

A Study on Service Availability and Readiness in Sub Health
Centre – Health and Wellness Centres (SHC-HWC) for NCD
Management in Balrampur district, Uttar Pradesh

By

Saundarya Rastogi

*Dissertation submitted in partial fulfillment of the requirements of the degree
MBA Hospital and Health Management*

Academic year, 2018-2020



The IIHMR University, Jaipur

1, Prabhu Dayal Marg, Sanganer, Airport
Jaipur 302029, Rajasthan
Ph: 0141 3924700, Fax: 3924738
Website: www.iihmr.edu.in

A Study on Service Availability and Readiness in Sub
Health Centre – Health and Wellness Centres (SHC-HWC)
for NCD Management in Balrampur district, Uttar Pradesh

By

Saundarya Rastogi

*Dissertation submitted in partial fulfillment of award of
MBA Hospital and Health Management*

Academic year, 2018-2020

Jhpiego



The IIHMR University, Jaipur

1, Prabhu Dayal Marg, Sanganer, Airport
Jaipur 302029, Rajasthan
Ph: 0141 3924700, Fax: 3924738
Website: www.iihmr.edu.in

THE IIHMR UNIVERSITY, JAIPUR

CERTIFICATE BY SCHOLAR

This is to certify that the dissertation titled **A Study on Service Availability and Readiness in Sub Health Centre – Health and Wellness Centres (SHC-HWC) for NCD Management in Balrampur district, Uttar Pradesh** and submitted by **Saundarya Rastogi** Enrolment No **0821** under the supervision of **Dr. Shweta Aggarwal (Assistant Professor)** for award of **MBA in Hospital and Health Management** of the University carried out during the period from **24th Feb 2020** to **24th May 2020** embodies my original work and has not formed the basis for the award of any degree, diploma associate ship, fellowship, titles in this or any other institute or other similar institution of higher learning.

Saundarya Rastogi

Signature

ACKNOWLEDGEMENT

The three-month Internship/ Dissertation opportunity I had with Jhpiego, New Delhi was a great chance of learning and professional development. I consider myself grateful to have got this opportunity and chance to meet wonderful and professional people who led me through this period.

Before all, I would like to thank God and my Parents for their blessings and support without which it would have been difficult to complete the project in scheduled time.

During the period of my training, I have received generous help from many quarters, which I would like to put on record here with deep gratitude and great pleasure.

I am grateful to Dr. Swati Mahajan, Chief of Party for giving me this opportunity. She has been a pillar of support throughout my journey. A special thanks to my supervisor Dr. Bhartendu Sharma, Senior Program Officer and Mr. Sanjay Tripathi, State Program Officer who allowed me to encroach upon their precious time freely right from the very beginning of this training till the completion. Also, grateful for their guidance, encouragement and suggestions which provided me necessary insight into the research problem.

I would like to thank my University Mentor/Guide Dr. Shweta Aggarwal, Assistant Professor for her continuous support and guidance in every phase of the project.

I perceive this opportunity as a big milestone in my career development. It has helped me gain skills and knowledge and would continue to work on their improvement in order to attain desired career objectives.

ABSTRACT

Introduction: India is experiencing a rapid epidemiological transition and is facing a dual burden of disease. Mortality due to NCDs has been rising for quite some time now. In FY 2018-18, Government of India launched Ayushman Bharat, which had two main components – PM-JAY and establishment of Health and Wellness Centres (HWCs). Establishment of HWCs required upgradation of all existing SHCs and PHCs into HWCs which can provide expanded range of services to the community. NCD screening, diagnosis and management is a core component under the expanded range of services. No study has been conducted till date which primarily focusses on the service availability and readiness of SHC-HWC for NCD management.

Aim: The study aimed to assess the service availability and readiness of SHC-HWC for providing NCD related services in Balrampur district

Methodology: A descriptive cross sectional study was conducted to find the results. A structured quantitative questionnaire was administered to CHOs of 46 SHC-HWCs of the district via google form. Responses were collected and analysed using MS Excel.

Results: The overall facilities provided was the lowest in the General Readiness domain followed by availability of essential drugs and the diagnostic services. It was found to be the highest in Human Resources domain.

Conclusion: The level of services and readiness was below the acceptable range. Health system strengthening and focussed attention is required to meet the gaps in the healthcare delivery system.

TABLE OF CONTENTS

Chapter 1 – Main Text

1.1 Introduction	10
1.2 Review of Literature	11
1.3 Methodology	19
1.3.1 Research Question	19
1.3.2 Research Design	19
1.3.3 Study Setting	19
1.3.4 Sample Size	19
1.3.5 Sampling Technique	19
1.3.6 Research Procedure	19
1.3.7 Mode of Data Collection.....	19
1.3.8 Study Period	19
1.4 Results	20
1.5 – Discussion	25
1.6 – Conclusion	26
 Chapter 2 – Supplementary	 27
2.1 Study Instrument	27
2.2 Bibliography	32

LIST OF FIGURES

Figure 1: Graph depicting availability of indicators under General Readiness domain

Figure 2: Graph depicting referral points for SHC-HWC

Figure 3: Graph depicting availability of trained HR at the SHC-HWC

Figure 4: Graph depicting availability of essential drugs at the SHC-HWC

Figure 5: Graph depicting availability of equipment at SHC-HWC

Figure 6: Graph depicting availability of diagnostic services at the SHC-HWC

Figure 7: Radar diagram depicting average availability of facilities in each of the five domains

