importantly, almost one-fifth of the respondents find medicines never affordable, while around 13% find doctors never affordable. These findings on basic services being found never affordable by a relatively high share of respondents in Golaghat district are significant from the point of view of demand for health care and health care seeking. More than 29% respondents in Golaghat can never afford seeing specialists. Participants in a women's FGD in Golaghat stated, "It is too difficult to afford doctors. For seeing specialists, we had to sell our domestic animals."

Table 4.17: Ability to afford health services in Nagaon

Financial affordability of various health services	Always	Sometimes	Never	NA	No response	Total
Doctor	65 (15.04%)	355 (82.17%)	10 (2.31%)	2 (0.46%)	0 (0.00%)	432 (34.70%)
Specialist	63 (14.58%)	359 (83.10%)	7 (1.62%)	3 (0.69%)	0 (0.00%)	432 (100.00%)
Medicine	63 (14.58%)	361 (83.56%)	6 (1.39%)	2 (0.46%)	0 (0.00%)	432 (100.00%)
Diagnostics	62 (14.35%)	360 (83.33%)	6 (1.39%)	4 (0.93%)	0 (0.00%)	432 (100.00%)
Medical equipment	63 (14.58%)	362 (83.80%)	5 (1.16%)	2 (0.46%)	0 (0.00%)	432 (100.00%)
Physiotherapy	59 (13.66%)	356 (82.41%)	12 (2.78%)	5 (1.16%)	0 (0.00%)	432 (100.00%)

Source: Survey data

In Nagaon district, for more than 14% respondents all the services (barring physiotherapy) are always affordable. All the services are sometimes affordable for more than 80% respondents. About 1.39% respondents find medicines and diagnostics never affordable, whereas 2.31% find doctors never affordable.



Chapter 5

Provider choice



When faced with illness, at the first level people generally opt to seek care or see a provider. This is known as health seeking (which was covered in Chapter 3). On the second level, people have to choose a particular provider, who/which may be public or private, primary or secondary. From the point of view of this study, we are interested to know which providers people choose to visit, the ratio of their preference for public health care options over private options, and most importantly, the extent to which they prefer to see public primary health care facilities/providers.

This section thus delves into a core aspect of a demand-side assessment of PHC, which is provider choice. In this study, we carried out interviews to map patients' choice of provider, amongst the wide range of health care providers. This section reveals that people make different choices based on their understanding of illness/ type of illness and the choices available to them. We examine not only first-choice provider but also delve into the utilization of providers who may not be first choice but are nevertheless visited for various reasons and conditions.

5.1 First-choice provider in the event of sickness

This section examines the first-choice provider among survey respondents in all the three districts – Barpeta, Golaghat and Nagaon, and also looks at the reasons for different providers being chosen as first-choice provider.

5.1.1 First-choice provider in Barpeta

The first-choice provider when an individual falls sick may be shaped by factors such as the type of illness, the range of services provided at the facility, distance to the facility and financial status of the patient. Here we have tried to showcase the overall choice of first service provider. It may be noted that an individual may have more than one provider as first-choice provider¹².

The tables below depict provider choice by social category, gender, economic status and education in Barpeta district.

¹²Since one individual may have more than one first-choice provider, the percentages presented in the first-choice provider tables would not add up to 100%. For any survey question that presents a checklist from which multiple responses may be selected, the percentages would not add up to 100%.

Table 5.1: First-choice provider for Barpeta by social category

First-choice providers	General	OBC/minority	SC	ST	Total
ANM/MPW/ASHA	60(16.95%)	14(25.93%)	0(0%)	0(0%)	74(17.83%)
CHC	1(0.28%)	1(1.85%)	0(0%)	0(0%)	2(0.48%)
DH	9(2.54%)	0(0.00%)	0(0%)	0(0%)	9(2.17%)
Faith healer	51(14.41%)	8(14.81%)	4(80%)	1(50%)	64(15.42%)
Home remedies	2(0.56%)	0(0.00)	0(0%)	0(0%)	2(0.48%)
HWC/sub-centre	50(14.12%)	9(16.67%)	1(20%)	0(0%)	60(14.46%)
Informal provider	0(0.00%)	1(1.85%)	0(0%)	0(0%)	1(0.24%)
Local traditional healer	0(0.00%)	0(0.00%)	0(0%)	0(0%)	0(0%)
Medical college	132(37.29%)	8(14.81%)	5(100%)	0(0%)	145(34.94%)
Medical store	44(12.43%)	10(18.52%)	0(0%)	0(0%)	54(13.01%)
NGO/trust	2(0.56%)	0(0.00%)	0(0%)	0(0%)	2(0.48%)
PHC	172(48.59%)	38(70.37%)	0(0%)	0(0%)	210(50.60%)
Private clinics	69(19.49%)	9(16.67%)	2(40%)	2(100%)	82(19.76%)
Private hospital	87(24.58)	11(20.37%)	4(80%)	1(50%)	103(24.82%)
Village store	67(18.93)	6(11.11%)	0(0%)	1(50%)	74(17.83%)

Source: Survey data

Overall, a majority of respondents in Barpeta district (50.6%) choose PHC/HWC/SC as their first-choice provider. Among the three districts covered, Barpeta has the highest preference for faith healers as first-choice provider, as is also evident from the later analysis in this section.

About 18% people depended on the frontline community outreach agents – ASHA, ANM or MPW – as their first choice. Less than 15% prefer the sub-centre/HWC as first-choice provider. This could be because 70% of the sub-centres in Barpeta district covered in this study did not have the MLHW or the CHO to provide outpatient services.

All the respondents in Barpeta belonging to the SC category (100%) have indicated a preference for medical college as their first-choice provider (showing their inclination for institution of a higher level/standard, where specialists and experienced doctors are available). Given the phenomenon of multiple first providers, 80% SC respondents have also indicated first-choice provider as faith healer and private hospital.

Both the ST survey respondents in Barpeta district prefer private clinics as their first-choice provider. The respondents' choice of provider is 50% each for private hospital, faith healer and village store selling medicines.

Among the OBC and minority respondents in Barpeta district, a dominant share (70.37%) prefer PHC as first-choice provider. Among the general category respondents (including minorities), the single largest share of persons (48.59%) prefers PHC as provider of first-choice. However, medical college is the first-choice provider for general category respondents in Barpeta (37.29%).

Table 5.2: First-choice provider for Barpeta by gender

Providers	Female	Male	Transgender	Total
ANM/MPW/ASHA	40(18.43%)	33(17.01%)	1(25.00%)	74(17.83%)
CHC	0(0%)	2(1.03%)	0(0%)	2(0.48%)
DH	7(3.23%)	2(1.03%)	0(0%)	9(2.17%)
Faith Healer	33(15.21%)	30(15.46%)	1(25%)	64(15.42%)
Home remedies	2(0.92%)	0(0.00%)	0(0%)	2(0.48%)
HWC/sub-centre	36(16.59%)	23(11.86%)	1(25%)	60(14.46%)
Informal provider	0 (0%)	1(0.52%)	0(0%)	1(0.24%)

Providers	Female	Male	Transgender	Total
Local traditional healer	0(0%)	0(0.00%)	0(0%)	0(0.00%)
Medical College	78(35.94%)	67(34.54%)	0(0%)	145(34.94%)
Medical store	26(11.98%)	26(13.40%)	2(50%)	54(13.01%)
NGO/trust	1(0.46%)	1(0.52%)	0(0%)	2(0.48%)
Private clinics	46(21.20%)	36(18.56%)	0(0%)	82(19.76%)
Private hospital	56(25.81%)	46(23.71%)	1(25%)	103(24.82%)
Village store	39(17.97%)	35(18.04%)	0(0%)	74(17.83%)
Other	3(1.38%)	3(1.55%)	0(0%)	6(1.45%)

Source: Survey data

Among women and men respondents in Barpeta, the largest share, 50.23% for women and 51.03% for men prefer PHC as first-choice provider. For both women (35.94%) and men (34.54%), medical college is the second most frequently preferred first-choice provider. Notably, a higher share of women (16.59%) favoured HWCs/sub-centres as their first-choice provider compared to men (11.86%).

Table 5.3: First-choice provider for Barpeta by education

Providers	Bachelor degree	High school	illiterate	No school	Middle school	PG	Primary	PUC/ diplom	Total
ANM/MPW/ ASHA	4 (12.90%)	29 (24.58)	21 (17.36)	0 (0%)	6 (10.91%)	0 (0%)	13 (15.66%)	1 (20%)	74 (17.83%)
CHC	0(0%)	0 (0.00)	0(0.00)	0(0%)	2(3.64%)	0(0%)	0(0%)	0(0%)	2(0.48%)
DH	1(3.23%)	1 (0.85%)	2 (1.65%)	0(0%)	1(1.82%)	0(0%)	4(4.82%)	0(0%)	9(2.17%)
Faith Healer	2(6.45%)	15 (12.7%)	24 (19.83%)	0 (0.00)	9(16.36%)	0(0%)	14(16.87%)	0(0%)	64(15.42%)
Home remedies	0(0%)	1 (0.8%)	0(0)	0(0%)	0(0%)	0(0%)	1(1.20%)	0(0%)	2(0.48%)
HWC/sub-centre	4(12.90%)	25 (21.19)	18 (14.88%)	0(0%)	5(9.09%)	0(0%)	7(8.43%)	1(20%)	60(14.46%)
Informal provider	0(0%)	1(0.85)	0(0%)	0(0%)	0(0%)	0(0%)	0(0%)	0(0%)	1(0.24%)
Local traditional healer	0(0%)	0(0.00)	0(0. %)	0(0%)	0(0%)	0(0%)	0(0%)	0(0%)	0(0%)
Medical College	14 (45.16%)	34(28.81 %)	43(35.54 %)	1(100%)	26(47.27%)	1(100%)	25(30.12%)	1(20%)	145(34.94%)
Medical store	5(16.13%)	12(10.17 %)	16 (13.22)	1(100%)	5(9.09%)	0(0%)	13(15.66%)	2(40%)	54(13.01%)
NGO/trust	0(0%)	1(0.85)	1(0.83%)	0(0%)	0(0%)	0(0%)	0(0%)	0(0.00)	2(0.48%)
PHC	12(38.71%)	66(55.93 %)	59 (48.76%)	0(0. %)	30(54.55%)	0(0%)	41(49.40%)	2 (40%)	210(50.60%)
Private clinics	10(32.26%)	23(19.49 %)	24(19.83 %)	0(0%)	7(12.73%)	0(0%)	18(21.69%)	0(0%)	82(19.76%)
Private hospital	4(12.90%)	35(29.66 %)	28(23.14 %)	0(0%)	16 (29.09%)	0(0%)	20(24.10%)	0(0%)	103(24.82%)
Village store	1(3.23%)	23(19.49 %)	24(19.83 %)	0(0%)	9(16.36%)	0(0%)	17(20.48%)	0(0%)	74(17.83%)
Other	1(3.23%)	0(0.00)	4(3.31%)	0(0%)	0(0%)	0(0%)	1(1.20%)	0(0%)	6(1.45%)

Source: Survey data

In Barpeta district, the single largest share of people who could not read and write preferred PHC as their first-choice (48.76%) for treatment, followed by medical college (35.54%). Almost 50% of those with primary education also preferred PHC as first-choice provider. Following the same trend, a majority (55.93%) of those who had completed high school preferred PHC as first-choice provider. The single largest share of the most educated category of graduates (45.16%) chose medical college as first-choice provider, followed by

PHC (38.71%) and private clinics (32.26%).

Table 5.4: First-choice provider for Barpeta by economic status (ration card status)

Providers	Antyodaya	APL	BPL	No ration card	Total
ANM/MPW/ASHA	0(0%)	6(11.76%)	54(19.78%)	14(15.73%)	74(17.83%)
CHC	0(0%)	0(0%)	2(0.73%)	0(0.00)	2(0.48%)
DH	0(0%)	1(1.96%)	6(2.20%)	2(2.25%)	9(2.17%)
Faith healer	1(50%)	6(11.76%)	36(13.19%)	21(23.60%)	64(15.42%)
Home remedies	0(0%)	1(1.96%)	1(0.37%)	0(0.00)	2(0.48%)
HWC/sub-centre	0(0%)	10(19.61%)	44(16.12%)	6(6.74%)	60(14.46%)
Informal provider	0(0%)	0(0.00%)	1(0.37%)	0(0.00)	1(0.24%)
Local traditional healer	0(0%)	0(0.00%)	0(0.00)	0(0.00)	0(0.00)
Medical college	1(50%)	22(43.14%)	90(32.97%)	32(35.96%)	145(34.94%)
Medical store	0(0%)	17(33.33%)	28(10.26%)	9(10.11%)	54(13.01%)
NGO/trust	0(0%)	0(0%)	1(0.37%)	1(1.12%)	2(0.48%)
PHC	0(0%)	13(25.49%)	158(57.88%)	39(43.82%)	210(50.60%)
Private clinics	1(50%)	13(25.49%)	36(13.19%)	32(35.96%)	82(19.76%)
Private hospital	1(50%)	12(23.53%)	69(25.27%)	21(23.60%)	103(24.82%)
Village store	0(0%)	2(3.92%)	47(17.22%)	25(28.09%)	74(17.83%)
Other	0(0%)	1(1.96%)	3(1.10%)	2(2.25%)	6(1.45%)

Source: Survey data

Assuming APL/BPL status to be reflective of economic status, the findings indicate that a lower number of the better-off (APL) persons prefer the PHC compared to BPL persons, and a higher share among them prefer advanced facilities such as a medical college as first-choice provider.

5.1.2 First-choice provider in Golaghat

The tables below depict provider choice by social category, gender, economic status and education in Golaghat district.

Table 5.5: First-choice provider in Golaghat by social category

Providers	General	OBC/minority	SC	ST	Total
ANM/MPW/ASHA	1(1.56%)	17(6.91%)	0(0.00)	5(7.81%)	23(5.78%)
CHC	23(35.94%)	48(19.51%)	18(75.00%)	23(35.94%)	112(28.14%)
DH	13(20.31%)	84(34.15%)	2(8.33%)	15(23.44%)	114(28.64%)
Faith healer	0(0.00)	0(0.00)	0(0.00)	0(0.00)	0(0.00)
Home remedies	0(0.00)	2(0.81%)	0(0.00)	0(0.00)	2(0.50)
HWC/sub-centre	15(23.44%)	30(12.20%)	1(4.17%)	20(31.25%)	66(16.58%)
Informal provider	0(0.00)	0(0.00)	0(0.00)	0(0.00)	0(0.00)
Local traditional healer	0(0.00)	0(0.00)	0(0.00)	0(0.00)	0(0.00)
medical college	3(4.69%)	8(3.25%)	3(12.50%)	1(1.56)	15(3.77%)
medical store	0(0.00)	2(0.81%)	0(0.00)	0(0.00)	2(0.50%)
NGO trust	0(0.00)	1(0.41%)	0(0.00)	0(0.00)	1(0.25)
PHC	24(37.50%)	116(47.15%)	3(12.50%)	32(50.00%)	175(43.97%)
Private clinics	10(15.63%)	33(13.41%)	2(8.33%)	3(4.69%)	48(12.06%)

Providers	General	OBC/minority	SC	ST	Total
Private hospital	5(7.81%)	15(6.10%)	1(4.17%)	2(3.13)	23(5.78%)
Village store	1(1.56%)	5(2.03%)	0(0.00)	0(0.00)	6(1.51%)
Other	0(0.00)	5(2.03%)	0(0.00)	0(0.00)	5(1.26%)

Source: Survey data

In Golaghat district, overall, PHC was preferred by the single largest share of respondents (43.97%) as first-choice provider. However, unlike Barpeta district, it was not a majority that preferred PHC as first-choice provider. The second highest share of respondents in Golaghat mentioned district hospital (DH) as first-choice provider (28.64%); the corresponding share for Barpeta district that preferred DH was only 2.17%. Similarly, in Golaghat the share of respondents who preferred CHC as first-choice provider was 28.14%, while it is only 0.48% in Barpeta. Overall, the preference for private clinics (12.06%) and private hospitals (5.78%) is also notably lower than in Barpeta district as compared to Golaghat.

Only 16.58% respondents preferred HWC/sub-centre as first-choice provider. The fact that only one out of eight HWCs/sub-centres covered in Golaghat for the study had a CHO or MLHW, may explain the low preference. The only facility that had a CHO was a HWC. Unlike Barpeta, where about 15% preferred faith healer as first-choice provider, no survey respondent in Golaghat mentioned faith healer as their preference. It is understandable that a low share of respondents in Golaghat prefer the medical college (3.77%) because the district lacks a medical college.

The data presented in the table above shows that CHC was the preferred choice by the largest and a dominant proportion (75%) of SC respondents in Golaghat district; only 12.5% of the SC respondents preferred primary health centre as first-choice provider. Amongst the ST respondents, the single largest share (50%) preferred the PHC, followed by those who preferred CHC (almost 36%) and HWC/sub-centre (31.25%).

PHC, followed by district hospital and CHC, were the preferred first-choice for treatment among OBC and minority respondents. PHC and CHC were preferred by the largest and second largest shares of general category respondents respectively.

Table 5.6: First-choice provider in Golaghat by gender

Providers	Female	Male	Total
ANM/MPW/ASHA	11(5.26%)	12(6.35%)	23(5.78%)
CHC	57(27.27%)	55(29.10%)	112(28.14%)
DH	67(32.06%)	47(24.87%)	114(28.64%)
Faith healer	0(0.00)	0(0.00)	0(0.00)
Home remedies	1(0.48%)	1(0.53%)	2(0.50%)
HWC/sub-centre	30(14.35%)	36(19.05%)	66(16.58%)
Informal provider	0(0.00)	0(0.00)	0(0.00)
Local traditional healer	0(0.00)	0(0.00)	0(0.00)
Medical college	9(4.31%)	6(3.17%)	15(3.77%)
Medical store	1(0.48%)	1(0.53%)	2(0.50%)
NGO/trust	0(0.00)	1(0.53%)	1(0.25%)
PHC	90(43.06%)	85(44.97%)	175(43.97%)
Private clinics	27(12.92%)	21(11.11%)	48(12.06%)
Private hospital	12(5.74%)	11(5.82%)	23(5.78%)
Village store	4(1.91%)	2(1.06%)	6(1.51%)
Other	2(0.96%)	3(1.59%)	5(1.26%)

Source: Survey data

The largest share of female (43.06%) and male respondents (44.97%) in Golaghat preferred the PHC as first-choice provider. The second highest share of women preferred DH (32.06%) while the second highest share of men (29.10%) preferred CHC. Similar proportions of men and women prefer private clinics and private hospitals.

Table 5.7: First-choice provider in Golaghat by education

Providers	Bachelor	High	Illiterate	No	Middle schooling	PG	Primary	PUC/ diploma	Total
ANM/MPW/ASHA	0(0.00)	8(5.59%)	1(1.79%)	7(21.21%)	1(2.38%)	0(0.00)	1(2.86%)	5(7.25%)	23(5.78%)
CHC	4(23.53%)	43(30.07%)	16(28.57%)	15(45.45%)	6(14.29%)	0(0.00)	8(22.86%)	20(28.99%)	112(28.14%)
DH	7(41.18%)	46(32.17%)	10(17.86%)	3(9.09%)	18(42.86%)	2(66.67%)	4(11.43%)	24(34.78%)	114(28.64%)
Faith healer	0(0.00)	0(0.00)	0(0.00)	0(0.00)	0(0.00)	0(0.00)	0(0.00)	0(0.00)	0(0.00)
Home remedies	0(0.00)	0(0.00)	0(0.00)	0(0.00)	1(2.38)	0(0.00)	0(0.00)	1(1.45)	2(0.50)
HWC/sub-centre	0(0.00)	19(13.29%)	12(21.43%)	5(15.15%)	11(26.19%)	2(66.67%)	6(17.14%)	11(15.94%)	66(16.58%)
Informal provider	0(0.00)	0(0.00)	0(0.00)	0(0.00)	0(0.00)	0(0.00)	0(0.00)	0(0.00)	0(0.00)
Local traditional healer	0(0.00)	0(0.00)	0(0.00)	0(0.00)	0(0.00)	0(0.00)	0(0.00)	0(0.00)	0(0.00)
Medical college	1(5.88%)	5(3.50%)	1(1.79%)	3(9.09%)	1(2.38%)	0(0.00)	2(5.71)	2(2.90)	15(3.77%)
Medical store	0(0.00)	2(1.40%)	0(0.00)	0(0.00)	0(0.00)	0(0.00)	0(0.00)	0(0.00)	2(0.50%)
NGO/trust	0(0.00)	1(0.70%)	0(0.00)	0(0.00)	0(0.00)	0(0.00)	0(0.00)	0(0.00)	1(0.25%)
PHC	6(35.29%)	58(40.56%)	30(53.57%)	18(54.55%)	17(40.48%)	0(0.00)	15(42.86%)	31(44.93%)	175(43.97%)
Private clinics	7(41.18%)	1(11.19%)	4(7.14%)	1(3.03%)	4(9.52%)	0(0.00)	6(17.14%)	10(14.49%)	48(12.06%)
Private hospital	4(23.53%)	10(6.99%)	1(1.79%)	0(0.00)	1(2.38%)	2(66.67%)	3(8.57%)	2(2.90%)	23(5.78%)
Village store	0(0.00)	1(0.70%)	0(0.00)	0(0.00)	0(0.00)	0(0.00)	1(2.86%)	4(5.80%)	6(1.51%)
other	0(0.00)	3(2.10%)	0(0.00)	0(0.00)	0(0.00)	0(0.00)	2(5.71%)	0(0.00)	5(1.26%)

Source: Survey data

PHC is the first-choice provider for the largest share of all categories respondents with qualifications less than graduation (barring those who have undergone middle schooling). For graduates in Golaghat, however, the highest share of respondents prefer DH and private clinics (41.18% each). Among post-graduates, dominant shares (66.67% each) prefer DH, private hospitals and HWC/sub-centres. In Golaghat district, there is thus a broad association between preference for PHC as first-choice provider and lower education status.

Table 5.8: First-choice provider in Golaghat by economic status/ ration card status (%)

Providers	Antyodaya	APL	BPL	No ration card	Total
ANM/MPW/ASHA	0(0.00)	1(4.76)	19(5.67)	3(7.69)	23(5.78)
CHC	0(0.00)	5(23.81)	96(28.66)	11(28.21)	112(28.14)
DH	0(0.00)	3(14.29)	103(30.75)	8(20.51)	114(28.64)
Faith healer	0(0.00)	0(0.00)	0(0.00)	0(0.00)	0(0.00)
Home remedies	0(0.00)	0(0.00)	2(0.60)	0(0.00)	2(0.50)
HWC/sub-centre	0(0.00)	3(14.29)	56(16.72)	7(17.95)	66(16.58)
Informal provider	0(0.00)	0(0.00)	0(0.00)	0(0.00)	0(0.00)
Local traditional healer	0(0.00)	0(0.00)	0(0.00)	0(0.00)	0(0.00)
Medical college	0(0.00)	1(4.76)	12(3.58)	2(5.13)	15(3.77)
Medical store	0(0.00)	0(0.00)	2(0.60)	0(0.00)	2(0.50)
NGO/trust	0(0.00)	0(0.00)	1(0.30)	0(0.00)	1(0.25)
PHC	3(100.00)	12(57.14)	143(42.69)	17(43.59)	175(43.97)
Private clinics	0(0.00)	2(9.52)	38(11.34)	8(20.51)	48(12.06)
Private hospital	0(0.00)	1(4.76)	17(5.07)	5(12.82)	23(5.78)
Village store	0(0.00)	0(0.00)	5(1.49)	1(2.56)	6(1.51)
Other	0(0.00)	0(0.00)	5(1.49)	0(0.00)	5(1.26)

Source: Survey data

In Golaghat district, less than 1% were Antyodaya, 5.28% were APL, 84.17% were BPL, and 9.80% did not have ration card. The highest share of people with BPL card (42.69%) chose PHC, followed by district hospital and CHC. A majority and relatively higher share of APL persons (57.14%) preferred PHC as first-choice provider.

The single largest share of persons with no ration card (43.59%) also preferred PHC. All the three Antyodaya respondents also preferred PHC. In Golaghat district, persons across economic categories thus preferred PHC as first-choice provider.

5.1.3 First-choice provider in Nagaon

The tables below show provider choice by social category, gender, economic status and education in Nagaon district.

Table 5.9: First-choice provider in Nagaon by social category (%)

Providers	General	OBC/minority	SC	ST	Total
ANM/MPW/ASHA	103(41.87)	21(25.93)	40(50.63)	0(0.00)	164(37.96)
CHC	18(7.32)	2(2.47)	13(16.46)	4(15.38)	37(8.56)
DH	199(80.89)	70(86.42)	62(78.48)	23(88.46)	354(81.94)
Faith healer	11(4.47)	7(8.64)	5(6.33)	1(3.85)	24(5.56)
Home remedies	6(2.44)	7(8.64)	3(3.80)	0(0.00)	16(3.70)
HWC/sub-centre	177(71.95)	47(58.02)	56(70.89)	18(69.23)	298(68.98)
Informal provider	22(8.94)	4(4.94)	12(15.19)	0(0.00)	38(8.80)
Local traditional healer	17(6.91)	6(7.41)	6(7.59)	1(3.85)	30(6.94)
Medical college	7(2.85)	1(1.23)	8(10.13)	1(3.85)	17(3.94)
Medical store	20(8.13)	4(4.94)	8(10.13)	2(7.69)	34(7.87)
NGO/trust	1(0.41)	0(0.00)	0(0.00)	2(7.69)	3(0.69)
PHC	162(65.85)	52(64.20)	58(73.42)	14(53.85)	286(66.20)

Providers	General	OBC/minority	SC	ST	Total
Private clinics	20(8.13)	8(9.88)	7(8.86)	3(11.54)	38(8.80)
Private hospital	105(42.68)	28(34.57)	38(48.10)	11(42.31)	182(42.13)
Village store	15(6.10)	3(3.70)	1(1.27)	0(0.00)	19(4.40)
Other	5(2.03)	4(4.94)	3(3.80)	0(0.00)	12(2.78)

Source: Survey data

Overall, the largest share of persons preferred district hospital as first-choice provider (81.94%) in Nagaon district, the largest district in the study. This is a deviation from the other two districts where the PHC was the most frequently preferred first-choice provider. A majority of persons also prefer sub-centre as first-choice provider (almost 69%) and PHC (66.20%). Even though PHC does not lie at the top of the preferred first-choice providers, the percentage of persons who prefer PHC is still dominant and higher than the other two districts. A significant share of respondents (42.13%) – albeit not a majority - also prefer private hospitals. Individual respondents' frequent preference for more than one option as first-choice provider is most strongly evident from the survey responses in Nagaon.

Preference for CHC as first-choice provider is low in Nagaon district (8.56%), though not as low as that in Barpeta district (0.48%). Faith healer preference (as first-choice) in Nagaon is about 6% only, but higher than Golaghat district which has no preference for such providers. Local traditional healer preference is about 7% in Nagaon district, compared to 0% in the other two districts. Preference for the community outreach providers ANM/ASHA/MPW (almost 38%) is highest in Nagaon among the three districts. Like Golaghat, the preference for medical college as first-choice provider is low (less than 4%).

It is noteworthy that 69% respondents in Nagaon have expressed preference for sub-centres as first-choice provider, which is far higher than the preference in the other two districts. Among the sub-centres in Nagaon district covered in this study, 43% had the CHO/MLHW for providing outpatient services. Amongst the three study districts, Nagaon district has the highest coverage of sample sub-centres by CHO presence.

CHO presence may thus be a possible reason for the higher preference for sub-centres as first-choice provider, though FGD responses rarely reveal a linkage or association between CHO presence and sub-centre usage.

Dominant share of the ST respondents in Nagaon district preferred DH (88.46%) and sub-centre (69.23%), followed by the majority (53.85%) whose preferred choice was the PHC.

The same three providers were also preferred by SC respondents, albeit not in the same order [DH preference (78.48%) was followed by PHC preference (73.42%) and then sub-centre preference (70.89%) for SC respondents].

The people belonging to general and minorities categories preferred DH, sub-centre and PHC, in that order. For OBCs and minorities, the DH was most frequently preferred, followed by PHC and sub-centre.

Table 5.10: First-choice provider in Nagaon by gender

Providers	Female	Male	Total
ANM/MPW/ASHA	67(36.22%)	97(39.27%)	164(37.96%)
CHC	18(9.73%)	19(7.69%)	37(8.56%)
DH	151(81.62%)	203(82.19%)	354(81.94%)
Faith healer	8(4.32%)	16(6.48%)	24(5.56%)
Home remedies	10(5.41%)	6(2.43%)	16(3.70%)
HWC/sub-centre	124(67.03%)	174(70.45%)	298(68.98%)
Informal provider	16(8.65%)	22(8.91%)	38(8.80%)
Local traditional healer	16(8.65%)	14(5.67%)	30(6.94%)
Medical college	6(3.24%)	11(4.45%)	17(3.94%)
Medical store	14(7.57%)	20(8.10%)	34(7.87%)
NGO/trust	1(0.54%)	2(0.81%)	3(0.69%)

Providers	Female	Male	Total
PHC	115(62.16%)	171(69.23%)	286(66.20%)
Private clinics	14(7.57%)	24(9.72%)	38(8.80%)
Private hospital	75(40.54%)	107(43.32%)	182(42.13%)
Village store	8(4.32%)	11(4.45%)	19(4.40%)
Other	4(2.16%)	8(3.24%)	12(2.78%)

Source: Survey data

For women and men in Nagaon, DH is the most frequently preferred provider followed by sub-centre and PHC. It is notable that there is no big difference in the choice of providers among male and female respondents in Nagaon district.

Table 5.11: First-choice provider in Nagaon by education

Providers	Bachelor degree	High School	illiterate	Middle school	primary	PUC/ Diploma	Total
ANM/MPW/ASHA	0(0.00)	24(42.11%)	73(36.32%)	15(32.61%)	42(41.18%)	10(40.00%)	164 (37.96%)
CHC	0(0.00)	4(7.02%)	19(9.45%)	3(6.52%)	9(8.82%)	2(8.00%)	37(8.56%)
DH	1(100.00%)	51(89.47%)	162 (80.60%)	41(89.13%)	76(74.51%)	23(92.00%)	354 (81.94%)
Faith healer	0(0.00)	3(5.26%)	10(4.98%)	2(4.35%)	9(8.82%)	0(0.00)	24(5.56%)
Home remedies	1(100.00%)	3(5.26%)	5(2.49%)	1(2.17%)	5(4.90%)	1(4.00%)	16(3.70%)
HWC/sub-centre	1(100.00%)	44(77.19%)	127(63.18%)	39 (84.78%)	71(69.61%)	16(64.00%)	298 (68.98%)
Informal provider	0(0.00)	5(8.77%)	22(10.95%)	4(8.70%)	6(5.88%)	1(4.00%)	38(8.80%)
Local traditional healer	0(0.00)	6(10.53%)	11(5.47%)	2(4.35%)	11 (10.78%)	0(0.00)	30(6.94%)
Medical college	0(0.00)	4(7.02%)	9(4.48%)	1(2.17%)	1(0.98%)	2(8.00%)	17(3.94%)
Medical store	0(0.00)	6(10.53%)	15(7.46%)	3(6.52%)	8(7.84%)	2(8.00%)	34(7.87%)
NGO/trust	0(0.00)	0(0.00)	1(0.50%)	1(2.17%)	1(0.98%)	0(0.00)	3(0.69%)
PHC	1(100.00%)	33(57.89%)	131 (65.17%)	35(76.09%)	71 (69.61%)	15(60.00%)	286 (66.20%)
Private clinics	0(0.00)	3(5.26%)	22(10.95%)	4(8.70%)	9(8.82%)	0(0.00%)	38(8.80%)
Private hospital	1(100.00%)	26(45.61%)	76(37.81%)	25(54.35%)	42 (41.18%)	12(48.00%)	182 (42.13%)
Village store	0(0.00)	3(5.26%)	9(4.48%)	1(2.17%)	4(3.92%)	2(8.00%)	19(4.40%)
Other	0(0.00)	2(3.51%)	8(3.98%)	0(0.00)	2(1.96%)	0(0.00%)	12(2.78%)

Source: Survey data

DH is the most frequently preferred first-choice provider for all the educational categories. The illiterate category's first-choice provider preference is: DH, PHC and sub-centre. For those with primary education, PHC and sub-centre are preferred second choice after DH with similar share (71% each) For the other educational categories, sub-centre is the second-most preferred and PHC is the third most preferred. More than 40% respondents from primary, middle, high school and PUC/diploma categories show a preference for private hospital as first-choice provider. Faith healer preference, while low, is highest (almost 9%) among respondents with primary education in Nagaon.

Table 5.12: First-choice provider in Nagaon by economic status/ ration card status (%)

Providers	Antyodaya	APL	BPL	No ration card	Total
ANM/MPW/ASHA	24(72.73)	57(33.93)	56(34.78)	27(38.57)	164(37.96)
CHC	14(42.42)	4(2.38)	14(8.70)	5(7.14)	37(8.56)
DH	28(84.85)	132(78.57)	139(86.34)	55(78.57)	354(81.94)
Faith healer	5(15.15)	5(2.98)	8(4.97)	6(8.57)	24(5.56)
Home remedies	5(15.15)	4(2.38)	3(1.86)	4(5.71)	16(3.70)
HWC/sub-centre	20(60.61)	123(73.21)	110(68.32)	45(64.29)	298(68.98)
Informal provider	2(6.06)	11(6.55)	13(8.07)	12(17.14)	38(8.80)
Local traditional healer	9(27.27)	6(3.57)	9(5.59)	6(8.57)	30(6.94)
Medical college	1(3.03)	4(2.38)	10(6.21)	2(2.86)	17(3.94)
Medical store	5(15.15)	9(5.36)	14(8.70)	6(8.57)	34(7.87)
NGO/trust	0(0.00)	0(0.00)	3(1.86)	0(0.00)	3(0.69)
PHC	19(57.58)	116(69.05)	109(67.70)	42(60.00)	286(66.20)
Private clinics	3(9.09)	12(7.14)	15(9.32)	8(11.43)	38(8.80)
Private hospital	12(36.36)	56(33.33)	79(49.07)	35(50.00)	182(42.13)
Village store	0(0.00)	10(5.95)	7(4.35)	2(2.86)	19(4.40)
Other	0(0.00)	6(3.57)	4(2.48)	2(2.86)	12(2.78)

Source: Survey data

For all the ration card categories, DH, sub-centre and PHC are the most preferred first-choice providers in that order. Private hospitals are most preferred choice among the no ration card group (50%), followed closely by the BPL group (49.07%). The poorest Antyodaya group (36.36%) and the APL group (33.33%) too, have a relatively higher preference for private hospitals in Nagaon. Therefore, there is no evidence of better-off residents having more preference for private providers. Faith healer preference is by far the highest among the poorest Antyodaya group among the survey respondents in Nagaon district.

Overall, the choices for first treatment varies by disease types and from one district to another. However, there are no consistent patterns of relationship between social category, gender, education or economic status on the one hand with first-choice provider on the other.

5.1.4 Reasons behind choosing first-choice providers in the three districts

The responses from the FGDs held with members of the community have shed light on the reasons why they choose particular first-choice providers. One common theme that emerged across the FGDs held with men and women in different villages in the three districts was that they choose different providers for different health issues or conditions.

In the subsequent section, detailed insights have been provided on why members of a community choose particular providers such as traditional healers, private providers and PHCs. Additional insights are presented here.

Barpeta district has a medical college, and male FGD participants in this district said they visited the medical college for fever, headache, joint pains and also for getting their blood pressure checked. The same group said, "Nobody cares about us, but doctors are available at the medical college. However, we have to buy medicines from shops outside." Another FGD group said that they visited the medical college because it was situated in a nearby town.

Participants of a women's FGD in Golaghat district mentioned that they visited CHCs for minor illnesses, DH for delivery and a private nursing home in Jorhat or Guwahati for major illnesses. They said that when they don't get proper treatment and required medicines at public facilities, then they consult pharmacists or private nursing homes. In another FGD, women mentioned that they visit PHC and DH for delivery and major and minor illnesses. CHC was mentioned as first-choice provider by some male FGD participants while DH, medical college (located in different district), or private nursing homes or doctors were mentioned as first-

choice providers by other male FGD participants in Golaghat district.

Choice of provider as first preference depends on disease and financial status – such was the viewpoint in one women's FGD in Nagaon district. The sub-centre or medical store were mentioned as their first-choice for minor ailments, whereas they preferred PHC or DH for major ailments; private doctor was also preferred for 'special attention'.

Interestingly, ANM/PHC doctor and pharmacy/private doctor were mentioned as first-choice providers by another section of women in Nagaon district.

Some women in Nagaon district also said that their regular provider was the pharmacist because they liked and trusted the pharmacist's medication-related suggestions.

In another women's FGD in Nagaon, women mentioned that the first-choice is always the government provider; if the government facility/ person is unable to provide proper medical treatment, then patients seek specialists at private hospitals. Model hospital (equivalent of CHC) was the first-choice provider for yet another group of women in Nagaon, and they used this facility for deliveries and treatment of minor illnesses. However, they raised the issue of lack of x-ray facilities at the model hospital. In one village in Nagaon district, Male FGD participants mentioned the PHC and DH as their first-choice provider despite the fact that the village had a sub-centre with a CHO. And unwillingness of some men in this group to visit PHC was linked to non-availability of medicines at the PHC.

Across the three districts, male and female FGD participants largely said they did not have a regular doctor. In one's women FGD in Golaghat district, participants said that since the PHC medical officer is not always available at the facility on account of other duties, he/ she cannot be a regular doctor for them. In one men's FGD in the same district, some men mentioned that the AYUSH provider at the PHC is their regular doctor because of the provider's good behaviour and perceived effective treatment.

The beneficiary in-depth interviews (IDIs) also shed some light on regular doctors. One senior citizen (a woman belonging to ST community) in Golaghat district said that she has a family doctor, who is a private doctor of Bokakhat town. For any disease she goes to the same doctor and the doctor charges her less for treatment.

The respondent is using the same doctor for most of her personal needs, including her chronic headache. This indicates that trust and dependability have an important bearing on the choice of regular provider.

5.2 Provider choice for specific provider types: private providers and traditional healers

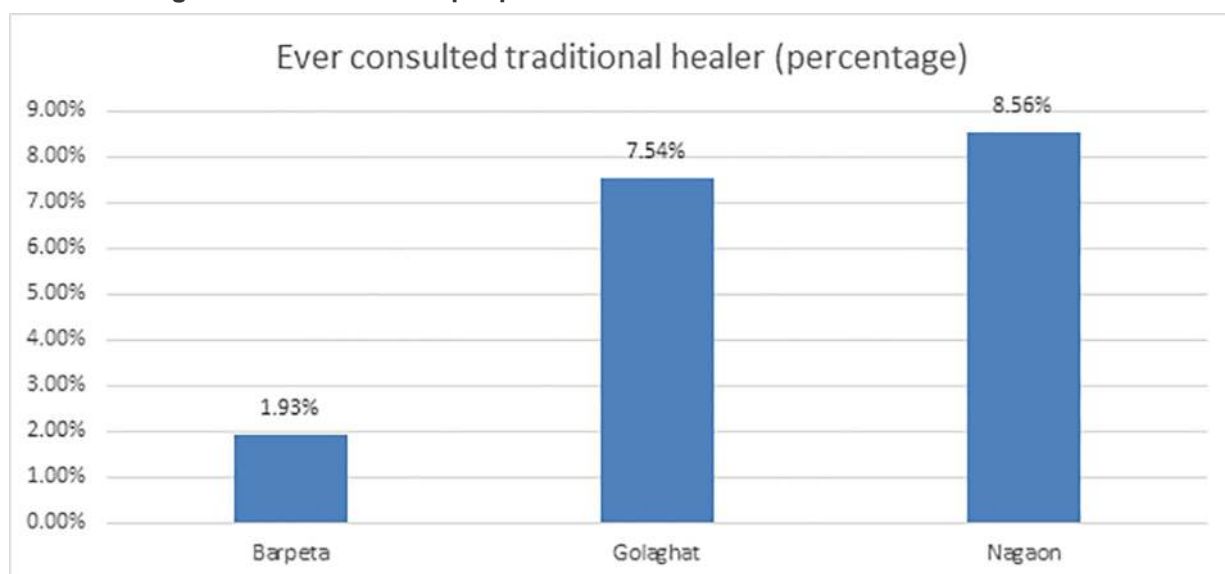
The above section has shown that while public facilities such as PHCs and district hospitals are the most common first-choice providers, respondents in the three districts said they do visit other health care provider types to some extent. To comprehend why people may not always visit public health care facilities (especially primary health care facilities), one needs to understand why people visit other types of providers. This section specifically examines the reasons for and conditions under which two other types of care providers – private providers and traditional healers – are visited (and not just as first-choice provider). The reasons for and conditions under which public health care facilities such as PHCs, sub-centres and HWCs are visited will also be explored here.