LIST OF ABBREVIATIONS

CPHC	Comprehensive Primary Health Care
HWC	Health and Wellness Centres
NCD	Non-communicable Diseases
IPHS	Indian Public Health Standards
UHC	Universal Health Coverage
CHO	Community Health Officer
SHC	Sub-health Centre
PHC	Primary Health Centre
CHC	Community Health Centre

INTRODUCTION

Non-communicable diseases (NCDs) are the leading causes of death globally, killing more people each year than all other causes combined. The World Health Organization (WHO) had released a report on NCDs Global Survey in 2015, according to which, one in four Indians face the risk of death from NCDs before they hit the age of 70, mainly from heart and lung diseases, stroke and diabetes. In low-resource settings, out of pocket expenditure for cardiovascular diseases, cancers, diabetes or chronic lung diseases can quickly drain household resources, driving families into poverty. The exorbitant costs of NCDs, including often lengthy and expensive treatment and loss of breadwinners, are forcing millions of people into poverty annually, stifling development. In many countries, harmful drinking and unhealthy diet and lifestyles occur both in higher and lower income groups. However, high-income groups can access services and products that protect them from the greatest risks while lower-income groups can often not afford such products and services. India faces double burden of diseases – both CDs & NCDs. But, in India NCD burden is rapidly increasing due to social transition, unhealthy dietary habit & rapid urbanization. The under-privileged communities in the country are bearing the heaviest toll of this burden.

Analyses from the recent India State-Level Disease Burden Initiative indicate that the burden due to Non-communicable diseases and injuries overall has overtaken that of communicable, maternal, neonatal and nutritional disorders in all states, albeit at varying rates. As a result, for India as a whole in 2016, an estimated 62% of deaths were due to non-communicable diseases. The need to reconfigure national public health facilities to match this epidemiological transition was one of the drivers of India's ambitious Ayushman Bharat initiative. The need to expand and upgrade the primary health-care services provided was underscored by the National Sample Survey for 2014, which showed that only 11.5% of people in rural areas and 3.9% in urban areas accessed this vast network of peripheral public health facilities for health-care needs other than childbirth. The expanded range of services included NCD screening being a major cornerstone for the operationalization of HWCs will enable early diagnosis, treatment and management of five major NCDs - diabetes, hypertension, oral cancer, breast cancer and cervical cancer. Also, it will serve as a gatekeeping mechanism to reduce the burden on secondary and tertiary level facilities, thereby reducing out of pocket expenditure for the patients.

The Service Availability and Readiness Assessment (SARA) survey is used to measure progress in health system strengthening over time comprising a set of core indicators on key inputs and outputs of the health system. Tracer indicators aim to provide objective information about whether or not a facility meets the required conditions to support provision of basic or specific services with a consistent level of quality and quantity. Summary or composite indicators, also called indices, can be used to summarize and communicate information about multiple indicators and domains of indicators. Indices can be used for general and service specific availability and readiness. Service Availability refers to the physical presence of the delivery of services, encompassing health infrastructure, core health personnel, and service utilization. Readiness is defined as the availability of components required to provide services such as basic amenities, basic equipment, standard precautions, laboratory tests, and medicines and commodities. SARA is a health facility assessment tool designed to assess and monitor the service availability and readiness of the health sector and to generate evidence to support the planning and managing of a health system. SARA is designed as a systematic survey to generate a set of tracer indicators of service availability and readiness.

No study has been carried out till date which focusses primarily on the NCD management preparedness in SHC-HWCs under Ayushman Bharat, NCD screening, diagnosis and management being a cornerstone for the operationalization of all the HWCs. This study has been carried out under five domains – general readiness, human resources, availability of essential drugs, diagnostics and equipment. Various tracer elements are selected under each domain. The relevant elements have been picked up from WHO-SARA tool based on the AB-CPHC operational guidelines. A mean score was also calculated for each section to understand the compliance under each domain.

LITERATURE REVIEW

In order to understand the birth of Health and Wellness Centres (HWCs) in the health care delivery system of India, it is imperative to first understand the concept of Comprehensive Primary Health Care (CPHC). In 1943, a Health Survey and Development committee was constituted and Sir Joseph Bhore was appointed as the chairman. Their main objective was to survey the then existing position regarding the health condition and health organisations and to make future recommendations. In a span of three years the committee submitted a well drafted report in 1946, commonly known as Bhore Committee report. The report envisaged a combination of programmes to address selected condition as short term measures and programmes to strengthen the primary health care centres for long term. The Bhore committee report is considered to be an important landmark in the public Health of India. It initiated the concept of integrated and comprehensive Health care and emphasised on the importance of Primary health care. It gave the country the concept of three tier Health system .(Colonel, Cotter, Dadabhoy, Bombay, & Member, n.d.)

In the year of 1978, an International Conference on Primary Health Care was held which expressed the need for urgent action and called for support from all the Governments, WHO and UNICEF, and other international organisations along with non-governmental organisations and funding agencies towards national and international commitment to primary health care and to channel increased technical and financial support especially to the developing countries with a single goal “Health for All”. The declaration is popularly known as Alma Ata Declaration.