5.2.1 Traditional healer

5.2.1.1 Extent of seeking advice from traditional healer

In this section we explore the utilization of traditional healer as a treatment option. It covers variations based on gender, social category, and ration card status in such utilization. The section also explored the diseases for which traditional healers were consulted and the reasons for consulting them in three districts selected for the study.

Fig. 5.1 Extent to which people ever consulted traditional healer in districts



Source: Survey data

The survey respondents were asked whether they ever seek advice from traditional healer for any diseases. Overall, 75 out of 1245 respondents combining all the three districts (6.02%) consulted traditional healer for various ailments. As the graph above shows, 1.93% or 8 out of 415 respondents visited in Barpeta, 7.54% or 30 out of 398 visited in Golaghat and 8.56% or 37 out of 432 consulted traditional healers in Nagaon district. The lowest utilization is thus in Barpeta and the highest is in Nagaon.

The gender, social category and economic status wise breakup of utilization of traditional healers as a provider is presented in the analysis below:

Table 5.13: Respondents seeking advice from traditional healer in districts by gender

Districts	Female	Male	transgender	Grand Total
Barpeta	5(2.30%)	2(1.03%)	1(25%)	8(1.93%)
Golaghat	19(9.09%)	11(5.82%)	0	30(7.54%)
Nagaon	21(11.35%)	16(6.48%)	0	37(8.56%)
Grand Total	45(7.36%)	29(4.60%)	1(25%)	75(6.02%)

Source: Survey data

In Barpeta district, five out of 217 (2.30%) women sought advice from a traditional healer while two out of 194 men (1.03%) sought such advice. One out of the four transgender respondents in Barpeta district had consulted a traditional healer. In Golaghat district, 19 out of 209 women (9.09%) and 11 out of 189 men (5.82%) sought such advice. In Nagaon, 21 out of 185 women (11.35%) and 16 out of 247 (6.48%) men visited a traditional healer. Combining all the districts, a higher proportion of women (7.36%) sought advice from traditional healers compared to men (4.60%).

Table 5.14: Respondents visiting traditional healer in districts by social category

Districts	General	OBC/Minority	SC	ST	Grand Total
Barpeta	7(1.98%)	1(1.85%)	0	0	8(1.93%)
Golaghat	0	23(9.35%)	2(8.33%)	5(7.81%)	30(7.54%)
Nagaon	20(8.13%)	9(11.11%)	6(7.59%)	2(7.69%)	37(8.56%)
Grand Total	27(4.07%)	33(8.66%)	8(7.41%)	7(7.61%)	75(6.02%)

Source: Survey data

¹³There were 4 transgender respondents in the Barpeta district sample

In Barpeta district, the SC and ST respondents never sought advice from the traditional healer, and the relatively highest extent of seeing such advice was among the general category, closely followed by the OBC/minority community. In Golaghat district, the category that has the highest ratio of visits to the traditional healer was the OBC/minority group followed by the SC group. For Nagaon district, the OBC/minority group had the highest extent of ever visiting the traditional healer, followed by the general category. So, overall, the OBC/minority community had the highest ratio of seeking advice from a traditional healer (8.66%).

Table 5.15: Respondents visiting traditional healer in districts by ration card/economic status

	Antyodaya	APL	BPL	No Ration Card	Grand Total
Barpeta	0	1(1.96%)	7(2.56%)	0	8(1.93%)
Golaghat	2(66.67%)	5(23.81%)	23(6.87%)	0	30(7.54%)
Nagaon	9(27.27%)	13(7.74%)	8(4.97%)	7(10%)	37(8.56%)
Grand Total	11(28.95%)	19(7.92%)	38(4.94%)	7(3.54%)	75(6.02%)

Source: Survey data

Amongst the economic categories, the highest extent of visiting traditional healer in Barpeta was among the BPL ration card holders (2.56%). In Golaghat, the highest extent of such visits was among the Antyodaya card holders (66.67%) followed by the APL card holders (23.81%). In Nagaon district, it was again the Antyodaya card holders (27.27%) who sought advice from the traditional healer. The no ration card group (10%) was a distant second.

5.2.1.2 Conditions for which traditional healer is visited

The table below shows the health issues (mostly symptoms) for which traditional healers were consulted.

Table 5.16: Disease conditions for traditional healer is consulted in districts (%)

Disease condition	Barpeta	Golaghat	Nagaon	Grand Total
Constipation	0(0.00)	0(0.00)	3(8.11)	3(4.00)
Cough	1(12.50)	1(3.33)	9(24.32)	11(14.67)
body ache	1(12.50)	2(6.67)	9(24.32)	12(16.00)
Diarrhoea	0(0.00)	1(3.33)	3(8.11)	4(5.33)
dog bite	2(25.00)	0(0.00)	3(8.11)	5(6.67)
evil spirit	3(37.50)	10(33.33)	17(45.95)	30(40.00)
eye problem	2(25.00)	1(3.33)	7(18.92)	10(13.33)
Fever	1(12.50)	2(6.67)	6(16.22)	9(12.00)
Headache	2(25.00)	3(10.00)	5(13.51)	10(13.33)
Jaundice	2(25.00)	0(0.00)	7(18.92)	9(12.00)
joint pain	1(12.50)	3(10.00)	13(35.14)	17(22.67)
menstrual problem	0(0.00)	1(3.33)	6(16.22)	7(9.33)
mental disorder	2(25.00)	3(10.00)	16(43.24)	21(28.00)
Poisoning	0(0.00)	0(0.00)	2(5.41)	2(2.67)
runny nose	0(0.00)	0(0.00)	0(0.00)	0(0.00)
scorpion bite	0(0.00)	0(0.00)	0(0.00)	0(0.00)
sleeping problem	0(0.00)	4(13.33)	4(10.81)	8(10.67)
Snakebite	3(37.50)	0(0.00)	8(21.62)	11(14.67)

Disease condition	Barpeta	Golaghat	Nagaon	Grand Total
sore throat	0(0.00)	1(3.33)	0(0.00)	1(1.33)
stomach ache	0(0.00)	1(3.33)	4(10.81)	5(6.67)
Toothache	0(0.00)	0(0.00)	7(18.92)	7(9.33)
Wounds	0(0.00)	1(3.33)	0(0.00)	1(1.33)
Other	1(12.50)	11(36.67)	1(2.70)	13(17.33)

Source: Survey data

Major problems and health conditions for which traditional healers are being consulted in the three districts include, 'evil spirits'¹⁴, mental disorder, joint pains, snakebites and cough. In Barpeta district, traditional healers were consulted most commonly for 'evil spirit' and snakebite (37.5% each) followed by mental disorder, jaundice, eye problems, headache and dog bites (25% each). In Golaghat, traditional healers were most commonly consulted for 'evil spirit' (33.33%) followed by sleeping problems (13.33%); they were also consulted for other health issues (36.67%). In Nagaon, they were most frequently consulted for 'evil spirit' (45.95%) and mental disorder (43.24%) followed by joint pain (35.14%).

5.2.1.3 Reasons for which traditional healer was consulted

The survey, FGDs with men and women from the community and the health provider IDs have revealed reasons for which people occasionally choose to consult traditional healers.

Table 5.17: Reasons for which traditional healer was consulted in districts

Reasons for choosing	Barpeta	Golaghat	Nagaon	Grand Total
Easy to reach/nearby	5(62.50%)	3(10%)	26(70.27%)	34(45.33%)
Faith/fear/devotion	2(25%)	23(76.67%)	29(78.38%)	54(72%)
Good experience	5(62.50%)	8(26.67%)	26(70.27%)	39(52%)
Personal preferences	1(12.50%)	4(13.33%)	24(64.86%)	29(38.67%)
Not expensive	4(50%)	0	18(48.65%)	22(29.33%)
Recommended by friends	0	1(3.33%)	8(21.62%)	9(12%)
Family practice	3(37.50%)	0	5(13.51%)	8(10.67%)
Other	1(12.50%)	0	0	1(1.33%)

Source: Survey data

Overall, the top reasons for consulting traditional healer include faith/fear/devotion (72%), good experience (52%), accessibility (45.33%), personal preference (38.67%) and low cost (29.33%).

In Barpeta district, one section of women said at the FGD that they visit the traditional healers for major and minor illness because they believe that their ailments will be cured. Participants from one men's FGD in this district mentioned that they sometimes visit traditional healers for small illnesses and snake bites, but they visit doctors more often.

In Golaghat district, women in one FGD said personal faith was the reason for visiting traditional healers for joint pain. In another group, a few women mentioned that they visit traditional healers for disease such as 'pox' and joint pain. And the primary reason for seeking such advice is their proven efficacy in successfully curing patients.

A participant of another women's FGD said that she visited the traditional healer when her swollen leg could not be cured by other providers. Few men in an FGD in Golaghat district mentioned that they get relief from traditional providers for certain illnesses such as weakness and vomiting.

Some women in Nagaon district said that they visit traditional healer for certain diseases like evil spirit, and back and joint pains. They visit such providers after visiting seeking advice from the doctor. A group of male FGD participants in Nagaon said they were able to get considerable relief from joint and back pains and 'bad

¹⁴According to one expert informant in Assam, the symptoms of perceived 'evil spirit' affliction are: keeping aloof, muttering to self, aggression, suicidal behaviour or attempt, wandering aimlessly, extreme religious preoccupation, convulsions and high fever.

air' after consulting the traditional healer. An adolescent male told an IDI in Nagaon district that he gets relief from his breathing problem when he consults the healer.

Traditional/faith healers interviewed in the three districts also revealed reasons for which some people visit them. Once such provider interviewed in Barpeta district said, "Yes, some patients prefer me as their first-choice provider, because they believe in my treatment (mantras)¹⁵ and there is good feedback from those who have visited me. I think the treatment and mantras work and that's why they come back to me."

Consultation charges is another factor that influences people visiting a traditional healer. One healer interviewed in Barpeta said that he doesn't take consultation fee and only charges for the medicines he gives. Another healer said that he doesn't ask for consultation fees, accepts money if offered by any patient.

A traditional healer interviewed in Golaghat confessed that he is not the first-choice provider for the patients. He said that first people go to the doctor for treatment, but if the ailment is not cured, then they came to him. The healer said that the patients prefer to come back to him because his patients get good results. The other healer interviewed in this district also said that people prefer him as a second-choice provider. If people do not get effective treatment for their ailment from other providers, then they choose him.

While the first healer in Golaghat said that he does not charge consultation fees from his patients, and people give him whatever they wish, the second healer said that he usually takes \$0.7-1.3 (₹ 50-100) as one-time treatment charges.

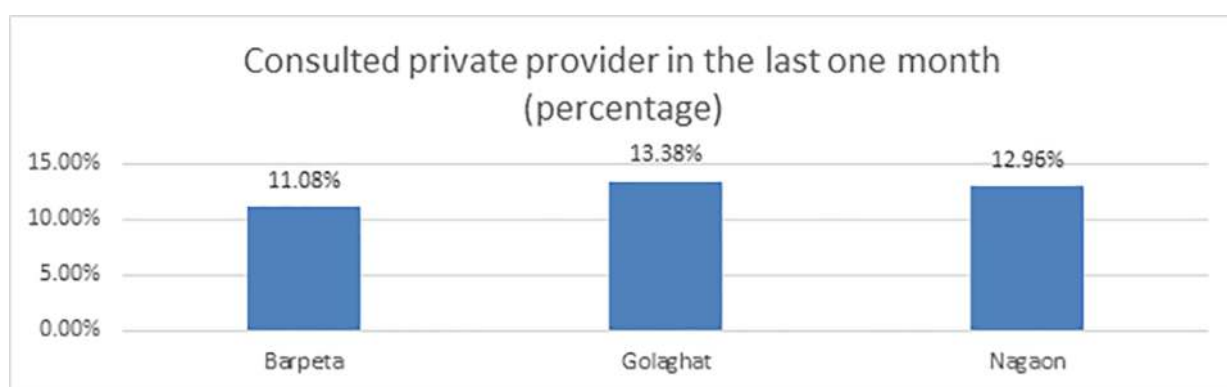
Two traditional healers were also interviewed in Nagaon. The first one admitted that he is not the first-choice provider for people, but said people come to him because they do not benefit from the treatment of other health providers. He said that due to his effective treatment, he gets several patients through word-of-mouth references. His one-time treatment charges range from \$4-4.7(₹ 300- 350). The second healer said that some people come to him as first-choice provider. He also said that he gets more patients through word-of-mouth references. He allows patients to pay whatever they want or can afford.

5.2.2 Private provider

5.2.2.1 Extent of seeking care from private provider

Private provider includes private clinics and private hospitals. Respondents were asked whether they had consulted a private provider (formal or informal) in the last one month. In this section, we have explored the utilization of private provider as a treatment option. The analysis covers variations of gender, social category and ration card holding, along with diseases for which the private providers were consulted and the reasons for consulting them.

Figure 5.2: Extent of consulting private provider in last one month in districts



Source: Survey data

Combining the three districts, 12.47% respondents had consulted a private provider in the last one month. Overall, 11.08% respondents in Barpeta district, 13.38% respondents in Golaghat district and 12.96%

¹⁵Chants or incantations

respondents in Nagaon district saw a private provider in the last one month, indicating that there is not much variation between districts in this regard.

The table below examines the gender-based variation in consulting private providers.

Table 5.18: Respondents consulting private provider in last one month in Barpeta by gender

Gender	No	Not sure	Yes	No response	Grand Total
Female	180(82.95%)	11(5.07%)	26(11.98%)	0	217(100%)
Male	164(84.54%)	9(4.64%)	20(10.31%)	1(0.52%)	194(100%)
Transgender	4(100%)	0	0	0	4(100%)
Total	348(83.86%)	20(4.82%)	46(11.08%)	1(0.24%)	415(100%)

Source: Survey data

In Barpeta district, 10.31% men and about 12% women respondents had consulted a private provider in the last one month. None of the four transgender respondents in Barpeta district had consulted a private provider.

Table 5.19: Respondents consulting private provider in last one month in Golaghat by gender

Gender	No	Not sure	Yes	Grand Total
Female	179(86.47%)	0	28(13.53%)	207(100%)
Male	164(86.77%)	0	25(13.23%)	189(100%)
Total	343(86.62%)	0	53(13.38%)	396(100%)

Source: Survey data

In Golaghat district, men and women had similar extents of consulting private providers (13.23% and 13.53% respectively).

Table 5.19b: Respondents consulting private provider in last one month in Nagaon by gender

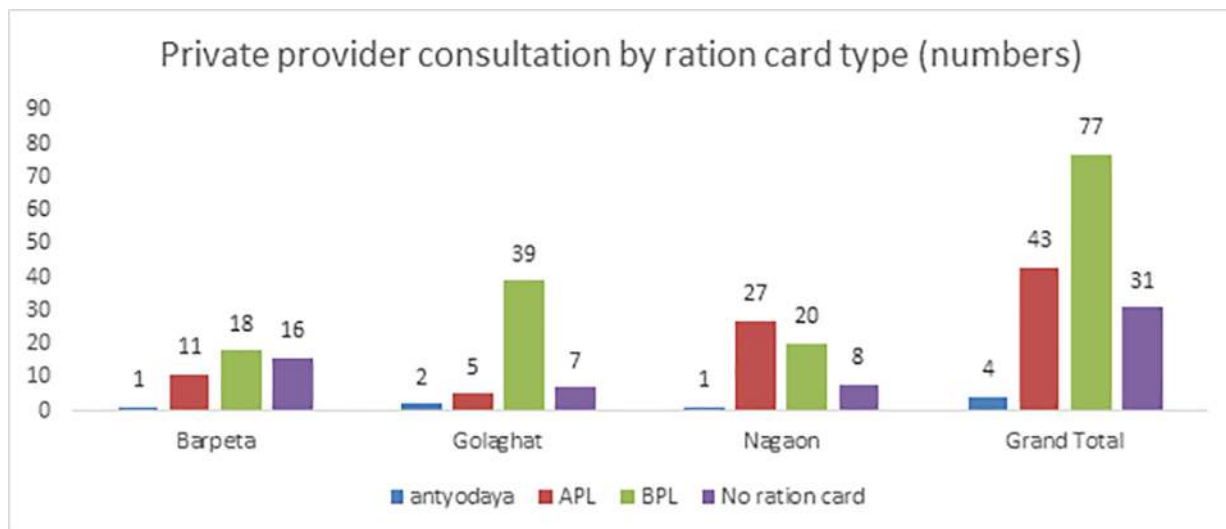
Gender	No	Not sure	Yes	Grand Total
Female	159(85.95%)	4(2.16%)	22(11.89%)	185(100%)
Male	204(82.59%)	9(3.64%)	34(13.77%)	247(100%)
Total	363(84.03%)	13(3.01%)	56(12.96%)	432(100%)

Source: Survey data

A slightly higher percentage of men in Nagaon district (close to 14%) had consulted private provider in the last one month, compared to almost 12% women.

Economic status (for which ration card status is chosen as the indicator) may have a bearing on whether people choose to consult a private provider, because their services are usually not free, unlike public services offered in facilities such as PHCs. Figure 5.3 and tables 5.20 to 5.22 illustrate variations between individuals of different economic status (ration card ownership) with respect to consulting private providers in the last one month.

Fig. 5.3: Respondents consulting private provider in last one month in districts by ration card



Source: Survey data

Table 5.20: Respondents consulting private provider in last one month in Barpeta by ration card

	No	Not sure	Yes	NA	Grand Total
Antyodaya	1(50%)	0	1(50%)	0	2(100%)
APL	39(76.47%)	1(1.96%)	11(21.57%)	0	51(100%)
BPL	240(87.91%)	14(5.13%)	18(6.59%)	1(0.37%)	273(100%)
No ration Card	68(76.40%)	5(5.62%)	16(17.98%)	0	89(100%)
Total	348(83.86%)	20(4.82%)	46(11.08%)	1(0.24%)	415(100%)

Source: Survey data

In Barpeta district, out of the two Antyodaya card holding respondents, one (50%) had consulted a private provider. Amongst the ration card holding categories which had higher numbers, the APL respondents had the highest extent of seeing a private provider (21.57%), followed by the no ration card group (17.98%). While the BPL category had the highest number of respondents (273), only 6.59% of them saw a private provider.

Table 5.21: Respondents consulting private provider in last one month in Golaghat by ration card

	No	Not Sure	Yes	NA	Grand Total
Antodaya	1(33.33%)	(0.00)	2(66.67%)	(0.00)	3(100%)
APL	16(76.19%)	(0.00)	5(23.81%)	(0.00)	21(100%)
BPL	294(88.29%)	(0.00)	39(11.71%)	(0.00)	333(100%)
No ration Card	32(82.05%)	(0.00)	7(17.95%)	(0.00)	39(100%)
Total	343(86.62%)	(0.00)	53(13.38%)	(0.00)	396(100%)

Source: Survey data

In Golaghat district, two out of three Antyodaya respondents (66.67%) had consulted a private provider in the last one month. Amongst the categories with larger numbers, the highest extent of seeing a private provider was amongst the APL category (23.81%) followed by the no ration card category (17.95%). Amongst the 333 BPL respondents, 11.71% visited such provider in the last one month.

Table 5.22: Respondents consulting private provider in last one month in Nagaon by ration card

	No	Not sure	Yes	NA	Grand Total
Antodaya	29(87.88%)	3(9.09%)	1(3.03%)	(0.00)	33(100%)
APL	139(82.74%)	2(1.19%)	27(16.07%)	(0.00)	168(100%)

	No	Not sure	Yes	NA	Grand Total
BPL	134(83.23%)	7(4.35%)	20(12.42%)	(0.00)	161(100%)
No ration Card	61(87.14%)	1(1.43%)	8(11.43%)	(0.00)	70(100%)
Total	363(84.03%)	13(3.01%)	56(12.96%)	(0.00)	432(100%)

Source: Survey data

The economically better off group (APL) has the highest extent of seeing private provider, the poorest category of Antyodaya has higher rates of seeing such provider compared to the relatively better-off BPL category. There is, therefore, no conclusive relationship between economic status and seeking a private provider for health care.

Table 5.23: Respondents consulting private provider in last one month in Barpeta by social category

	No	Not sure	Yes	NA	Grand total
General	295(83.33%)	17(4.80%)	41(11.58%)	1(0.28%)	354(100%)
OBC/minority	49(90.74%)	(0.00)	5(9.26%)	(0.00)	54(100%)
SC	3(60%)	2(40%)	(0.00)	(0.00)	5(100%)
ST	1(50%)	1(50%)	(0.00)	(0.00)	2(100%)
Total	348(83.86%)	20(4.82%)	46(11.08%)	1(0.24%)	415(100%)

Source: Survey data

In Barpeta district, the general category respondents had the highest extent of seeing a private provider in the last one month (11.58%) and 9.26% of the OBC/minority respondents saw a private provider. None of the SC and ST respondents saw a private provider.

Table 5.24: Respondents consulting private provider in last one month in Golaghat by social category

	No	Not Sure	Yes	NA	Grand Total
General	55(85.94%)	(0.00)	9(14.06%)	(0.00)	64(100%)
OBC/minority	210(86.07%)	(0.00)	34(13.93%)	(0.00)	244(100%)
SC	23(95.83%)	(0.00)	1(4.17%)	(0.00)	24(100%)
ST	55(85.94%)	(0.00)	9(14.06%)	(0.00)	64(100%)
Total	343(86.62%)	(0.00)	53(13.38%)	(0.00)	396(100%)

Source: Survey data

In Golaghat district, the highest extent of seeing a private provider during the last month was among the general and ST groups (14.06% each), followed closely by the OBC/minority group at 13.93%. The SC group was far behind in terms of extent of seeing a private provider (4.17%).

Table 5.25: Respondents consulting private provider in last one month in Nagaon by social category

	No	Not sure	Yes	NA	Grand Total
GENERAL	210(85.37%)	7(2.85%)	29(11.79%)	(0.00)	246(100%)
OBC/minority	58(71.60%)	1(1.23%)	22(27.16%)	(0.00)	81(100%)
SC	70(88.61%)	5(6.33%)	4(5.06%)	(0.00)	79(100%)
ST	25(96.15%)	(0.00)	1(3.85%)	(0.00)	26(100%)
Total	363(84.03%)	13(3.01%)	56(12.96%)	(0.00)	432(100%)

Source: Survey data

The OBC/minority group in Nagaon had a high proportion of respondents seeing private provider (27.16%), higher than any social group in any district, covered in this study. Among the general category, SC and ST

respondents, 11.79%, 5.06% and 3.85% respectively saw a private provider.

5.2.2.2 Conditions for which private provider was consulted in the last one month

Table 5.26: Disease for private provider was chosen in districts

Diseases	Barpeta	Golaghat	Nagaon	Grand Total
All minor diseases	37(80.43%)	36(66.67%)	43(76.79%)	116(74.36%)
Chronic disease	9(19.57%)	9(16.67%)	35(62.50%)	53(33.97%)
Seasonal ailments	0(0.00)	2(3.70%)	9(16.07%)	11(7.05%)
Severe/acute conditions	1(2.17%)	10(18.52%)	9(16.07%)	20(12.82%)
Wounds/sutures	0(0.00)	0(0.00)	1(1.79%)	1(0.64%)
Weakness	0(0.00)	5(9.26%)	5(8.93%)	10(6.41%)
Other	4(8.70%)	10(18.52%)	6(10.71%)	20(12.82%)

Source: Survey data

Overall, in Barpeta and Nagaon, private providers were consulted in the last one month most frequently for all minor conditions, followed by chronic diseases. In Golaghat, private providers were consulted most commonly for minor conditions followed by severe/acute conditions.

Table 5.27: Reasons for choosing private provider in districts (%)

Reasons	Barpeta	Golaghat	Nagaon	Grand Total
Easy to reach/nearby	17(36.96)	2(3.70)	26(46.43)	45(28.85)
Experience of effective treatment	14(30.43)	20(37.04)	20(35.71)	54(34.62)
Heard that people get better	1(2.17)	7(12.96)	14(25.00)	22(14.10)
S/he is preferred doctor	10(21.74)	18(33.33)	11(19.64)	39(25.00)
Inconvenient timing in government facilities	4(8.70)	2(3.70)	3(5.36)	9(5.77)
Long queues in government facilities	4(8.70)	0(0.00)	9(16.07)	13(8.33)
Poor quality of government facilities	33(71.74)	21(38.89)	19(33.93)	73(46.79)
When illness doesn't get cured through home remedies	0(0.00)	0(0.00)	4(7.14)	4(2.56)
When medicines from village store are not effective	0(0.00)	0(0.00)	8(14.29)	8(5.13)
When treatment from government facility fails	2(4.35)	0(0.00)	23(41.07)	25(16.03)
Other	1(2.17)	0(0.00)	0(0.00)	1(0.64)

Source: Survey data

Apart from the survey, FGDs of members of the community and provider IDIs revealed reasons for which persons in the three districts consulted private providers.

In Barpeta district, women from one FGD mentioned that they visit private hospitals or government hospitals for delivery, getting X-rays done, and major and minor illnesses. Some women stated that they visit private providers for major illnesses, and they do so to obtain better treatment. Another reason for visiting private doctors was that “they give more importance to patients than doctors of government hospitals.” One section of male FGD participants in Barpeta district mentioned that they visit private provider for fever, cough etc because they trust them and believe that they are well qualified to treat. Some male FGD participants said they do not visit government hospitals due to 'poor services'.

Some participants of a women's FGD in Golaghat district mentioned that they consult a private provider for minor illnesses such as fever, gastric issues, headache and joint pain because the concerned doctor does home visits. They said that the said provider “is not a doctor by qualification but by practice only.” Some participants of one men's FGD in Golaghat revealed that they sometimes go to a private doctor because they believe in such providers' efficacy of treatment. In the same FGD, another section of men said that they prefer private facilities for X-rays because of the delays and poor quality of X-ray reports at public facilities. Some male participants said that for managing chronic disease, they visit qualified private doctors as they

feel they get effective treatment and positive results from them. One section of male FGD participants in the same district said the quality of X-ray plates was better in private facilities. In this FGD, participants said, “the poor visit the PHC and those having money visit the private provider.”

In Nagaon district, one group of women FGD participants mentioned that people visit private doctors for major diseases that need special attention. They claimed receiving “special treatment and hospitality” at private facilities. Some women in Nagaon district mentioned visiting private doctor for issues such as skin problems, hypertension and gas, because their service is fast and effective. It was added that those who don't have financial problems go to the private doctor because of the 'special treatment' there and long waiting time at government hospitals. Some male participants in Nagaon said private provider is suitable for diabetes treatment because they felt an improvement in their health condition after seeing the provider. One group of men shared that they checked the credentials of private providers not only by reading their qualifications mentioned on the board but also by enquiring with others about their credibility.

Private providers were also interviewed to obtain their perspective on why some people prefer to visit them. In Barpeta, the interviewed providers said that most patients are using him as first choice for health care because his treatment is effective. However, in case the patient is suffering from any noncommunicable diseases (NCDs) or other chronic disease, he refers them to other places for treatment. This respondent stated that he only charges for medicines. A private provider interviewed in Golaghat also said that he refers chronic and high-risk diseases to DH but not the PHC. The provider added that most of the patients have family-like relation with him and that's why they choose him first. One private provider interviewed in Golaghat is charging \$1.3 (₹100) per visit, with medicine costs added, though he said that often he takes less from the poor patients. Sometimes he also lets patients pay later.

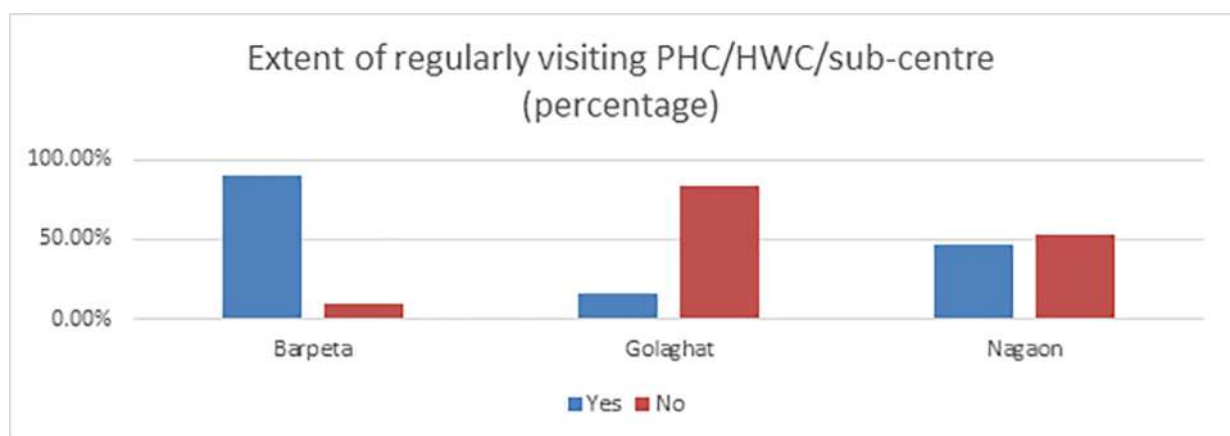
Overall, minor ailments¹⁶ and chronic diseases were the most common conditions for which people approach private providers. There aren't any consistent differences with respect to seeking care with private providers between men and women, and members of different social categories and economic status (ration card holding). Poor quality government treatment is the top reason for which the private providers are being consulted.

5.2.3 Primary health centre/health and wellness centre/sub-centre

This section will touch on the extent to which respondents regularly visit PHC/HWC/sub-centre, the reasons for which they visit and the conditions for the same. A more detailed exploration of utilization of public primary health care facilities will be done in Chapter 5 of this report.

5.2.3.1 Extent to which respondents ever visit public facilities including PHC/HWC/sub-centre

Fig. 5.4: Extent to which respondents regularly visit PHC/HWC/sub-centre in districts



Source: Survey data

¹⁶Minor ailments include fevers, stomachache, cough, and cold.

Table 5.28: Extent to which respondents regularly visit PHC/HWC/sub-centre in districts

	No	Yes	Grand Total
Barpeta	373(89.88%)	42(10.12%)	415(100%)
Golaghat	65(16.33%)	333(83.67%)	398(100%)
Nagaon	230(53.24%)	202(46.76%)	432(100%)
Grand Total	668	577	1245

Source: Survey data

The graph and table above show the percentage and numbers of people who regularly visit public primary health care facilities in the three districts. The highest share of people who visit regularly is in Golaghat district (83.67%). In the other two districts, majority do not regularly visit PHC/HWC/sub-centre. While close to 47% in Nagaon regularly visit such facilities, in Barpeta district, the share is as small as 10.12%.

5.2.3.2 Disease conditions for which PHC is visited

Table 5.29: Reasons for which respondents visit PHC in districts (%)

Conditions for PHC visit	Barpeta	Golaghat	Nagaon	Grand Total
Body ache	46(57.50)	134(39.64)	114(32.66)	294(38.33)
Constipation	7(8.75)	18(5.33)	64(18.34)	89(11.60)
Cough	50(62.50)	239(70.71)	304(87.11)	593(77.31)
Diarrhoea	17(21.25)	67(19.82)	177(50.72)	261(34.03)
Dog bite	14(17.50)	9(2.66)	9(2.58)	32(4.17)
Eye problem	16(20.00)	18(5.33)	46(13.18)	80(10.43)
Fever	76(95.00)	310(91.72)	268(76.79)	654(85.27)
Headache	47(58.75)	140(41.42)	225(64.47)	412(53.72)
Jaundice	6(7.50)	1(0.30)	118(33.81)	125(16.30)
Joint pain	33(41.25)	121(35.80)	132(37.82)	286(37.29)
Menstrual problem	2(2.50)	3(0.89)	7(2.01)	12(1.56)
Mental disorder	0(0.00)	3(0.89)	4(1.15)	7(0.91)
Poisoning	1(1.25)	2(0.59)	18(5.16)	21(2.74)
Runny nose	0(0.00)	0(0.00)	2(0.57)	2(0.26)
Scorpion bite	0(0.00)	0(0.00)	1(0.29)	1(0.13)
Sleeping problem	8(10.00)	1(0.30)	11(3.15)	20(2.61)
Snakebite	5(6.25)	0(0.00)	5(1.43)	10(1.30)
Sore throat	1(1.25)	11(3.25)	5(1.43)	17(2.22)
Stomach ache	18(22.50)	58(17.16)	131(37.54)	207(26.99)
Toothache	4(5.00)	8(2.37)	56(16.05)	68(8.87)
Wounds	0(0.00)	8(2.37)	85(24.36)	93(12.13)
Other	2(2.50)	14(4.14)	7(2.01)	23(3.00)

Source: Survey data

Overall, primary care conditions like fever (85.27%), cough (77.31%), headache (53.72%), body pain (38.33%), joint pain (37.29%), diarrhoea (34.03%) and stoma-ache (about 27%) are the major reasons for utilization of PHCs and other primary health care facilities. In Barpeta (95%) and Golaghat (91.72%), fever is the most common condition for visiting, while in Nagaon, cough (87.11%) is the most common condition for visiting such facilities.

5.3.2.3 Reasons for visiting (or not visiting) PHC/HWC/sub-centre

It may be recalled that the survey findings for this study have shown low regular utilization of PHC/sub-centre/HWC in Barpeta district compared to the other two districts. In this district, some women FGD participants mentioned that they sometimes visit PHC for free treatment for minor illnesses. Proximity was also mentioned as a reason for visiting PHCs. Male participants of one FGD in this district said that they have visited PHC for fever, headaches, joint pain, eye problems and checking blood pressure. However, they perceived the facilities to be very poor as doctors and medicines were not available. Other male FGD participants in Barpeta district said the PHCs don't supply or provide medicines, hence they visit other providers such as private clinics. Another viewpoint that emerged from an FGD of men was that PHC is sometimes visited for treatment of fever, but not always. They believed that PHCs have many services for pregnant women, and women also visit PHCs for immunization, though labour facilities were not available in their PHC.

Participants from a women's FGD in Golaghat district, which has highest regular utilization of PHCs, gave a number of reasons for visiting PHCs, such as proximity, free or cheap services, availability of facilities, good experience in the past and the effectiveness of the required treatment. Another group of women, however, said that they don't visit PHCs because of distance, but they visit CHC since it is nearer with services provided free of cost. This group said that they are unaware of free services at the PHC but know a list of free services at CHCs (blood tests, X-rays, medicines and inpatient services).

In another FGD, however, women mentioned that PHC is first-choice provider for them because there is a lack of facilities at the sub-centre. They mentioned visiting PHC, since they perceive that the cost of care at a private nursing home or with a private doctor would be higher. In one men's FGD in the same district, participants expressed a positive perception of PHCs, and said that they visit PHC for minor illnesses since they get good quality treatment. Other reasons for choosing PHC include proximity, trust in the PHC doctors and awareness of the services available at the PHC. In the same FGD, men said that though delivery is free at the PHC, X-ray is not free and not all lab facilities are available.

One of the men's FGDs in Golaghat was conducted in a village close to a HWC.

The participants of this FGD expressed their satisfaction with the HWC because of proximity and also because they found the CHO of this facility very good. However, all medicines were not freely available at the HWC. They mentioned HWC as their first-choice provider for minor illnesses.

But when they do not heal, they visit the PHC to cure these minor illnesses. In the same group, some participants said that not all services at the PHC are free, though blood tests and ultrasound are free. One section of male FGD participants in Golaghat district said that as the CHC is closer than the PHC, they prefer visiting the CHC. Other reasons include poverty and wage labour status of most residents because of which it is difficult for them to bear the cost of a far-off facility and poor condition of the road to PHC.

The same group mentioned visiting CHC for minor illnesses and some major illnesses, while for 'risky' diseases they visited DH, private nursing homes and medical college (located in different district). Certain male FGD participants had the perception that government facilities were not being effective for major diseases.

In Nagaon district, one group of women mentioned that PHC is visited on account of proximity and free medicines. They also visit PHC or DH for delivery and for minor ailments. Another section of women said that the villagers' financial status is the reason for visiting the PHC, and they are able to obtain basic health facilities at a reasonable price or free of cost. PHC was also one of the options for delivery. They also mentioned taking minor medical treatment at the sub-centre (even though their sub-centre did not have a CHO). In the same FGD, women mentioned preference for the allopathic doctor at the PHC over the AYUSH doctor. On the other hand, in a men's FGD in Nagaon, participants expressed preference for AYUSH doctor because AYUSH medicines have no side effects and are suited for pains. Some men, however, chose between allopathic and AYUSH providers at the same facility depending on the illness. PHC was perceived to be suitable for simple fevers, coughs and delivery, but not all health issues by the women participants of another FGD in the same district. They said they avoided getting X-rays done at PHCs because of poor quality of X-ray reports. It was also said the long waiting time and the non-availability of medicines at PHCs, which forced them to buy medicines at the private pharmacy, also pushed some people to opt for private care instead. In one village having sub-centre with no CHO, men still mentioned visiting it for checking sugar and blood pressure levels and also for minor illnesses. They also said that for major illnesses they visit PHC, which may refer them to DH.

PHC medical officers in the three districts were also interviewed to understanding their perspective on why people prefer to visit or not visit PHCs. In Nagaon, it emerged from such interviews that while people usually prefer to come for medical treatment to government health facilities, the lack of specialists in the PHC pushes patients who need specialist treatment (including emergency patients who are better off) towards private facilities. The MO felt that economic situation of patient also plays a role in this regard. In Golaghat, a medical officer mentioned that most patients want to come to PHC for the treatment because they have confidence on the BPHC doctors, and they know the BPHC facilities. Another medical officer in the same district said that patients want to come there because of their financial condition. The views of the MOs in Barpeta were similar to those expressed in Nagaon and Golaghat, i.e. patients have confidence in the PHC doctors and they know the facilities well, but some of them go to the private facility sometimes because of lack of specialized doctors at the PHC.

5.3.2.4 Visiting of public facilities for inpatient and outpatient care

This sub-section examines the extent to which public and private facilities were consulted for inpatient and outpatient care for episodes of illness, not only of the respondents but also their family members. In the category of outpatient care, the specific institutions/providers visited are also looked into. The time frame for assessing outpatient care is the last 15 days while the time frame for assessing inpatient care is the last one year.

Table 5.30: Extent to which public and private facilities were visited by respondents' family members for inpatient care (except delivery care)

	PHC/sub-centre or government	Private hospital	Total
Barpeta	34(59.65%)	23(40.35%)	57
Golaghat	29(60.42%)	19(39.58%)	48
Nagaon	42(60.00%)	28(40.00%)	70
Grand Total	105(60.00%)	70(40.00%)	175

Source: Survey data

Overall, 60% of the hospital admissions for the last one year has been in the government facilities while 40% were at private facilities. This pattern is similar for all the three districts.