India became a signatory to the Alma Ata declaration and articulated its commitment in the National Health Policy(NHP) of 1983 by universal provision of comprehensive primary health care services. The NHP of 1983 also brought attention to the social determinants of Health and asked for priority attention towards it eg. Water supply and Sanitation, Nutrition, Environmental protection etc. NHP 2002 re-iterated the use of public health facilities and focused the need for enhanced funding i.e. from 0.9% to 2% of GDP by 2010, and an organizational restructuring of the national public health initiatives in order to facilitate more equitable access to the health facilities. (*National Health Policy GOVERNMENT OF INDIA MINISTRY OF HEALTH It FAMILY WELF’ARE NEW DELm*, n.d.)

The various initiatives in the decades post-independence had substantially improved the Health condition of the citizens of India but more needed to be done when it came to achieving the

goal of Health For All. The rural population was still devoid of essential health services and substantial steps were required to bridge the health gap between the rural and urban India.

The launch of National Rural Health Mission(NRHM) in 2005 re-indicated the desire of the governments to provide universal health care through a well-functioning health system throughout the country. The NRHM aimed to provide affordable, equitable, accessible and quality health care to the rural population. The NRHM brought a paradigm shift in the health status of the country as compared to the other earlier approaches. In order to reach to the community in the villages of India and re built trust in public Health system, community health volunteers called Accredited Social Health Activist (ASHA) was appointed.(*NATIONAL RURAL HEALTH MISSION Meeting people's health needs in rural areas Framework for Implementation 2005-2012 Ministry of Health and Family Welfare, n.d.*)

In 2012, the NRHM along with National Urban Health Mission (NUHM) was subsumed into the National Health Mission (NHM) for continuing the delivery of health services to the rural population as well as the poor and vulnerable urban population. The NHM targeted to achieve very limited and specific goals. They were mainly focused towards the Reproductive and Child Health (RCH) and against specific communicable diseases like Tuberculosis, HIV/AIDS, vector borne illness. It did not take into account the growing burden of disease and the cost of care for chronic illnesses(*NatioNal HealtH MissioN (NHM), n.d.*)

Also, NRHM was focused on delivering quality services across all the centres in the country and drafted specific guidelines for CHC, PHC and SC. These guidelines were called the Indian Public Health Standards (IPHS)

The country during this time was seeing an epidemiological transition and an increase burden of disease. Along with the threat of communicable diseases, the country was facing a high morbidity and mortality (nearly 60%) due to Non-Communicable diseases (NCD). The most common among them were Diabetes, Hypertension, Cardiovascular disease, Cancers especially Oral, Cervical and Breast. These NCDs also termed as Lifestyle Diseases and various lifestyle modification done by people were considered its risk factors. So along with curing these illnesses there was a felt need of promoting good lifestyle practices and preventing these diseases.

In order to rejuvenate and re-direct the Health care system, The Planning commission of India in the year 2010 constituted a High Level Expert Group (HLEG) for drawing a road map to achieve Universal Health Care. The main objective of HLEG was financial protection of the

citizens as evidence showed substantial proportion of the population was impoverished due to the heavy out of pocket expenditure on availing health care services. The lack of public health facility was also a point of focus and HLEG report recognised the need for availability of adequate health care facility, health work force and access to affordable medicines and technology to ensure the entitled level and quality care to every citizen.(India, 2011)

The twelfth five-year plan of 2012 considered the HLEG recommendation in their report and reiterated the importance of Universal Health Coverage and emphasised on building a programme to achieve UHC. (*in writing from the Planning Commission, Government of India, 2013*)

In the year of 2015, The United Nations “came up with Sustainable Development Goals (SDG) for all the countries to achieve effective 1st January 2016. These SDG’s were drawn in continuum with the Millennium Development Goals. Almost all the SDGs are directly related to health or will contribute to health indirectly. The 13 targets are build on the progress made on the MDGs and reflect a new focus on non-communicable diseases and the achievement of universal health coverage.(*IN THE YEAR 2015, LEADERS FROM 193 COUNTRIES OF THE WORLD, n.d.*)

“Goal 3.8 Achieve universal health coverage, including financial risk protection, access to quality essential health-care services and access to safe, effective, quality and affordable essential medicines and vaccines for all.”

With all the progress made by India through the various five year plans and especially the 12th five-year plan, the NHP of 1983 and 2002, the recommendations of HLEG, and in sync with the Alma Ata declaration and in view of achieving Sustainable development goals, the National Health Policy 2017 was formulated. It was planned so as to improve the health status through policy action in all sectors and expand preventive, promotive, curative, palliative and rehabilitative services provided through the public health sector with focus on quality.

Thus NHP 2017 objectives were - to progressively achieve the Universal Health Coverage, to reinforce trust in Public Health care system, to align the growth of private health sector with public health goals.(Ministry of Health and Family Welfare, 2012)

This policy also denoted the important change from very selective to comprehensive primary health care package which includes geriatric health care, palliative care and rehabilitative care

services. The facilities which start providing the larger package of comprehensive primary health care will be called “Health and Wellness Centres”.

As a part of the NHP 2017, the Government of India (GoI) in 2018 launched Ayushman Bharat scheme “Healthy India” in order to achieve the universal health coverage. The scheme is designed on the lines as to meet the SDG and the underlying commitment of “leave no one behind”.