Table 5.31: Extent to which public and private facilities were visited by respondents' family members for outpatient care

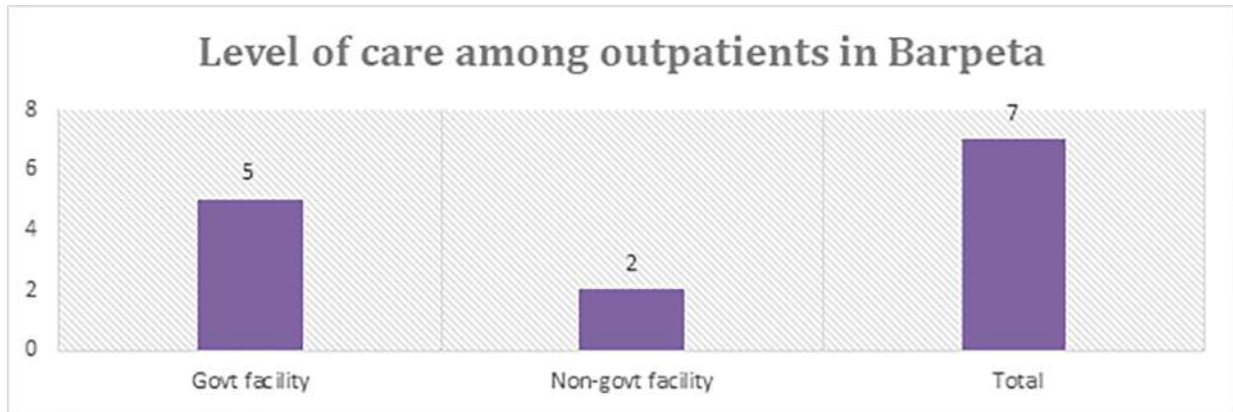
	Barpeta	Golaghat	Nagaon	Total count of district
Government facility	5(71.43%)	18(54.55%)	45(72.58%)	68(66.67%)
Nongovernment facility	2(28.57%)	15(45.45%)	17(27.42%)	34(33.33%)
Grand total	7(100%)	33(100%)	62(100%)	102(100%)

Source: Survey data

Of all the outpatient cases in the last 15 days, 66.67% were in public facilities, whereas 33.33% were in nongovernment/private facilities. It may be recalled from the secondary data analysis presented in Chapter 1 (based on the NSSO data-based NHSRC factsheets on utilization and expenditure) that 67% of outpatient cases use public facilities in rural Assam. The above stated finding of the survey of this study (66.67% outpatient cases using public facilities) is thus very close to the secondary-data based findings.

The district-wise picture for the seeking of public and private facilities for outpatient care (based on survey data from this study) is elaborated in the graphs below.

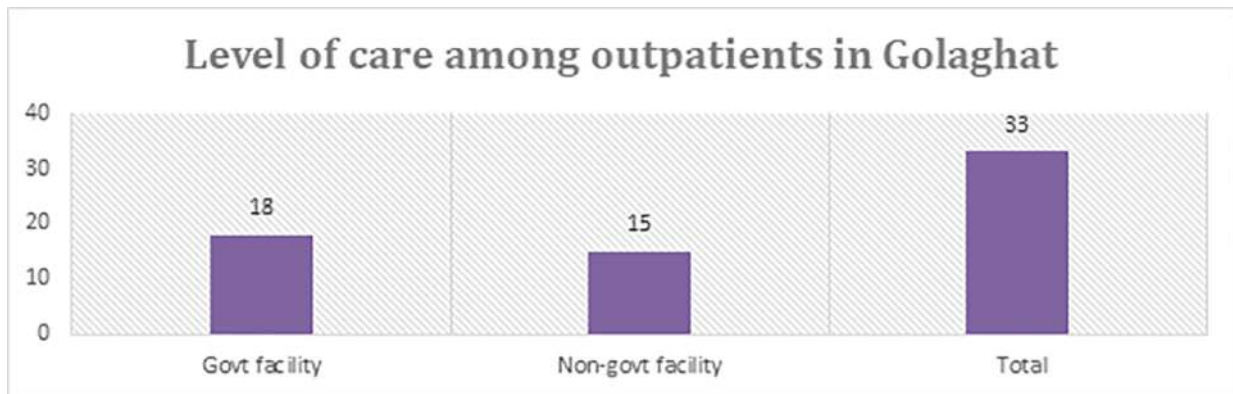
Fig. 5.5: Level of care (public vs private facilities) for outpatient care in Barpeta in last 15 days



Source: Survey data

In Barpeta district, 71.43% sought outpatient care in public facilities and 28.57% sought care in private facilities.

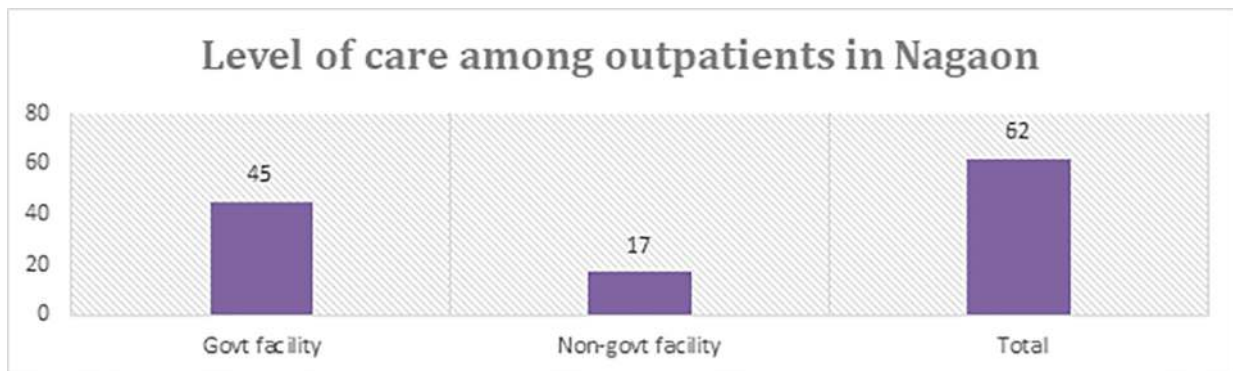
Fig. 5.6: Level of care (public vs private facilities) for outpatient care in Golaghat in Last 15 days



Source: Survey data

A majority (54.55%) of outpatient cases were in public facilities in Golaghat district. However, the share is lower compared to the corresponding share in Barpeta district.

Fig. 5.7 Level of care (public vs private facilities) for outpatient care in Nagaon in Last 15 days



Source: Survey data

In Nagaon district, 72.58% outpatient cases in the last 15 days were in government facilities. This is higher than the corresponding figures in both Golaghat and Barpeta districts.

Table 5.32: Specific facilities visited by family members of respondents for outpatient care

	Barpeta	Golaghat	Nagaon	Total count of three districts
Govt hospital	3(42.86%)	7(21.21%)	24(38.71%)	34(33.33%)
NGO/trust	(0.00%)	2(6.06%)	(0.00%)	2(1.96%)
PHC/SHC	2(28.57%)	11(33.33%)	21(33.87%)	34(33.33%)
Private clinic	1(14.29%)	11(33.33%)	2(3.23%)	14(13.73%)
Private hospital	1(14.29%)	1(3.03%)	15(24.19%)	17(16.67%)
Traditional healer	(0.00%)	1(3.03%)	(0.00%)	1(0.98%)
Grand total	7(100.00%)	33(100.00%)	62(100.00%)	102(100.00%)

Source: Survey data

The specific breakup of facilities for outpatient cases for the last 15 days is shown in the above table. Overall, one third of the cases were in the PHC/sub-centres and the same share was in the government hospital. Private clinics/ private hospitals accounted for 30.4% outpatient cases. Less than 1% outpatient cases involved consultation with traditional healers.

5.3 Provider choice for specific kinds of health issues and health services

5.3.1 Preference for emergency

Table 5.33: Preference for emergency consultation in districts

Providers	Barpeta	Golaghat	Nagaon	Grand Total
CHC	3(0.72%)	97(24.37%)	47(10.88%)	147(11.81%)
DH	112(26.99%)	217(54.52%)	395(91.44%)	724(58.15%)
Medical college	269(64.82%)	29(7.29%)	88(20.37%)	386(31%)
Nearest hospital	2(0.48%)	65(16.33%)	115(26.62%)	182(14.62%)
Ngo trust	2(0.48%)	0(0.00)	3(0.69%)	5(0.40%)
PHC/HWC	144(34.70%)	137(34.42%)	262(60.65%)	543(43.61%)
Pvt provider	35(8.43%)	37(9.30%)	58(13.43%)	130(10.44%)
Pvt hospital	46(11.08%)	46(11.56%)	164(37.96%)	256(20.56%)
Other	12(2.89%)	2(0.50%)	2(0.46%)	16(1.29%)
Total	415(100%)	398(100%)	432(100%)	1245(100%)

Source: Survey data

Putting together the three districts, the district hospital is the most preferred choice for emergency consultation (58.15%) followed by the PHC/HWC (43.61%). Medical college comes third amongst preferred emergency consultation facilities (31%). In Barpeta, medical college is preferred by the highest share of respondents (64.82%) for emergency consultation as the district has a medical college. In Golaghat and Nagaon, DH is most preferred (54.52% and 91.44% respectively) for emergency consultation.

5.3.2 Preference for scan/ lab tests

Table 5.34: Preference for scan lab tests district wise

Providers	Barpeta	Golaghat	Nagaon	Grand total
CHC	7(1.69%)	80(20.10%)	25(5.79%)	112(9%)
DH	85(20.48%)	192(48.24%)	339(78.47%)	616(49.48%)
Medical college	189(45.54%)	28(7.04%)	45(10.42%)	262(21.04%)

Providers	Barpeta	Golaghat	Nagaon	Grand total
Nearest hospital	2(0.48%)	58(14.57%)	127(29.40%)	187(15.02%)
NGO/ Trust	0(0.00)	1(0.25%)	3(0.69%)	4(0.32%)
PHC/HWC	115(27.71%)	150(37.69%)	210(48.61%)	475(38.15%)
Private provider	85(20.48%)	47(11.81%)	59(13.66%)	191(15.34%)
Private hospital	95(22.89%)	39(9.80%)	151(34.95%)	285(22.89%)
Other	3(0.72%)	3(0.75%)	1(0.23%)	7(0.56%)
Total	415(100%)	398(100%)	432(100%)	1245(100%)

Source: Survey data

The preference for lab test and scan is shaped by the highest-level public health care facility available in that district. For example, there is a medical college in Barpeta, and there are district hospitals in Golaghat and Nagaon. This is evident in the findings – Barpeta district has the single largest share (45.54%) of respondents who preferred medical college for diagnostics such as scans and lab tests. In Golaghat and Nagaon district hospital is most preferred for scans and lab tests. The highest preference for PHC/HWC for such diagnostics is in Nagaon district (48.61%). Overall, in all the three districts, 38.23% persons prefer private providers or private hospitals for scans or lab tests. The highest preference for private providers is in Nagaon district (48.61%).

5.3.3 Choice of providers for chronic disease

Table 5.35: District-wise providers choice for chronic disease (% in brackets)

	Barpeta	Golaghat	Nagaon	Grand Total
ANM/MPW	0(0.00)	4(3.03)	61(26.87)	65(16.13)
CHC	0(0.00)	28(21.21)	40(17.62)	68(16.87)
DH	14(31.82)	39(29.55)	193(85.02)	246(61.04)
HWC/sub-centre	4(9.09)	19(14.39)	104(45.81)	127(31.51)
Medical college	21(47.73)	3(2.27)	15(6.61)	39(9.68)
Medical store	1(2.27)	0(0.00)	17(7.49)	18(4.47)
NGO/Trust	0(0.00)	0(0.00)	1(0.44)	1(0.25)
PHC	3(6.82)	46(34.85)	127(55.95)	176(43.67)
Private clinic	15(34.09)	33(25.00)	43(18.94)	91(22.58)
Private hospital	8(18.18)	19(14.39)	107(47.14)	134(33.25)
Traditional healer	1(2.27)	0(0.00)	5(2.20)	6(1.49)
Other	0(0.00)	2(1.52)	0(0.00)	2(0.50)

Source: Survey data

Overall, the highest share of respondents (61.04%) preferred to approach the district hospital for chronic conditions.

The PHC was preferred by 43.67% respondents, while 31.51% chose the sub-centre/HWC for chronic disease care. Notably, preference for medical store as provider of choice is overall low (less than 5%); so is the preference for traditional healer for managing chronic conditions (only 1.49%).

The most commonly preferred provider of choice for chronic care is different in all three districts: medical college for Barpeta (47.73%), PHC for Golaghat (34.85%) and DH for Nagaon (85.02%). As mentioned earlier, Barpeta district has a medical college while the other two districts do not.



Chapter 6

The extent, nature, and composition of PHC service utilization



The extent, nature, and composition of PHC service utilization

This chapter, based on quantitative data, unpacks the utilization of PHC to study the utilization of specific services available at PHC facilities. The first part of this chapter examines, on the basis of HMIS data, the utilization of reproductive and child health (RCH), outpatient and inpatient services at the block PHCs or BPHCs and sub-centres covered under this study.

The second part of this chapter examines, on the basis of primary data, the utilization of PHC services by survey respondents and their family members and divides such utilization according to social category, gender and economic status.

6.1 Utilization of specific services at the sampled BPHCs (based on HMIS data)

This section focused on the footfalls or uptake for specific services offered at the sampled BPHCs on the basis of HMIS data (2019-20). The specific services examined are RCH, outpatient and inpatient services. Though comparisons between BPHCs have been attempted, they are constrained by the absence of data on the population of the concerned BPHC areas. This limitation of the comparisons should be kept in mind.

6.1.1 Reproductive and child health (RCH) services

The footfalls/uptake for the following services are examined below:

- 1) Deliveries and neo-natal services
- 2) Family planning services

6.1.1.1 Deliveries and neonatal services

The table below examines the utilization of delivery services at the sample BPHCs.

Table 6.1: Utilization of delivery services at sample BPHCs (2019-20)

District	BPHC	Number of home deliveries attended by SBA	Number of home deliveries attended by non-SBA	Total home deliveries	Total deliveries conducted at facility	Ratio of home delivery to BPHC delivery	Total c-sections performed
Barpeta	Barpeta road	340	63	403	4 323	0.09	464
	Bhawanipur	262	134	396	2 082	0.19	-
	Kalgachia	103	24	127	5 364	0.02	587
	Mandia	1 895	1 162	3 057	3 934	0.78	-
	Nagaon	494	302	796	1 859	0.43	-
Golaghat	Bokakhat	15	1	16	1 487	0.01	37
	Missamora	2	19	21	836	0.03	1
	Charingia	9	9	18	896	0.02	-
	Kamarbondha ali	2	35	37	1 187	0.03	-
Nagaon	Dagaon	20	685	705	4 067	0.17	-
	Simonabasti	5	16	21	623	0.03	-
	Jakhalabandha	37	139	176	2 043	0.09	291
	Samaguri	7	56	63	5 262	0.01	-
	Buragohaithan	21	38	59	1 825	0.03	-
	Kathiatoli	20	423	443	8 583	0.05	69
	Lanka	-	1 642	1 642	5 589	0.29	1258
	Singimari	-	24	24	1 420	0.02	-

Home deliveries are quite common in the BPHC catchment areas. On an average, 190 births were attended by skilled birth attendant (SBA) and about 281 deliveries were done on an average by non-skilled birth attendants in the year 2019-20. The average number of institutional deliveries in these Block PHCs was 3 022 for the one-year time frame (2019-20). The BPHCs in Nagaon on an average conducted 3 677 deliveries in 2019-20. The corresponding figures for the BPHCs in Barpeta and Golaghat are 3 512 and 1 102. It may be recalled that Nagaon is the most populous district and Golaghat is the least populous.

The sampled BPHCs on an average conducted 8.3 deliveries per BPHC per day. The district-wise average number of deliveries per BPHC per day are as follows: 9.62 in Barpeta, 3.02 in Golaghat and 10.07 in Nagaon.

6.1.1.2 Family planning services

The table below examines the uptake of the following family planning services at sampled BPHCs:

1. Vasectomies conducted
2. Tubectomies conducted
3. IUCD insertions done
4. Combined oral pills distributed
5. Emergency pills distributed
6. Condom pieces distributed

Table 6.2: Utilization of Family planning service at sample BPHCs

District	BPHC	Total number of non-scalpel vasectomy (NSV) / conventional vasectomy conducted	Total number of laparoscopic sterilizations (excluding post abortion) conducted	Total number of IUCD insertions	Number of combined oral pill cycles distributed	Number of emergency contraceptive pills (ECP) given	Number of condom pieces distributed
Barpeta	Barpeta road	127	189	1 377	11 755	190	9 428
	Bhawanipur	2	11	330	19 766	455	42 814
	Kalgachia	131	65	1 626	22 825	984	28 500
	Mandia	14	-	182	28 322	741	42 032
	Nagaon	-	3	78	18 249	143	31 426
Golaghat	Bokakhat	39	240	411	13 318	233	24 716
	Missamora	1	43	207	8 180	1	14 703
	Charingia	6	150	415	12 474	-	45 756
	Kamarbondha ali	6	157	437	18 480	190	49 318
	Dagaon	-	-	908	2 975	46	3 181
Nagaon	Simonabasti	-	97	210	1 696	327	20 705
	Jakhalabandha	6	69	390	9 631	304	21 457
	Samaguri	-	90	1 864	9 653	888	51 757
	Buragohaitan	-	24	517	7 384	370	8 469
	Kathiatoli	-	77	1 871	11 263	138	31 189
	Lanka	11	81	762	11 400	516	22 639
	Singimari	-	32	384	4 154	195	11 490

Source: HMIS (2019-20)

6.1.2 Outpatient services at BPHCs

Outpatient department of facilities provide regular consultation to patients. Footfalls for the following OPD service parameters are provided in the table below:

1. Total OPD
2. AYUSH - outpatient attendance
3. Allopathic- outpatient attendance

Table 6.3: Utilization of OPD services at sample BPHCs (2019-20)

District	BPHC	Total number of non-scalpel vasectomy (NSV) / conventional vasectomy conducted	Total number of laparoscopic sterilizations (excluding post abortion) conducted	Total number of IUCD insertions	Number of combined oral pill cycles distributed	Number of emergency contraceptive pills (ECP) given	Number of condom pieces distributed
Barpeta	Barpeta road	127	189	1 377	11 755	190	9 428
	Bhawanipur	2	11	330	19 766	455	42 814
	Kalgachia	131	65	1 626	22 825	984	28 500
	Mandia	14	-	182	28 322	741	42 032
	Nagaon	-	3	78	18 249	143	31 426
	Bokkhat	39	240	411	13 318	233	24 716
	Missamora	1	43	207	8 180	1	14 703
	Charingia	6	150	415	12 474	-	45 756
	Kamarbondha ali	6	157	437	18 480	190	49 318
	Dagaon	-	-	908	2 975	46	3 181
Nagaon	Simonabasti	-	97	210	1 696	327	20 705
	Jakhalabandha	6	69	390	9 631	304	21 457
	Samaguri	-	90	1 864	9 653	888	51 757
	Buragothithan	-	24	517	7 384	370	8 469
	Kathiatoli	-	77	1 871	11 263	138	31 189
	Lanka	11	81	762	11 400	516	22 639
	Singimari	-	32	384	4 154	195	11 490

An average of 1 224 diabetic patients, 2 687 hypertension patients, and 13 oncology patients were diagnosed in each BPHC in 2019-20.

In Barpeta, 1 245 diabetes cases were diagnosed, in Golaghat 923 and in Nagaon 1 360 such cases were diagnosed by the BPHCs in the year 2019-20.

The number of hypertension cases diagnosed by the BPHCs are higher than the numbers for diabetes. The district-wise averages are 1993 for Barpeta, 2506 for Golaghat and 3 210 for Nagaon district.

The average number of acute heart disease OPD by sample BPHCs for 2019-20 is 89. District-wise average number of for acute heart disease diagnosed by BPHCs in OPD are 221.2 for Barpeta, 11 for Golaghat and 46 for Nagaon.

Average OPD numbers for mental illness by sample BPHCs stand at 107 per BPHC per year. The district-wise averages are 196 for Barpeta, 20 for Golaghat and almost 95 for Nagaon.

Average ophthalmic related OPD stands at 1 739 per facility. The district-wise averages are 2 593 for Barpeta, 1662 for Golaghat and 1243 for Nagaon district. The uptake of ophthalmic OPD services is higher compared to OPD for services such as mental health and heart disease.

6.1.3 Inpatient services at BPHCs

This section elaborates the utilization of hospitalization or inpatient care at BPHCs. Following inpatient department (IPD) classifications are considered in the table below:

1. IPD number (male + female)
2. Female inpatients
3. Male inpatients
4. Children inpatients

Table 6.5: Utilization of IPD services at sample BPHCs (2019-20)

Dist.	Block PHC	Male IPD	Female IPD	Children <18yrs IPD	Total IPDs	Total OPD	IPD as percentage of OPD
Barpeta	Barpeta road	3 474	5 854	1 067	10 395	113 738	9.14
	Bhawanipur	574	1 836	227	2 637	213 976	1.23
	Kalgachia	645	5 944	246	6 835	373 095	1.83
	Mandia	-	3 297	-	3 297	197 571	1.67
	Nagaon	2 197	2 416	1 987	6 600	188 168	3.51
Golaghat	Bokakhat	3 155	5 537	562	9 254	329 084	2.81
	Missamora	742	1 975	113	2 830	107 418	2.63
	Charingia	853	2 183	696	3 732	219 953	1.70
	Kamarbondha ali	1 483	2 263	496	4 242	334 869	1.27
	Dagaon	-	3 110	-	3 110	177 458	1.75
Nagaon	Simonabasti	1 254	2 825	495	4 574	186 172	2.46
	Jakhalabandha	974	3 738	588	5 300	329 734	1.61
	Samaguri	4 109	4 902	317	9 328	294 326	3.17
	Buragohaitan	276	1 973	58	2 307	148 253	1.56
	Kathiatoli	6 801	8 750	2 978	1 529	420 614	4.41
	Lanka	1 392	2 676	167	4 235	343 305	1.23
	Singimari	-	1 286	134	10 395	215 091	0.66

Source: HMIS data (2019-20)

The average male IPD stands at 1 643, female IPD is 3 563 and child IPD is 596. The female IPD is therefore, more than twice the male IPD. Average IPD for 2019-20 in the sample BPHCs is 5801 per year. The district-wise averages are 5953 in Barpeta, 5 015 in Golaghat and 6 100 in Nagaon. The per BPHC total IPD figures vary from 2307 in Buragohaitan BPHC of Nagaon district to 18 529 in Kathiatoli BPHC in the same district.

6.2 Utilization of specific services at the sampled sub-centres (based on HMIS data)

This section examines the utilization of select services at the 34 sample sub-centres of this study. The services covered are ANC services, immunization and OPDs for pregnant women (PW).

Table 6.6: ANC indicators for sub-centres in study area

Districts	SHC	PW given	PW given	PW given	PW given 180 Iron Folic Acid (IFA) tablets	PW given 360 Calcium tablets	PW given one Albendazole tablet after the 1st trimester	New cases of PW with hypertension detected	Out of the new cases of PW with hypertension detected, cases managed at institution
		TT1 / Td1	TT2 / Td2	TT Booster/ Td Booster					
Barpeta	Borbarijhar	39	42		57	51	54		
	Kumuria	49	43		50	35	35		
	Jogirpam	215	197	10	233	235	32		
	Pakabetbarigaon	147	143	19	177	177	173	10	
	Bala bhitha	528	325	17	330	330	319	8	
	Lachanga	242	255		234	234	21		
	Kadamtola								
	Pathlikuchi	78	62	18	50	43	17	1	
	Batikuriha	59	65		53	88	24		
Suha baradi	107	115	44	153	236		1		
Golaghat	Dhansirimukh	122	112	18	98	148	136	5	
	Siljuri	110	92	9	104	104	111	4	
	Khanikar	26	34	2	24	39	2	1	
	Dergaon CHC NSC	20	20	0	26	28	28	0	
	Akadulakhoria	43	45	1	39	27	0	1	
	Khumtai MPHC NSC	0	0	0	0	0	0	0	
	Kakotigaon	45	41	0	38	31	35	0	
	Teleguri	54	40	5	56	59	46	5	4
Nagaon	Borpam	141	139	0	143	143	99	0	
	Tinsukia2	90	80	3	90	90	65	0	0
	Borhola	37	38	0	32	32	26	1	
	Lakhanabandha	66	62	8	81	80	67	1	0
	Pubthoria 1	29	31	1	38	35	35	0	
	Borghuli	449	447	48	457	493	394	4	0
	Nizbheleoguri	145	168	3	145	141	85	0	
	Udmari	55	43	0	53	53	45	0	0
Mazpathori	43	58	1	59	59	59	0		

Nagaon	Mazgaon	30	30	1	36	33	19	0	0
	Palasha	29	30	1	31	36	34	0	
	Pub borpathar	97	100	0	95	107	60	0	0
	Kapilipar	144	126	3	129	100	99	0	
	Pub samarali	261	190	68	348	269	254	0	0
	Teliachaporitup	52	45	6	44	140	20	0	
	Hatipukhuri –1	122	80	9	95	81	4	1	0

Source: HMIS data (201920)

The above table indicates that for the year 2019-20 there is drop in number of pregnant women receiving the TT2 vaccine compared to the TT1 vaccine. The TT1 is supposed to be given to pregnant women in early pregnancy or in the first trimester and the TT2 is supposed to be given four weeks after TT1. For as many as 18 out of 34 sample sub-centres, the number of women receiving TT2 is less than the number of women receiving TT1. However, the drop may also be due to reasons such as women moving to maternal homes as the pregnancy progresses.

Table 6.7: Immunization sessions planned vs actual for sub-centres (2019-20)

Districts	Subcentre	Immunization sessions planned	Immunization sessions held
Barpeta	Borbarijhar	36	36
	Kumuria	24	24
	Jogirpam	72	72
	Pakabetbari gaon	72	72
	Bala bhitha	96	95
	Lachanga	84	82
	Kadamtola		
	Pathlikuchi	48	44
	Batikuriha	36	36
	Suha baradi	41	41
Golaghat	Dhansirimukh	84	82
	Siljuri	96	94
	Khanikar	37	37
	Dergaon CHC NSC	7	7
	Akadulakhoria	48	47
	Khumtai MPHC NSC	0	0
	Kakotigaon	36	36
	Teleguri	48	48
Nagaon	Borpam	48	48
	Tinsukia2	48	48
	Borhola	12	12
	Lakhanabandha	36	36
	Pubthoria 1	23	23
	Borghuli	24	24
	Nizbheleoguri	84	81

Nagaon	Udmari	36	36
	Mazpathori	48	48
	Mazgaon	36	36
	Palasha	36	36
	Pub borpathar	48	47
	Kapilipar	49	48
	Pub samarali	97	101
	Teliachaporitup	47	46
	Hatipukhuri 1	37	37

Source: HMIS data (201920)

Several sub-centres in all the three districts did not complete their planned immunization sessions in the year 2019-20. Three out of 10 (30%) sampled sub-centres in Barpeta, two out of eight (25%) in Golaghat district and six out of 16 (37.5%) in Nagaon were unable to meet their targets for immunization sessions.

Table 6.8: Immunization numbers for BCG and measles doses (2019-20)

BPHC	Subcentre	BCG doses given	Measles and rubella (MR) 1st dose
Barpeta Road	Borbarijhar	35	48
Barpeta Road	Kumuria	25	40
Bhawanipur	Jogirpam	124	220
Bhawanipur	Pakabetbari gaon	112	171
Kalgachia	Bala bhitha	299	304
Kalgachia	Lachanga	39	214
Mandia	Kadamtola		
Mandia	Pathlikuchi	71	78
Nagaon	Batikuriha	55	60
Nagaon	Suha baradi	93	107
Bokakhat	Dhansirimukh	20	115
Bokakhat	Siljuri	38	117
Missamora	Khanikar	7	40
Missamora	Dergaon CHC NSC	8	18
Charingia	Akadulakhoria	26	32
Charingia	Khumtai MPHC NSC	0	0
Kamarbondha Ali	Kakotigaon	12	21
Kamarbondha Ali	Teleguri	7	50
Dagaon	Borpam	42	132
Dagaon	Tinsukia2	55	107
Simonabasti	Borhola	4	24
Simonabasti	Lakhanabandha	10	62
Jakhalabandha	Pubthoria 1	1	29
Jakhalabandha	Borghuli	139	466

Samaguri	Nizbheleoguri	35	181
Samaguri	Udmari	22	47
Buragohaithan	Mazpathori	4	52
Buragohaithan	Mazgaon	6	23
Kathiatoli	Palasha	2	29
Kathiatoli	Pub borpathar	39	69
Lanka	Kapilipar	70	110
Lanka	Pub samarali	208	298
Singimari	Teliachaporitup	11	53
Singimari	Hatipukhuri i	39	91

Source: HMIS 201920

The BCG-measles drop rate is an immunization coverage indicator (NHSRC, n.d. (c)), for which sub-centre wise data is presented above. This indicator is chosen for better comparison of sub-centres with differing populations and number of infants. The table above shows that for all the sub-centres, the number of children receiving the measles-rubella (MR) first dose (given between 9-11 months) is higher than the children receiving the BCG dose at birth. Thus, for this indicator, there is no evidence of a drop in immunization.

The district-wise average number of children receiving the BCG vaccine in 2019-20 are as follows: 85.3 (Barpeta), 14.75 (Golaghat) and 42.94 (Nagaon). For MR first dose, the district-wise averages are as follows: 124.2 (Barpeta), 49.12 (Golaghat) and 110.81 (Nagaon).

Table 6.9 OPDs at sub-centres (2019-20)

BPHC	Subcentres	Total OPDs	OPD per day	Number of CHOs
Barpeta Road	Borbarijhar	359	0.98	
Barpeta Road	Kumuria	4 897	13.42	1
Bhawanipur	Jogirpam	234	0.64	
Bhawanipur	Pakabetbari gaon	264	0.72	
Kalgachia	Bala bhitha	6 970	19.10	1
Kalgachia	Lachanga	1 293	3.54	
Mandia	Kadamtola	2 086	5.72	
Mandia	Pathlikuchi	335	0.92	
Nagaon	Batikuriha	330	0.90	
Nagaon	Suha baradi	698	1.91	
Bokakhat	Dhansirimukh	3 090	8.47	0
Bokakhat	Siljuri	5 880	16.11	1
Missamora	Khanikar	164	0.45	
Missamora	Dergaon CHC NSC	1 470	4.03	0
Charingia	Akadulakhoria	165	0.45	0
Charingia	Khumtai MPHC NSC	0	0.00	0
Kamarbondha Ali	Kakotigaon	1 138	3.12	0
Kamarbondha Ali	Teleguri	430	1.18	0

Dagaon	Borpam	632	1.73	0
Dagaon	Tinsukia2	688	1.88	0
Simonabasti	Borhola	2 281	6.25	1
Simonabasti	Lakhanabandha	1 268	3.47	1
Jakhalabandha	Pubthoria 1	2 700	7.40	1
Jakhalabandha	Borghuli	12 375	33.90	1
Samaguri	Nizbheleoguri	2 847	7.80	0
Samaguri	Udmari	1 470	4.03	0
Buragohaithan	Mazpathori	1 139	3.12	0
Buragohaithan	Mazgaon	577	1.58	0
Kathiatoli	Palasha	625	1.71	0
Kathiatoli	Pub borpathar	895	2.45	0
Lanka	Kapilipar	2 094	5.74	0
Lanka	Pub samarali	4 368	11.97	0
Singimari	Teliachaporitup	4533	12.42	0
Singimari	Hatipukhuri i	852	0.98	0

Source: HMIS data (201920)

The average number of OPDs for sample sub-centres is 2 069.54 for 2019-20, while the average number of OPDs for sample BPHCs for the same year is 246 637. The average number of OPDs per BPHC for 2019-20 is therefore 119 times higher than the average per sub-centres.

For the sample sub-centres, the average OPD per day ranges from zero for Khumtai and 0.45 for Khanikar and Akadulakhoria sub-centres in Golaghat district to 33.9 for Borghuli sub-centre in Nagaon district. The district averages for sub-centre OPD per day are as follows: 4.79 for Barpeta, 4.23 for Golaghat and 7.03 for Nagaon.

6.3 Utilization of PHCs/sub-centres/HWCs by social category, gender and economic status

This section, based on primary data collected from the survey, examines the socio-economic composition of utilization of primary health facilities in terms of the following:

1. Composition of those who regularly visit PHCs/sub-centres/HWCs
2. Composition of outpatient cases at PHCs/sub-centres
3. Composition of delivery cases at PHCs/sub-centres

6.3.1 Who regularly visits PHC facilities?

This section examines, on the basis of the survey data collected for this study, the composition of those who visit PHC/HWC/sub-centres regularly, in terms of social category, gender and economic status.

Table 6.10: Regular visits to PHC/sub-centres/HWC by social category (%)

District	No	Yes	Total
Barpeta	373(89.88)	42(10.12)	415(100.00)
General	326(92.09)	28(7.91)	354(100.00)
OBC/minority	40(74.07)	14(25.93)	54(100.00)
SC	5(100.00)	(0.00)	5(100.00)
ST	2(100.00)	(0.00)	2(100.00)
Golaghat	65(16.33)	333(83.67)	398(100.00)
General	8(12.50)	56(87.50)	64(100.00)

OBC/minority	43(17.48)	203(82.52)	246(100.00)
SC	1(4.17)	23(95.83)	24(100.00)
ST	13(20.31)	51(79.69)	64(100.00)
Nagaon	230(53.24)	202(46.76)	432(100.00)
General	129(52.44)	117(47.56)	246(100.00)
OBC/minority	47(58.02)	34(41.98)	81(100.00)
SC	49(62.03)	30(37.97)	79(100.00)
ST	5(19.23)	21(80.77)	26(100.00)
Grand total	668(53.65)	577(46.35)	1245(100.00)

Source: Survey data

While only about 10.2% of people in Barpeta regularly visited PHC facilities, a large proportion (83.67%) in Golaghat visited such facilities regularly. Close to 47% in Nagaon regularly visited PHC facilities. Overall, 46.35% of respondents interviewed preferred regularly visiting PHCs, HWCs or sub-centres.

Table 6.11: Regular visits to PHC/sub-centres/HWC by gender (%)

District	No	Yes	Total
Barpeta	373(89.88)	42(10.12)	415(100.00)
Female	195(89.86)	22(10.14)	217(100.00)
Male	174(89.69)	20(10.31)	194(100.00)
Transgender	4(100.00)	(0.00)	4(100.00)
Golaghat	65(16.33)	333(83.67)	398(100.00)
Female	35(16.75)	174(83.25)	209(100.00)
Male	30(15.87)	159(84.13)	189(100.00)
Nagaon	230(53.24)	202(46.76)	432(100.00)
Female	100(54.05)	85(45.95)	185(100.00)
Male	130(52.63)	117(47.37)	247(100.00)

Source: Survey data

The gender distribution for PHC/sub-centres/HWC visits shows that the proportion of men and women visiting these facilities is very close. In Barpeta, women and men had a ratio of 10.14% and 10.31% regularly visiting such facilities. All the four transgender respondents in this district did not regularly visit such facilities. In Golaghat, the share of women and men regularly visiting were 83.25% and 84.13% - again quite close. Similar pattern can be seen in the Nagaon district too, with 45.95% women and 47.37% men regularly visiting these facilities. Overall, combining the three districts, 45.99% women and 46.98% men regularly visited PHC/sub-centres/HWCs.

Table 6.12. Regular visits to PHC/sub-centres/HWCs by economic status/ ration card (%)

District		Antyodaya	APL	BPL	No rationcard	Total
Barpeta	No	2(100.00)	46(90.20)	247(90.48)	78(87.64)	373(89.88)
	Yes	(0.00)	5(9.80)	26(9.52)	11(12.36)	42(10.12)
Golaghat	No	(0.00)	6(28.57)	54(16.12)	5(12.82)	65(16.33)
	Yes	3(100.00)	15(71.43)	281(83.88)	34(87.18)	333(83.67)
Nagaon	No	30(90.91)	63(37.50)	99(61.49)	38(54.29)	230(53.24)
	Yes	3(9.09)	105(62.50)	62(38.51)	32(45.71)	202(46.76)

Source: Survey data

In Barpeta district, the no ration card category had the highest share of respondents (12.36%) visiting the PHC/sub-centres/HWC regularly. In Golaghat, the Antyodaya category had the highest share (100%) followed by the no ration card category (87.18%). In Nagaon district, the APL category had the highest share of regularly visiting such facilities (62.5%). Overall, for all three districts, the following shares in each ration card category visited these facilities regularly: APL - 52.08%, BPL - 47.98%, Antyodaya - 15.79%, no ration card - 38.89%. Thus, the APL section had the highest proportion of regular visits to primary health care facilities.

6.3.2 Socio-economic composition of outpatient cases at primary health care facilities

In Chapter 5, provider choice for outpatient cases (i.e. outpatient care seeking by respondents and their household members in the last 15 days) was examined. This section examines the social category and economic category breakup of outpatient cases visiting primary health care facilities:

Table 6.13: Social category composition of OPD cases in districts (%)

	Govt Hospital	NGO/ Trust	PHC/sub centre	Pvt Clinic	Pvt hospital	Traditional healer	Grand total
Barpeta	3(42.86)	(0.00)	2(28.57)	1(14.29)	1(14.29)	(0.00)	7(100.00)
General	3(42.86)	(0.00)	2(28.57)	1(14.29)	1(14.29)	(0.00)	7(100.00)
Golaghat	7(21.21)	2(6.06)	11(33.33)	11(33.33)	1(3.03)	1(3.03)	33(100.00)
General	1(12.50)	(0.00)	3(37.50)	3(37.50)	1(12.50)	(0.00)	8(100.00)
OBC/ minority	6(27.27)	2(9.09)	7(31.82)	6(27.27)	(0.00)	1(4.55)	22(100.00)
SC	(0.00)	(0.00)	(0.00)	2(100.00)	(0.00)	(0.00)	2(100.00)
ST	(0.00)	(0.00)	1(100.00)	(0.00)	(0.00)	(0.00)	1(100.00)
Nagaon	24(38.71)	(0.00)	21(33.87)	2(3.23)	15(24.19)	(0.00)	62(100.00)
General	11(34.38)	(0.00)	11(34.38)	2(6.25)	8(25.00)	(0.00)	32(100.00)
OBC/ Minority	4(44.44)	(0.00)	4(44.44)	(0.00)	1(11.11)	(0.00)	9(100.00)
SC	4(28.57)	(0.00)	5(35.71)	(0.00)	5(35.71)	(0.00)	14(100.00)
ST	5(71.43)	(0.00)	1(14.29)	(0.00)	1(14.29)	(0.00)	7(100.00)
Grand Total	34(33.33)	2(1.96)	34(33.33)	14(13.73)	17(16.67)	1(0.98)	102(100.00)

Source: Survey data

All the outpatient cases at the PHC/sub-centre in Barpeta district were from the general category. In Golaghat also, the highest proportion of outpatient cases was from the general category (37.50%), 31.82% from OBC/minority category and the sole person from ST category also visited PHC/sub-centre for OPD. None of the SC outpatient cases in Golaghat were in the PHC facilities. In Nagaon, barring the ST community, all the other social categories had single largest share of outpatient cases visiting the PHC/sub-centres – general - 34.38%, OBC/minority - 44.44%, SC - 35.71%). And the single largest share of ST outpatient cases in Nagaon visited the government hospital (71.43%).

Table 6.14 Economic status/ ration card composition of OPD cases in Barpeta district (%)

Level of OPD care Barpeta							
Ration Card	Govt hospital	NGO/trust	PHC/ subcentre	Pvt clinic	Pvt hospital	Traditional healer	Grand total
Antyodaya	0.00	0.00	0.00	0.00	0.00	0.00	0.00
APL	0	0	0	1 (100.00)	0	0	1 (100.00)
BPL	3 (60.00)	0	2 (40.00)	0	0	0	5 (100.00)

Noractioncard	0	0	0	0	1 (100.00)	0	1 (100.00)
Total	3 (42.86)	0	2 (28.57)	1 (14.29)	1 (14.29)	0	7 (100.00)

Source: Survey data

In Barpeta district, only the BPL category had outpatient cases in the PHC/sub-centre. However, the largest share of BPL outpatient cases were in the government hospital and not the PHC/sub-centre. About 40% of the outpatient cases for the BPL category were in the PHC/sub-centre.

Table 6.15 Economic status/ ration card composition of OPD cases in Golaghat district (%)

Level of OPD care in Golaghat							
Ration card	Govt hospital	NGO/trust	PHC/sub centre	Pvt clinic	Pvt hospital	Traditional healer	Grand total
Antyodaya	0	0	0	1(100.00)	0	0	1(100.00)
APL	1(100.00)	0	0	0	0	0	1(100.00)
BPL	4(16.00)	2(8.00)	9(36.00)	8(32.00)	1(4.00)	1(4.00)	25(100.00)
No ration card	2(33.33)	0	2(33.33)	2(33.33)	0	0	6(100.00)
Total	7(21.21)	2(6.06)	11(33.33)	11(33.33)	1(3.03)	1(3.03)	33(100.00)

Source: Survey data

In Golaghat district, only the BPL and no ration card categories had outpatient cases in the PHC/sub-centre. Both these categories had the largest proportion of outpatient cases attending PHC/sub-centre (BPL- 36% and no ration card-33.3%).