Ayushman Bharat adopts a continuum of care approach comprising of two inter related components

- a) Establishment of Health and Wellness Centre (HWC)
- b) Pradhan Mantri Jan Arogya Yojana (PM-JAY)

Under the first component, the government planned to create 1,50,000 Health and Wellness Centre by transforming the existing Sub-Centre and Primary Health Centre by 2022. These centres will be equipped to deliver Comprehensive Primary Health Care (CPHC). The delivery of CPHC through HWC’s rests substantially on the institutional mechanisms, governance structures and systems created under the National Health Mission. In its 12 years, NHM has supported the states to create several platforms for delivery of community based health systems, expanding Human Resources for Health (HRH) and infrastructure towards strengthening primary and secondary care. Thus using the existing system, and expanding the health services from the current range of limited services, HWC’s can deliver CPHC with some needed change in management and system design at various levels.

Under the second component, PM-JAY, also called the National Health Protection Scheme (NHPS) aims to provide financial protection for secondary and tertiary care to about 40% of India’s household. It will offer a benefit cover of Rs 5,00,000 per family per year. (Primary, Care, & Centers, n.d.)

Together, the two components of Ayushman Bharat will enable the realization of the aspiration for Universal Health Coverage.

In 2018, second Global conference on primary health was organised in Astana, Kazakhstan. India along with other countries of the world agreed to the Declaration of Astana. The countries vowed to strengthen their primary health care system as an essential step towards achieving universal health care.

Thus moving from the Bhore committee recommendation to Alma Ata Declaration, to National Health Policy, to HLEG recommendation and the Declaration of Astana, India has gradually but successfully improved the Health status of the country which can be seen through the improving health indicators like the Infant Mortality Rate, Maternal Mortality Rate, Decrease incidence of HIV etc. Continuing this journey, India vowed to achieve Universal health coverage with an aim to deliver Comprehensive primary health care and thus achieve its goal of Healthy India.

Comprehensive Primary Health Care

The importance and requirement of primary health care to meet the health requirements of the population had been mentioned in various National and International level health policies and programs but till date had been neglected upon. In order to achieve the goal of Universal health coverage, there was a need to prioritise primary health care as the most affordable and effective pathway. The growing burden of disease, the increasing cost of care and deficient public health facility led the governments to revisit their health plans and come up with a new strategy.

In December 2014, the MoHFW constituted a Task force with an objective to identify the current challenges in rolling out of CPHC, to finalise the components in delivery of CPHC, to clarify the institutional structure and service organisations, to develop guidelines for the PHC team. The report submitted detailed a set of ten factors which contributed in the poor outcome of Primary Health Care. (MoHFW-GoI, 2015)

These ten Framework Factors broadly included:

1. Lack of Responsiveness
2. Limited attention to Social Determinants
3. Human Resource Shortage
4. Marginalisation and Exclusion of specific population groups
5. Supply side deficiencies
6. Mismatch between provider training and services to be delivered
7. Poor quality of relationship between provider and the community
8. Weak realization of potential of ICT in primary health care
9. Inadequate efforts of community participation and awareness
10. Low Institutional capacity

The task force carried out a detailed analysis of these ten framework factors and also carried out a situation analysis of the existing primary health care.

They came up with nine key areas of action in order to make the primary health care comprehensive and universal.

1. Strengthening of Institution Structures and Organization of Primary Health Care Services
2. Improve access to technologies, drugs and diagnostics for Comprehensive Primary Health Care
3. Increase utilization of Information, Communication and Technology (ICT) - empowering patients and providers
4. Promote Continuity of care- for patient centric services
5. Enhance Quality of Care
6. Focus on Social Determinants of Health
7. Emphasize Community Participation and Address Equity Concerns in Health
8. Develop a Human Resource Policy to support Primary Health care
9. Strengthen Governance Financing, Partnerships and Accountability

Every action area of the CPHC is a goal in itself and certain steps need to be taken to achieve it. In order to strengthen the Institutional structure and organising primary health services it is imperative to have a set of defined service which should be made available at all the health delivery centre. As mentioned earlier, this role of delivering comprehensive health services will be fulfilled by the Health and Wellness Centres(HWCs).

So we can define Comprehensive Primary Health Care as a package of preventive, promotive, curative and rehabilitative services delivered close to the community by Health Care Providers for most common ailments and enable referral for doctor or specialist consultation and undertake follow –up and maintain Continuum of care. (*THE NATIONAL MEDICAL JOURNAL OF INDIA*, 2015)

These set of services were termed as the Expanded range of services. There were twelve such defined services:

- a) Care in pregnancy and child birth
- b) Neonatal and Infant health care services
- c) Childhood and Adolescent health care services

- d) Family planning, Contraceptive services and other Reproductive health care services
- e) Management of communicable diseases including National Health programmes
- f) Management of common Communicable diseases and Outpatient care for acute simple illnesses and minor ailments.
- g) Screening, prevention, Control and Management of Non-Communicable Diseases
- h) Care for common Ophthalmic and ENT problems
- i) Basic Oral Health care
- j) Elderly and Palliative health care services
- k) Emergency Medical services
- l) Screening and basic management of Mental health ailments

These services should be delivered at various levels like family/household and community level, Health and wellness centre and first referral level i.e. First Referral Unit/ Block PHC, CHC. In order to deliver CPHC it would require to review the entry level qualification of the staff and analyse the skill set of the existing human resource of health and provide necessary training. In addition to the existing human resource, a Mid-Level Health provider (MLHP) / Community Health Officer (CHO) will be stationed at SC.(MoHFW-GoI, 2015) The Human resource at all levels will be trained to be multi skilled. Also a proper referral mechanism would be established to ascertain continuum of care to patients with routine delivery of drugs to the patients and timely follow-up visits with the doctors.

Global evidence suggests that to provide considerable and quality primary care in remote rural areas suitably trained service providers i.e 3-4 years trained, are required. As one of the measures to increase the availability of such appropriately qualified human resource, Government of India approved the introduction of a 3&1/2-year Bachelor of Science in Community Health (BSc CH) Course in India. However, the uptake for this course was slow and the first batch of professionals could be available for recruitment only at the end of the fourth year. Understanding the need for urgent recruitment of such qualified human resource, it was necessary to look around for other options. Attention was drawn towards the qualified Ayurveda doctors and B.Sc/GNM qualified nurses which were already available in the system. It was possible to train these personnel in public health & primary care through suitably designed 'Bridge Programs on Certificate in Community Health'. The BSc Community Health curriculum was the benchmark for developing the bridge course and would be administered by IGNOU across India. Program Study centres (PSC) were to be established in the District hospitals to deliver the bridge course to the eligible candidates over a period of six months. A

mixture of theoretical and hands on practical training would be imparted at these study centres.(Course, 2013)

These CHOs will be then primarily deployed at Health & Wellness Centres (or Sub Centres). They would not only possess the necessary knowledge but also develop competencies to deliver comprehensive primary care services and implement public health programmes.

Analyses from the recent India State-Level Disease Burden Initiative indicate that the burden due to Non-communicable diseases and injuries overall has overtaken that of communicable, maternal, neonatal and nutritional disorders in all states, albeit at varying rates. As a result, for India as a whole in 2016, an estimated 62% of deaths were due to non-communicable diseases. The need to reconfigure national public health facilities to match this epidemiological transition was one of the drivers of India's ambitious Ayushman Bharat initiative. The need to expand and upgrade the primary health-care services provided was underscored by the National Sample Survey for 2014, which showed that only 11.5% of people in rural areas and 3.9% in urban areas accessed this vast network of peripheral public health facilities for health-care needs other than childbirth. The expanded range of services included NCD screening being a major cornerstone for the operationalization of HWCs will enable early diagnosis, treatment and management of five major NCDs - diabetes, hypertension, oral cancer, breast cancer and cervical cancer. Also, it will serve as a gatekeeping mechanism to reduce the burden on secondary and tertiary level facilities, thereby reducing out of pocket expenditure for the patients.

METHODOLOGY

❖ RESEARCH QUESTION

What is the level of service availability and readiness in sub-health centre – health and wellness centres (SHC-HWCs) for NCD management in Balrampur district, Uttar Pradesh?

❖ RESEARCH OBJECTIVES

1. To assess the service availability at SHC-HWCs for NCD management
2. To assess the readiness of SHC-HWC for NCD management

❖ STUDY DESIGN AND AREA

A descriptive cross-sectional study was carried out at the SHC-HWCs of Balrampur district, Uttar Pradesh

❖ SAMPLE SIZE

The study was conducted in a total of 46 SHC-HWCs of the district.

❖ SAMPLING TECHNIQUE

Purposive sampling was used to select the SHC-HWCs. Out of 72 operational SHC-HWCs in the district, 46 were selected. Sub-centres at which the CHOs were working for at least six months were included in the study.

❖ MODE OF DATA COLLECTION

A structured quantitative questionnaire was prepared with references from WHO-SARA tool and Ayushman Bharat Comprehensive Primary Health Care through Health and Wellness Centres (AB-HWC) Operational Guidelines.

❖ RESEARCH PROCEDURE

A quantitative questionnaire was prepared comprising of five sections – General readiness of the facility, Availability of trained HR, Availability of drugs, Availability of diagnostics and Availability of functional equipment. This was administered to all the CHOs via google form. The responses were collected and analysed using MS Excel.

❖ STUDY PERIOD

The study period was from February 24th to May 24th 2020.

RESULTS

The questionnaire was administered to a total of 46 Community Health Officers (CHOs) who had been working in the district for at least six months. They were asked to fill in responses under five domains –

1. General Readiness
2. Human resources
3. Essential drugs
4. Diagnostic/laboratory services
5. Equipment

Domain 1: General Readiness of the SHC-HWC

Overall availability of facilities was low in all the surveyed domains. In General Readiness domain, only 11 out of 46 (24%) sub-centres had regular electricity supply, while none of the facilities had a power back up. Only 14 SHCs (30%) were reported to have a regular water supply. There were 14 delivery points out of 46 SHCs. Only 24 (52%) had functional toilets in the facility, while no facility had separate toilets for males and females. Also, no SHC had separate toilets for the patients and the CHOs. Only 5 and 6 SHCs had bio-medical management system and proper drainage system respectively. 8 and 14 SHCs have a separate space for laboratory and medicine dispensation respectively. 24 out of 46 chosen SHCs had a separate room for screening or inspection with audio or visual privacy. 35 facilities conduct wellness activities on a regular basis while the remaining SHC do not conduct due to either unavailability of space or instructor. Majority (35) SHCs refer the patients to the PHC for further treatment while 9 and 2 SHCs refer the patients to CHC and District Hospital respectively.