Table 6.16: Economic status/ ration card composition of OPD cases in Nagaon district (%)

Level of OPD care in Nagaon							
Ration Card	Govt hospital	NGO/trust	PHC/sub centre	Pvt clinic	Pvt hospital	Traditional healer	Grand total
Antyodaya	0	0	0	0.00	0	0	0.00
APL	12(33.33)	0	13(36.11)	2(5.56)	9(25.00)	0	36(100.00)
BPL	11(50.00)	0	7(31.82)	0	4(18.18)	0	22(100.00)
No ration card	1(25.00)	0	1(25.00)	0	2(50.00)	0	4(100.00)
Total	24(38.71)	0	21(33.87)	2(3.23)	15(24.19)	0	62(100.00)

Source: Survey data

In Nagaon district, there were no outpatient cases from Antyodaya category. The largest proportion of APL outpatient cases were in the PHC/sub-centre (36.11%). For the other social categories, the largest share of outpatient cases were not in the PHC/sub-centre. About 31.82% of the BPL cases and 25% of the no ration card cases were in the PHC/sub-centre.

6.3.3 Social composition of women who delivered at PHC facilities

This section looks at the social category of women who delivered at PHC facilities (% in brackets)

Table 6.17 Delivery place by social category in Barpeta district (%)

Social category	Govt hospital	Home	PHC/HWC/CHC/ MMU/dispensary	Pvt hospital	No response	Total
General	2(11.76)	2(11.76)	4(23.53)	(0.00)	9(52.94)	17(100.00)
OBC/minority	2(100.00)	0	0	0	0	2(100.00)
SC	0	0	0	0	0	0

ST	0	0	0	0	0	0
Total	4(21.05)	2(10.53)	4(21.05)	0	9(47.37)	19(100.00)

Source: Survey data

In Barpeta district, 23.53% of the general category delivery cases were in the PHC facilities. The other categories did not have any delivery cases at PHC centres.

Table 6.18 Delivery place by social category in Golaghat district (%)

Social category	Govt hospital	home	PHC/HWC/CHC/MMU/dispensary	Pvt hospital	No response	Total
General	0	0	1(100.00)	0	0	1(100.00)
OBC/minority	6(54.55)	0	0	2(18.18)	3(27.27)	11(100.00)
SC	0	0	0	0	0	0
ST	1(100.00)	0	0	0	0	1(100.00)
Total	7(53.85)	0	1(7.69)	2(15.38)	3(23.08)	13(100.00)

Source: Survey data

In Golaghat district also, only the general category had delivery cases at the PHC facilities.

Table 6.19 Delivery place by social category in Nagaon district (%)

Social category	Govt hospital	home	PHC/HWC/CHC/MMU/dispensary	Pvt hospital	No response	Total
General	10(71.43)	0	1(7.14)	1(7.14)	2(14.29)	14(100.00)
OBC/minority	3(50.00)	1(16.67)	2(33.33)	0	0	6(100.00)
SC	2(100.00)	0	0	0	0	2(100.00)
ST	0	0	0	0	0	0
Total	15(68.18)	1(4.55)	3(13.64)	1(4.55)	2(9.09)	22(100.00)

Source: Survey data

In Nagaon district, the SC category had no delivery cases at the PHC facilities. For SC, general and OBC/minority categories, the highest share of deliveries were in the government hospital and not the PHC facilities. The ST category had no delivery cases.



Chapter 7

Available and expected services at PHC facilities



The fit between available services and services that the community would expect or prefer has great significance for the acceptability of primary health care to the community. Such alignment thus is likely to influence the demand for such health care services by the community. Also, PHC services and facilities should meet the minimum service delivery standards specified in guidelines like the Indian Public Health Standards (IPHS). This chapter, based on HMIS and qualitative primary data, examines the following:

- Availability of select facilities at PHCs and sub-centres
- Availability of services in HWCs, in terms of the status of implementation of the CPHC package and community perception of services available at HWCs
- Services and facilities preferred by the community that are not currently available in the concerned centres and villages

7.1 Availability of select facilities at sample BPHCs and sub-centres

This section examines the available services at the sampled 17 BPHCs and 34 sub-centres in Barpeta, Golaghat and Nagaon districts using HMIS (2019-20) data.

7.1.1 Availability of facilities at sample BPHCs

The provider choice section of Chapter 6 had, on the basis of the FGD insights, pointed to the non-availability of medicines at PHC facilities as a reason for people not utilizing PHC centres and instead choosing private care. One section of FGD participants had also expressed preference to use private clinics for X-ray services.

On the basis of HMIS data, this section attempts to explore availability of three essential services at the sampled BPHCs: medicines, X-ray and blood bank/blood storage facilities.

In all tables in this chapter, the centres from Barpeta are highlighted in yellow, those in Golaghat are marked in pink and those in Nagaon are highlighted in green.

Table 7.1: Medicine availability at BPHCs (2019-20)

BPHCs	Stock out rate of essential drugs	Number of drugs under EDL	Number of drugs available as per EDL
Barpeta road	-	-	-
Bhawanipur	-	174	162
Kalgachia	92	245	361
Mandia	-	441	307
Nagaon	-	1	-
Bokakhat	-	243	160
Missamora	-	416	377
Charingia	-	186	1 192
Kamarbondha Ali	234	1 704	1 337
Dagaon	-	568	383
Simonabasti	148	573	374
Jakhalabandha	-	968	805
Samaguri	-	1 911	1 010
Buragohaitan	-	572	411
Kathiatoli	-	1 255	637
Lanka	-	1 092	935
Singimari	-	1 142	982

Source: HMIS data (2019-20)

The web site of NHM Assam mentions the number of drugs in the essential drugs list for PHCs as 348. However, the table above indicates that 12 BPHCs have many more EDL drugs than this number. The evidence on medicine availability from HMIS data is thus largely inconclusive. The data indicates evidence on drug stock-outs only for three BPHCs. However, data for 14 out of 17 BPHCs does mention that the number of drugs available as per EDL is lower than the number of drugs on the EDL, giving a hint of a gap.

Table 7.2: Radiology X-Ray services at BPHCs

	No of Patients availed XRay services		
	Inhouse	PPP	Total
Barpeta road	4 395	-	4 395
Bhawanipur	-	2 252	2 252
Kalgachia	12 724	-	12 724
Bokakhat	10 233	-	10 233
Missamora	3 583	1 296	4 879
Simonabasti	290	-	290
Jakhalabandha	8 414	25	8 439
Samaguri	7 246	-	7 246
Kathiatoli	4 462	826	5 288

Source: HMIS data (2019-20)

Out of the 17 BPHCs covered, there is HMIS-data based evidence for only eight (less than 50%) having carried out X-rays through the in-house facilities, out of which three have carried out X-rays through both in-house and public-private partnership (PPP) facilities. Apart from these eight BPHCs, one BPHC has carried out X-rays only through the PPP facilities. No data was available for all the other BPHCs.

Table 7.3: Blood bank/blood storage facilities at BPHCs

	Number of units of Blood collected	No of units of blood transfused during the month (all)
Kalgachia	23	59
Bokakhat	78	27
Jakhalabandha	20	95
Buragohaithan	2	-
Kathiatoli	4	-

Source: HMIS (2019-20)

There is HMIS-data evidence available on blood bank/storage facilities being available in only five out of 17 (29%) BPHCs.

7.1.2 Available facilities at the selected sub-centres

On the basis of HMIS data, this section examines the staff availability, delivery facility availability and medicine availability at the sampled sub-centres.

Table 7.4: Staff availability at sample sub-centres

BPHC	Sub-centre	Whether functional as HWC?	CHO	ANM	MPW-male
Barpeta Road	Borbarijhar	No	-	1	1
	Kumuria	No	1	1	1
Bhawanipur	Jogirpam	No	-	2	-
	Pakabetbari gaon	No	-	2	-
Kalgachia	Bala bhitha	Yes	1	2	1
	Lachanga	No		2	1
Mandia	Kadamtola	No	-	-	-
	Pathlikuchi	No	-	2	1
Nagaon	Batikuriha	No		2	1
	Suha baradi	No		1	1
Bokakhat	Dhansirimukh	No	0	2	1
	Siljuri	Yes	1	2	1
Missamora	Khanikar	No		1	1
	Dergaon CHC NSC	No	0	0	0
Charingia	Akadulakhoria	No	0	1	0
	Khumtai MPH NSC	No	0	0	0
Kamarbondha Ali	Kakotigaon	No	0	1	1
	Teleliguri	No	0	1	0
Dagaon	Borpam	No	0	1	0
	Tinsukia-2	No	0	1	1
Simonabasti	Borhola	Yes	1	1	1
	Lakhanabandha	No	1	2	1

Jakhalabandha	Pubthoria 1	No	1	2	1
	Borghuli	Yes	1	3	1
Samaguri	Niz-bheleoguri	No	0	2	1
	Udmari	No	0	2	0
Buragohaithan	Mazpathori	No	0	1	1
	Mazgaon	No	0	2	1
Kathiatoli	Palasha	No	0	1	0
	Pub Borpathar	No	0	1	0
Lanka	Kapilipar	No	0	1	0
	Pub samarali	No	0	2	1
Singimari	Teliachaporitup	No	0	1	1
	Hatipukhuri - i	No	0	1	1

Source: HMIS data (2019-20)

The table above indicates that CHOs are available in only seven sub-centres as per HMIS data, out of which four are categorized in HMIS as HWCs.

The table above shows that nine sub-centres don't have male MPWs, while data is not available on MPW availability for three more sub-centres. At least 2 ANMs are available at 15 sub-centres.

Table 7.5: Deliveries at sample sub-centres

BPHC	Sub-centres (SC)	Deliveries conducted during day time (8 am to 8 pm)	Deliveries conducted during night time 8 pm to 8 am)	Total deliveries conducted at the facility
Kalgachia	Bala bhitha (HWC)	43	15	58
Bokakhat	Dhansirimukh	0	0	0
Bokakhat	Siljuri (HWC)	7	2	9
Missamora	Khanikar	0	0	0
Missamora	Dergaon CHC NSC	0	0	0
Charingia	Akadulakhoria	0	0	0
Charingia	Khumtai MPHC NSC	0	0	0
Kamarbondha Ali	Kakotigaon	0	0	0
Kamarbondha Ali	Teleguri	0	0	0
Dagaon	Borpam	0	0	0
Dagaon	Tinsukia-2	0	0	0
Simonabasti	Borhola SC (HWC)	0	0	0
Simonabasti	Lakhanabandha sc	0	0	0
Jakhalabandha	Pubthoria 1 SC	0	0	0
Jakhalabandha	Borghuli SC(HWC)	63	0	63
Samaguri	Niz-bheleoguri sc	0	0	0
Samaguri	Udmari	50	42	92
Buragohaithan	Mazpathori	0	0	0
Buragohaithan	Mazgaon	0	0	0

Kathiatoli	Palasha	0	0	0
Kathiatoli	Pub Borpathar	0	0	0
Lanka	Kapilipar	0	0	0
Lanka	Pub samarali SC	39	0	39
Singimari	Teliachaporitup SC	0	0	0
Singimari	Hatipukhuri - i SC	0	0	0

Source: HMIS (2019-20)

The table above only displays those sub-centres for which delivery information is available (25 out of 34). It is assumed that these are the only centres which have delivery facilities. Only five of these 25 have any deliveries (marked in bold and underlined), out of which three are HWCs. It is noteworthy that one facility categorized as an HWC in HMIS (Borhola sub-centre in Nagaon) had zero deliveries. Looking at data from Tables 7.4 and 7.5, one finds that all the sub-centres with some deliveries have at least 2 ANMs.

7.2 Availability of services in HWCs

Availability of services in HWCs is examined in this section in terms of the staff availability at the centres, status of implementation of the CPHC package and community perception of services available at HWCs. This section examines the availability of services and facilities on the basis of primary data (the previous section already gives a secondary data-based description of the services and facilities available at the HWCs among the sampled sub-centres).

7.2.1 Staff availability in HWCs

The local field data collection team for the study compiled details on the staff availability at the health and wellness centres studied. The information from this field data on ANM, MPW (male) and CHO availability matches with the HMIS data for these centres.

Table 7.6: Field data-based summary of facilities at four HWCs among sample sub-centres

	Whether delivery point	Whether CHO available	Whether ANM 1 available & whether living on station	Whether ANM 2 available & living on station	Whether MPW (male) available	No of ASHAs	Whether cleaner/ group D, available
Bala Bhitha HWC, Barpeta	Yes	Yes	Available; not living on Station	Available; living on station	Yes	8	No
Siljuri HWC, Golaghat	Yes	Yes	Available; living on station	Available; living on station	Yes	7	Yes
Borghuli HWC, Nagaon	Yes	Yes	Available; not living on Station	Available; not living on station	Yes	6	No
Borhola HWC, Nagaon	No	Yes	Available; living on station	Not available	Yes	2	No

Source: Field notes of local data collection team

Barring Borhola, all the three facilities mentioned above are delivery points, and as table 7.5 shows, the three facilities have conducted deliveries. Borhola is indicated in HMIS data as being an HWC. However, the field data indicates that it is not a delivery point, and the HMIS data also shows that it had zero deliveries in 2019-20.

Only one out of the four facilities listed above (Siljuri HWC) has two ANMs of whom both are living at the sub-centre. Two centres (Bala Bhitha HWC and Borhola HWC) have one ANM living on station.

While Borghuli HWC has a heavier delivery load than the other three centres, it does not have any ANM living on station. Only one HWC (Siljuri HWC) has an available Group-D cleaner to keep the facility premises clean.

7.2.2 Are expanded services available at the sampled HWCs?

The CPHC package of services, supposed to be made available in HWCs comprises the following 12 services:

1. Care in pregnancy and childbirth.
2. Neonatal and infant health care services.
3. Childhood and adolescent health care services.
4. Family planning, contraceptive services and other reproductive health care services.
5. Management of communicable diseases including National Health Programmes.
6. Management of common communicable diseases and outpatient care for acute simple illnesses and minor ailments.
7. Screening, prevention, control and management of noncommunicable diseases.
8. Care for common ophthalmic and ENT problems.
9. Basic oral health care.
10. Elderly and palliative health care services.
11. Emergency medical services.
12. Screening and basic management of mental health ailments

In the CPHC package, services 7-12 go beyond the RMNCH+A/RCH and communicable disease services usually provided at primary health facilities. The two tables below examine the availability of these expanded services in three sampled HWCs (one each in Barpeta, Golaghat and Nagaon district) for which the Community Health Officers or CHOs were interviewed.

Table 7.7: Availability of expanded services (NCDs, ophthalmic & ENT and Oral care) at three HWCs

	Screening, prevention, control and management of NCDs	Care for common ophthalmic and ENT problems.	Basic oral health care.
Bala Bhitha HWC, Barpeta	Medicines for chronic illness are distributed. CHO writes the prescription and dispenses the medication. There is no early detection of NCDs. Information is only received when the individual "expresses the disease".	No screening for such problems is done. Training is not yet given to staff to carry out ENT activities.	No information
Siljuri HWC, Golaghat	Staff of HWC are trained on delivering communicable disease and NCD services. NCD cases are most frequent at the facility. Patients of such conditions are increasing. Most medicines distributed are for chronic illnesses. Chronic disease patients also come regularly for check-up. There is effort for early detection of NCDs at the centre. Diseases like breast cancer are detected by the centre.	There is no facility of screening. Patients who come are referred.	Service not available. 2/3 dental illness patients in a month referred to PHC
Borghuli HWC, Nagaon	CHO decides which medicine to give and distributes medicines for chronic illness.	These has not been screening, identification or referral for such problems.	Lack of staff availability leads to inability to provide services.

Source: IDIs with CHOs

Table 7.8: Availability of expanded services (elderly and palliative care, emergency services and mental health) at three Sample HWCs

	Elderly and palliative health care services	Emergency medical services.	Screening and basic management of mental health ailments
Siljuri HWC, Golaghat	Lot of aged people come here for treatment (of NCDs).	Have less emergencies. On immunization days if injured person comes, Tetanus Toxoid (TT) is given and patient is referred to Bokakhat BPHC. As the local people are quite aware about the facilities at the centre, less emergency cases reported. However, dog bite medicines and treatment available at the HWC, but most other emergencies are referred.	Don't deal with any mental health patients.
Bala Bhitha HWC, Barpeta	Mostly pregnant and elderly women and men visit HWC for services.	Basic services like dressing are provided.	Screening for mental disorder is not done.
Borghuli HWC, Nagaon	Lack of staff availability leads to inability to provide services	Not treated emergency cases so far in the HWC. If patients come, then CHO refers to civil hospital.	There is no screening for mental disorders.

Source: IDIs with CHOs

Based on the CHO responses, it can be understood that all the three HWCs are providing the services for the management of NCDs. Though they are all dispensing medicines for NCDs, not all of them are engaging in proactive screening for early detection.

Two out of the three HWCs are also handling emergencies to a limited degree. On all the other extended service buckets under CPHC, service provision has not yet been established. On elderly and palliative care, there is a need to strengthen the awareness of CHOs on the concerned services, since two CHOs seem to be associating it only with treating NCDs in aged patients.

It can be expected that when the HWC staff are gradually trained on the extended service modules beyond NCDs, then the service provision situation on these buckets will improve.

FGD participants residing in the catchment villages of these three HWCs were also asked about the service availability at these facilities.

It was only in Geleki village (catchment village for Siljuri HWC in Golaghat district) that the villagers were making notable use of the HWCs and showed a positive perception of centres. More details of community perception of HWCs will be presented later in this chapter, but perceptions of members of the village community on the extended services available at Siljuri HWC are presented in the table below:

Table 7.9: Community understanding of availability of expanded Services in Siljuri HWC, Golaghat district

Expanded service category	Community understanding of availability
Screening, prevention, control and management of noncommunicable diseases	Diseases such as blood pressure and diabetes are now treated at the HWC and early detection is also done. After screening, HWC refers such patients to other health care facilities.
Care for common ophthalmic and ENT problems.	No treatment for ENT services at the HWC, it refers patients to PHC and DH.
Basic oral health care.	There is no such facility.
Elderly and palliative health care services	Such health care measures are not being provided.

Emergency medical services	Emergency services are not provided by the HWC, though they are being referred. However, even the PHC is not treating many emergency cases.
Screening and basic management of mental health ailments	Mental illness treatment is done in the HWC.

Source: Men's FGD held in Geleki village, Golaghat district

While there is an overall fit between what the CHO and the FGD participants stated regarding the extended service availability, there are two deviations to be noted with respect to emergency and mental health services. On mental health services, the community does not seem to be aware that the service is unavailable, as the CHO admitted that the said service is not provided. On emergency services, the CHO mentioned limited emergency services being available (including for dog bites), but the community members do not perceive any availability of emergency services at the HWC.

HWCs are upgraded versions of sub-centres, and therefore are required to possess more developed infrastructure.

The operational guidelines on HWCs state that "major civil infrastructure upgrade would largely be required for developing the sub health Centres as health and wellness centre". The essential requirements stated are as follows:

- A well-ventilated clinic room with examination space and office space for mid-level health provider/CHO
- Storage space for medicines, equipment, documents, health cards and registers
- Designated space for lab/diagnostics
- Separate male and female toilets
- Deep burial pit for bio-medical waste management
- Proper system for drainage
- Assured water supply that can be drawn and stored locally
- Electricity supply linked to main lines or adequate solar source, inverter, or back-up generator as appropriate
- Covered patient waiting area to accommodate at least 20-25 chairs
- Repairs of roofs and walls, plastering, painting and tiling of floors to be undertaken as per requirement
- Space/room for Yoga if adequate space for expansion is available
- Adequate residential facilities for the service providers
- Rainwater harvesting facilities may be planned if required

The above guidelines seem to point to a higher level infrastructure requirement.

However, CHO responses show that HWCs are experiencing much more fundamental gaps in availability of facilities and amenities, such as water, electricity, and sanitation systems. Staff gaps were also emphasized by the interviewed CHOs. The gaps in infrastructure and staff mentioned by the CHOs of the three HWCs may be seen in the table below:

Table 7.10: Gaps in facilities and staff at HWCs – as highlighted by CHOs

HWC	Challenges mentioned by the CHOs
Bala Bhitha HWC, Barpeta	HWC is under the (priority) list but is not yet constructed Electricity, sanitation system is there, but there is no water connection in the HWC Lab, pharmacy/stores are functioning, but the labour room is not functioning
Siljuri HWC, Golaghat	Six lab tests are done as part of ANC, for the rest of tests, patients are sent to Bokakhat (BPHC) Labour room is functioning, and deliveries are being done Lab is there, but there is no laboratory technician and no pharmacist. Pharmacy is run by the ANM No Yoga room and dressing room. There is limited space No CHO quarters

	<p>Was trained through the MLHW training course to manage more illnesses and prescribe more medicines than what is currently practiced. They now have authority to prescribe only 30 or so medicines from Assam EDL</p> <p>On several issues patients go to tea garden hospitals too because they worked there, and facilities are also provided there free of cost</p>
Borghuli HWC, Nagaon	<p>No pharmacy. CHO has to sometimes dispense medicines</p> <p>Coming to duty is not sufficient to address the demand for service because of the massive population (more than 18 000). There are not enough ASHAs to cover such population.<?></p> <p>Cleaner (Group-D) is also needed</p> <p>Lack of regular electricity during duty time</p> <p>Sanitary system is not good</p> <p>There is poor supply of medicines. CHO cannot give Vitamin A syrup when patients demand the same. Because of poor medicine supply, people's visits are decreasing</p> <p>There is only a medicine store, but no laboratory</p> <p>No functioning labour room</p>

Source: Data from CHO IDs

Even though Bala Bhitha HWC had conducted 58 deliveries in 2019-20 (as per HMIS data), the CHO highlighted the lack of a functional labour room in this HWC. **Importantly, though the HMIS identifies this facility as a functional HWC**, the CHO mentioned that it has still not been converted into a functional HWC. Similarly, Borghuli HWC had conducted 63 deliveries in 2019-20 (as per HMIS) but the CHO mentioned the lack of a functional labour room.

Siljuri HWC is the best developed among all the sub-centre/HWCs covered in this study and the only one for which the CHO said a functional labour room was available. This HWC conducted 9 deliveries in 2019-20 (as per HMIS). However, even in this HWC, there was a lack of diagnostic facilities (barring those for antenatal care), lack of a yoga room and a room for dressing wounds. The CHO also raised the issue of staffing problems, which were mentioned by CHOs of other HWCs as well. Images of Siljuri HWC can be seen below:

Fig. 7.1: Sign Board and Immunization IEC at entrance of Siljuri HWC, Golaghat



Photo credit: GRAAM

¹⁷Though the CHO of Borghuli mentioned only 3 ASHAs being available, field notes of the local data collection team mention six ASHAs as being available.

Fig. 7.2 Entrance of delivery room at Siljuri HWC, Golaghat



Source: Data from CHO IDIs

7.2.3 Community Views on Services Offered at HWCs

The overall community perception (expressed in FGDs) on the services offered at HWCs are presented below. The community members also expressed their views about whether they perceived HWCs to be offering more/ better services than normal sub-centres. It is only for Siljuri HWC that the community members expressed a positive perception.

Text Box 7.1 Perceived community difference between HWC and normal sub-centre services

Bala Bhitha HWC, Barpeta (Men's FGD): HWC does not offer more services compared to normal sub-centres. There is need for labs, surgery and X-ray facilities, which are not available.

Bala Bhitha HWC, Barpeta (Women's FGD): Did not visit the HWC because of perception of poor service. So, not possible to do comparison of services between HWC and PHC/SHC.

Geleki (Siljuri), Golaghat (Men's FGD): The outpatient services at Siljuri HWC are good. Very satisfied with the HWC service. For any disease they first visit (Siljuri) HWC as it is so close to their residence. Besides, the 'doctor' (CHO) at the HWC is very good. The HWC provides more services than the normal sub-centre. In the HWC, there is a labour room and laboratory, which is functioning properly. One area where it needs to improve is better availability of medicines. More medicines and emergency services are required. Want emergency services at the HWC and in PHC, as most of the accident cases are referred from there."

Borhola HWC, Nagaon (HMIS mentions it as a functional HWC): (women's FGD) There is no HWC near the village.

7.3 Facilities/types of institutions preferred within or nearby village, which are not currently available

This section goes beyond HWCs to get an idea of the local service and facility gaps perceived by the villagers, including those not residing in or near HWCs. FGD participants were asked what services they would prefer in or near their villages that are not currently available. The major need areas pointed out by members of the community were diagnostics (such as X-rays), medicines, specialist doctors and emergency care. A variety of FGD responses are presented below:

Text Box 7.1 Perceived community difference between HWC and normal sub-centre services

FGD responses in Barpeta

“We need more facilities for any kind of health tests, but these are not available at our PHC, and we need proper medicines also.”

“We want labs, surgery at PHC and X Ray facilities”

FGD responses in Golaghat

“We need facility for treating major illnesses at the PHC.”

“There is a lack of night time facilities, doctors are asleep in the night.”

“We need medicines which are not available at PHC. We are not demanding any other service.”

“We mostly want emergency services at the HWC and in PHC also.”

“Don’t know what we need. In CHC we are getting facilities of blood test, X-ray and such diagnostics.”

FGD responses in Nagaon

“Facilities that are not available at the PHC are specialist doctor for eyes, skin, dental issues and cancer.”

“We need some services for snake bite, diabetes and typhoid that are not available.”

“Services that are not available at PHC are for diseases like gall bladder problems, typhoid, nerve problems and TB. We also need specialists for eyes and dental care.”

“Some services that we need and prefer but are not available at the PHC are for dog bite, snake bite, diabetes, heart disease etc”

“We need services for nerve, kidney, and liver problems but these are not available at the PHC.”



Chapter 8

Enablers and barriers to utilization



Chapter 1 of the report had defined the conceptual framework of the enablers and barriers of utilization. The conceptual framework for this study identified demand-side and supply side determinants of the utilization of PHC services. Three groups of demand-side factors had been identified – enabling factors, predisposing factors and need-based factors.

Enabling factors are the means available to the individual for making use of health services. These include income, coverage of health financing, knowledge of primary health services and access to transportation. Enabling factors focused on in this chapter include financial factors, such as income and knowledge of services provided at the PHC/sub-centre/HWC.

According to Andersen and Newman (2005), predisposing factors refer to individual factors that exist prior to onset of illness which make certain kinds of individuals more likely to use health services. These include age, sex, education, occupation and ethnicity. Chapters 4, 5 and 6 of this report have already explored, through descriptive tables, how predisposing variables such as gender and social category shape health seeking, provider choice and utilization of PHC facilities. Need-based factors refer to the perception or experience of illness.

On the supply side, elements of people-centred care (empowerment and engagement of people and communities, reinvented model of care) and service quality had been identified as determinants. This chapter presents data on the various demand-side and supply side factors and the ways in which they shape utilization of primary health care in Barpeta, Golaghat and Nagaon districts of Assam. Demand and supply side factors often come together to shape utilization of health care (for example economic status of patients interact with the cost of the services).

This chapter goes beyond the descriptive analysis presented in previous chapters and presents regression analysis at the end to assess how predisposing, enabling and need-based factors shape utilization of primary health facilities. Supply side factors such as location and accessibility also find a place in the regression analysis carried out.

This chapter covers the following sections:

- Financial factors that shape utilization
- Knowledge of services provided at PHC facilities
- Access and location factors
- Service experience and service perception with respect to PHC facilities

- Empowerment and engagement of people and communities
- Reinvented model of care - extent of implementation
- Regression analysis related to factors shaping the utilization of primary health centres.

8.1 Financial factors that shape utilization

The survey of this study attempts to gauge the financial difficulties faced by the members of the community. This study also examines the out-of-pocket expenditures (OOPEs) incurred on outpatient, maternal care and inpatient care. With respect to maternal care, there is also an examination of the coverage of maternal expenditure financing schemes.

8.1.1 Financial difficulties faced due to expenditure on health care

Survey respondents were asked about the financial difficulties that they faced as a result of spending on health care. They were also asked about the source of finances for such expenditure. The responses are summed up in the tables below.

Table 8.1 Extent of financial difficulties experienced due to spending on health care

	Barpeta		Golaghat		Nagaon		Total	
Always	53	(12.77%)	62	(15.58%)	71	(16.44%)	186	(14.94%)
Never	2	(0.48%)	93	(23.37%)	8	(1.85%)	103	(8.27%)
Sometimes	360	(86.75%)	241	(60.55%)	352	(81.48%)	953	(76.55%)
No response		(0.00%)	2	(0.50%)	1	(0.23%)	3	(0.24%)
Grand Total	415	(100.00%)	398	(100.00%)	432	(100.00%)	1245	(100.00%)

Source: Survey data

In Barpeta district, 86.75% survey respondents stated that they sometimes face financial difficulty as a result of spending on health care. In Golaghat, 60.55% respondents faced difficulties sometimes and in Nagaon district 81.48% said they sometimes face financial difficulty due to health care expenditure.

Table 8.2: Extent of reduction of spending on essential needs (food, clothing) to cover health care costs in last one year

	Barpeta		Golaghat		Nagaon		Total	
Yes	170	(40.96%)	83	(20.85%)	321	(74.31%)	574	(46.10%)
No	245	(59.04%)	312	(78.39%)	110	(25.46%)	667	(53.57%)
(blank)		(0.00%)	3	(0.75%)	1	(0.23%)	4	(0.32%)
Grand Total	415	(100.00%)	398	(100.00%)	432	(100.00%)	1245	(100.00%)

Source: Survey data

An average of all three districts shows that 46.10% respondents reduced expenditure on essential needs such as food or clothing to cover health care needs. However, an average 53.57% stated that they didn't cut down on essential needs. When we look at the districts individually, Nagaon seems to stand apart. In Nagaon district, 74.31% (the highest share) stated that they had to cut down on essentials, while in Golaghat only about 21% said so. Barpeta is somewhere in the middle with 41% saying they had to cut down on spending for essential commodities.

Table 8.3: Source of finances for treatment

Source of finances	Barpeta	Golaghat	Nagaon	Grand total
Borrowings	64 (15.42%)	117 (29.40%)	320 (74.07%)	501 (40.24%)
Friends' contribution	106 (25.54%)	92 (23.12%)	355 (82.18%)	553 (44.42%)
Savings	412 (99.28%)	393 (98.74%)	316 (73.15%)	1121 (90.04%)

Selling assets	196 (47.23%)	1 (0.25%)	85 (19.68%)	282 (22.65%)
Others	(0.00%)	1 (0.25%)	8 (1.85%)	9 (0.72%)
Total	415	398	432	1245

Source: Survey data

The table above elaborates on the sources of finance for treatment. In all three districts together, “savings” were the main source for a majority (90.04%), followed by “friends’ contribution” (44.42%) and “borrowed money” to meet the expenses. More than 22% respondents also had to sell assets to meet such expenditures. In Barpeta, 47.23% sold their assets to meet health care expenses. **These figures indicate that financial constraint due to health spending is widespread.**

8.1.2 Out-of-pocket expenses on inpatient and outpatient care

In Barpeta, out of 57 inpatient respondents, 53 gave details on expenditure. In Golaghat, out of 48 inpatient respondents, 44 gave details on expenditure. In Nagaon, out of 70 inpatient respondents, 66 gave details about OOP expenditure. The details obtained on inpatient expenditure are presented below:

Table 8.4: Inpatient expenditure incurred (in any kind of facility) for the last one year (in ₹)

Inpatient expenses	Barpeta		Golaghat		Nagaon		Overall average
	Average	Median	Average	Median	Average	Median	
Overall treatment cost	42 343.40	7 000	28 609.09	13 000	12 747.69	5 000	26 738.27
Doctor’s fee	3 000.00	500	1 710.12	300	2 181.82	0	2 327.77
Informal amount	345.83	0	800.00	0	204.17	0	287.01
Medicine cost	15 265.47	5 000	7 770.24	4 000	5 267.42	2500	9 211.61
Diagnostic cost	2 916.55	2 000	3 462.97	1 000	409.09	0	2 519.43
Bed charge	3 017.36	0	2 440.00	500	1 131.97	0	2 089.50
Other cost	3 574.00	500	2 755.69	0	1 275.38	500	2 389.44
Transportation cost	2 613.21	500	2 717.95	1 000	886.36	200	1 942.27
Non-medical expenses	1 332.35	500	1 856.10	800	952.42	500	1 309.56

Source: Survey data

The average (mean) treatment cost for inpatient care incurred by respondents over the last one year for all the three districts is \$362 (₹26 738.27). This is 3.85 times higher than the NSSO figure on average medical OOPE per hospitalization case (all-combining public and private) which was \$94 (₹ 6 938) for rural Assam at current prices for 2014 (please refer to Chapter 2 of this report).

In Barpeta district, average treatment cost for inpatient care availed over the last one year is \$573 (₹42 343.40) and median for the same is \$95 (Rs7 000). In Golaghat district, average treatment cost is \$387 (₹28 609.09) and median for the same is \$176 (₹13 000). In Nagaon district, average treatment cost is \$172.7 (₹12 747) and median for the same is \$67.66 (₹5 000).

The highest average cost on inpatient care is in Barpeta \$573 (₹42 343.40), while the highest median cost is in Golaghat \$176 (₹13 000). In all three districts, among the sub-components of inpatient expenditures, the cost of medicines remains the highest. In Barpeta and Nagaon, the next highest costs are similar (doctors’ fee and bed charges).

Table 8.5 Outpatient expenditure incurred (in any kind of facility) over the last 15 days (in ₹)

Outpatient expenditure	Golaghat		Nagaon		Grand total
	Average	Median	Average	Median	
Doctor's fee	278.45	200	390.48	100	344.72
AYUSH medicines cost	0.30	0	128.21	0	75.88
Non AYUSH medicine cost	827.07	500	2 792.86	1250	1 989.93
Diagnostic cost	82.14	0	198.98	0	151.57
Other medical cost	42.86	0	269.51	100	177.54
Transportation cost	384.14	100	554.52	200	484.93
Non-medical expenses	107.59	0	415.85	200	288.14
Other cost	232.76	100	494.63	200	386.14

Source: Survey data

The NSSO data for 2014 (presented in Chapter 1) had shown that for rural Assam, the average overall medical OOPE per outpatient case was \$6 (₹446) for care incurred in public facilities and \$10 (₹746) for care incurred in private facilities. In contrast, survey data from Golaghat and Nagaon presented in the table above shows that the overall allopathic or non-AYUSH medicine cost \$27 (₹1989.93) alone surpasses these figures.

Evidently, medicine cost is the largest component of outpatient expenses and thus is notable as a financial challenge to the utilization of outpatient care.

Community FGD participants were asked a number of questions about their experience of receiving care at PHCs/HWCs, and a number of insights related to OOPEs emerged from such responses. In Barpeta, the following views were expressed in this regard:

- The women admitted that that the PHC or HWC doesn't charge any kind of fees or informal payments for service and that medicines were also free.
- However, they said, costs of transportation, food and also on diagnostics impact the affordability of seeking PHC care.
- In Barpeta, it was said that the PHC charges for medical tests.
- Some men said that in their PHC, diagnostic tests were not available, and medicines were limited, which led to people buying medicines and getting diagnostic tests done from private players which escalates OOPEs.
- The experience shared by a group of men in Barpeta was that PHC doctors charged a very small amount (₹10) to give prescription.

In Golaghat, several perspectives on OOPEs emerged from the FGDs. The following diverse observations were made on this topic.

- The PHC did not charge any fees to treat apart from a miniscule amount (₹5) as user charge.
- The PHC and HWC are not taking any informal charges.
- Lab and tests are free in the PHC. However, limited number of medicines are distributed free, forcing patients to buy medicines from the private pharmacy.
- In one FGD, it was known that only one saline/drip was provided free and after that patients had to pay for the saline drip. Similarly, for medicines, repeat medicines were chargeable.

In Nagaon, the following OOPE related experiences were shared in the FGDs:

- While informal charges are not asked for, the most prescribed medicines are not available at the medical store of the PHC, so people need to procure most medicines from the pharmacy.
- It is not easy to always bear the primary health care costs, including fees, tests and medicines, apart from cost of transportation, food etc.
- For any tests, they are sent to the private laboratory. In other FGDs, however it was said that lab test facilities are free.
- PHC did not charge fee on informal payment for service.

- Mobile medical vans holding health camps are preferred by some because they provide free medical treatment and medicines. Some participants wondered why they did not visit their village frequently in recent times.

8.1.3 OOPE on maternal care and maternal financing support received

This section looks at the expenditures incurred on prenatal/antenatal and intranatal (delivery) care. It also inquires whether mothers received the benefits of the concerned maternal financing schemes to ameliorate the financial pressures of childbirth. The respondents were currently pregnant women and mothers, who had given birth in the last one year in the covered households.

Table 8.6: Average prenatal expenditures during pregnancy (in ₹)

Average expenditures per household during pregnancy	Barpeta	Golaghat	Nagaon	Average
Expenditure on prenatal care	4 240.00	2 379.17	2 007.69	2 653.01

Source: Survey data

For prenatal care Barpeta has the highest average expenditure among three districts \$57 (₹4 240 per mother). Nagaon has least expenditure among three \$27 (₹2 007.69 per pregnancy). Golaghat has average expenditure of 32 (₹2 379.17). The average expenditure for prenatal care is \$36 (₹2 653.01 for all pregnancies in the three districts combined).

Table 8.7: Whether received \$13.5 (₹1 000) for early registration of pregnancy (PM Matru Vandana Yojana)

	Barpeta		Golaghat		Nagaon		Total
Yes	3	(14.29%)	5	(19.23%)	5	(12.82%)	13
No	18	(85.71%)	21	(80.77%)	34	(87.18%)	73
Grand total	21	(100.00%)	26	(100.00%)	39	(100.00%)	86

Source: Survey data

PM Matru Vandana Yojana gives \$13.5 (₹1 000) for early registration of pregnancy. In Barpeta district out of 21 women respondents 18 stated that they didn't receive this amount. In Golaghat district, out of 26 women, 21 stated that they didn't receive this amount, and in Nagaon out of 39 women, 34 stated that they didn't receive this amount. To sum up, out of a total 86 respondent women (spread across three districts,) 84.88% (73) stated that they didn't receive the amount.

Table 8.8: Whether received \$27 (₹2 000) after two ANC check-ups (PM Matru Vandana Yojana)

	Barpeta		Golaghat		Nagaon		Total Count of district
Yes		(0.00%)	3	(11.54%)		(0.00%)	3
No	21	(100.00%)	23	(88.46%)	39	(100.00%)	83
Grand Total	21	(100.00%)	26	(100.00%)	39	(100.00%)	86

Source: Survey data

PM Matru Vandana Yojana gives ₹2 000 after 2nd ANC check-up. In Barpeta and Nagaon district, none of the respondent women received this amount. In Golaghat only 3 women out of 26 received this amount.

The \$40.6 (₹3 000) for antenatal care under the scheme would thus have covered the average antenatal care costs that the women appear to be incurring \$36 (₹2 653). However, as seen above, very small share of women in all the three districts are receiving this amount. **Therefore, it is important to increase the awareness and coverage of such maternal financing schemes.**

Having touched on expenditures and financing for antenatal care, it is pertinent to know such details for deliveries.

Table 8.9: Place of delivery and incurred expenditure (in ₹)

Place of delivery/ expenditure at delivery	Barpeta		Golaghat		Nagaon	
	Count	Average expenditure	Count	Average expenditure	Count	Average expenditure
Government hospital	4	2 250.50	6	8 500.00	10	1 000.00
Home	2	4 250.00			1	
PHC/HWC	4	1 875.00	1	0.00	3	200.00
Private hospital			2	35 000.00	1	
No response	1					
Overall	11	2 500.20	9	13 444.44	15	600.00

Source: Survey data

The above table shows considerable variation between districts as far as delivery expenditure is concerned. The lowest such average expenditure is in Nagaon district \$8 (₹600) and the highest is in Golaghat \$176 (over ₹13 000). The two private facility deliveries in Golaghat and the availability of information for the same has pushed up the average delivery expenditure for Golaghat district. However, mothers in Golaghat have also reported much higher delivery expenditures in government hospitals.