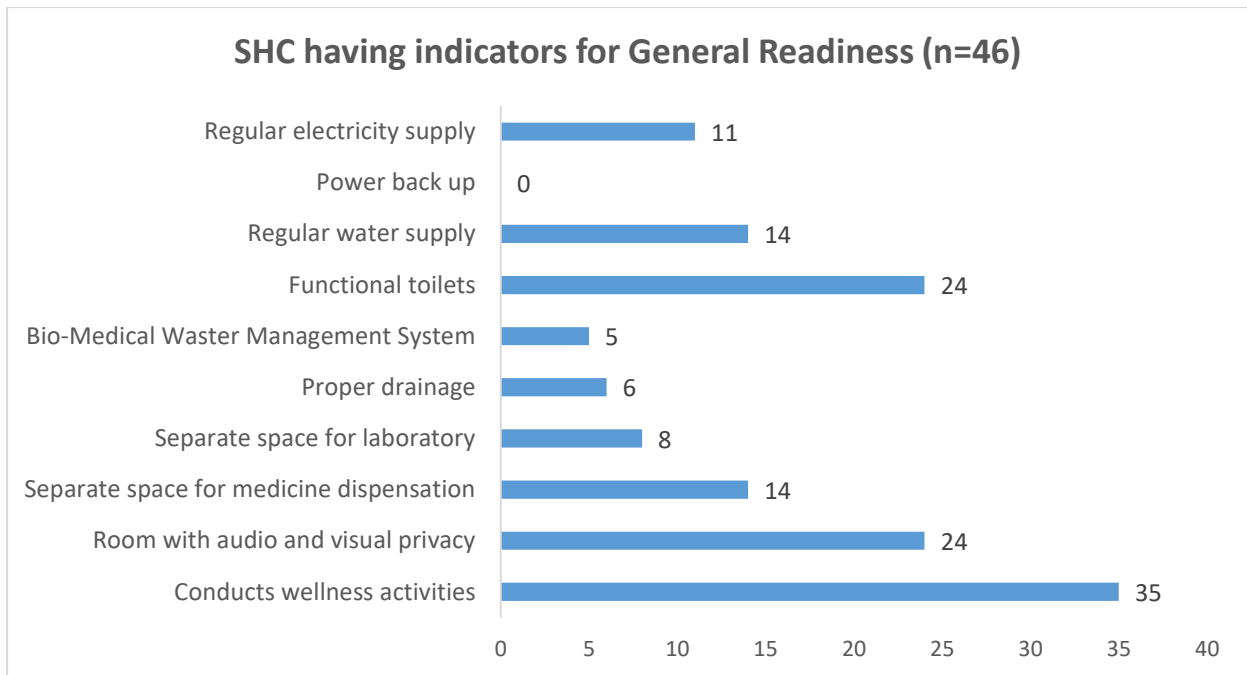


Fig 1: Graph depicting availability of indicators under General Readiness domain

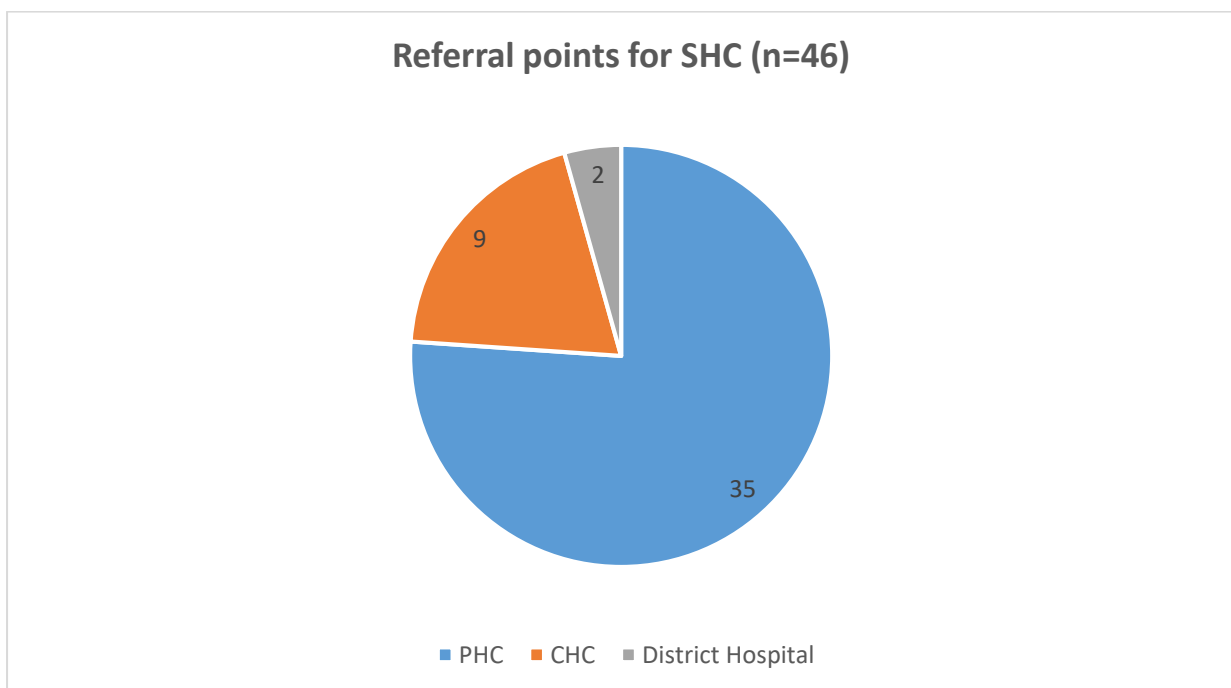


Fig 2: Graph depicting referral points for SHC-HWC

Domain 2: Human Resources

Under human resources domain, 40 out of 46 (87%) interviewed CHOs have received the training on NCD diagnosis and management. Training includes diagnosis and management of five NCDs – Hypertension, Diabetes, Oral Cancer, Breast Cancer and Cervical Cancer. No CHO has received for Visual Inspection by Acetic Acid (VIA) for screening of cervical cancer. ANMs of 41 SHCs have received training for NCD management while all the ASHAs of 37 SHC have received training on NCD management. No SHC had a guideline for NCD management at the facility.