Even for PHC/HWC and government facilities, there is considerable variation between districts. Interestingly, the cost of delivery in PHC/HWC varies from zero for Golaghat district to \$2.7 (₹200) for Nagaon district and \$25 (₹1 875) for Barpeta district.

Women FGD participants raised expenditure related issues when they were asked about their preferred place of delivery. A section of women in Barpeta pointed out, “We prefer PHC and medical college because we can’t afford the money to pay the bill of private hospitals, but the PHC staff also take some money as informal delivery charge.”

While delivering in private facilities may cause OOPes to shoot up, quality concerns at PHCs or other public facilities may cause women or their families to prefer private facilities. Some men FGD participants in Barpeta pointed out that pregnant women in their families don’t prefer PHCs for delivery because of poor facilities. They said that they take them to private hospital or medical college for giving birth.

Some women in Golaghat mentioned inclination towards PHCs because of free treatment at these centres and also inability to afford private nursing homes. In fact, some women in Golaghat stated that, “Women prefer to deliver at PHC due to low expenditure; PHC is the only hope for the pregnant women because the other hospital is too far.” In FGDs held in Nagaon, it emerged that some women don’t prefer PHCs because of the long waiting time and lower than desired responsiveness. In Nagaon, some men summed up the issue, saying, “delivery facilities are chosen on the basis of financial status.”

Table 8.10: Whether received benefits under Janani Surksha Yojana (JSY) after the delivery?

	Barpeta		Golaghat		Nagaon		Total count of district
	Count	(%)	Count	(%)	Count	(%)	
Yes	5	(45.45%)	3	(33.33%)	11	(73.33%)	19
No	4	(36.36%)	6	(66.67%)	3	(20.00%)	13
No response	2	(18.18%)		(0.00%)	1	(6.67%)	3
Grand total	11	(100.00%)	9	(100.00%)	15	(100.00%)	35

Source: Survey data

Under the JSY scheme, beneficiaries receive \$81 (₹6 000) in their bank accounts after delivery. In Barpeta district, 45.45% mothers received the benefits of JSY. In Golaghat district only one-third of mothers received benefits of JSY. In Nagaon district, 73.11% of respondents said they received benefits of JSY. Also, mothers in Nagaon had by far the highest coverage of JSY benefits.

Overall, the coverage of JSY is better than the coverage of PM Matru Vandana Yojana. While JSY is expected to act as an incentive for institutional delivery and safe motherhood, the survey of mothers in this study shows that the district with the lowest coverage of JSY also has the lowest share of home births - that is, no home births (see Chapter 9 for details). Also, the JSY amount is not high enough to cover the reported high cost of delivery in Golaghat district, where mothers have shown a higher preference for private facility deliveries. The reasons cited for not availing JSY included not being aware of the scheme, not having a bank account and the scheme not being available

8.2 Knowledge of services provided at PHC Facilities

FGD participants were asked about their knowledge of the services that are supposed to be provided free at the PHCs, sub-centres and HWCs.

In response, some participants did not know about free services. However, most male and female participants named certain services that they understood to be free, such as treatment for minor diseases, blood and sugar tests, X-ray, deliveries, eye treatment and ultrasound scans. Participants did not mention services such as immunization, inpatient services and family planning services.

Some participants had the perception that not all medicines are available free. However, participants of two men’s FGDs in Barpeta said, that as far as they knew, the PHCs did not supply or provide medicines that they should have been supplied. This indicates a degree of clarity on the part of these members regarding their entitlements. Regarding the source of information about free services, FGD participants mentioned different sources such as help desk of PHC, ASHA, ANM and the citizen’s charter displayed at the facility.

Fig. 8.1: Citizen's charter at a sub-centre in Barpeta

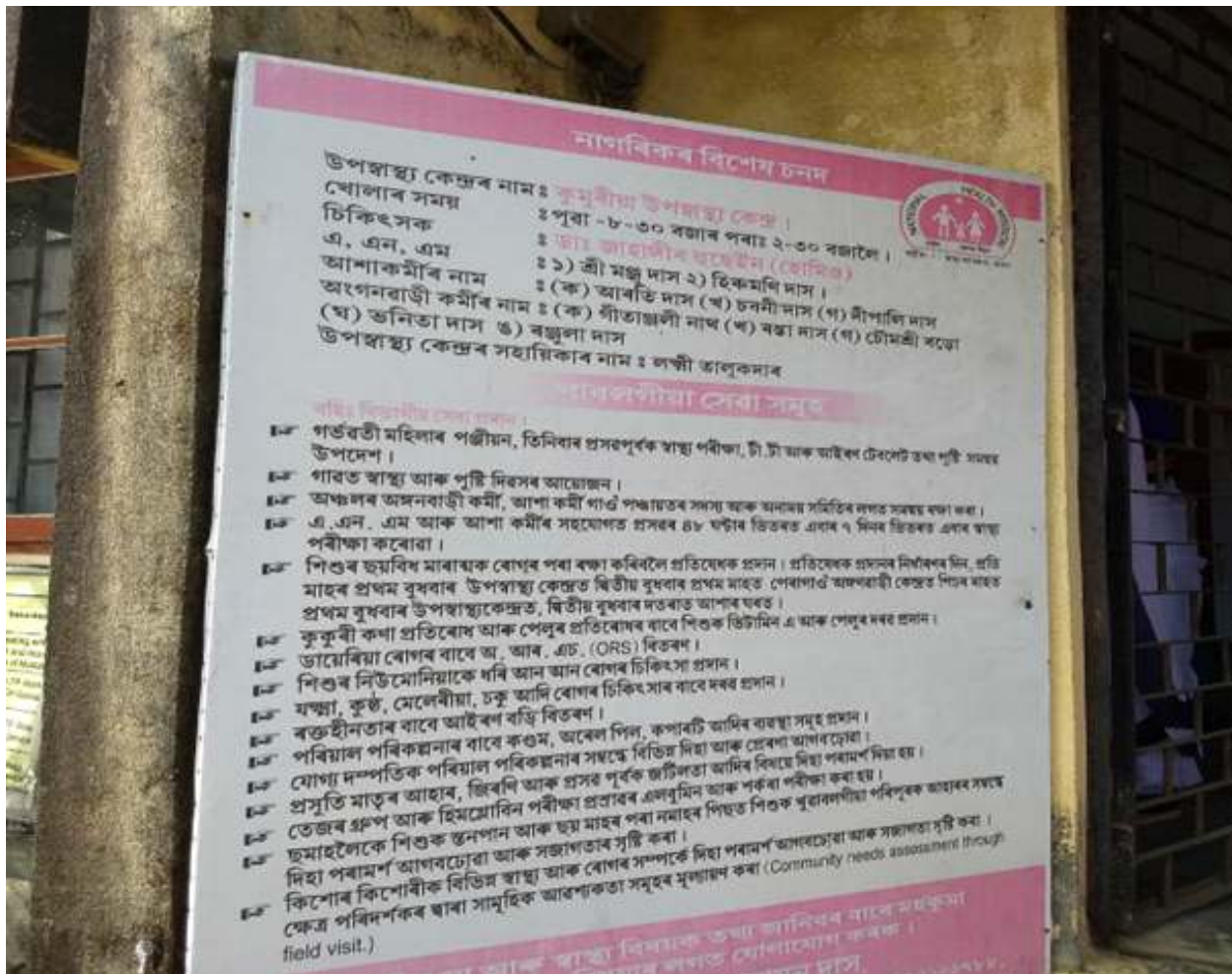


Photo credits: GRAAM

The picture above shows a citizen's charter of a sub-centre at Barpeta in Assam. The citizen's charter displays the services offered at the sub-centre, including ANC checks, registration of pregnant women, distribution of IFA tablets, postnatal check-ups and immunization of infants against six diseases. The charter also includes ORS distribution for protection against diarrhoea in children, distribution of contraceptives, distribution of iron tablets for anaemia and awareness creation for adolescents.

It also refers to the timings of the centre and the names of the personnel such as the CHO, ANM, Anganwadi workers and ASHAs. **The citizen's charter does not explicitly refer to free services but should ideally make such a reference.**

According to the model citizen's charter framework prescribed for Sub-centres in the IPHS for sub-centres (2012), members of the community or citizens should be made aware not only of the services being provided, but also of the standards of quality that they are entitled to, and the means through which complaints will be addressed.

In a sample citizen's charter for PHCs (not for Assam but for the UT of Daman and Diu) studied by the report authors, it is stated that citizens are entitled to services as per the IPHS. However, the information should be given in simple, concrete and relatable terms so that the citizen's charter helps empower members of the community. There is thus a need for suitably designed citizen's charters to give citizens a clear, transparent, and concrete idea of their health service entitlements and rights.

8.3 Access and location factors

It is natural to expect that community members would usually prefer to visit facilities that are closer to their homes, because of the money and time costs of traveling to a far-off facility. The members of community participating in the FGDs in the three districts repeatedly pointed to distance as a consideration in choosing providers of choice. The survey respondents were asked which health facility is closest to their home.

Table 8.11 Facility closest to home in Barpeta district

Facility closest to home	Barpeta	Percentage
ANM/ASHA/MPW	198	(47.71%)
Sub-centre	178	(42.89%)
District hospital	12	(2.89%)
Medical college	12	(2.89%)
HWC	9	(2.17%)
Village store	2	(0.48%)
CHC	1	(0.24%)
Medical store	1	(0.24%)
Private doctor	1	(0.24%)
Private hospital	1	(0.24%)
NGO/Trust	0	(0.00%)
PHC	0	(0.00%)
Private clinic	0	(0.00%)
Grand total	415	(100.00%)

Source: Survey data

In Barpeta district, 47.71% respondents said ANM/ASHA workers are the providers nearest to them, which is followed by 42.89% respondents who said sub-centers are the facility nearest to their home. About 2.89% of participants said district hospital or medical college is the nearest health care facility, followed by 2.17% who named HWCs being the closest facility. Surprisingly, none of the respondents in Barpeta district said that PHC is the nearest facility for them.

Table 8.12: Facility closest to home in Golaghat district

Closest Facility to home	Number	Percentage
Sub-centre	225	(56.53%)
PHC	71	(17.84%)
CHC	57	(14.32%)
HWC	32	(8.04%)
ANM/ASHA/MPW	5	(1.26%)
Private hospital	5	(1.26%)
NGO trust	1	(0.25%)
Village store	1	(0.25%)
(blank)	1	(0.25%)
District hospital	0	(0.00%)
Medical college	0	(0.00%)
Medical store	0	(0.00%)
Private clinic	0	(0.00%)
Private doctor	0	(0.00%)
Grand total	398	(100.00%)

Source: Survey data

For the respondents of Golaghat district, sub-centers and PHCs followed by CHCs and HWCs are the health care facilities which are nearest to their house. According to the survey data, around 56.53% respondents in Golaghat said that sub-centers are the nearest facility, followed by primary health care centers (17.84%). Similarly, 14.32% respondents said their nearest facility is the CHC and around 8.04% respondents said HWCs are the nearest facility they have. However, the surveyed group of this specific district did not have a medical college or district hospital nearby their respective houses (it may be recalled that Golaghat district does not have a medical college).

Table 8.13: Facility closest to home in Nagaon district

Facility closest to home	Count	Percentage
Sub-centre	337	(78.01%)
ANM/ASHA/MPW	32	(7.41%)
District hospital	17	(3.94%)
PHC	17	(3.94%)
HWC	11	(2.55%)
CHC	8	(1.85%)
Private hospital	6	(1.39%)
Private doctor	2	(0.46%)
Private clinic	1	(0.23%)
Village store	1	(0.23%)
Medical college	0	(0.00%)
Medical store	0	(0.00%)
NGO/ Trust	0	(0.00%)
Grand total	432	(100.00%)

Source: Survey data

As seen in Golaghat district, in Nagaon too sub-centers are the closest health care facilities to people. Around 78.01% respondents said that sub-centres are the nearest facility they have. Only 7.41% respondents said ANM/ASHA workers are the providers nearest to their house. And an even lower, 3.94% respondents said that PHC is the nearest facility for them. Another 3.94% participants said that DHs are the nearest facility.

Table 8.14: Distance to the facility in districts

	Barpeta		Golaghat		Nagaon		Total	
<= 1km	315	(75.90%)	164	(41.21%)	139	(32.18%)	618	(49.64%)
1-2km	61	(14.70%)	83	(20.85%)	147	(34.03%)	291	(23.37%)
2.1-3km	14	(3.37%)	85	(21.36%)	71	(16.44%)	170	(13.65%)
3.1-5km	16	(3.86%)	58	(14.57%)	50	(11.57%)	124	(9.96%)
6-10km	9	(2.17%)	8	(2.01%)	22	(5.09%)	39	(3.13%)
>10km		(0.00%)		(0.00%)	3	(0.69%)	3	(0.24%)
Grand Total	415	(100.00%)	398	(100.00%)	432	(100.00%)	1245	(100.00%)

Source: Survey data

According to the table, for large number of respondents (almost 50% of the total surveyed group) the nearest health care facility is within the radius of 1km to their house, followed by 23.37% followed by a distance ranging between 1 to 2 km. District level figure also shows a similar trend, except for Nagaon.

Table 8.15: Travel time to reach facility

Time taken	Barpeta	Golaghat	Nagaon	Total
Less than 15 mins	275 (66.27%)	228 (57.29%)	226 (52.31%)	729 (58.55%)
Less than or equal to 30 mins	110 (26.51%)	134 (33.67%)	155 (35.88%)	399 (32.05%)
31mins to 1 hour	29 (6.99%)	36 (9.05%)	42 (9.72%)	107 (8.59%)
1 to 1.5 hours	(0.00%)	(0.00%)	5 (1.16%)	5 (0.40%)
2 to 3 hours	1 (0.24%)	(0.00%)	4 (0.93%)	5 (0.40%)
Grand total	415 (100.00%)	398 (100.00%)	432 (100.00%)	1245 (100.00%)

Source: Survey data

The above table shows the average travel time required for the respondents to reach the nearest health care facility. It shows that the largest share (58.55%) said they have to travel 15 minutes or less to reach the nearest health care centres; the respective district wise figures for the same are 66.27%, 58.29% and 52.31% for Barpeta, Golaghat and Nagaon respectively.

Table 8.16: Mode of travel to facility

Mode of travel to facility	Barpeta	Golaghat	Nagaon	Grand total
Walk	303 (73.01%)*	253 (63.57%)	388 (89.81%)	944 (75.82%)
Cycle	74 (17.83%)	115 (28.89%)	299 (69.21%)	488 (39.20%)
Auto	128 (30.84%)	103 (25.88%)	92 (21.30%)	323 (25.94%)
Motorcycle	14 (3.37%)	45 (11.31%)	71 (16.44%)	130 (10.44%)
Public transport	14 (3.37%)	35 (8.79%)	31 (7.18%)	80 (6.43%)
Shared private transport	1 (0.24%)	16 (4.02%)	30 (6.94%)	47 (3.78%)
Other		3 (0.75%)		3 (0.24%)
Total	415	398	432	1245

Source: Survey data

According to the table, around 89.8% participants from Nagaon, 73.01% respondents from Barpeta and 63.57% respondents from Golaghat reached the nearest health care centers by walking. Bicycle is the most popular mode of transport for the respondents in Nagaon district, with 69.21% survey respondents choosing it, followed by 28.89% from Golaghat and 17.83% from Barpeta. Similarly, around 25.94% of total surveyed respondents said they use auto as the mode of travel. This clearly raises transportation related OOPes in accessing primary health care facilities. The figures reveal that Barpeta district has the highest proportion of respondents who use auto (30.84%) which is followed by Golaghat (25.88%) and Nagaon (21.30%).

Table 8.17: Extent of difficulty in reaching health provider in the event of self/family illness

	Barpeta		Golaghat		Nagaon		Total Count of district	Total Count of district2
Yes	84 (20.24%)		31 (7.79%)		263 (60.88%)		378	(30.36%)
No	331 (79.76%)		365 (91.71%)		169 (39.12%)		865	(69.48%)
(blank)		(0.00%)	2 (0.50%)			(0.00%)	2	(0.16%)
Grand total	415	(100.00%)	398	(100.00%)	432	(100.00%)	1245	(100.00%)

Source: Survey data

The above table focuses on the share of respondents who faced difficulty in reaching health providers (hospitals/clinics/doctors). According to the table, around 60.88% respondents of Nagaon said they faced difficulty in reaching providers. It is the only district where majority of respondents faced such a difficulty. Majority of respondents from Golaghat (91.71%) and Barpeta (79.76%) faced no such problems.

Table 8.18: Reasons for difficulty in reaching health providers

	Barpeta	Golaghat	Nagaon	Grand total
Distance	53	6	127	186
Engaged in household work	22		193	215
Financial problem	75	6	233	314
Someone should accompany	2		119	121
Transportation facility	41	24	156	221
No permission to go alone			17	17
Other			2	2

Source: Survey data

When we tried to understand the major reasons for difficulty in reaching hospitals/clinics/doctors from the respondents' perspectives, it was found that financial burden accounts for a major share, as 233 respondents from Nagaon, 75 from Barpeta and six from Golaghat mentioned financial difficulty. Further, the next predominant problem for the respondents is transportation.

Similarly, 193 respondents from Nagaon and 22 respondents from Barpeta district say that their preoccupation with household activities makes difficult for them to travel along distance and reach the hospital. The table also shows that 121 respondents (119 from Nagaon and 2 from Barpeta) depend on some other people to accompany them to the hospital.

Table 8.19: Distance travelled for obtaining medicines

	Barpeta		Golaghat		Nagaon	
More than 10km	231	(55.66%)	62	(15.58%)	213	(49.31%)
5 to 10 km	179	(43.13%)	163	(40.95%)	134	(31.02%)
Available in the village	1	(0.24%)	68	(17.09%)	24	(5.56%)
Travel within 5km	4	(0.96%)	104	(26.13%)	60	(13.89%)
NA		(0.00%)	1	(0.25%)	1	(0.23%)
Grand total	415	(100.00%)	398	(100.00%)	432	(100.00%)

Source: Survey data

According to the above table, a major share of respondents from Barpeta (55.66%) and Nagaon (49.31%) districts had to travel more than 10 km for getting medicines. Whereas in Golaghat 40.95% of the total sampled respondents said they had travelled five to 10 km to purchase medicines, and the consecutive figures for Barpeta were 43.13% and that Nagaon is 31.02%. Further, 104 respondents from Golaghat, 60 from Nagaon and four from Barpeta said they travelled at least 5 km to get the required medicines. It is notable that lowest number of respondents from Barpeta – one - (0.24%) and Nagaon districts - four - (5.56%) said that medicines are available in their village. The figure for Golaghat was 68 respondents (17%).

Inputs on ease/difficulty of access to the PHC facilities and the mode of travel emerged in the community FGDs in the three districts. Predominantly, respondents mentioned need to use public transport for travelling to PHCs. While some said that such transportation was not available on time or affordable, others mentioned the problem of poor roads. One group said that public transport was affordable, but available only at specific times. The response of the women of Nobojyoti village of Golaghat illustrates how much pains some villagers have to take to reach PHCs:

“To reach the PHC is not affordable for us. Before reaching PHC, we can reach district hospital. Our village comes under Kamarbondha Ali BPHC, and as such we have to first travel to Golaghat town and then have to take another vehicle to reach Kamarbondha Ali, which is the hardest for us. It has become too costly for the villagers to reach the BPHC.”

In Geleki village of the same district, however, the men said it was easier for them to reach the HWC rather than the PHC. They said they face no difficulty in reaching HWC because it is near for them. They said they have to use public transport to visit the PHC, which is almost 12 km from the village. However, as the village is close to the main road, getting transportation is not a big problem.

In another FGD of Golaghat, women said that public transport is available during the daytime, but for the night, they have to hire private cars to reach the PHC. Other women said, “battery rickshaws” are more affordable to use to reach the PHC. In Nagaon, one section of women FGD participants mentioned using available autos to reach the PHC. In Nagaon, another group of women indicated difficulty in reaching PHCs because of transport and money problems, and the need to attend to home business.

In Barpeta, a group of men put forth their access-related challenges and preferences:

“The reason behind sometimes not visiting PHCs are poor services, difficulty in reaching the PHC because of communication and transportation problems. We would like to have a HWC or PHC within our village, or in a nearby village. Our PHC is far away from our village and we find it difficult to reach there. And we also need a doctor to visit our village with his team and provide free service at least two days in a month.”

8.4 Service experience and service perception with respect to PHC facilities

Service quality at primary health care institutions is a supply side factor that also shapes whether people would use such services repeatedly or recommend it to others. Service quality is examined using survey and FGD data in this section. The parameters looked at include waiting time, infrastructure and cleanliness, quality of communication with the doctor/CHO, perceived effectiveness of treatment and the cultural and gender appropriateness of care. The FGD respondents were also asked to describe their overall experience of visiting such centres, and the survey and FGD respondents were asked whether they would again visit the PHC/HWC.

8.4.1 Waiting time

Table 8.20: Waiting time to see doctor/CHO on last visit to primary health facility

Waiting time	Barpeta		Golaghat		Nagaon	
>two days	1	(0.24%)		(0.00%)	19	(4.40%)
Cannot remember	152	(36.63%)	37	(9.30%)	64	(14.81%)
Waited one or two days	10	(2.41%)	4	(1.01%)	20	(4.63%)
Waited two hours to whole day	11	(2.65%)		(0.00%)	15	(3.47%)
Waited 30 mins to two hours	159	(38.31%)	199	(50.00%)	118	(27.31%)
Within 30mins	75	(18.07%)	79	(19.85%)	190	(43.98%)
(blank)		(0.00%)	3	(0.75%)		(0.00%)
NA	7	(1.69%)	76	(19.10%)	6	(1.39%)
Grand total	415	(100.00%)	398	(100.00%)	432	(100.00%)

Source: Survey data

According to the table, 50% respondents of Golaghat and 38.31% respondents of Barpeta district said they waited for 30 minutes to two hours, whereas a large portion of respondents of Nagaon districts (43.98%) had waited less than 30 minutes.

FGD participants were asked whether they would prefer to be served tea or food when they waited for their services at PHCs. While some felt that these would refresh them and alleviate the boredom of waiting, many others did not feel any need for food or tea to be served.

8.4.2 Cultural appropriateness

Since cultural appropriateness is related to the acceptability of care, FGD participants were asked about their perception of PHC services on this parameter. Most FGD participants said the PHC/HWC staff were respectful of their culture and customs. Some mentioned that the staff was from their own community, while others indicated preference for staff from their own community.

Most emphasized that quality of care and availability of a wider range of services were more important considerations than having staff from one's own community.

In FGDs in Barpeta, members of the community shared that the PHC staff evinced interest in the festivals of their community and would also join these celebrations at times. In Golaghat, one group of FGD participants expressed preference for doctors and nurses from their tribe (Missing or Mishing). In one FGD in Golaghat, participants said that the doctor and nurses often hesitate to touch the patients who belong to their particular community, but also admitted that the people of their community were often drunk.

In another FGD of Golaghat district, the perception of the women from the tea garden labour community was that the staff from a different community do not understand their culture.

In Nagaon district, it was shared in more than one FGD that the doctors/staff were from a particular community, and due to their cultural beliefs, they were unable to deliver first aid or health care services at particular times. At such times, the villagers need to turn to other options when care is urgently needed.

FGD participants were also specifically asked about the gender appropriateness of care. Male participants mostly expressed comfort with care delivered by staff of either gender, but women participants from all three districts often expressed preference for staff from the same gender. In Barpeta, some women said, "Usually we feel uncomfortable with male doctors because maximum patients are ladies. In the PHC, female doctors are rare, so we need more female doctors." In Golaghat, women said that they could freely discuss certain issues such as menstruation, pregnancy, and contraception-related aspects with female doctors only. In Nagaon, some women said, "In most cases the patients are attended by the same gender. If the other gender staff visits, then we feel a bit uncomfortable, but we have to share our problems, keeping our embarrassment aside. It's not a big deal, but if the staff is of same gender then we feel more comfortable." In Nagaon, a rare male perspective was also expressed: "Generally when a male visits the PHC, he is greeted by a male doctor. In case he is greeted by a female, he would hesitate to speak and would be uncomfortable to express himself."

Another aspect of cultural appropriateness is linguistic appropriateness of spoken and written communication. Across the board, participants in all three districts expressed their ability to follow spoken communication by the doctors and staff, which was in the Assamese language. Not all participants were, however, able to follow the notice boards, IEC materials etc. In Barpeta, a section of non-Assamese speaking participants said, "We can't understand the notices, health education materials, prescriptions etc and these are not readable for us. We don't understand the language they write in prescriptions. We understand the language they use to speak but we can't speak in their language." Inability to understand the prescriptions written in English was a common problem expressed in all three districts. Some people expressed illiteracy as a reason for being unable to follow written communication.

8.4.3 Experience of visiting PHC and whether members of community would visit again

Members of the community assess their experience of visiting PHC facilities on a number of criteria, including waiting time, medicine availability and expenses, cleanliness and infrastructure, behaviour of staff and perceived effectiveness of treatment etc.

The FGD participants' experiences of visiting primary health centres are presented in the text box below in the following extracts from the FGD proceedings in the three districts. The diversity of patients' experiences

and the salience of key factors such as medicine and diagnostics availability, staff behaviour, waiting time, quality of communication, preference for specialists and facility cleanliness are evident from the perspectives presented below.

Text Box 8.1: FGD participants' experiences at PHC facilities

“Our experience of visiting the PHC/HWC is not bad. What we like about PHC/HWC is that the behaviour of doctor and other staff is respectful and polite. Rarely it has happened that we have gone to the centre and they were late. They properly explain how to take medicine doses, what to do or not to do. Something we don't like about PHC/HWC are that lab or diagnostic facilities are not being available.” (Barpeta, women's FGD)

“We are not satisfied with the services at the PHC. It needs better inpatient facilities, doctors and good quality treatment.” (Golaghat, women's FGD)

“The doctor at PHC often remains in a hurry because there are so many patients there. But in the HWC, the doctor takes more time for check-up.” (Golaghat, men's FGD)

“Our experience in visiting PHC is mixed – both good and bad. What we like is that the doctor asks about the diseases respectfully and behaves in a polite way. He listens to us carefully. Things that are not good are that medicines that have been prescribed are not available, sometimes doctors are not available, and we need to wait in a long queue.” (Nagaon, women's FGD)

“The services provided by the PHC is quite satisfactory. Some improvements need to be made, like clean environment, availability of specialist doctor, and the number of ambulances need to be increased.” (Nagaon, women's FGD)

“The behaviour of the doctor is not good, but other staff respects us. Treatment is available only for minor illnesses and waiting time is too long.” (Nagaon, women's FGD)

“The experience of visiting the PHC is both good and bad. The things that we liked are that they (staff) are polite, the doctor's room is clean, doctor comes in at regular time, listens properly and lab facilities are free. However, the things that we dislike are that the staff don't give enough time, they just check in a hurry and doctors room becomes dirty as the day passes. Most medicines are not available.” (Nagaon, women's FGD)

“The overall experience is bad. The behaviour of doctors is not good, nurses and doctors demand informal payment and disrespect patients, medicines are not available and the environment of the PHC is not good. There is long waiting period and no diagnostic facilities.” (Nagaon, men's FGD)

“PHC/SHC need improvement, because at the PHC, there is no specialist doctor and in case of the sub-centre, only minor ailments are treated. Sub-centre is helpful more for pregnant women but not so much for males. The males could get minor ailments checked like sugar, pressure only.” (Nagaon, men's FGD)

“Mostly PHCs refer to other hospitals so we are not happy with the facilities, and some staff behaviour is also not good.” (Nagaon, women's FGD)

“Improvements needs to there at PHC and sub-centre. In PHC, specialist doctors need to be there - like eye, dental, gynaecologist. In sub-centre, the trained ANM could not provide all the treatment, because for that she needs the required medical equipment and medicine supply.” (Nagaon, women's FGD)

Regarding regularity and opening hours, participants mostly said that they found the opening hours of PHC facilities convenient.

A section of women in Nagaon said, “Opening hours of the PHC are convenient because all women get free after feeding the household members and sending their husband to work and the children to school.”

On the effectiveness of treatment, some participants felt that the treatment at PHCs/HWCs only offered relief from symptoms, while others felt that it also helps overcome or treat the disease. One section of the participants felt that the treatment was effective only for minor illnesses.

The FGD participants were also asked about their perception of the inpatient facilities at PHCs. Those who had used such facilities expressed largely negative views of the same:

- Most medicines have to be purchased by them, and the nurses sleep during the night duty. (Golaghat, women's FGD)

- The treatment received is quite acceptable, but as the time passes the environment gets dirty and it smells. (Nagaon, women's FGD)
- Those who have used the inpatient facilities at PHC, are not happy with the care provided facilities because the doctor does not maintain regularity, they do not check the patient regularly, most of medicine need to be purchased, and they need to spend money for food. (Nagaon, men's FGD)

In a women's FGD in Golaghat district, participants said that, "No one is there who is not visiting the PHC. Because they have no other option." This indicates that patients often feel compelled to visit in spite of dissatisfaction with such facilities. Nevertheless, some participants in the three districts did state that they don't visit such facilities. Their reasons for not visiting PHCs/HWCs are listed in the text box below:

Text Box 8.2: Participants' reasons for not visiting PHC facilities

"Most of the time we don't visit PHC because the treatment at the PHC does not completely cure our disease. There is no qualified doctor for treatment and proper medicines are not available." (Barpeta, women's FGD)

"We don't visit PHCs because of long waiting, lack of cleanliness, rude behaviour, and non-availability of doctors and specialists." (Nagaon, women's FGD)

"Reasons for not visiting PHC are - in PHC people need to take long line, have to wait, whole day gets spent, specialist doctors are not available, and sisters (nurses) do not behave properly with us." (Nagaon, women's FGD)

"Mainly, we do not want to visit PHC in emergency condition." (Nagaon, women's FGD)

Table 8.21: Whether respondents would visit the same doctor/CHO at PHC/HWC when they fall sick

	Barpeta	Golaghat	Nagaon	TOTAL	
Yes (2.89%)	12 (20.35%)	81 (35.88%)	155	248	(19.92%)
No	258 (62.17%)	167 (41.96%)	192 (44.44%)	617	(49.56%)
Notsure	96 (23.13%)	104 (26.13%)	65 (15.05%)	265	(21.29%)
NA	49 (11.81%)	44 (11.06%)	20 (4.63%)	113	(9.08%)
No response	(0.00%)	2 (0.50%)	(0.00%)	2	(0.16%)
Grand total	415 (100.00%)	398 (100.00%)	432 (100.00%)	1245	(100.00%)

Source: Survey data

In Barpeta district, 62.17% survey respondents stated that they would not visit the same doctor/CHO at the PHC/HWC and only 2.89% said that they would visit the same doctor/CHO again. In Golaghat, 41.96% stated that they would not visit the same doctor/CHO again. In Nagaon 44.44% stated that they would not go to same Doctor/CHO. To consider the average of three districts, 49.56% stated that they would not go to same Doctor/CHO. Only 19.92% respondent in the three districts stated that they would go to the same Doctor/CHO.

Women participating in a FGD in Nagaon opined that, "We are not sure about visiting the doctor at PHC the next time, because some of the diseases are cured but others are not.

The doctors' behaviour is good, but if the health condition does not improve, then people don't like to visit the same doctor again." Other FGD participants in the same district said that they would visit the PHC doctor again only for minor illnesses.

8.5 Empowerment and engagement of people and communities

Four factors are examined here: health education and awareness, community outreach of primary health care services, the reach of preventive and promotive approaches and the use of communitycentred disease management innovations, such as patient groups.

8.5.1 Health education and awareness

The FGD participants were asked about the role of ASHAs and ANMs in imparting information pertaining to health issues and topics on which they would prefer more information. Inputs expressed by the participants are summarized below:

8.5.1.1 Role of ASHAs and ANMs in health education and awareness

- Participants have commonly encountered information on disease prevention(such as handwashing, boiling drinking water, preventing malaria etc) given by the ASHAs
- Tobacco and alcohol addiction is common. While ASHAs have been explaining the bad effects of such addiction, they (members of the community) have not followed the advice of the ASHAs. Some men in Nagaon said that the sub- centre conducted health awareness camps and demonstrated the negative consequences of chewing tobacco and smoking by showing pictures of persons suffering from cancers such as oral cancer
- Male participants often felt that ASHAs and ANMs never told them about how to prevent disease; they felt that only pregnant woman, new mothers and newborn babies get some services from the ASHA/ANM
- One expressed demand was that the ASHA/ANM should visit every home twice a month to enhance the awareness of diseases
- On the VHND (village health and nutrition day), the ANM/ASHA and the VHNSC representatives visit the sub-centre and speak to pregnant women about how to take care of themselves and their babies. With respect to the VHND meetings, the ASHA's role is also of social mobilization for women and children to attend the VHND. In the VHND, the ANM is the service provider who delivers immunisation, antenatal care, identification of complications, and family planning services (NRHM, 2013)
- An interesting view was expressed by an ASHA in Nagaon district, regarding the effectiveness of IEC/health education activities: "Doctors and other position-holding people need to speak while conducting meetings, so that people would listen to them carefully, owing to their designation." (ASHA IDI, Nagaon)

8.5.1.2 Health topics on which participants expressed the need for more awareness

- Skin diseases
- Gastric issues
- De-addiction for chewing tobacco
- Causes of skin and breast cancer,
- Tuberculosis
- Kidney and nerve problems
- Fatty liver disease
- Diseases such as epilepsy, high blood pressure and non-stop vomiting
- Causes of body pain
- Eye problems
- Communicable diseases such as Japanese encephalitis, diarrhoea, typhoid
- Gall bladder disorders and diabetes
- Frequently suffered problems of low and high blood pressure

8.5.1.3 Use of community centred disease management approaches

Across the FGDs in Barpeta and Golaghat, men and women either said they were unaware of patient groups for disease management or they mentioned that they were not part of such groups. While there were no patient groups in Nagaon as well, the male participants said they were following the essential idea of patient groups through their own initiative. They said those who have blood pressure, diabetes, stomach problems, kidney problems, nerve problems etc have discussions with each other about the disease. This has helped them in dealing with the illness, they said.

8.5.2 Effectiveness of community outreach of primary health care services

- While some villagers felt that the ASHA was accessible to meet them, a much larger share felt that the ASHAs are not available when they are needed, and their home visits are not sufficiently frequent. In Barpeta, some women complained that ASHAs were taking money from them but not giving any benefits, while some men complained that they never get any medicines from the ASHAs. In Golaghat, some men, however, said that the ASHA helps them by providing medicines for cold, cough such minor illnesses.
- Some felt that ASHAs should be more regular and should be trained to perform their duties better. It was also felt that the ASHA needs to be more in the field rather than the facility headquarters.
- A group of women in Golaghat said that the ANM and MPW (male) are working properly and are doing home visits and at the time of flood, are helping the people. Even though the ASHA belongs to their tribe, they want to change her because of her lack of interest in work, because of which they were disadvantaged.
- A group of men at Golaghat said that most of them are suffering from blood pressure and diabetes. The check up for the same is being done at tea garden hospitals and HWC, but no check-ups are happening from ASHA and ANM. They said that they didn't even know if ASHA or ANM can provide such services.
- In the context of the expectations from the ASHA and indications of some sections of the community being dissatisfied with them, it is pertinent to look at the challenges and grievances of the ASHAs as well. Most of the ASHAs interviewed in this study felt that they were not compensated enough for their time and effort and wanted better payments.

The received incentives mentioned by the ASHAs ranged between nothing and \$40.6 (₹3000). While ASHAs are paid incentives, some ASHAs mentioned a preference for a stable salary. A few ASHAs also expressed the desire for smartphones and space to conduct their activities.

Text Box 8.3 Challenges faced by ASHAs (as expressed by interviewed ASHAs)

- Incentives are not sufficient: \$8 (₹600) is given for every delivery. Per month she gets just \$27 (₹2 000) (Golaghat)
- The incentives are not static and change with time. Initially, they were getting \$13.5 (₹1 000). Last time she got \$40.6 (₹3 000) as incentive. She needs permanent salary rather than incentives. (Golaghat)
- The ASHA said that she receives \$2 (₹150) as incentive for her services in the 4th ANC, for one VHND meeting she gets \$2.7 (₹200) and from BPHC she gets \$27 (₹2000) per month. In the last month, she got her last incentive (Golaghat)
- Seeing the workload, the payment needs to be increased a bit because sometimes ASHA has to spend from her own pocket in order to conduct a programme (Nagaon)
- Communication is a bit of a problem, so if the government provides smart phones, then it would be easy to access data. For conducting any activities, there is no space at the sub-centre (Nagaon)
- If they get TA in regular time-basis then it will help them to work better (Nagaon)
- "Haven't got any kind of incentive for service yet. If I use a cycle for better communication, then I could do more work in less time. If I could get access to the needed medicines and training, and if I get better payments then I would be motivated to do my work better" (Nagaon)

- “Sometimes, we get incentives, but not as much as needed. My payment is \$13.5 (₹1 000) only and for delivery, I get \$8 (₹600) only. We want more payments; 108 ambulances should be serviced immediately. We want training and there should be every kind of medicine” (Nagaon)

8.5.3 The reach of preventive and promotive services

The table below indicates that the outreach of preventive and promotive services among members of the community needs to be strengthened:

Table 8.22: Health seeking and health information dissemination

	Barpeta	Total	Golaghat	Total	Nagaon	Total	Total count of district	
Sputum test – TB	10 (4.21%)	237	110 (34.48%)	319	15 (4.13%)	363	135 (14.68%)	919
Blood test – malaria	25 (10.77%)	232	50 (60.97%)	82	119 (31.23%)	381	193 (27.41%)	704
Health education – household	19 (4.85%)	391	107 (27.36%)	391	240 (55.68%)	431	366 (30.17%)	1 213
BP check – only among 40 year old and above	43 (11.13%)	386	89 (25.21%)	353	96 (22.96%)	418	228 (19.65%)	11 60
Advice on healthy diet	11 (25%)	44	23 (17.42%)	132	85 (37.44%)	227	119 (29.52%)	403

Source: Survey data

In Barpeta district, 237 respondents from malaria endemic parts of the district stated that they had a week-long fever. Out of these 237, only 10 (4.21%) did sputum test for TB and of the 232 respondents who had fever, only 25 (10.77%) did blood test for malaria. Out of 391 respondents only 19 (4.85%) stated that they have received health education on hand wash and ORS packet from ASHA/ANM/MPW in the month of June.

Out of 386 respondents who were above 40 years of age, only 43 (11.13%) said they had their BP checked in the past six months. Of the 44 respondents, who said a family member was suffering from chronic disease, only 11 (25%) stated that they have received advice on healthy foods and diet.

In Golaghat district, 319 respondents from malaria endemic parts of the district, had week-long fever, but only 110 (34.48%) had undergone sputum test for TB. For malaria, though 82 survey participants had fever, only 50 (60.97%) had taken a blood test. And of the 391 respondents only 107 (27.36%) said they have received health education on hand wash and ORS packet from ASHA/ANM/MPW in the month of June. Out of 353 respondents, who were above 40 years of age, only 89 (25.21%) said they had their blood pressure checked in the last six months. And of the 132 respondents who said they had a family member suffering from chronic disease, only 23 (17.42%) had received advice on healthy foods and diet.

In Nagaon district, 363 respondents from malaria endemic parts of the district stated that they had a week-long fever. Out of these 363 only 15 (4.13%) had undergone a sputum test for TB. In Nagaon district, of the 381 respondents who had fever, 119 (31.23%) did blood test for malaria. More than half of the 431 respondents - 240 - (55.68%) stated that they have received health education on hand wash and ORS packet from ASHA/ANM/MPW in the month of June. Of the 418 40-plus respondents only 96 (22.96%) said they had their blood pressure checked in the past six months. Only 85 (37.44%) said they have received advice on healthy foods and diet out of the 227 survey participants who said a family member was suffering from chronic disease.

8.6 Reinvented model of care

Monitoring population health status, population empanelment, use of technology, and referral and back referral are the four elements of the redefined model of care (under the people-centred health care paradigm) discussed below. The discussion is based largely on the inputs of the CHOs of the HWCs, as these elements are more relevant to HWCs than basic sub-centres.

8.6.1 Health needs assessment, monitoring population health status and surveillance

Only the CHO of the HWC in Golaghat mentioned that screening and early detection of NCDs was prevalent

in his HWC. There was consequent referral of the detected cases to the higher levels. The other HWC CHOs did not mention early screening as being done.

8.6.2 Population empanelment (whether being done)

It was only in the HWC of Golaghat district that the CHO mentioned that population empanelment was happening, though details on the same were not forthcoming. In the absence of technological solutions such as the apps, it is likely that such attempts are being made at a very rudimentary level.

8.6.3 Sharing of electronic medical records, unique health id and other technological solutions

The CHO of the HWC in Golaghat district said that although patient records are maintained in written form, there is no computer facility at the HWC because of which electronic medical records cannot be maintained. While there is no system of SMS alerts to remind patients of their appointments, the CHO said that “ASHA and ANM can be considered as reminder for patients.”

In the other two HWCs covered, CHOs mentioned that patient records were maintained manually and not shared. In Barpeta, however, the CHO mentioned that patient cards were being used, but in Nagaon no such cards were used.

8.6.4 Referral and back referrals

Primary health care facilities, especially those like sub-centre/HWCs that lack medical doctors, should know how and when to refer appropriately when the case exceeds their competence. The Ayushman Bharat guidelines, however, do envisage a back-referral role for HWCs. It is expected that once the PHCs or higher facilities have confirmed diagnosis and initiated medication for NCD patients, the HWC staff, such as CHOs continue regular check-ups and refill medication for the patients. Following were the CHO views expressed on referrals and back referrals:

“After showing to the higher facilities, most people do not come back. This is because they might have got cured.” (CHO, HWC in Barpeta)

Every month, three to five patients are referred by the CHO to other places when the CHO finds their illnesses risky or complicated. Most patients are referred to PHC, some are referred to DH and rest to medical college. Very few patients come back for follow up, but the chronic disease patients do. For emergencies, Bokakhat PHC is the nearest referral centre.

“Referred 42 patients from HWC to higher centres, mostly civil hospitals. Of the referred patients, 16 have come back to HWC for follow-up.” (CHO, HWC, Nagaon)

Members of the community covered in the FGDs mentioned the following issues faced when they are referred to higher facilities by PHCs or HWCs:

We could not visit the referred higher facility due to financial constraints. (Men from Barpeta and Golaghat)

Referral to DH or other hospitals is required. However, it does not happen smoothly because of communication problems, transportation problem, financial problems etc. (Barpeta, men)

The PHC mostly refers the ‘risky’ patients to DH and other places. But they are far away and due to the distance, they are not able to continue the treatment. (Golaghat, women)

Referral and the subsequent treatment is done smoothly because the DH is not far away the village. (Golaghat, women)

8.7 Regression Analysis: How predisposing, enabling, need-based and supply side factors shape the utilization of PHC

8.7.1 Regression of predisposing and need-based factors on utilization

A binary logit model was fitted to identify the impact of predisposing and need-based factors combined with supply-side factors on the demand for or utilization of primary health care facilities.

For the model “whether ever visit PHC centers such as PHC/HWC/sub-centre is taken as the dependent variable. The independent variables were all the pre-disposing and need-based factors in combination with a few supply side variables. The regressor variables include both continuous and factor variables.

Impact of continuous variables are captured as it is, and the impact of categorical or factor variables are mapped/measured in comparison with a base category. The set of regressor variables included in the model is given in the table below:

Table 8.23: Variable and variable category

Variable name	Variable category
Location/district	Pre-disposing factors
House type	Pre-disposing factors
Presence of in-house toilet	Pre-disposing factors
Social category	Pre-disposing factors
Type of ration card	Pre-disposing factors
Gender of the respondents	Pre-disposing factors
Education of the respondent	Pre-disposing factors
Age of the respondent	Pre-disposing factors
Source of drinking water	Pre-disposing factors
Family members being affected by communicable disease in last one year	Need-based factors
Family member having noncommunicable disease	Need-based factors
Household being paid delivery/pregnancy expenses in last one year	Need-based factors
Presence of disabled persons in the family	Pre-disposing factors
Family members undergone outpatient care in last 15 Days	Supply side factors
Time required to reach nearest health care facility	Supply side factors
Distance between house and the nearest health care facility	Supply side factors
Met with doctor at PHC/sub-centre/HWC in last one month	Supply side factors
Waiting time waited to meet doctor	Supply side factors
Availability of medicines for acute illness at nearest place	Supply side factors
Availability of chronic illness treatment at nearest place	Supply side factors
Distance travelled for medicine	Supply side factors

Table 8.24: Factors influencing the demand for primary health care

Variables	Coefficients	Standard error
District (Golaghat)	3.1326*	0.3228
District (Nagaon)	3.2631*	0.2913
Pucca (brick)	-0.2155NS	0.2307
Semi-pucca (brick-mud)	-0.0914NS	0.2626
Toilet in house	-0.0117NS	0.2186
OBC/minority	0.5892*	0.2227
SC	-0.7132**	0.2960
ST	0.7304***	0.3886
Antodaya	0.3822NS	0.6631
APL	0.0194NS	0.2871
BPL	0.0345NS	0.2402
Age	-0.0014NS	0.0070
Male	-0.0023NS	0.1668
Transgender	-0.1162NS	1.2577
Illiterate	0.0627NS	0.5453
Schooling	-0.0234 NS	0.1934
PUC/diploma	0.4497 NS	0.3889
Graduation and above	-0.0582 NS	0.4297
Communicable disease	0.3213 NS	0.4617
Noncommunicable disease	0.2500 NS	0.1947
Childbirth expenses	1.1372*	0.3379
Outpatient treatment	0.1631 NS	0.3050
Travel time 1 - 1.5hr (to nearest facility)	-2.3646 NS	1.6512
Travel time 0.5 -1hr (to nearest facility)	-0.4048 NS	1.2736
Travel time less than 0.5hr (to nearest facility)	-0.1183 NS	1.2581
Distance travelled less than 1km (to nearest facility)	1.2638*	0.4882
Distance travelled less than 1 – 2km (to nearest facility)	0.5902 NS	0.4919
Distance travelled less than 2 – 5km (to nearest facility)	0.5571 NS	0.4803
Waiting time more than two days (to meet doctor)	-1.2088***	0.6539
Waiting time 1 – 2 days (to meet doctor)	-0.4612	0.5857
Waiting time 2 hrs (to meet doctor)	-0.1831	0.3621
Waiting time - can't remember (to meet doctor)	-0.3278	0.4047
Met doctor in the PHC/sub-centre/HWC	1.2752*	0.2713
Availability of medicine for acute illness (always)	2.1112*	0.6950

Availability of medicine for acute illness (some time)	1.1568*	0.3567
No idea about availability of medicines for acute illness	1.6760***	1.1016
Availability of medicine for chronic illness (always)	-2.6526*	0.6419
Availability of medicine for chronic illness (some time)	-1.5276*	0.3529
No idea about availability of medicines for chronic illness	-1.5276**	0.9229
Distance travelled for medicine - 5km	-0.7807***	0.4166
Distance travelled for medicine - 5 to 10km)	0.2220 NS	0.4044
Distance travelled for medicine (>10km)	0.1657 NS	0.4150
Log likelihood Ratio = -505.2928 Pseudo R2 = 0.3906		

*: Significant at 1% level

** : Significant at 5% level

***: Significant at 10% level

NS: Non-significant

From the model output, it can be observed that among the set of predisposing factors considered in the model, only location and social category of the respondents are found to have significant impact on the demand for PHC facilities. Various other factors, such as gender of the respondent, their education level, economic indicators like economic card holding, house type, availability of toilet in the house etc., remained constant or in other words didn't show any significant effect on utilization. Almost all the supply side and need-based factors seem to have significant impact on utilization of primary health care.

Among the predisposing factors, location showed a positive impact. As per the model, irrespective of the districts in which the surveyed respondents are residing, each respondent is positively disposed towards visiting such facilities. On the other hand, among the social groups, respondents belonging to ST and other backward castes or minorities are more likely to visit PHC facilities in comparison with respondents belonging to general category. However, the probability of visiting PHC facilities for the respondents belonging to SC is lower in comparison with that of respondents belonging to the general category.

Similarly, among the need-based factors, only the respondents or their family members having paid for delivery expenses showed significant and positive impact on utilization. The presence of any communicable and noncommunicable disease didn't show any significant impact on utilization. Further, the distance travelled by the individuals to reach the nearest health care facility and waiting time to see doctors after reaching, showed remarkable impact on visiting the PHC facilities. According to the model, if the nearest health care facility is within a 1 km radius, or if the distance is walkable, then only the individual respondents are more likely to visit the health care facility. On the contrary, with increasing waiting time, the probability of respondents visiting health centers again reduces. Similarly, availability of medicines (both for acute and chronic illness) and distances the individuals need to travel for these medicines, showed significant impact on visits to the PHC facilities.

8.7.2 Regression of enabling factors on utilization

A binary logit model was also fitted to identify the influence of enabling factors on the demand for PHC services and facilities. For the model, "whether ever visit primary health care centers such as PHC/sub-centre/HWC" is considered as the response variable and all the enabling factors were considered as regressor variables. The independent variables include both continuous and factor variables. The set of regressor variables included in the model is given in the table below:

Table 8.25: Variable and base category

Variable Name	Base Category
Type of ration card	No Ration card
Having and type of health insurance	No health insurance
Mode of travel to health care facility	No for each separate category

Difficulty in reaching hospital	No difficulty
Facing financial difficulty as a result of health care expenses	Always
Reduced spending on essentials items	No
Source of finance for treatment	No for each separate category
Total land holding	More than 5 acres
Having assets related transport, information and communication	Owning no such assets
Monthly family income	–
Monthly family expenditure	–
Total loan amount on the family	–

Table 8.26: Factors influencing demand for PHC

Variables	Coefficients	Standard error
Antyodaya	0.0568NS	0.7021
APL	-0.4477NS	0.3211
BPL	-0.2608NS	0.2727
Having government health insurance	0.9121*	0.2143
Having private health insurance	0.3280NS	1.2167
Difficulty in reaching hospital	-0.7645*	0.2360
Mode of travel to nearest health facility (auto)	-0.74620*	.2685
Mode of travel to nearest health facility (bicycle)	-1.0335*	0.2443
Mode of travel to nearest health facility (motorcycle)	0.0711NS	0.3469
Mode of travel to nearest health facility (public transport)	-0.8679**	0.4237
Mode of travel to nearest health facility (private transport)	0.4105NS	0.6227
Mode of travel to nearest health facility (walk)	0.2586 NS	0.3255
Never faced difficulty in travelling	-0.3920NS	0.4168
Sometimes faced difficulty in travelling	-0.0764NS	0.2722
Reduced expenses on essential items	0.1513 NS	0.2317
Having bicycle	0.2792 NS	0.2573
Having cars	-0.6264 NS	0.4167
Having internet facility	-0.4472 NS	0.2750
Having scooter	0.0726 NS	0.2671
Having smart phone	0.0481 NS	0.2471
Having TV	0.2047 NS	0.2298
Money borrowed from relatives	-0.2399 NS	0.2396
Friends contribution	-0.0594 NS	0.2369
Spent from savings	-0.0344 NS	0.3719
Spent by selling assets	-1.3022*	0.3022
Small farmers	1.4780 NS	0.9998
Marginal farmers	2.0685**	0.9737
No land holding	1.8551***	0.9901

Monthly income	0.00001 NS	0.00001
Monthly expenditure	-0.0001 NS	0.0066
Total loan on family	-3.27e-06**	1.58e-06
Log likelihood Ratio = -448.1704 Pseudo R2 = 0.4585		

*: Significant at 1% level

** : Significant at 5% level

***: Significant at 10% level

NS: Non-significant

From the regression output, it is observed that the availability of health insurance, travelling convenience in terms of both distance and facility available, and affordability of medical expenses play a significant role influencing demand for PHC facilities.

Based on the model, respondents having a government health insurance plan are more likely to visit PHC/sub-centre/HWC than individuals who do not have a health insurance plan or the persons who have a private health insurance.

From the previous model where we tried to map the impact of predisposing and supply side factors on the utilization of PHC facilities, it is confirmed that with increasing distance between the respondents' house and the nearest health care facility, the probability of the respondent visiting the PHC reduces. Similarly, among the enabling factors, difficulty in reaching hospital and challenges in transportation also have adverse impacts on utilization. According to the model, respondents who had faced difficulty in reaching the nearest health care facility are less likely to visit the facility again in comparison with persons who had faced less difficulty or no difficulty. Similarly, the respondents who had travelled either by auto or bicycle or public transport are also less likely to travel to the facility again (which may be due to the long distance between the respondents' house and the health care facility). The lower probability of visiting the health care facility may also be due to the difficulty faced by them in travelling by public/shared transport.

Further, the affordability of the medical expenses also showed negative impact on the demand for PHC facilities. As per the model, the respondents who had to sell their assets to pay medical expenses and also the families who were burdened with an existing loan (may be due to medical or other expenses) have lower probability of visiting the PHC/sub-centre/HWC in comparison with the groups who are financially sound. Further, the landholding by the respondent's family or by the respondents themselves also showed significant impact on visiting PHC centres (those with no landholding are more likely to visit).

8.7.3 Regression model for 'level of care' for outpatient care seeking

A binary logistic regression model was fitted to identify the factors which may influence the respondents' choice of level of care for outpatient services.

For the model, 'level of care' chosen by the respondents/family members (i.e., visiting PHC/sub-centre/HWC in the last 15 days for outpatient care) is taken as dependent variable, and the set of independent variables is given as follows (the independent factors include predisposing, need based and enabling factors).

Table 8.27: Variable descriptions

Independent variables	Independent variable category
Location/district of the respondents	Pre-disposing
House type of the respondent	Pre-disposing
Social category	Pre-disposing
Type of ration card	Enabling factor
Age	Pre-disposing
Number of days on restricted activity	Need-based factor
Number of days confined to bed	Need-based factor

Category of disease (chronic or other)	Need-based factor
Total number of days ailment	Need-based factor
Respondents undergone surgery	Need-based factor
Received Ayush medicine	Supply side factor
Receiving non-Ayush medicine	Supply side factor
Diagnosing tests	Supply side factor
Total expenditures	Supply side factor
Sources of finance	Enabling factor

The regressor variables includes both continuous and factor variables. From the regression output, it is observed that only a few variables such as age, number of days confined to bed, whether received AYUSH medicine, total medical expenses and major source of finance have significant impact on the dependent variable. However, none of the other variables such as location/ residing district of the respondents, social and economic card holding categories have significant impact on the level of care chosen. The age variable seems to have positive significant impact on the level of care with a coefficient value of 0.0307, indicating that with advancing age, the probability of an individual reaching for outpatient care at the PHC/sub-centre/HWC also increases.

However, on the other hand both the expense-related variables, such as total medical expenses and borrowing money from friends to meet medical expenditures, seem to have a negative impact on care seeking at the PHC/sub-centre/HWC.

Table 8.28: Factors influencing level of outpatient care

Variables	Coefficients	Standard Error
Golaghat	-2.8479NS	1.9394
Nagaon	-0.9787 NS	1.5927
Pucca house (brick)	-0.2768 NS	0.8281
Semi-pucca house (brick and mud)	0.9239 NS	1.0993
OBC/minority	1.0101 NS	0.8948
SC	-0.5839 NS	1.0443
ST	3.2942 NS	2.1476
APL	-0.5276 NS	1.1508
BPL	0.9871 NS	0.9377
Age	0.0307***	0.0186
No. of days under restricted activity	0.0857 NS	0.0619
No. of days confined to bed	-0.2298**	0.1005
Presence of chronic illness	0.0718 NS	0.9365
Undergone surgery	-0.8672 NS	1.0790
No. of days under ailment	0-.0019 NS	0.0027
Received Ayush medicine	0.2400***	0.9272
Received non-Ayush medicine	1.6480 NS	0.8734
Done diagnostic tests	0.6946 NS	1.0039
Borrowed money from friends for medical expenses	-3.9736***	2.1427
Spent from savings	-1.4739 NS	1.6437

Total medical expenses	-0.0002*	0.0001
Log likelihood ratio = -38.0088 Pseudo R2 = 0.3703		

*: Significant at 1% level
**: Significant at 5% level
***: Significant at 10% level
NS: Non-significant



Chapter 9

Health needs and the gaps in meeting health needs



Health needs have two-fold significance from the point of view of the demand for PHC. Firstly, need-based factors are the demand-side factors (in addition to the predisposing and enabling factors) that shape the demand for health care.

Secondly, the gaps in the meeting of health needs – including those for vulnerable groups such as adolescent girls, pregnant women, and the aged – point to the areas that health systems need to specially address, keeping in mind the Sustainable Development Goal 3 – “Ensure healthy lives and promote well-being for all at all ages.” Health systems would need to invest efforts to stimulate awareness and coverage and reduce supply side deficiencies to address such health gaps.

This chapter focuses on the gaps in meeting health needs for certain vulnerable sections of the population. The chapter is entirely based on primary data from the survey of respondents and their family members. The topics covered are:

- Health-related knowledge among the adolescent girls and role played by frontline workers
- Maternal care
- Mortality: extent of hospitalization/medical attention before death
- Needs of senior citizens

9.1 Health-related knowledge among adolescent girls and role played by frontline workers

The awareness and health of adolescent girls has implications for their future sexual and reproductive health status and also for the health of the children that they would give birth to in future. In Barpeta, 129 adolescent girls, and in both Golaghat and Nagaon, 127 girls each were interviewed to get insights on the unfulfilled health needs of this group. A total of 383 girls were interviewed in all three districts.

Table 9.1: Whether information about menstrual hygiene given

	Barpeta	Golaghat	Nagaon	Total
Got information from ASHA/ANM	15 (11.63%)	39 (30.71%)	62 (48.82%)	116 (30.29%)
Did not get information	114 (88.37%)	88 (69.29%)	65 (51.18%)	267 (69.71%)
Grand total	129 (100.00%)	127 (100.00%)	127 (100.00%)	383 (100.00%)

Source: Survey data

In Barpeta district, out of 129 surveyed girls, ASHA/ANM advised only 15 (11.63%) about menstrual hygiene. In Golaghat district, out of 127 surveyed girls, only 39 (30.71%) were advised about menstrual hygiene by ASHA/ANM. In Nagaon district, only 62 (48.82%) were told about menstrual hygiene by ASHA/ANM out of 127 girls surveyed. In all three districts, close to 70% girls were not informed about menstrual hygiene by ASHA/ANM.

Table 9.2: Whether information about 'health benefits of delayed marriage' given by ASHA/ANM

	Barpeta		Golaghat		Nagaon		Total	
Yes	23	(17.83%)	38	(29.92%)	42	(33.07%)	103	(26.89%)
No	106	(82.17%)	89	(70.08%)	85	(66.93%)	280	(73.11%)
Grand total	129	(100.00%)	127	(100.00%)	127	(100.00%)	383	(100.00%)

Source: Survey data

In Barpeta district, out of 129 girls surveyed, only 23 (17.83%) were explained the health benefits of delayed marriage by ASHA/ANM. In Golaghat district, out of 127 girls, only 38 (29.92%) were explained about the health benefits of delayed marriage by ASHA/ANM. In Nagaon district, out of 127 girls, only 42 (33.07%) were explained by about the health benefits of delayed marriage. In all three districts together, more than two-third of surveyed girls (73.11%) were not told about the health benefits of delayed marriage by ASHA/ANM.

Table 9.3 Explained health benefit of delayed pregnancy

	Barpeta		Golaghat		Nagaon		Total	
Yes	22	(17.05%)	33	(25.98%)	34	(26.77%)	89	(23.24%)
No	107	(82.95%)	94	(74.02%)	93	(73.23%)	294	(76.76%)
Grand total	129	(100.00%)	127	(100.00%)	127	(100.00%)	383	(100.00%)

Source: Survey data

In Barpeta district, out of 129 girls surveyed, only 22 (17.05%) were told about health benefits of delayed pregnancy by ASHA/ANM. In Golaghat district, of the 127 girls, only 33 (25.98%) and in Nagaon district, of the 127 girls, only 34 (26.77%) were explained the health benefits of delayed pregnancy by ASHA/ANM. Overall, in all three districts, more than three-fourth girls (76.76%) were not provided this important information by ASHA/ANM.

Table 9.4: Received sanitary napkins from Anganwadi worker

	Barpeta		Golaghat		Nagaon		Total Count of district	Total Count of district2
Yes	5	(3.88%)	24	(18.90%)	27	(21.26%)	56	(14.62%)
No	124	(96.12%)	103	(81.10%)	100	(78.74%)	327	(85.38%)
Grand total	129	(100%)	127	(100%)	127	(100%)	383	(100%)

Source: Survey data

In Barpeta out of 129 surveyed adolescent girls, an overwhelming 124 (96.12%) said they did not receive sanitary napkins from the Anganwadi worker. The corresponding shares of girls who did not receive sanitary napkins from the Anganwadi worker were 81.1% in Golaghat and 78.74% in Nagaon. In all three districts, 85.38% girls didn't receive sanitary napkins.

The lowest share of girls receiving information on menstrual hygiene, the benefits of delayed marriage and delayed pregnancy was, thus, in Barpeta district. The same district also had the lowest share of girls receiving sanitary napkins from the Anganwadi worker.

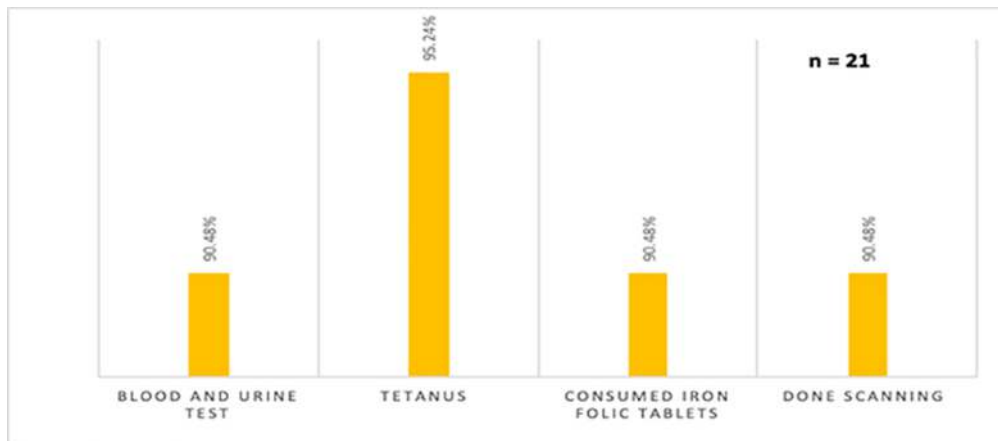
9.2 Maternal Care

This section elaborates on gaps in meeting needs on three aspects of maternal care – antenatal care (ANC), deliveries and postnatal care.

9.2.1 Antenatal Care

This sub-section looks at ANC tests and care received by pregnant women and mothers who had delivered in the last one year. Source of antenatal care and whether ANC was indeed received were also looked at.

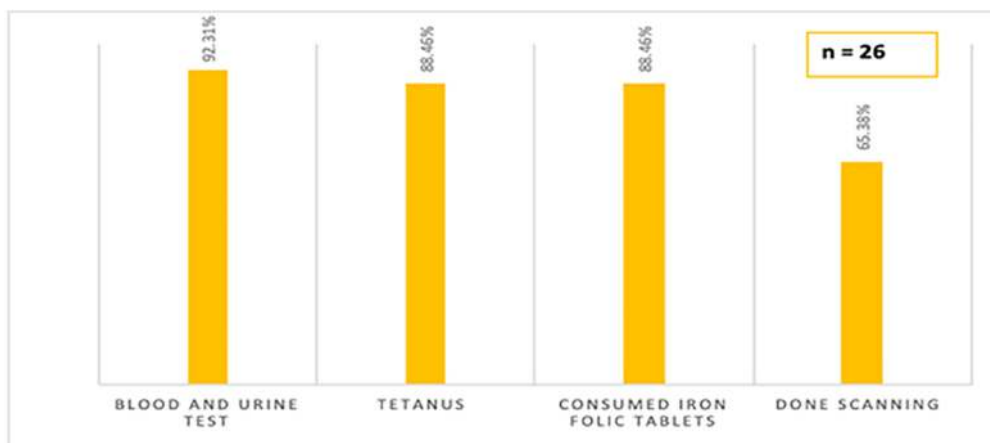
Fig. 9.1 Tests and care during ANC in Barpeta



Source: Survey data

The graph above showcases various indicators of antenatal care of women in Barpeta district. The women who responded for this parameter were pregnant during data collection or had given birth during the past 365 days from the data collection date. Out of total 21 respondents, 90.48% had done blood and urine tests, 95.24% had taken tetanus toxoid (TT) vaccine, 90.48% had consumed iron folic acid (IFA) tablets and 90.48% had undergone ultrasound scanning. While IFA tablets are required to be consumed for 100 days, on an average woman in Barpeta district consumed it for 67 days only, which is also the lowest among the three districts.

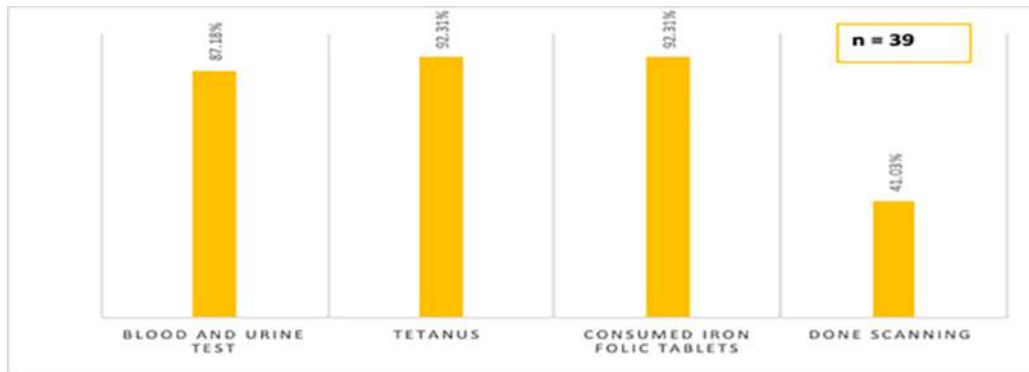
Fig. 9.2: Tests and care during ANC in Golaghat



Source: Survey data

The graph elaborates on the various ANC indicators in Golaghat district. Out of 26 women who responded, 92.31% had done blood and urine tests, 88.46% had taken TT vaccine, 88.46% had consumed IFA and 65.38% had undergone ultrasound. In Golaghat, the share of women who had undergone ultrasound was notably lower than the women who had taken blood and urine tests, TT vaccine and consumed IFA tablets. On an average, women in Golaghat consumed IFA tablets for 116 days, i.e. more than 100 days.

Fig. 9.3: Tests and care during ANC in Nagaon

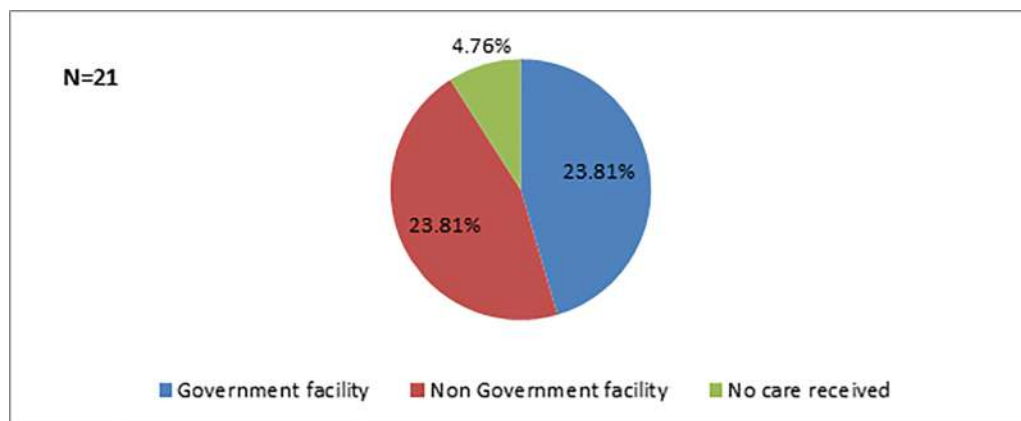


Source: Survey data

In Nagaon district, 87.18% women who were pregnant during data collection or had given birth in the past one year, had undergone blood and urine tests, 92.31% had taken TT vaccine, 92.31% had consumed IFA and only 41.03% had undergone ultrasound. The share of women who had undergone ultrasound is thus by far the lowest in Nagaon among the three districts. In Nagaon, on an average woman consumed IFA tablets for 90 days, 10 days less than the required 100 days.

The following three pie charts reveal the extents to which the concerned women in the three districts received antenatal care, and also the share of women who received such care from public facilities.

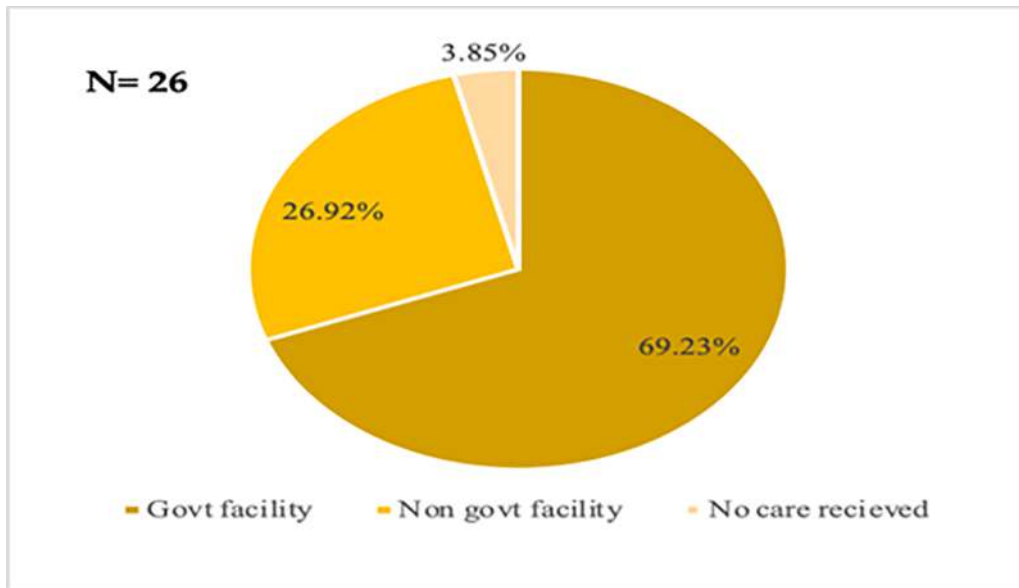
Fig. 9.4: Source of care for ANC in Barpeta



Source: Survey data (note: government facility refers to government hospital or sub-centre/ASHA/ANM, or PHC/HWC)

Out of the 21 women in Barpeta district, who were either pregnant at the time of survey or had given birth during the past 365 days, 73.43% availed government facility for ANC and 23.81% availed non-government facility for ANC, whereas 4.76% didn't receive any antenatal care.

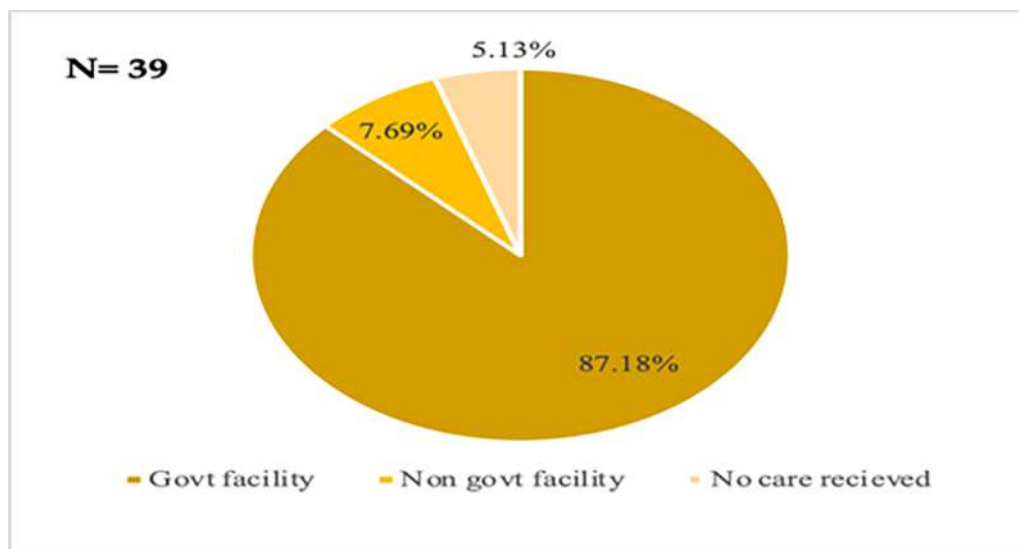
Fig. 9.5: Source of care for ANC in Golaghat



Source: Survey data

In Golaghat district, out of 26 respondent women, 69.23% availed ANC in a government facility and 26.92% availed it in a non-government facility. No ANC was received by 3.85% of the women surveyed.

Fig. 9.6: Source of care for ANC in Golaghat



Source: Survey data

The pie-chart above elaborates on source of ANC for women respondents in Nagaon district. Of the 39 respondents, 87.18% availed ANC in a government facility, 7.69% availed it in non-government facility. No ANC was received by 5.13% of the surveyed women. **The share of women who did not receive any ANC is therefore highest in Nagaon district.** The share of women who received ANC care in public facilities is also the highest in Nagaon. Golaghat had the highest share of women receiving ANC from private facilities (26.92%).

9.2.2 Delivery or intranatal care

This section draws attention to the gaps in meeting delivery related needs, especially the extent of home births and the proportion of attendance by skilled personnel. The data is from the survey questions asked to the women who had given birth in the past one year.

Table 9.5 Place of delivery

	Barpeta		Golaghat		Nagaon		Total Count of district
Government hospital	4	(36.36%)	6	(66.67%)	10	(66.67%)	20
Home	2	(18.18%)		(0.00%)	1	(6.67%)	3
PHC/HWC	4	(36.36%)	1	(11.11%)	3	(20.00%)	8
Private hospital		(0.00%)	2	(22.22%)	1	(6.67%)	3
No response	1	(9.09%)		(0.00%)		(0.00%)	1
Grand total	11	(100.00%)	9	(100.00%)	15	(100.00%)	35

Source: Survey data

Table above shows the place of delivery. In Barpeta district, out of 11 respondents, slightly less than three fourth (72.72%) gave birth at a government facility (government hospital or PHC/HWC). Home births accounted for **18.18%**.

In Golaghat district, out of nine respondents, over three fourth (76.78%) gave birth at a government facility and 22.22% gave birth at the private hospital. **No home births were reported.**

In Nagaon district, out of 15 respondents, 86.67% gave birth at a government facility, while 6.67% each gave birth at private hospital and home.

Among the women respondents who gave birth in the past year, the extent of home delivery is the highest in Barpeta district.

Table 9.6 Place of delivery and who attended delivery

Place of delivery/ attended by	Barpeta		Golaghat		Nagaon		Total for all districts	% for all districts
Government hospital	4	(36.36%)	6	(66.67%)	10	(66.67%)	20	(57.14%)
ANM		(0.00%)		(0.00%)	4	(40.00%)	4	(20.00%)
Doctor/Nurse	4	(100.00%)	6	(100.00%)	6	(60.00%)	16	(80.00%)
Home	2	(18.18%)		(0.00%)	1	(6.67%)	3	(8.57%)
Dai (midwife)	1	(50.00%)			1	(100.00%)	2	(66.67%)
Others	1	(50.00%)				(0.00%)	1	(33.33%)
HWC/PHC	4	(36.36%)	1	(11.11%)	3	(20.00%)	8	(22.86%)
ANM		(0.00%)		(0.00%)	1	(33.33%)	1	(12.50%)
Doctor/nurse	4	(100.00%)	1	(100.00%)	2	(66.67%)	7	(87.50%)
Private hospital		(0.00%)	2	(22.22%)	1	(6.67%)	3	(8.57%)
Doctor/nurse			2	(100.00%)	1	(100.00%)	3	(100.00%)
No response	1	(9.09%)		(0.00%)		(0.00%)	1	(2.86%)
No Response	1	(100.00%)					1	(100.00%)
Grand Total	11	(100.00%)	9	(100.00%)	15	(100.00%)	35	(100.00%)

Source: Survey data

The type of professional who attended to birth at various facilities is described in the table above. In Barpeta district all the births at government hospital (four) were attended by the doctor/nurse. **Out of two births at home, 1 (50%) was attended by a Dai or traditional birth attendant.** All the four births at PHC/HWC were attended by doctor/nurse.

In Golaghat district, all the six births at government hospital were attended by doctor/nurse. One birth at PHC/HWC was attended doctor/nurse and two births at private hospital were attended by doctor/nurse.

In the Nagaon district, out of 10 births at government hospital, 40% (four) were attended by the ANM and 60% (six) by doctor/nurse. Out of three births at PHC/HWC, 33.33% (one) was attended by ANM and 66.66% (two) were attended by nurse/doctor. **Two thirds of the home births were attended by the Dai or the midwife.**

9.2.3 Postnatal care

Postnatal care is the care received by the mother and newborn baby in the six weeks after delivery.

Table 9.7 Place/source of postnatal care

Place/source of postnatal care	Barpeta		Golaghat		Nagaon		Total for all districts
Government Hospital	5	(45.45%)	4	(44.44%)	2	(13.33%)	11
subcentre/ANM/ASHA	1	(9.09%)	1	(11.11%)	9	(60.00%)	11
No care received	1	(9.09%)		(0.00%)	1	(6.67%)	2
PHC/HWC	3	(27.27%)	2	(22.22%)	2	(13.33%)	7
Private hospital		(0.00%)	2	(22.22%)	1	(6.67%)	3
No response	1	(9.09%)		(0.00%)		(0.00%)	1
Grand total	11	(100.00%)	9	(100.00%)	15	(100.00%)	35

Source: Survey data

The table above gives data about the place where postnatal care was availed by the mothers. In Barpeta district, out of 11 respondents, five (45.45%) availed care at the government hospital and three (27.27%) availed care at the PHC/HWC. In Barpeta only one mother (9.09%) didn't receive any care.

In Golaghat district, out of nine respondents, four (44.44%) availed care at the government hospital and two (22.22%) availed care at the PHC/HWC. There was no mother in Golaghat who didn't receive postnatal care.

In Nagaon district, 60% women availed postnatal care by frontline workers such as ANM/ASHA, 13.33% each availed care at government hospital and PHC/HWC. In Nagaon only one mother (6.67%) didn't receive any care.

9.3 Mortality - extent of hospitalization/medical attention before death

The survey asked respondents about deaths in the past one year and enquired about the availability of medical care and hospitalization before death.

In Barpeta there were six deaths (two female, four male) in the surveyed families. In Golaghat, there were six deaths (four female, two male) and in Nagaon there were 15 deaths in the family (five female and 10 male).

Table 9.8 Medical attention received by deceased person

	Barpeta		Golaghat		Nagaon		Total fodistricts of district
Yes	3	(50.00%)	5	(83.33%)	10	(66.67%)	18
No	3	(50.00%)	1	(16.67%)	5	(33.33%)	9
Grand total	6	(100.00%)	6	(100.00%)	15	(100.00%)	27

Source: Survey data

In Barpeta district, out of total deceased in the surveyed households only 50% received medical attention before death. In Golaghat, out of the total deceased, 83.33% received medical attention and in Nagaon 66.67% of the deceased received medical attention.

Table 9.9 Reason for not seeking medical attention

	Barpeta		Golaghat		Nagaon		Total for all districts
Couldn't access ¹⁸		(0.00%)		(0.00%)	1	(20.00%)	1
Expected death ¹⁹	2	(66.67%)		(0.00%)	1	(20.00%)	3
Other	1	(33.33%)		(0.00%)		(0.00%)	1
Sudden death ²⁰		(0.00%)	1	(100.00%)	3	(60.00%)	4
Grand total	3	(100.00%)	1	(100.00%)	5	(100.00%)	9

Source: Survey data

Respondents from the family have cited various reasons for not seeking medical attention for those who passed away in the past one year. In Barpeta district, 66.67% (two) families said they did not seek medical care for the deceased because the death was expected. In Golaghat district, the only family which responded to this question said the death was sudden and there was no time to seek medical attention. In Nagaon district, 60% (three) families cited 'sudden death' as the reason for not seeking medical attention. One family cited that they expected death and another one cited that they couldn't access medical attention.