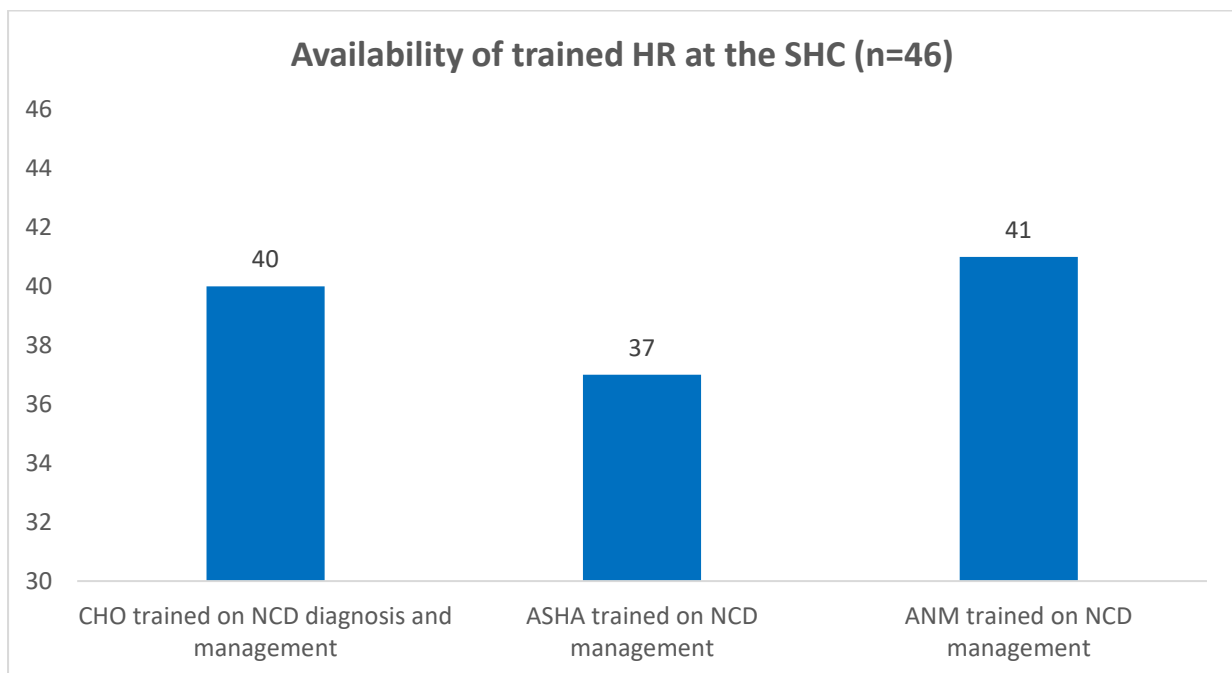


Fig 3: Graph depicting availability of trained HR at the SHC-HWC

Domain 3: Availability of essential drugs

In essential drugs domain, no SHC-HWC had all the drugs as per the Ayushman Bharat CPHC guidelines. A SHC-HWC has to have 59 types of drugs as per the guidelines which includes drugs for hypertension, diabetes, communicable diseases and emergency medicines. Patients at risk for breast cancer, oral cancer and cervical cancer are sent to higher medical centres for diagnosis and medicine prescription. All the patients will receive follow up care and medicines at the SHC-HWC for continuing their treatment. For this, all the SHC should have various classes of medicines for the treatment of these NCDs. But, during the study it was found that only 13 SHCs had at least one type of anti-hypertensive drug while only 14

SHCs had at least one type of anti-diabetic drug. Only 33 and 29 out of 46 HWC said that they have ever had any type of anti-hypertensive and anti-diabetic drug respectively. The most commonly found medicine for NCD was Metformin, Glimepiride, Amlodipine, Furosemide, Salbutamol and Amoxicilline.