Table 9.10: Whether hospitalised before death

	Barpeta		Golaghat		Nagaon		Total for all districts t
Yes		(0.00%)	5	(83.33%)	9	(60.00%)	14
No	6	(100.00%)	1	(16.67%)	6	(40.00%)	13
Grand total	6	(100.00%)	6	(100.00%)	15	(100.00%)	27

Source: Survey data

In Barpeta district, none of the deceased persons was hospitalised before death. In Golaghat district, out of the total six people who died, 83.33% (five) were hospitalized. In Nagaon district, out of 15 deceased, 60% (nine) were hospitalised.

¹⁸Was sick but could not access medical attention

¹⁹death was expected- decision not to seek care

²⁰Death was too sudden, no time to seek medical care

Table 9.11: Reasons for non-hospitalisation

	Barpeta		Golaghat		Nagaon		Total for all districts
Couldn't afford		(0.00%)		(0.00%)	1	(16.67%)	1
Patient didn't want to	2	(33.33%)		(0.00%)		(0.00%)	2
Sudden death	4	(66.67%)	1	(100.00%)	4	(66.67%)	9
Was sick but unable to access ospital care		(0.00%)		(0.00%)	1	(16.67%)	1
Grand total	6	(100.00%)	1	(100.00%)	6	(100.00%)	13

Source: Survey data

In Barpeta district, of the six people who died, 33.33% (two) didn't want to get hospitalized, and in 66.67% (four) cases, there was sudden death.

In Golaghat district, only one family responded to this question and they said couldn't admit the patient to hospital because there was sudden death. In Nagaon district, out of six families, 66.67% (four) couldn't admit the deceased to hospital because of sudden death, one family couldn't afford health care and one was unable to access health care.

9.4: Senior citizens - physical mobility, living arrangements and perception of health status

This section attempts to shed light on the vulnerability of the aged persons in terms of their economic independence and physical mobility. These are factors which might shape health seeking behaviour among this age group, they may be constrained in visiting health facilities. Aged persons were also asked to provide a self-perceived rating of their own health status.

In Barpeta district, among the aged persons surveyed, 68.76% were in the 60 - 65 years age bracket and Nearly 7.6% of the respondents belong to 80 years and above age group.

In Golaghat district, among the aged persons, 44.16% were in the 60 - 65 years age group, and nearly 9.09 % of the respondents belonged to 80 and above age group.

In Nagaon district, among the aged persons, 43.22% were in the age bracket of 60 - 65. Nearly 10.17% of the respondents were above 80 years of age.

Table 9.12 Economic independence of senior citizens

	Barpeta		Golaghat		Nagaon		Total
Completely independent	17	(16.19%)	47	(30.52%)	19	(16.10%)	83
Fully dependent	53	(50.48%)	87	(56.49%)	91	(77.12%)	231
Others*	16	(15.24%)	1	(0.65%)	1	(0.85%)	18
Partially dependent	6	(5.71%)	15	(9.74%)	4	(3.39%)	25
Spouse income	13	(12.38%)	4	(2.60%)	3	(2.54%)	20
Grand total	105	(100.00%)	154	(100.00%)	118	(100.00%)	377

Source: *Others: pensioners

In Barpeta district, half the senior citizens are fully dependent. Around 15% each are in the category of fully independent and other (pensioner).

In Golaghat, over half the senior citizens (56.49%) were fully dependent and 30.52% were completely independent. In Nagaon district, 77.12% were fully dependent and 16.10% were completely independent.

Table 9.13 Physical mobility of senior citizens

	Barpeta		Golaghat		Nagaon		Total	
Confined to bed	3	(2.86%)	1	(0.65%)	4	(3.39%)	8	(2.12%)
Confined to home	59	(56.19%)	8	(5.19%)	21	(17.80%)	88	(23.34%)
Physically mobile	36	(34.29%)	144	(93.51%)	92	(77.97%)	272	(72.15%)
Wheelchair bound	6	(5.71%)	1	(0.65%)	1	(0.85%)	8	(2.12%)
No response	1	(0.95%)		(0.00%)		(0.00%)	1	(0.27%)
Grand total	105	(100.00%)	154	(100.00%)	118	(100.00%)	377	(100.00%)

Source: Survey data

In Barpeta district, 56.19% aged persons said they are confined to home, while 34.29% stated they are physically mobile and active. In Golaghat 93.51% aged persons stated that they are physically mobile and only 5.19% were confined to their home. In Nagaon, 77.97% aged persons were physically mobile and only 17.80% were confined to their home. Barpeta thus has the highest share of aged persons who are confined to home. It also has the relatively highest share of wheelchair bound aged persons (5.71%). Nagaon, however, has the relatively highest share of aged persons confined to bed (3.39%).

Table 9.14 Senior citizens' own perception about their health

	Barpeta		Golaghat		Nagaon		Total	
Excellent	5	(4.76%)	71	(46.10%)	23	(19.49%)	99	(26.26%)
Good	72	(68.57%)	73	(47.40%)	71	(60.17%)	216	(57.29%)
Poor	28	(26.67%)	10	(6.49%)	24	(20.34%)	62	(16.45%)
Grand total	105	(100.00%)	154	(100.00%)	118	(100.00%)	377	(100.00%)

Source: Survey data

In Barpeta district, 68.57% aged persons said they are in good health, 4.76% said stated that they are in excellent health and 26.67% admitted their health was poor. In Golaghat district, 47.40% said their health was good, 46.10% claimed excellent health and only 6.49% said they were in poor health. In Nagaon district, 60.17% were in good health, 19.49% in excellent health and 20.34% said they were in poor health. **Barpeta district thus had the highest share of senior citizens who perceived themselves to be in poor health.**

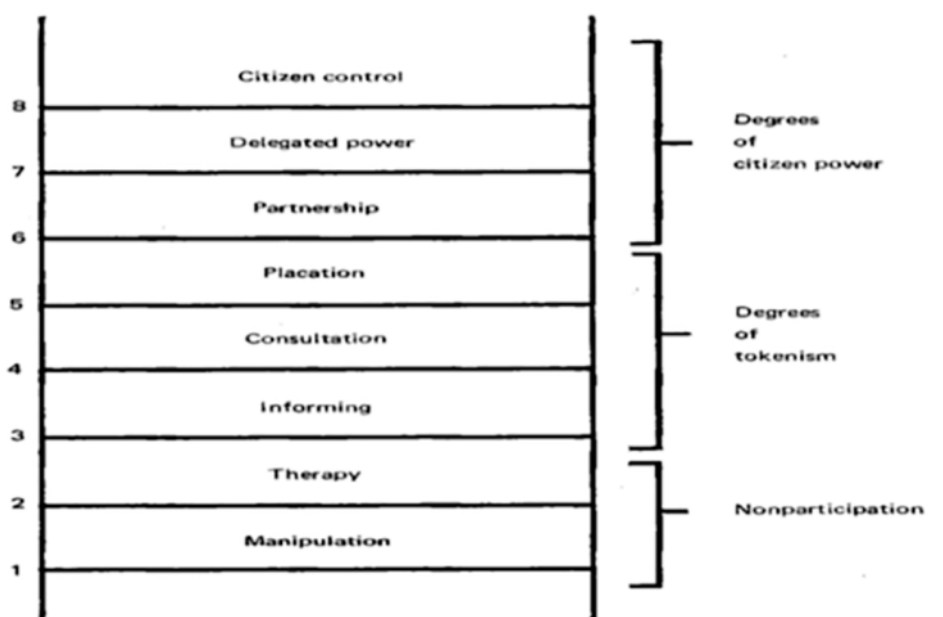
Chapter 10

Participation and engagement



People's participation in the planning, implementation and monitoring of primary health care is critical to people-centred health care. If members of the community are able to meaningfully convey their preferences and inputs in shaping the delivery of health services, then there is a greater likelihood of the services being aligned to their preferences and needs. One can expect such alignment to have positive implications for the community's demand for primary health care. Nevertheless, meaningful people's participation is not easy to achieve, given the power and information asymmetries and socio-economic inequalities that exist. Participation has several levels, which comprise manipulation, therapy, informing, consultation, placation, partnership, delegated power and citizen control (Arnstein, 1969). The levels beyond consultation and placation are especially difficult to achieve.

Fig. 10.1: Eight rungs on a ladder of citizen participation



Source: reproduced from Arnstein, 1969

National Health Mission (NHM) has laid down a framework for community participation in health through its 'communitization' component.

An institutional framework for community-based monitoring and planning at various levels, involving community members, NGO representatives and Panchayat representatives has been set up. Community Action for Health (CAH) was also conceived as a process to give communities greater control over health care provision at the local level. As a part of CAH, financial provisions in the form of untied funds for health-related actions are made available to the local institutional committees. Two main structures come under the NHM framework for promoting community participation:

Village health and sanitation committees (renamed village health, nutrition and sanitation committees or VHNSCs): Formed at the revenue village level, a VHNSC acts as a sub-committee of the village council or Gram Panchayat. It should have a minimum of 15 members, which should comprise an elected member of the panchayat, health workers, community members/ beneficiaries and representatives of vulnerable sections and hamlets/ habitations. The ASHA residing in the village should be the member secretary and convener of the committee. The committee has been formed to take collective actions on issues related to health and its social determinants at the village level and carry out community-based planning and monitoring.

Rogi Kalyan Samiti (hospital management committee): This committee, which would be a registered society, acts as a group of trustees for the hospital/health centre to manage its affairs. It consists of members from local panchayati raj institutions (PRIs), NGOs, local elected representatives and officials from Government sector who are responsible for proper functioning and management of the hospital / health centre. It has powers to generate and use funds for maintaining the quality of services.

To examine the actual functioning of the above community structures, we interviewed VHNSC members/ presidents and officials who are part of Rogi Kalyan Samiti (RKS) in the three districts. The interviews focused mainly on the actual role being played by these bodies and the challenges faced by them.

This chapter also touches on the involvement of the local rural government (village council or Gram Panchayat) in planning and implementing primary health care. The presence and awareness of grievance redressal mechanisms is also touched upon.

10.1 Village health, nutrition and sanitation committee (VHNSC)

This section gives details on the membership and functionality of VHNSCs in the catchment villages of the sampled sub-centres in the three districts covered in this study.

10.1.1 VHNSC membership

Table 10.1 Education and gender of interviewed VHNSC members

VHNSC membership, education and gender												
			Bachelor's degree		High school		Primary school		PUC		Total	
Female	VHNSC membership	Member	1	4%	6	24%	1	4%	0	0%	8	32%
		President	2	8%	4	16%	0	0%	2	8%	8	32%
	Total		3	12%	10	40%	1	4%	2	8%	16	64%
Male	VHNSC membership	Member	0	0%	3	12%	0	0%	0	0%	3	12%
		President	1	4%	0	0%	1	4%	4	16%	6	24%
	Total		1	4%	3	12%	1	4%	4	16%	9	36%
Total	VHNSC membership	Member	1	4%	9	36%	1	4%	0	0%	11	44%
		President	3	12%	4	16%	1	4%	6	24%	14	56%
	Total		4	16%	13	52%	2	8%	6	24%	25	100%

Source: semi-structured interviews of VHNSC members/presidents

Of the 25 VHNSC members /presidents interviewed, 64% were women and 36% were men. Out of the interviewed VHNSC presidents, 57% were women and the rest were men. On the education front, 16% had a bachelor's degree, 52% had entered or completed high school, 8% had completed primary school and 24% were PUC or diploma holders.

The VHNSC Guidelines (NRHM, 2013) state that these bodies should have a minimum of 15 members, but no upper limit is defined. The guidelines say: "A minimum critical size of the committee is essential for building effective processes of consultation and representation, but a very large committee can also impede smooth management and effective functioning." Responses of the interviewed VHNSC members, however, indicate that the number of members in VHNSCs vary from 10 to 15.

10.1.2 Functioning of VHNSCs

The VHNSC guidelines (NRHM, 2013) specify a number of objectives for these committees, which include the following:

1. To provide an institutional mechanism for the community to be informed of health programmes and to participate in the planning and implementation of these programmes.
2. To provide a platform for convergent action on social determinants and all public services directly or indirectly related to health.
3. To provide an institutional mechanism for the community to voice health needs, experiences and issues with access to health.
4. To empower panchayats with the understanding and mechanisms required for them to play their role in governance of health.
5. To enable communities to take collective action for the attainment of better health care in the village.

The subsequent sub-sections will examine the actual functioning of VHNSCs in Barpeta, Golaghat and Nagaon, based on interview responses from VHNSC functionaries and data obtained from the villager FGDs.

10.1.2.1 VHNSC functionary inputs on the functioning of VHNSCs

Insights on the functioning of VHNSCs, based on semi-structured interviews of VHNSC presidents and members are presented below:

Capacity Building for VHNSC members: All the subjects mentioned that there had been no capacity building for VHNSC presidents or members.

Frequency of meetings: The VHNSC guidelines state that meetings of VHNSC should be held at least once every month, and there should be one regular date for holding the meeting; for example, the first Saturday of every month so that members can ensure attendance (NRHM, 2013).

Different VHNSC functionaries interviewed mentioned different periodicities/frequencies of VHNSC meetings. In Barpeta, some subjects said that meetings were held once a month, while others said a meeting has not happened for the past three months. In Golaghat, some of the functionaries mentioned that meetings were held once in three months, whereas one functionary mentioned monthly meetings. In Golaghat, some subjects (presidents and members) also confessed being unaware of when the VHNSC meetings were held and whether they were held at all.

One VHNSC president from Golaghat, who is an ex-officio member of this body by virtue of being a panchayat member, surprisingly said that she is only aware that she is part of the committee, she is not aware of any meetings and has not attended any meeting and she has received no briefing from ASHA/ANM regarding VHNSC.

While two VHNSC representatives from Nagaon mentioned that meetings were held once a month, one VHNSC president from this district said, "According to the schedule, VHNSC needs to meet every month, but actually it meets when it wants; when the conditions require, we meet quite often but sometimes we delay the convening of the meetings."

Another VHNSC president from Nagaon mentioned that her VHNSC holds informal meetings quite frequently (whenever they get time) but the official meetings are held once in three months.

Matters discussed in VHNSC meetings: The following subjects were discussed in meetings, according to the interviewed VHNSC presidents and members:

- Spending of untied fund (Barpeta)
- Sub-centre facilities (Golaghat)
- Provision for lacking amenities at sub-centre such as water facility, sub-centre infrastructure and hygiene (Golaghat)
- Which health issues should be given importance. (Nagaon)
- How the awareness programmes need to be conducted. (Nagaon)
- Budget of VHNSC and its utilization (Nagaon)
- Plan for development of sub-centre and health status (Nagaon)

Utilization of Untied fund: In the VHNSC guidelines it is stated that every VHNSC is entitled to an annual untied grant of \$135 (₹10 000) from the National Rural Health Mission (NRHM). The untied grant is a resource for community action at the local level on areas such as nutrition, education and sanitation, environmental protection, and public health measures (NRHM, 2013).

VHNSC members and presidents mentioned that the following items were purchased/spent on using the untied fund:

- Haemometer
- Tables and chairs
- Machines for checking height and weight
- Repair and reconstruction of the sub-centre
- Gas cylinder/LPG for sub-centre
- Instruments for diagnosis, e.g. checking blood pressure
- Tube well
- Bed
- Cleaning the sub-centre environment
- Conducting awareness programmes
- Bamboo boundary wall

One can see that the untied fund is mostly used for filling gaps in sub-centre infrastructure. The less developed planning capacities of VHNSCs, the very low amount of VHNSC fund received and the gap in equipment and amenities (which should already have been available in Sub-centre) are factors contributing to this.

VHNSCs are thus constrained in using the untied fund to take up measures to address the contextual determinants of health such as education, nutrition, sanitation and environment.

Perceived sufficiency of untied fund amount: In all the districts, VHNSC functionaries said the untied fund amount was not sufficient for carrying out meaningful activities for the development of the sub-centre or health status of the village. Furthermore, the actual amount received was stated to be less than \$135 (₹10 000); in Barpeta an amount of \$34-35 (₹2 500-2 600) was mentioned and in Golaghat, the received amount was said to be \$67.6 (₹5 000). In Nagaon, two functionaries mentioned that they sometimes had to spend their personal funds for sub-centre development work. VHNSC presidents in Nagaon also said that they wanted to give more facilities to the sub-centre but were constrained by the very low amount of untied fund. They argued that \$135 (₹10 000) is not sufficient for planning and implementing village level programmes.

Process for utilization of untied fund: The VHNSC guidelines state that that the decisions on the spending of the untied fund should be taken in the VHNSC.

The guidelines further state that “Every VHNSC should have a bank account opened in the nearest bank, to which the untied fund of the VHNSC shall be credited... the chairperson of the VHNSC and the member secretary ASHA should be the joint signatories of the VHNSC account.” (NRHM, 2013). The responses of the VHNSC presidents and members shed light on the variety of practices prevalent with respect to the spending of the untied fund. While some functionaries are unaware of untied fund related matters, others leave this matter to the ASHA. In other instances, discussion amongst VHNSC members shapes decisions on spending.

Text Box 10.1 VHNSC functionary inputs on process followed in spending untied funds

VHNSCs organised a functional meeting where they take decisions on how to utilise the untied fund. (Barpeta)

In order to spend the untied fund, a meeting is conducted, where they have a group discussion. In that meeting, every member presents his/her spending plans. According to the plans, expenditure is decided. (Nagaon)

Sub-centre ANM utilizes the untied fund. VHNSC committee members are not aware about utilization of untied fund. (Golaghat)

Only ASHA withdraw the money, and the ASHA and ANM know the expenditure. (Golaghat)

ANM and VHNSC president are joint signatories of the VHNSC account. Whenever the release of fund is required, the president has to sign. (Golaghat)

VHNSC has no process for deciding on untied fund expenditure. They give the rights to the MPW and ANM to take the decisions on untied fund expenditure. (Golaghat)

Preparation of annual health plan :The VHNSC Guidelines adopt a very realistic standpoint on health planning by VHNSCs:

“Village planning by identifying health care priorities requires substantial degree of knowledge as well as health systems capacity at the referral levels, with good linkages between the two. However, caution is needed for this approach. Though such a village health plan is one of the possible activities of the VHNSC, we should not over-project the possibilities of such planning - since the institutional capacity to support and respond to such plans is quite a major challenge. Most VHNSCs are better advised to start with the other activity groups first and attempt this only if there is a good public health team which can support them.” (NRHM, 2013)

Keeping in mind the above, it is not realistic to expect VHNSCs to engage in health-priority based integrated planning. Nevertheless, it is interesting to see how various VHNSC presidents understand planning and what initial steps they are taking for the same.

The responses below indicate that the understanding of planning is less holistic and integrated, it is not based on a systematic assessment of health needs, and is mostly limited to spending the untied fund, obtaining of sub-centre infrastructure and organization of awareness programmes.

Text Box 10.2: VHNSC presidents' description of health planning

VHNSC members prepare the Annual Health Plan for the village. The plans have a problem-solving focus, for example, sub-centre water problem, toilet facility etc. (Golaghat)

VHNSC committee has 11 members, but they have not yet met together for the process of any planning. (Golaghat)

The VHNSC members prepare the annual health plan for the village to obtain some essential things which benefit village residents like filters, table, weighing machines, benches for Anganwadi students, and support for meeting the health needs of anybody having financial problems. (Nagaon)

In order to prepare the annual health plan for the village, the members of VHNSC, GP, ANM, ASHA, Anganwadi worker and some of the people living near the sub-centre are called for a meeting. In the meeting, everyone puts forward their ideas on health, cleanliness, well-being of pregnant women, nutrition etc. The ideas are discussed, and the plan is prepared and implemented on conducting these activities. (Nagaon)

Participation of the wider village community:

Most of the interviewed VHNSC representatives in the three districts mentioned that the villagers who are not members of VHNSC do not participate in the meetings. However, some functionaries mentioned that sometimes other villagers also participate. Three VHNSC functionaries in Nagaon district mentioned the participation of elderly residents living near the sub-centre.

Perceived usefulness of VHNSC and suggestions for its further improvement:

The interviewed VHNSC functionaries expressed their overall assessment of the performance and utility of the VHNSCs. Some of them mentioned problems such as the members not being aware or active, lack of transparency and limited effort by the ASHA/ANM to engage the VHNSC members, along with the very limited amount of money available as untied fund. One of the GP members who is an ex-officio VHNSC member mentioned the lack of time to attend to VHNSC work. A commonly mentioned suggestion for the improvement of VHNSC was that the amount given as untied fund should be increased.

However, functionaries also said the areas where the VHNSC was contributing positively was monitoring the functioning of sub-centres, giving suggestions for the improvement of the centre, holding the ANM accountable, and making purchases to reduce the gap in facilities and amenities at the sub-centres.

Some of the negative and positive assessments of VHNSC functioning mentioned by members are provided in the text box below:

Text Box 10.3 Assessments of VHNSC functioning by members

Negative assessments

VHNSC functional status is poor because VHNSC members do not know their work and their role in village health. VHNSC is not helping to improve functioning of sub-centre because they are not very active (Golaghat)

The members of the committee are not actively participating in committee work. Committee members do not want to go for any meeting (Golaghat)

The health workers do not involve the committee in all areas of work. The working of VHNSC is not too sound as meetings and other work are not coordinated transparently. (Golaghat)

“Being a ward (Panchayat) member, I have to engage in other work for the village and the Panchayat, so I don't want to be involved in VHNSC. I think that the VHNSC has no functions; this is only one committee under the sub-centre, and the ASHA and ANM are enough to carry out discussions and take any decision.” (Golaghat)

Positive assessments

Through its monitoring role, this committee is helping in the better functioning of sub-centres (Golaghat)

Sometimes VHNSC members give advice and suggestions to the ANM and MPW improve the functioning of the centre. VHNSC members also give suggestions to the employees to keep the sub-centre clean and beautify it with plants etc. (Golaghat).

VHNSC members call ASHA and ANM to discuss whether vaccinations are being administered timely, problems of malnutrition etc. VHNSC members have bought desk, chair table etc for the sub-centre. If provided sufficient money by the government, they can do better. (Nagaon)

The VHNSC helps the sub-centre by being present in various activities being conducted by them, helping in preparing the health plan, purchasing medical equipment and standing by the sub-centre when needed. (Nagaon)

10.1.2.2 Perception of members of village community regarding functionality of VHNSC

Men and women FGD participants of the village were asked about the existence and functionality of VHNSCs in their respective villages. In Nagaon district, men and women FGD participants were aware of the existence of functional VHNSCs, and a few participants also mentioned participating in their meetings. In FGDs done in different locations in Barpeta and Golaghat, overall awareness of VHNSC was lower compared to Nagaon.

In Barpeta and Golaghat, some participants mentioned that they were unaware if a VHNSC existed in their

village. Some FGD participants in Golaghat and Nagaon were not aware if the VHNSC existed in their village, but others mentioned the existence of VHNSC and their involvement in health awareness programmes organized by VHNSC. In Nagaon, a few participants who were not members of VHNSC mentioned that they had attended the meetings, in which there was discussion on which health issues should be given importance. A section of women FGD participants in Nagaon mentioned that health plan and preparation of budget (presumably for untied fund) were taken up in the VHNSC meetings.

10.1.2.3 Reasons for limited functionality of VHNSCs

The limited functionality of the VHNSCs may be attributed to the following causes:

- All the new elected members of Panchayats – some of whom are ex-officio members of VHNSCs - have not been trained in their roles and responsibilities
- Many times, because of paucity of funds with VHNSC, the expected participation of the panchayat members cannot be obtained
- Sometimes, it is seen that coordination among VHNSC members is an issue. Getting convenient time from members to attend VHNSC meeting is a major challenge, which affects the frequency of holding meetings
- At times lack of coordination among VHNSC members also affects the performances of VHNSC
- Many a times, the issues which are discussed in the meeting are monotonous and repetitive in nature, so members do not find it of much interest to attend the meeting
- NGO role in facilitating the works of VHNSCs is very limited

The money allocated to VHNSC is only \$135 (₹10 000) annually. With this small amount, the president of the VHNSC, who happens to be an elected panchayat member, often does not see attending VHNSC meeting as high on his/her agenda. ASHA also shows reluctance in calling president repeatedly for attending the meeting. There are also VHNSC presidents, who rely a lot on ASHAs, asking him/her to go ahead with meetings and s/he agrees with whatever decisions are adopted in the meeting.

Importantly, all the VHNSC members and presidents interviewed for this study pointed out that no capacity building programme had been held for them. Therefore, members of the VHNSC often suffer from information inadequacy about their role. Also, different guidelines come out from time to time and there is poor communication among members about the latest guideline in force. The objective introducing such a committee is not known to many members. As a result, the committees often work towards spending the amount released to the committee. There is no effort to generate funds for sustainability.

10.2 Health related role of Gram Panchayats (GP)

This study collected responses of GP members on GP's role in primary health care, especially with respect to RCH. As some of the members were new to the panchayat raj system, they did not have a full understanding of their roles and responsibilities. Some of the respondents mentioned that as part of their health activity, GPs provide health camps in villages, free eye check-ups and awareness camps for different diseases. Some linked it with sanitation activities (Swachh Bharat Abhiyan), which is intrinsically linked with health.

Some GP members who were part of VHNSC attended VHNSC meetings and the Village Health and Nutrition Day. Gaon Panchayat (GP) members revealed in interviews that they did not think it necessary to cross check the implementation status of RCH related activities, and they felt that the immunization activity was entirely under the preview of ASHA/ANM.

Majority of GP members informed that they visit Anganwadi centers and checked whether children are being fed well and take-home rations being given to them.

10.3 Role and functionality of Roji Kalyan Samiti (RKS)

According to the Guidelines for RKS in public health facilities, it was introduced as a forum to improve service in public health facilities, increase participation and enhance accountability.

RKS, which must be registered as a Society under the Societies Registration Act 1860, should be set up at all district hospitals, sub-district hospitals, CHCs and PHCs and equivalent facilities (NHM, 2015).

The RKS is not expected to run the day-to-day administrative functions of the hospital or manage the clinical services. It is expected to play a supportive and complementary role to the health facility administration in ensuring the provision of universal, equitable and high-quality services and in ensuring support services. The RKS is also expected to hold the health facility administration accountable, keeping the importance of

patient welfare in mind (NHM, 2015). The objectives of the RKS stated in the guidelines include the following:

1. Decide on the user fee structure for outpatient and inpatient treatment, which should be displayed in a public place and be set at rates which are minimal and do not become financial barrier to accessing health care
2. Develop mechanisms to guard against denial of care to any patient who does not have the ability to pay, especially for services that are being provided at the government's expense
3. Ensure provision of all non-clinical services and processes such as safe drinking water, diet, litter-free premises, clean toilets, clean linen, help desks, support for navigation, comfortable patient waiting halls, security, clear signage systems and prominent display of Citizens' Charter
4. The RKS will allow the hospital in charge to procure essential drugs/ diagnostics not available in the health facility out of the RKS funds. Such local purchases must be made only as a short-term interim measure
5. Operationalize a grievance redressal mechanism including a prominent display of the "Charter of Patient Rights" in the health facility and address complaints promptly
6. Create mechanisms for enabling feedback from patients, at least at the time of discharge and take timely and appropriate action on such feedback
7. Serve as a consultative body to enable active citizen participation for the improvement of patient care and welfare in health facilities

The RKS should include elected representatives, administrative and technical personnel and members of the community, along with eminent social workers and representatives of NGOs (NHM, 2015). The RKS guidelines state that the RKS at Block PHC level should have the following composition:

- Chairperson should be medical officer
- Member secretary should be AYUSH MO or staff nurse nominated by MO
- Members would include one nominated Pharmacist, the CDPO, block staff of Department of Drinking Water and Sanitation and Department of Education, and representatives of the block panchayat

In the state of Assam, there are 10-15 members in RKS. The composition deviates slightly from what is stated in the guidelines: at the PHC/CHC level, the RKS Chairperson is either the local MLA or his/her representative or Block Development Officer or Circle Officer²² and not the MO.

The other members of the RKS include functionary or MO in charge of the respective health facility as member secretary (convener), staff members representing different cadre of the facility and community members, elected Panchayat members and NGO representatives.

The responses from the interviews of the RKS functionaries (circle officers, or NHM block programme managers or PHC MOs) show that there is no specific schedule of RKS meetings. Some of them hold RKS meeting once in three months, some twice a year and others randomly according to their convenience.

Table 10.2 Rogi Kalyan Samiti meetings held in the sampled BPHCs (2019-20)

District	Block	Number of RKS meetings held during the month
Barpeta	Barpeta road	-
	Bhawanipur	1
	Kalgachia	24
	Mandia	16
	Nagaon	35
Golaghat	Bokakhat	1
	Missamora	26
	Charingia	27
	Kamarbondha Ali	244

²²Circle Officer is an administrative rank officer, who sits at the Development Block Office and in many cases, s/he represents Government in the RKS, which is constituted at the level of PHC/CHC.

District	Block	Number of RKS meetings held during the month
Nagaon	Dagaon	6
	Simonabasti	8
	Jakhalabandha	10
	Samaguri	23
	Buragohaitan	25
	Kathiatoli	155
	Lanka	46
	Singimari	34

Source: HMIS (2019-20)

An analysis of HMIS data presented in the table above shows that an average of 40 RKS meetings were held in each BPHC catchment area in 2019-20, which comes to three to four meetings per month. The meetings appear to be quite frequent. However, the mean of 40 is also attributed to the high number of meetings in Kamarbondha Ali and Kathiatoli BPHCs. The median number of meetings is 24.5 per year.

The interviews of the RKS members revealed that the functionaries discuss the expenses, utilization of untied fund and services of RKS. Usually, a draft agenda is circulated before the meeting and the minutes of the meeting are recorded. The RKS collects money in the form of user fees and utilizes it for hospital/institute's purposes or patient benefits. Generally, less than a dollar ₹5 is collected for OPD, and they are not expected to charge for lab services and inpatients.

Table 10.3 User charges collected by the RKS of BPHCs

(all values in ₹)

District	BPHC	User charge collected during the reporting month	User charge utilized during the reporting month
Barpeta	Barpeta road	20,750	1 650
	Bhawanipur	-	-
	Kalgachia	21 88 108	89 500
	Mandia	1 69 230	1 27 716
	Nagaon	36,720	39 120
Golaghat	Bokakhat	5 25 280	5 28 783
	Missamora	2 97 642	2 17 883
	Charingia	1,85,134	1 14 930
	Kamarbondha Ali	7 10 217	4 23 699
Nagaon	Dagaon	3 26 230	4 43 994
	Simonabasti	1 10 396	63 804
	Jakhalabandha	7 36 632	7 71 736
	Samaguri	4 45 268	4 02 577
	Buragohaitan	1 40 962	1 32 782
	Kathiatoli	6 52 534	10 52 512
	Lanka	6 19 341	6 23 239
	Singimari	6 89 029	5 08 189

Source: HMIS (2019-20)

The above table, based on HMIS data, reveals that the sampled BPHCs collected an average of ₹490 842 as user fees in the reporting month, and utilized 70.57% of the same (₹346 382).

10.3.1 Untied fund utilization by RKS

The functionaries of RKS described the expenditure components as

- Patients' amenities,
- Cleanliness.
- Expanding the immunization room,
- Salary for contractual sweepers,
- Salary for gardener,
- Chairs and benches for patients.
- Ambulance
- Drinking water.
- Infrastructure including electricity, sanitation.

Some of the RKS funds are also utilized for purchasing medicines. At some centers, RKS spent up to 40% on medicines.

The medical officers of some BPHCs cited the following problems in performing some functions of the RKS: for the utilization of the fund, they have to take signature from the circle officer which constraints them from utilizing the funds during any emergency. The MOs, however, expressed that samitis are playing a role in fund management that helps to provide better services and also fill the gap in facilities to some degree. They also said that the samitis monitor the PHC, and their feedback is also playing a good role in improving the services of PHC.

However, as the section below will indicate, RKS have not been able to set up widely known or effective grievance redressal mechanisms, which is one of their expected functions as per the guidelines.

10.4 Grievance Redressal

Providing opportunities for grievances to be expressed and avenues for redressal of those grievances is crucial for the empowerment of members of the community. The RKS guidelines mention that RKS should take responsibility for operationalizing grievance redressal mechanisms in the facilities. Members of the community, covered in the men's and women's FGDs, were asked about the availability of channels for redressal of grievances and whether they were able to make complaints with respect to primary health care services where required. While FGD participants in Barpeta and Golaghat largely pointed to the absence of such channels, some FGD participants in Nagaon indicated their awareness of the grievance redressal channel and mentioned the suggestion box in PHCs. The understanding of the various sections of FGD participants with respect to expression and redressal of grievances is summarized below:

- Not able to express grievances. Complaint box is not available in PHCs (women's FGD and men's FGD, Barpeta)
- Not aware of what 'grievances' are, never heard of grievances (women's FGD, Golaghat)
- Have faced ill treatment from health workers, but not aware of where to complain (men's FGD, Golaghat)
- Grievances are not heard (men's FGD, Barpeta)
- Sometimes complain to the SDMO, but no action is taken (men's FGD, Nagaon)
- "Even in the CHC we are not able to express grievances, then how can we express grievances in PHCs?" (women's FGD, Golaghat)
- Can express grievances through suggestion boxes which are put up on the wall of the PHC and sub-centre. However, not yet used them (women's FGD, Nagaon)
- Authorities check the suggestion box at PHC from time to time (women's FGD, Nagaon)

There is therefore a need to make the users of PHCs more aware of the available grievance redressal mechanisms. The grievance redressal mechanism should also go beyond the suggestion box, given that the users have no control over when the suggestion box is opened, and the suggestions noted down or acted upon. Civil society organizations (CSOs), including NGOs, either by themselves or through the VHNSC, could play a role in making the users more aware of their rights and entitlements as citizen-users of primary health facilities.

The RKS guidelines on grievance redressal may be used as a reference for establishing a more concrete grievance redressal mechanism in BPHCs:

Text Box 10.4 Grievance redressal mechanisms specified in RKS guidelines

RKS should put in place a grievance redressal desk with a nominated person preferably from a reputed NGO/CSO, and a dedicated landline number and email id which is to be displayed in each facility.

OPD/IPD slip/discharge paper should be printed with these details so that the patient may lodge a complaint even after leaving the premises of hospital. The complaint could be received telephonically or in written.

The grievance redressal will maintain a register of grievances in a format which will include the name, date of receipt of grievance and specific complaint and action taken.



Chapter 11

Summary of findings



This study has presented a comprehensive demand-side assessment of primary health care in Assam, focusing on the three districts of Golaghat, Barpeta and Nagaon. Data for this mixed-methods study was collected through a survey of villagers residing in the catchment areas of the selected sub-centres and Block PHCs (BPHCs). Though qualitative methods such as FGDs of members of the community (men and women) and IDIs of key stakeholders, including health functionaries such as MOs, CHOs of sub-centres or HWCs and ASHAs. Given that the demand for primary health care is linked to the users' preference (or lack of preference) for other providers such as private doctors and traditional healers, the latter have also been covered as stakeholders under this study.

The villager or beneficiary sample covered by the survey was diverse in terms of representation of social categories, ration card categories, educational and occupational groups. In Barpeta, Golaghat and Nagaon, 65.78%, 84.17% and 37.27% of the respondents respectively belonged to the BPL category. This shows that the survey meaningfully targets the economically less-privileged sections, which are likely to face economic barriers in accessing quality health care. General, OBC/minority, SC and ST groups were represented in the sample in all the four districts. The general category made up the largest share of respondents in Barpeta and Nagaon districts, whereas in Golaghat, the OBC/minority group had the largest share (60.55%). Golaghat district also had the highest representation (16.08%) of the ST community.

The demand for primary health care has been unpacked and examined in terms of the following key elements:

1. Health issues and health care seeking
2. Provider choice
3. Extent of utilization of specific services offered at PHCs and sub-centres, including outpatient and maternal care services
4. Utilization of primary health care by different socio-economic groups
5. Available services in HWCs as per the CPHC package and services expected by members of the community
6. Demand and supply side enablers and barriers shaping the utilization of primary health care
7. The gap in meeting specific health needs for certain vulnerable sections of the population, such as adolescent girls, pregnant women and senior citizens
8. The nature of community participation in planning, implementing, and monitoring primary health care, specifically in terms of the functionality and role of the community structures such as VHNSC and RKS

The key findings and inferences for the above themes are presented below:

11.1 Health issues and health care seeking

The health problems mentioned by the village residents in the three districts include symptoms such as cold, cough, fever, headaches, stomach pains and joint and body pains. Hypertension and diabetes were the most frequently mentioned NCDs. Heart diseases are prevalent in all the districts and nerve problems were mentioned by respondents in Barpeta and Nagaon districts. Skin problems are also common among men and women in all the districts.

A high incidence of NCDs, found in the covered districts, especially Nagaon and Golaghat. In Nagaon, 52.55% respondents reported that at least one family member was suffering with NCD. In Golaghat and Barpeta, 33.16% and 10.62% respondents respectively reported that at least one family member had one of the NCDs.

Health care seeking - i.e. whether members of the community opt to seek care or medical attention at the onset of illness – is of primary importance for the demand for primary health care. It is only after they have decided to seek such care or attention that the issue of provider choice (whom they would prefer to consult) arises.

Survey respondents were therefore asked about whether they postpone seeking care at the onset of illness. **The survey finds postponement of care to be less frequent.** Overall, only 7.63% respondents said that they postponed seeking care at the onset of illness. The highest share of respondents postponing care was in Nagaon (11.34%). For the small share who do postpone care, a variety of experiences and reasons such as financial pressures, transportation issues and household work were mentioned for the postponement.

The use of home remedies/herbal remedies is an indicator of the prevalence of self-care (such self-care, however, need not be exclusive of seeking intervention from a provider). In all the three districts combined, 10.12% respondents use home remedies. In Golaghat and Nagaon about 14% of the respondents use home remedies while in Barpeta only 1.69% use such remedies. Top three conditions for usage of herbal medicine were cough, fever and joint pains. In all the three districts, **a majority of respondents who use such remedies, said they do it before the use of pharmaceuticals.**

The continued seeking of care for NCDs/chronic ailments is a pivotal element of health care seeking. It assumes special importance for less privileged sections of the population, who may find it difficult to sustain continued care. **Combining the three districts, the extent of continued care seeking for chronic care is only 34.74%, which points to an important gap in health care seeking.** Amongst the three districts, Golaghat has the highest rate of continued care seeking for chronic ailments (75%), while Barpeta has the lowest (only 2.27%). **The lack of medicine availability in public facilities – right from sub-centre to DH level – is creating gaps in the continuation of medication for chronic ailments.**

Outpatient care seeking is an important indicator to measure health care seeking. In the survey, respondents and their family members were asked if they had fallen sick in the last 15 days, and whether they sought outpatient care. **Combining the three districts, treatment was taken on medical advice for 88.7% episodes of illness in the last 15 days.** The highest share of not taking any treatment was in Nagaon (17.33%).

11.2 Provider choice

Once people have decided to seek care, people have to choose a particular provider, who/which may be public or private, primary or secondary.

The first-choice provider when an individual falls sick may be shaped by factors such as the type of illness, the range of services provided at the facility, distance to the facility and financial status of the patient. **Survey findings for this study illustrate that the individual may have more than one provider as first choice.** The largest share of respondents in Barpeta district (50.6%) chose PHC/HWC/SC as their first-choice provider. In Golaghat district also, PHC was preferred by the single largest share of respondents (43.97%) as first-choice provider.

In Nagaon, the largest share of persons preferred district hospital as first-choice provider (81.94%). This is a deviation from the other two districts, where the PHC was the most preferred first-choice provider.

The survey respondents were asked whether they *ever* seek advice from traditional healer for any diseases. **Overall, only 6% respondents combining all the three districts said they consulted a traditional healer.** Nagaon district had the highest incidence (8.56%) of respondents ever consulting a traditional healer, while Golaghat's share was 7.54% and Barpeta's was just 1.93%. 'Evil spirits', mental disorder, joint pains, snakebites and cough are some of the major problems for which traditional healers are being consulted. In Barpeta district, women FGD participants mentioned that they visit traditional healers since they believe that he will successfully heal their illnesses. In Golaghat, FGD participants mentioned that some traditional healers have been known to cure patients successfully, and they are known to give relief for certain ailments such as weakness and vomiting. Some of the **traditional healers interviewed in Golaghat and Nagaon admitted that they are not the first-choice provider for the patients.** First people go to the doctor for the treatment, and if they are not getting well then, they came to them, they said.

Combining Barpeta, Nagaon and Golaghat, 12.47% respondents had consulted a private provider in the last one month. Overall, 11.08% respondents in Barpeta district, 13.38% in Golaghat and 12.96% in Nagaon saw a private provider in the last one month, indicating that there is not much variation between districts in this regard. There is no conclusive relationship between economic (ration card) status and seeking of private provider. The survey revealed that overall, the most frequently mentioned reason (46.79%) for consulting a private provider in the last month was the poor quality of services in government facilities, followed by experience of effective treatment by private doctor (35.71%) and ease of accessibility (28.85%). Adding to what was revealed by the survey, the FGD findings also show that people sometimes prefer to visit private doctors because "they give more importance to patients than doctors of government hospitals." Other reasons for visiting private providers were better quality of X-ray plates/diagnostic reports and availability of specialists.

Combining the three districts, 46.35% respondents said that they regularly visited PHC facilities (PHC/sub-centre/HWC). Golaghat district had the highest share of survey respondents regularly visiting such facilities (83.67%), while Barpeta district had the lowest. Overall, primary care conditions like fever, cough, headache, body pain, joint pain, diarrhoea and stomach pain are the major reasons for utilization of PHC facilities. Women FGD participants in Golaghat district, which has highest regular utilization of PHCs, gave a number of reasons for visiting PHCs- proximity, free or cheap services, availability of facilities, good experience in the past and "fulfilment of needed treatment".

One common theme that emerged across the FGDs held with men and women in different villages in the three districts was that **they choose different providers for different health issues or conditions.**

Out of all the outpatient cases among respondents and their families in the last 15 days, 66.67% were in public facilities whereas 33.33% were in non-government/private facilities. **This fits in with the NSSO 2014 finding that 67% of outpatient cases use public facilities in rural Assam.** In Barpeta district, 71.43% sought outpatient care in public facilities; the corresponding figures for Golaghat and Nagaon were 54.55% and 72.58% respectively. Golaghat district therefore had the highest extent of outpatient cases attended in private facilities. Overall, one third of the outpatient cases were in the PHC/sub-centres and the same share were in the government hospital.

In all the three districts combined, the district hospital is the most preferred choice for emergency consultation. For chronic care, 61.04% respondents preferred to approach the district hospital, 43.67% preferred to approach the PHCs while 31.51% preferred to approach the

sub-centres/HWCs for chronic disease care. Dependence on secondary care facilities is therefore especially evident for chronic and emergency care.

Across the three districts, men and women FGD participants largely mentioned not having a regular doctor.

11.3 Level of utilization for different services offered at PHCs, HWCs and sub-centre

HMIS data (2019-20) was used to examine the facility/health centre level utilization of different services. Each sampled BPHC on an average conducted 8.3 deliveries per day in 2019-20. The district-wise average number of deliveries per BPHC per day are as follows: Barpet - 9.62; Golaghat - 3.02 and Nagaon - 10.07. The average home birth to BPHC delivery ratio is highest for Barpeta district (0.30) and the lowest is for Golaghat district (0.02).

HMIS data for 2019-20 also shows that the average BPHC OPD per day is overall about 676. It is about 595 for Barpeta district, 679 for Golaghat district and 724 for Nagaon district. The most populous district (Nagaon) thus has the highest BPHC OPD per day, but the least populous district (Golaghat) has the second highest BPHC OPD per day. The district averages for sub-centre OPD per day are as follows: 4.79 for Barpeta, 4.23 for Golaghat and 7.03 for Nagaon. The four sub-centres with highest OPD per day are also the ones that have a CHO, and three of them are HWCs.

11.4 Utilization of primary health care by different socio-economic groups

The utilization of primary health care facilities by different socio-economic groups was examined on the basis of survey data. Overall, following shares of respondents from each social category preferred to visit PHC facilities regularly: general: 30.27%, OBC/minority: 65.88%, SCs: 49.07%, STs: 78.26%. Therefore, the ST group (which is among the most marginalized social categories) has the highest rates of regularly visiting such facilities, while the most advanced social category (general category) has the lowest share of regular utilization of such public facilities. Overall, for all three districts, the following shares in each ration card category visited these facilities regularly: APL 52.08%, BPL 47.98%, Antyodaya 15.79% and no ration card 38.89%. **Therefore, the two economically poorest categories (BPL and Antyodaya) do not have the highest extent of regularly visiting public health facilities.**

The gender distribution for PHC/sub-centre/HWC visits shows that the share of men and women visiting are very close. Overall, combining the three districts, 45.99% women and 46.98% men regularly visited primary health care facilities.

The social and economic categories of outpatient cases visiting PHC facilities in the past 15 days was also studied. In Barpeta district, only the BPL category had outpatient cases in the PHC/sub-centre. However, the largest share of BPL outpatient cases was in the government hospital and not the PHC/sub-centre. In Golaghat district, only the BPL and no ration card categories had outpatient cases in the PHC/sub-centre. In Nagaon, there were no outpatient cases from the Antyodaya category, while 31.82% of the BPL cases and 25% of the no ration card cases were in the PHC/sub-centre.

11.5 Available vs expected services

The fit between available services and services that the community expected or preferred has great significance for the acceptability of primary health care to the community. Such alignment is likely to influence the demand for such health care services from the community.

HMIS data shows that 15 out of the 34 sampled sub-centres covered in this study have at least two ANMs. CHOs are available in seven sub-centres as per HMIS data (which has implications for the level of outpatient care provided in these facilities). Of these seven, four are categorized as HWCs. Delivery related information is available only for 25 out of 34 sub-centres, out of which only five centres have some deliveries. It is noteworthy that one facility categorized as an HWC in HMIS (Borhola sub-centre in Nagaon) had zero deliveries. All the sub-centres which are delivery points have at least two ANMs.

On the basis of primary data, this study examined the status of availability of the 'extended' services as per the CPHC package. In the CPHC package, services 7-12 go beyond the RMNCH+A/RCH and the communicable disease services usually provided at primary health facilities. The availability of the extended services 7-12 was assessed on the basis of primary data in three HWCs, one each in Barpeta, Golaghat and Nagaon districts. All the three HWCs are providing the services for management of NCDs. Though they are all dispensing medicines for NCDs, not all of them are engaging in proactive screening for early detection. Two out of the three HWCs are also handling emergencies to a limited degree. On all the other extended service packages, such as elderly and palliative care, oral care, mental health, and ophthalmic and ENT care under CPHC, service provision has not yet been established.

FGD participants residing in the catchment villages of these three HWCs were also asked about the service availability at these facilities. It was only in Geleki village (catchment village for Siljuri HWC in Golaghat district) that the villagers were making notable use of the HWCs and showed a positive perception of the HWC.

Siljuri HWC is the best developed among all the sub-centres/HWCs covered in this study and the only one for which CHO mentioned functional labour room being available. However, even in this HWC, some

problems were highlighted, such as lack of diagnostic facilities (barring those for antenatal care), lack of yoga room and room for dressing wounds, apart from lack of dedicated pharmacist and lab technician.

Going beyond HWCs, FGD participants in catchment villages of different sub-centres were asked what services they would prefer in or near their villages that are not currently available. The major need areas pointed out by members of the community are diagnostics (such as X-rays), medicines, specialist doctors and emergency care.

11.6 Enablers and barriers to utilization

A number of demand-side and supply side factors shaping utilization were studied, including financial factors, access and location, service experience at PHCs and other health care facilities, empowerment and engagement of communities and elements of the “reinvented model of care” as per WHO’s People Centred Care framework.

The survey for this study attempted to gauge the financial difficulties faced by the members of the community.

This study also examines the OOPE incurred on outpatient, maternal care and inpatient care. With respect to maternal care, there was also an examination of the coverage of maternal expenditure financing schemes.

Financial factors: Overall, 76.55% of the respondents of all three districts stated that they sometimes face financial difficulty as a result of spending on health care, while almost 15% said that they always face such difficulties.

Survey data from Golaghat and Nagaon shows that the overall allopathic or non-AYUSH medicine cost for outpatient cases in the last 15 days came to \$27 (₹1 989.93). Medicine cost is the largest component of outpatient expenses and thus, is notable as a financial challenge to the utilization of outpatient care. FGD responses indicated that costs on transportation, food, medicines, and diagnostics constrain the affordability of seeking primary health care. In Barpeta, for example, FGD participants said that diagnostic tests not being available and highly limited medicine availability led to care seekers seeking medicines and diagnostics from private players, which increases OOPEs. **The problem of having to buy medicines from outside because of lack of availability of medicines in primary health facilities was very frequently mentioned by participants.**

The survey finds considerable variation between districts as far as delivery expenditure is concerned. The lowest such average expenditure is in Nagaon district \$8 (₹600) and the highest is in Golaghat \$176 (over ₹13 000). The private facility deliveries in Golaghat have pushed up the average delivery expenditure for Golaghat district. However, mothers in Golaghat have also reported much higher delivery expenditures in government hospitals. While delivering in private facilities may cause OOPEs to shoot up, quality concerns at PHCs or other public facilities may cause some women or their families to prefer private facilities.

Under the Janani Suraksha Yojana (JSY) scheme, beneficiaries receive \$81 in their bank accounts after delivery. In Golaghat district only one-third of mothers received benefits of JSY. The survey of mothers in this study shows that the district with the lowest coverage of JSY (Golaghat) also has the lowest share of home births (zero). There is clearly not enough evidence for an association between benefitting from JSY and institutional delivery. Also, the JSY amount is not high enough to cover the reported high cost of delivery in Golaghat district.

Access and location: The members of community participating in the FGDs in the three districts repeatedly pointed to distance as a consideration in choosing providers of choice.

Given that the sub-centres are supposed to be the centres closest to the grassroots (serving a population of 3 000 to 5 000), it is not surprising that in all the three districts these are the facilities that are mentioned by large shares of respondents as being closest to their homes. None of the respondents in Barpeta district had said that PHC is the nearest facility for them.

The range of facilities and services available in PHC is wider than that available in a sub-centre. Therefore, the finding that the PHC is not the nearest facility for any respondent in Barpeta district has implications for the villagers’ access to a wider range of PHC services, including medical doctors.

For almost 50% of the respondents, the nearest health care facility is within the radius of 1km to their house

followed by 23.37 percent respondents where the distance ranged between 1 to 2km. The largest share (around 58.55%) of survey respondents said they have to travel 15 minutes or less to reach the nearest health care centers. The respective district wise figures for the same are 66.27% 58.29% and 52.31% for Barpeta, Golaghat and Nagaon respectively.

Overall, 75.82% of the respondents walk to reach their closest facility. **Around one-fourth of the surveyed respondents said they use auto as the mode of travel; such an option has implications in terms of raising transportation related OOPEs in accessing PHC facilities.** Barpeta district has the highest portion of respondents who use auto (30.84%) which is followed by Golaghat (25.88%) and Nagaon (21.30%).

A majority (60.88%) of respondents of Nagaon said that they faced difficulty in reaching providers. Majority of respondents from Golaghat (91.71%) and Barpeta (79.76%) had faced no difficulty. Financial difficulties, transportation issues and preoccupation with household work are stated as the reasons for difficulty in accessing health providers.

Respondents face special problems in accessing medicines. Large portion of the respondents from Barpeta (55.66%) and Nagaon (49.31%) districts had to travel more than 10km for getting medicines.

Service experience and service perception: Service quality at PHC institutions is a supply side factor that also shapes whether people would use such services repeatedly or recommend them to others. The parameters considered include waiting time, infrastructure and cleanliness, quality of communication with the doctor/CHO, perceived effectiveness of treatment and the cultural and gender appropriateness of care.

About 50 percent respondents of Golaghat and 38.31% respondents of Barpeta districts said that their waiting time falls in the range of 30 minutes to 2 hours, whereas the largest portion of respondents in Nagaon district (43.98%) had waited less than 30 minutes.

Since cultural appropriateness is related to the acceptability of care, FGD participants were asked about their perception of PHC services on this parameter. **Most FGD participants expressed that the PHC/HWC staff were respectful of their culture and customs.** FGD participants were also specifically asked about the gender appropriateness of care. Male participants mostly expressed comfort with care delivered by staff of either gender, but women participants from all three districts often expressed preference for staff from the same gender. **Across the board, participants in all three districts expressed their ability to follow spoken communication by the doctors and staff, which was in the Assamese language.** Not all participants were however able to follow the notice boards, IEC materials etc (including non-Assamese speaking participants). Participants also expressed inability to read English prescriptions.

FGD participants presented diverse experiences with respect to the behaviour of doctors and other staff, cleanliness of facilities and quality of communication with doctors. Lack of medicine availability and waiting time were expressed as common problems by participants. FGD participants were also overall pleased with the regularity and opening hours. Negative views across the board were expressed with respect to the inpatient facilities at PHCs.

In a women's FGD in Golaghat district, participants said that, "No one is there who is not visiting PHC. Because there is no other option." This indicates that patients may feel compelled to visit (because of economic or other access related compulsions) in spite of dissatisfaction with such facilities. Nevertheless, some participants in the three districts did state that they don't visit such facilities. Non-availability of doctors and specialists, lack of medicines, long waiting, lack of cleanliness and disease not being cured completely were mentioned as reasons for not visiting PHCs.

Overall, 49.56% stated that they would not go to same Doctor/CHO.

In Barpeta district 62.17% survey respondent stated that they would not visit the same doctor/CHO at the PHC/HWC, the corresponding figures for Golaghat and Nagaon are 41.96% and 44.44%. The lack of trust in PHC/HWC/sub-centre providers is therefore highest in Barpeta.

Empowerment and engagement of communities: FGD Participants had commonly encountered information on disease prevention (such as handwashing, boiling drinking water, preventing malaria) given by the ASHAs. Male participants often felt that ASHAs and ANMs never told them about how to prevent disease; they felt that only pregnant woman, new mothers and newborn babies get some services from the ASHA/ANM. While some villagers felt that the ASHA was accessible to meet them, a frequently expressed

view was that the ASHAs are not available when they need to meet them, and their home visits are not sufficiently frequent.

The gap in surveillance/testing for early detection of communicable diseases such as TB is evident. Only 4.13% of survey respondents in Nagaon and 4.21% in Barpeta with week-long fever, said that they underwent a sputum test for TB. The corresponding figure for Golaghat is 34.48%, indicating the relative better coverage of surveillance for TB.

PHC facilities, especially those like sub-centre/HWCs that lack medical doctors, should know how and when to refer appropriately when the case exceeds their competence. The Ayushman Bharat guidelines on HWCs (NHSRC, n.d. (a)) envisage a back referral role for HWCs. On both referrals and back referrals, actual gaps were expressed by stakeholders. While patients sometimes were unable to travel to referred, more distant higher facilities because of economic issues, CHOs also highlighted that not all referred NCD patients were coming back to sub-centres for refills and follow-ups.

Regression Analysis on enablers and barriers to utilization in this study (in which the dependent variable 'ever visited primary health care facilities' was regressed on various independent variables, has revealed key insights:

Social category of the respondents is found to have significant effect on the demand for primary health care facilities. Among the social groups, respondents belonging to scheduled tribes and other backward castes or minorities are more likely to visit PHC facilities.

Respondents/respondents' family having paid for delivery expenses showed significant and positive impact on utilization. Whereas presence of any communicable and noncommunicable disease didn't show any significant impact. Further, the distance travelled by the individual to reach the nearest health care facility and waiting time to see doctors after reaching the facility, showed remarkable (negative) effect on visiting such facilities.

Respondents having a government health insurance plan are more likely to visit PHC/sub-centre/HWC than individuals who don't have a health insurance plan or the persons who have a private health insurance plan.

Difficulty in reaching hospital and challenges in transportation also have adverse impacts on utilization. Respondents who had travelled either by auto or by bicycle or by public transport facility are also less likely to travel to the facility. The respondents who had to sell their assets to pay medical expenses and also the families burdened with a loan have lower probability of visiting the PHC/sub-centre/HWC in comparison with the groups who are financially sound. Those with no landholding are more likely to visit such facilities.

In another regression, 'Level of care' for outpatient care (i.e., whether PHC/sub-centre/HWC was visited in the last 15 days for outpatient care) is taken as dependent variable. The output of this regression shows that with an increase in age, the probability of an individual reaching for outpatient care at the PHC/sub-centre/HWC also increases. Total medical expenses and borrowing money from friends to meet medical expenditures seem to have a negative impact on outpatient care seeking at the PHC/sub-centre/HWC.

11.7 Gaps in meeting health needs

This study examines gaps in meeting health needs for certain vulnerable sections of the population such as adolescent girls, pregnant women and senior citizens.

Overall, only 30.29% adolescent girls got information about menstrual hygiene from the ASHA/ANM. The lowest share was in Barpeta (11.63%). This district also had the lowest share of girls being told about the benefits of delayed marriage and delayed pregnancy and receiving sanitary napkins from the Anganwadi.

While IFA tablets are required to be consumed for 100 days, on average pregnant women in Barpeta district consumed it for 67 days only, which is also the lowest among the three districts. In Golaghat, pregnant women consumed for 116 days, but in Nagaon they consumed IFA pills for 90 days. The share of women who did not receive any ANC is highest in Nagaon district (5.13%) followed by Barpeta district (4.76%)

Among the women respondents who gave birth in the last year, the extent of home births is highest in Barpeta district (18.18%). Survey responses shows that there were 6.67% home births in Nagaon and no home births in Golaghat.

Barpeta, by far, has the highest share of aged persons who are confined to home (56.19%). It also has the relatively highest share of wheelchair bound aged persons (5.71%). Nagaon, however, has the relatively

highest share of aged persons confined to bed (3.39%).

11.8 Participation and engagement

People's participation in the planning, monitoring and implementation of primary health care is critical to people-centred health care.

National Health Mission (NHM) has laid down a framework for community participation in health through its 'communitization' component. An institutional framework for community-based monitoring and planning at various levels, involving community members, NGO representatives and panchayat representatives has been set up. The two main structures that come under the NHM framework for promoting community participation are: VHSNC and RKS. VHNSC's expected role is to take collective actions on issues related to health and its social determinants at the village level and carry out community-based planning and monitoring. RKS is supposed to act as a group of trustees for the proper functioning and management of the hospital / health centre.

All the VHNSC members interviewed mentioned that there had been no capacity building programmes to orient them on their role. In the VHNSC guidelines it is stated that every VHNSC is entitled to an annual untied grant of \$135 (₹10 000). The study findings show that untied fund is mostly used for filling gaps in sub-centre infrastructure.

The poorly developed planning capacities of VHNSCs, the very low amount of VHNSC fund received and gap in equipment and amenities (which should already have been available in sub-centre) are factors contributing to this. VHNSCs are constrained in using the untied fund to take up measures to address the contextual determinants of health, such as education, nutrition, sanitation and environment. While some VHNSC functionaries are unaware of untied fund related matters, others leave this matter to the ASHA. The survey also reveals that discussion amongst VHNSC members shapes decisions on spending.

It is not realistic to expect VHNSCs to engage in health-priority based integrated planning. The interview responses of VHNSC representatives also indicate that their conception of 'village health planning' is understandably less holistic and integrated and is mostly limited to strengthening

sub-centre infrastructure and organization of awareness programmes. Regarding the overall functionality and utility of VHNSCs, some members mentioned problems such as the members not being aware or active, and limited effort by the ASHA (member secretary of VHNSC) to engage the VHNSC members. One Gram Panchayat member (who is an ex-officio VHNSC member) mentioned the lack of time to attend to VHNSC work. The lack of coordination among VHNSC members also affects the performance of VHNSC and NGO role in facilitating the work of VHNSCs is very limited.

However, functionaries also mentioned the areas where they felt that the VHNSC was contributing positively, for example monitoring the functioning of sub-centres, giving suggestions for the improvement of the sub-centre, holding the ANM accountable, and making purchases to reduce the gap in facilities and amenities at the centre.

There are 10-15 members in RKS. Average of 40 RKS meetings were held in each BPHC Catchment area in 2019-20, which comes to three to four meetings per month. The medical officers of some BPHCs cited several problems in performing some functions of the RKS, including getting signature from the Circle Officer to use the fund. This hampered utilizing the funds during any emergency.

Providing opportunities for grievances to be expressed and avenues for redressal of grievances is crucial for the empowerment of members of the community. The RKS guidelines mention that RKS should take responsibility for operationalizing grievance redressal mechanisms in the facilities. Members of the community, covered in the FGDs, were asked about the availability of channels for redressal of grievances and whether they were able to make complaints. While FGD participants in Barpeta and Golaghat largely pointed to the absence of such channels, some FGD participants in Nagaon indicated their awareness of the channel for expressing grievances (they mentioned the suggestion box in PHCs).

The grievance redressal mechanism should go beyond the suggestion box. CSOs, including NGOs, either by themselves or through the VHNSC, could play a role in making the users more aware of their rights and entitlements as citizen-users of primary health facilities.



Chapter 12

Best practices and recommendations



A satisfactory experience of care is of critical importance for sustaining the demand for PHC facilities. The findings of this study have highlighted the importance of supply side factors such as medicines, diagnostics and availability of specialists in shaping the utilization of public primary health care.

One of the core principles of CPHC is to ensure delivery of high quality of care through a commensurate expansion in the availability of medicines and diagnostics, use of standards treatment and referral protocols and advanced technologies, including IT systems (NHSRC, n.d. (a)). The actualization of CPHC can happen through the largescale conversion of PHCs and sub-centres into HWCs and the availability of the envisaged services and facilities at the converted HWCs. Such actualization of CPHC is likely to address the barriers that adversely affect people's utilization experience and push some of them towards private providers.

Many of this study's recommendations for strengthening the demand for primary health care are based on best practices being followed by other states for the operationalization of CPHC. Other references include the various guidelines of the government, such as the 'Guidelines for Community Processes' prepared by the Ministry of Health and Family Welfare (MoHFW) (NRHM, 2013) and the operational guidelines on the Free Drug Service Initiative (MoHFW, n.d.). Previous evaluation studies and action research projects done by GRAAM and other papers/research articles have also been drawn on for developing the recommendations for this study.

12.1 Dealing with shortages of medicines and constrained access to diagnostics

A review report of the MoHFW on HWCs argues that essential medicines and diagnostics form the foundation for providing primary health care at HWCs; the provision of these are linked to increased footfall at HWCs and reduced OOPEs for the population (MoHFW, 2019b). The findings of this study have also shown that medicine expenses form the largest share of inpatient and outpatient expenses. The following best practices and other suggestions are given below for enhancing access to medicines and diagnostics.

12.1.1 Enhancing access to medicines

1. There should be a transition from centre-based to need-based funding of PHC facilities, and this should be first applied with respect to medicines. This was argued in GRAAM's evaluation of the implementation of NRHM in Karnataka. As a result of GRAAM's advocacy, Karnataka government's Department of Health issued an order in October 2016 to procure drugs based on 'need' so that the

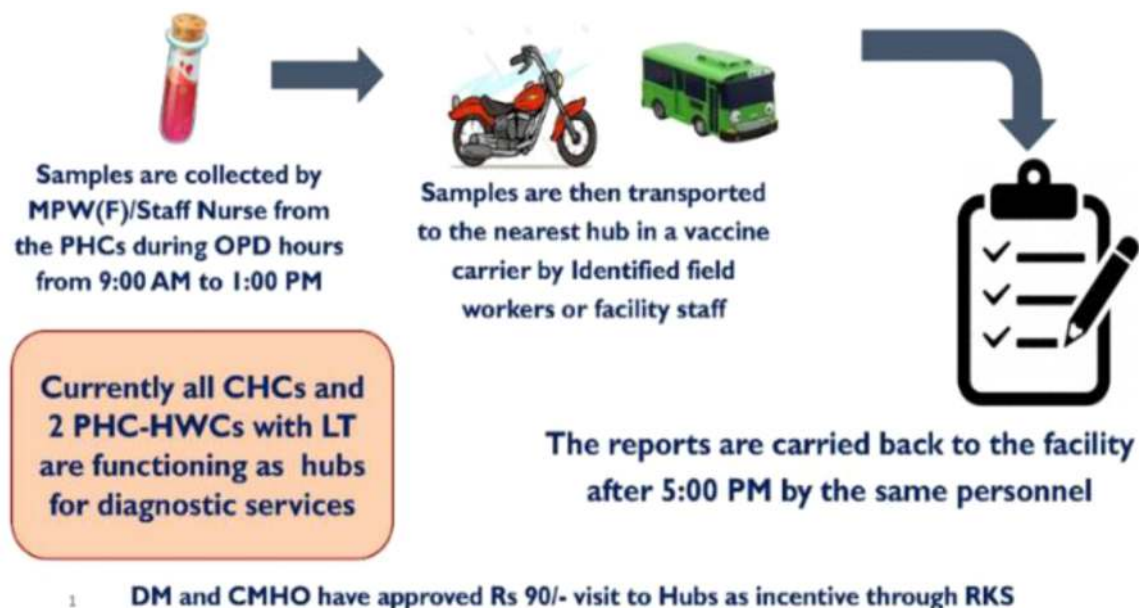
supply of medicines to each PHC would be better aligned to the population catered by the PHC (GRAAM, 2013).

2. To ensure the continuous supply of generic medicines at all facilities, buffer stocks of essential medicines for at least three months should be maintained at facilities (MoHFW, 2019b).
3. The essential drug list (EDLs) for the concerned facility should be displayed prominently in the facility, whether it is a sub-centre, PHC or HWC so that users can be more aware of the medicines they may expect to be available at the facilities and also be aware when the CHO/doctor has prescribed medicines from outside the EDL.
4. IT enabled systems for managing the procurement and distribution of drugs should be implemented for greater transparency and clarity on the timeliness of supply and availability of medicines at the health centres. The IT-enabled Drugs and Vaccines Distribution Management System (DVDMS) can provide real-time information on the status of drugs and vaccines in different health facilities, which can help in the better planning and execution at all levels (MoHFW, n.d.). The DVDMS should first be implemented in PHC-HWCs and then in the sub-centre-HWCs (MoHFW, 2019a).
5. In sub-centre/HWCs, drugs should be made available as per the EDL of 91 medicines specified in the Ayushman Bharat Operational Guidelines on CPHC through HWCs (MoHFW, 2019b).
6. Given their role in refilling medicines prescribed by PHCs for the management of NCDs/chronic ailments, sub-centre/HWCs need to indent medicines from PHCs. Fixed day indenting should be considered to ensure uninterrupted supply of medicines to sub-centre/HWCs. In Chhattisgarh, sub-centre/HWCs placed the indent by the second day of every month at the PHC/HWC, following which the concerned centre placed the cumulative indent on the fifth day of every month at the state medical service corporation portal. This helped in reducing interruption of supply of medicines at the sub-centre/HWCs (MoHFW, 2019a).
7. Facility staff should be trained for better estimation of the monthly requirement of medicines and the maintenance of buffer stock of drugs. Proper maintenance of medicine stock registers in sub-centres and training of sub-centre staff for maintenance of stock registers are essential (MoHFW, 2019b).
8. Medical officers and CHOs should be empowered to meet gaps in medicines (to a certain limit) without having to wait for the approval of the RKS. In Jammu and Kashmir, chief medical officers have been authorized to meet the short-term gaps in medicine supply from Jan Aushadhi Kendras. This has helped in preventing stock-outs at HWCs (MoHFW, 2019a).
9. Automatic medicine vending machines which dispense prescribed medicines to the patients can be tried out, as were done in select tech-enabled sub-centre/HWCs in Rajasthan. Such systems can help when pharmacists are in short supply (MoHFW, 2019a).

12.1.2 Enhancing access to diagnostics

1. Availability of rapid diagnostics kits at sub-centres and with frontline workers is suggested to ameliorate the problem of availability of diagnostics (MoHFW, 2019b).
2. High cost, technologically demanding and lower frequency diagnostic services may be outsourced to private service providers, while retaining high volume, low cost tests not requiring highly skilled manpower within public health facilities. This is suggested by NHM's Free Diagnostic Services Initiative or FDI (NHM, n.d.).
3. A hub and spoke model for enhancing availability of diagnostic services is recommended. The district administration in Khandwa, Madhya Pradesh, created seven central diagnostic units or 'hubs' in five CHCs and two PHCs with lab technicians (Lts), to provide diagnostic services to 27 'spokes' (PHC/HWCs). The samples were collected from the spokes during OPD hours, transported to the nearest hub by centre staff or field workers and the reports were brought back to the spokes in the evening (MoHFW, 2019a; MoHFW, 2019b).

Fig. 11.1 Hub and spoke model for enhancing efficiency of diagnostics in PHC/HWCs in Khandwa, Madhya Pradesh



Source: Reproduced from synthesis report on the regional workshop on operationalization of AB-HWCs (MoHFW, 2019b)

12.2 Enhancing continued care for patients of chronic ailments/NCDs

1. The tracking of NCD patients after the initial diagnosis and prescription should be strengthened, and continued availability of medicines for chronic diseases should be ensured, especially in Barpeta district. This study has shown gaps in continued care seeking for chronic ailments, which is aggravated by the constrained medicine availability at the primary health facilities. Amongst the three districts, Golaghat has the highest rate of continued care seeking for chronic ailments (75%) while Barpeta has the lowest (only 2.27%).
2. NCD screening at the community level is recommended, on the lines of what was done in Punjab's Gurdaspur district. In Gurdaspur, the ASHAs identified the at-risk population with the help of the CHOs. The people identified to be at risk were then mobilized to attend outreach camps held at every village. The patients diagnosed with hypertension were provided with medications for at least 10 days at the camp itself. All the patient records were digitized for the tracking and regular follow up of patients (MoHFW, 2019a).
3. There is a need for stronger monitoring (including through online means) of referral visits by patients. Local health workers such as ASHA should work in tandem with CHOs and should be involved in helping and tracking village residents in making referral visits. Details of each patient should be entered online in the referral tracking system, and referral status of the patients to the nearest facility should also be reflected online.

12.3 Expanded service availability, access to medical doctors and specialist consultation

1. Teleconsultation services should be provided as a way of bringing specialist services close to people at the grassroots. It can also help in contexts where a medical doctor is not available to provide consultation at the facility. In Rajasthan, 36 tech-enabled HWCs (22 PHCs, 14 sub-centres) provided tele-consultations to the community through a PPP model. An additional GNM was hired and trained for operating tele-consultation services. About 13% of the teleconsultations were provided by specialists from MG Hospital, Jaipur, and the remaining were provided by general physicians (MoHFW, 2019a).
2. Teleconsultation services can also be provided through health kiosks, on the lines of what has been tried out in Puducherry. In the Union Territory of Puducherry, teleconsultation was provided through

health kiosks at sub-centre/HWCs and PHC/HWCs. These health kiosks can store patient's demographic data, history and complaints. They can also enable lab investigations like blood pressure, heart rate, blood sugar, haemoglobin, SPO2, ECG, BMI etc to be carried out with the help of in-built devices and digital storage of parameters. The data entry on the kiosk is done by a 'community health ambassador' hired by an NGO partner. The kiosks also enable video consultation with specialist doctors (MoHFW, 2019a).

3. There is a case for linking about 4-5 sub-centres to one team of specialized professionals to enhance access to mental health services, medicines and physiotherapy. In Brazil, family health teams provide preventive and basic health care to a population of 3000 to 4000 (similar to the populations catered by India's sub-centres) using teams of a physician, a nurse, and about six community health workers. Each group of four or five health teams is linked to psychologists, community pharmacists and physiotherapists (Sundararaman, 2018).
4. To ensure that communities have access to the expanded range of services (services 8-12 of the CPHC package, i.e. ophthalmic and ENT care, mental health care, oral care, emergency care and elderly and palliative care), there is a need for the training modules for these service buckets to be developed with expediency and widely delivered to the HWC team members such as CHOs, ANMs and MPW (males).
5. Given the shortage of staff such as pharmacists and lab technicians, there is a need for multi-skilling of frontline workers such as ANMs and MPWs in partnership with credible academic or training institutes (MoHFW, 2019b).

12.4 Enhancing the coverage of populations

It is recommended to ensure the use of IT platform/HWC App for population empanelment and to make the process of population empanelment efficient by linking it to existing databases such as the public distribution system (PDS) database. Tamil Nadu conceptualized a comprehensive UHC-IT platform to ensure that members of the community are not excluded from the benefits of CPHC. This IT platform also serves as an efficient first step for population empanelment, which is an essential prerequisite for universal health coverage. Basic information for the population database was extracted from the e-PDS, which lists 6.6 crore individuals. Ration cards were then mapped to sub-centres using the location of the ration shops. Also, every family's details in e-PDS were used to develop family folders which enabled easy identification of patients and their details (MoHFW, 2019a).

12.5 Enhancing the access to and uptake of maternal care

1. The state of Assam should take initiatives to allay women's fears related to giving birth in primary health facilities, on the lines of the one-day events called "mothers' picnics" in West Bengal. These events help to allay the fears of pregnant women with respect to delivering in PHC facilities. Under this innovative initiative, pregnant women from selected sub-centre areas having high incidence of home births are brought to the nearest delivery point for a tour of the labour room facilities. The pregnant women are also given antenatal check-ups and given health talks on birth preparedness, danger signs of pregnancy, importance of institutional delivery and entitlements under JSY. IEC materials on safe motherhood are also shared with the pregnant women. In addition, refreshments and transportation are also provided to the expecting women (MoHFW, 2019a).
2. Findings of this study indicate that there should be special focus on strengthening delivery facilities at sub-centres in this district.

The findings of this study show that only five out of 34 sampled sub-centres in the three districts had non-zero deliveries. Since sub-centres are the points of care closest to the community, there is a need to expand the availability of delivery facilities at sub-centres. Survey responses from this study indicated the highest home births in Barpeta. The NHFS-4 data presented in Chapter 2 of this report also indicates that amongst the three study districts, the extent of institutional deliveries is lowest in Barpeta district. No survey respondent in Barpeta indicated that PHC was the facility closest to his/her home.

12.6 Improving community outreach

1. Community feedback expressed in the FGDs revealed the preference for more frequent home visits by ASHAs. Some male FGD participants also said that they don't benefit much from ASHA services as ASHAs focus on pregnant women. Keeping in mind the Guidelines for Community Processes, ASHAs should do promotive and preventive home visits for up to two hours every day, for at least four or five days a week. The home visits should be not only for RCH related promotion and prevention but also for noncommunicable diseases, disability, and mental health (though households with pregnant women, newborn babies and infants, or a malnourished child should be given first priority) (NRHM, 2013).
2. With respect to community outreach, ANMs should focus efforts on reaching those families that the ASHA is having difficulty in motivating for behaviour change, and providing home-based services for postpartum mothers, sick newborn and children who need referral but are unable to visit. ANMs are also supposed to provide 'supportive supervision' through joint visits to households with ASHAs (NRHM, 2013).
3. One section of FGD participants in this study expressed dissatisfaction with the performance and accessibility of ASHAs. Therefore, there is a need to improve the equation of ASHAs with the communities that they are embedded in. Supportive supervision by ANMs or ASHA facilitators may guide ASHAs in converting their knowledge to practice. Communication and problem-solving skills should be included in their training so that they can establish better relations with the community (Kohli et al., 2015).
4. ASHA interview responses in this study reveal the widespread dissatisfaction of ASHAs with the incentives obtained by them, which varies from zero to \$40.6 (₹3 000) per month. A few ASHA respondents have also indicated preference for a salary rather than an incentive. From the point of view of the motivation of ASHAs, there is a need to ensure that ASHAs are compensated suitably and fairly for the time and effort invested by them.
5. The capacity of medical officers and CHOs needs to be built for community engagement to achieve health outcomes among rural communities. ASHA interview responses from this study indicate that the presence of learned or highly placed persons such as doctors leads villagers to take awareness creation sessions more seriously.
6. Community outreach and IEC should be strengthened for NCDs. Testing for early detection of NCDs should be strengthened not only near HWCs but near all sub-centres, starting with those that have a CHO.
7. IEC materials should be displayed not only at health centres but also at other places frequently visited by villagers such as namghar (places of congregational worship), post office, Panchayat Hall, bus stops and tea shops.

12.7 Improving community monitoring and grievance redressal to enhance accountability

1. The capacity building of VHNSC members should be taken up on high priority, so that VHNSC members are able to better perform their functions, including the monitoring of primary health services. The guidelines for community processes suggest that VHSNCs should use a public services monitoring tool to assess the key services at the sub-centre and the PHC. These guidelines suggest that VHSNCs should visit PHCs or talk to service users and fill the obtained information in a score card. The parameters listed in the score card should relate to availability and quality of services. The guidelines suggest that PHCs scoring well should be felicitated and those faring poorly should be 'singled out for appropriate action' (NRHM, 2013).
2. The VHSNC can also play the role of a forum for redressing the felt health-related grievances of the community and should try to resolve such grievances through dialogue with the health service providers. It must also communicate grievances not resolved at the village level to the district grievance redressal committee, where this is appropriate (NRHM, 2013). CSO or NGO support may help galvanize VHNSCs as forums of community action and public accountability.
3. Lessons on community monitoring can also be drawn from the 'Arogyashreni' experiment implemented by GRAAM in 112 PHCs in Mysuru district of Karnataka between 2011 and 2013. The

objective of Arogyashreni was to improve the public health system through enhancement of community monitoring. Under this project, select members of the Planning and Monitoring committee of rural PHCs of the district were oriented towards facilities and services available in their PHCs. Every quarter, these members surveyed the existing facilities and services offered by their PHCs and answered a monitoring questionnaire administered telephonically through Interactive Voice Response System (IVRS). The responses from these members were scored and community score cards were generated for each PHC. Based on these scores, all the PHCs of the district were ranked. The ranking exercise led to these community representatives becoming more motivated to push for and support the improvement of services at the PHCs. The entire exercise resulted in more nuanced monitoring and better dialogue and advocacy for the improvement of primary health care.

4. There is a need to make the users of PHCs more aware of the available grievance redressal mechanisms. The grievance redressal mechanism should also go beyond the suggestion box kept in the health centres, given that the users have no control over when the suggestion box is opened, whether the suggestions are noted down and whether they are acted upon. Above all, CSOs including NGOs, either by themselves or through the VHNSC, should play a role in making the users more aware of their rights and entitlements as citizen-users of primary health facilities.
5. The RKS guidelines on grievance redressal may be used as a reference for establishing a more concrete grievance redressal mechanism in BPHCs: RKS should put in place a grievance redressal desk with a nominated person preferably from a reputed NGO/CSO and a dedicated landline number and email id which is to be displayed in each facility. Such desks should also admit complaints with respect to the quality and availability of essential medicines supposed to be provided at the concerned facility.
6. The OPD/IPD slip/discharge paper should be printed with these details so that the patient may lodge a complaint telephonically or through post or email even after leaving the premises of the centre. The grievance redressal desk should maintain a register of grievances in a format which will include the name, date of receipt of grievance and specific complaint and action taken (NHM, 2015).
7. The Citizen's Charter should serve as a clear signifier of the rights and entitlements of members of community as users of health services. It should clearly refer to the free services that members of the community are entitled to, along with the specific services (OPD/inpatient) for which user fees would be charged. The standards of quality that users are entitled to should be stated in simple, concrete and relatable terms so that the citizen's charter helps empower members of the community.

12.8 Enhancing the gender and linguistic appropriateness of care

1. Responses of women FGD respondents in this study reveal that a section of women participants are uncomfortable with seeking care from male doctors, especially for sexual and reproductive health problems. Increased availability of women CHOs and medical doctors is therefore recommended.
2. In pockets of the state where there are significant shares of non-Assamese speaking communities, all notices, signages and IEC materials should also be specified in the other locally spoken languages.



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Current global health policy discourse emphasizes on primary health care to achieve the mandate of universal health coverage. In India, the National Health Policy 2017 and the subsequent roll out of Ayushman Bharat health and wellness centres (AB-HWCs) brought comprehensive primary health care (CPHC) to centre stage. While an understanding of supply-side factors is important, there is also a need to gain understanding of different factors that directly or indirectly affect the demand for health care services. This study explores the factors that affect individuals' decisions to seek health care services and choose among different providers. It provides the potential demand-side measures to reduce unmet needs, including lessons for CPHC.