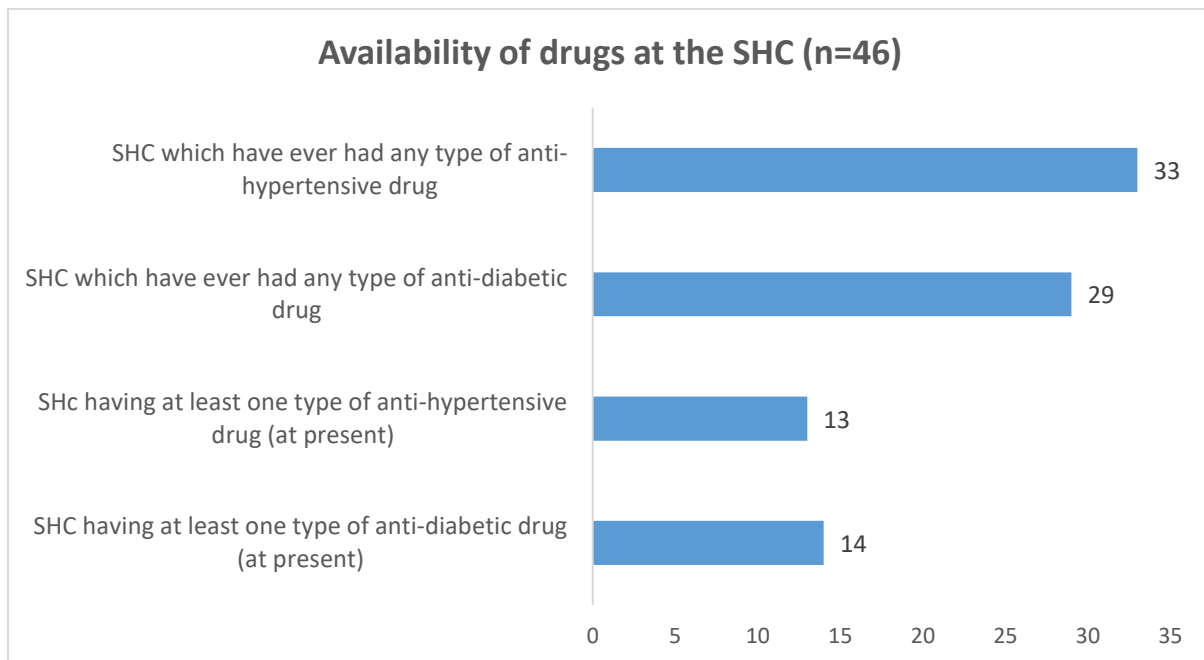


Fig 4: Graph depicting availability of essential drugs at the SHC-HWC

Domain 4: Equipment

Under the equipment domain, all the facilities had glucometer, BP apparatus and stethoscope. 28 SHC were found to have glucometer strips while only 30 facilities had an adult weighing machine. General instruments like torch and scissors were present in only 24 and 33 SHC respectively. Disposable lancets and swabs were present at only 34 and 10 HWCs. Only 2 sub centres had speculum for cervical cancer screening. Mouth mirror used for oral cancer screening was found at only 31 out of 46 SHCs.

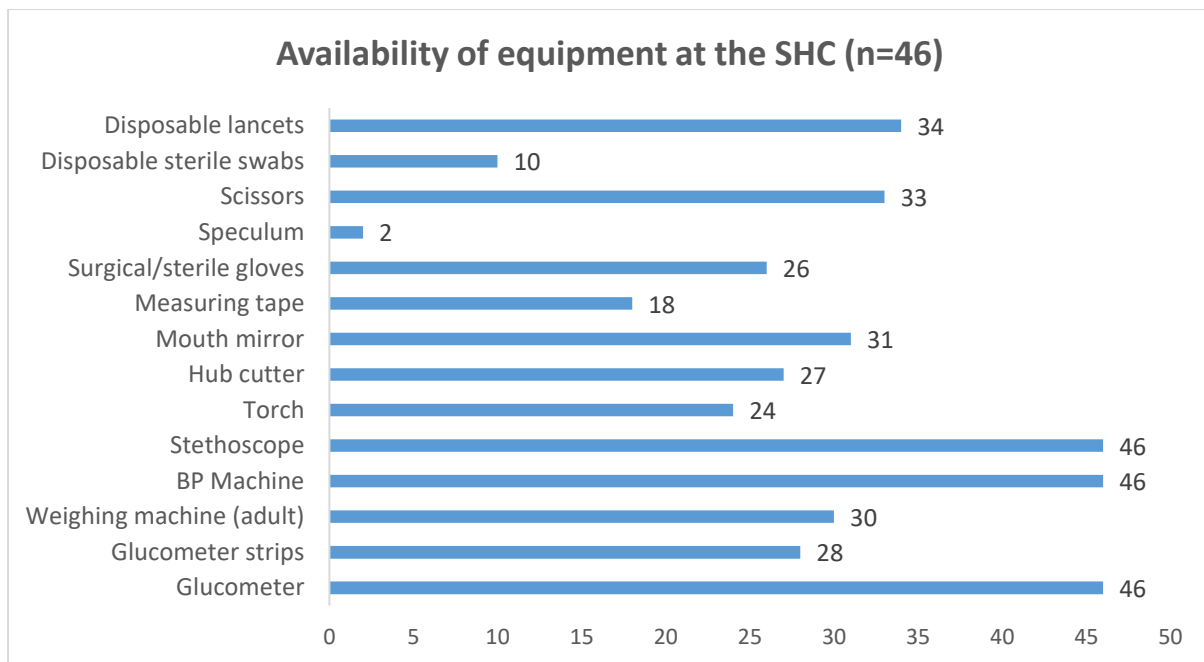


Fig 5: Graph depicting availability of equipment at SHC-HWC

Domain 5: Diagnostic/laboratory services

Under the last domain of diagnostic services, all the facilities were providing blood glucose and blood pressure services. While urine albumin (dipstick) and urine sugar (dipstick) laboratory services was provided by 28 and 32 SHC respectively. Only 14 and 31 HWCs provided breast cancer screening and oral cancer screening services.

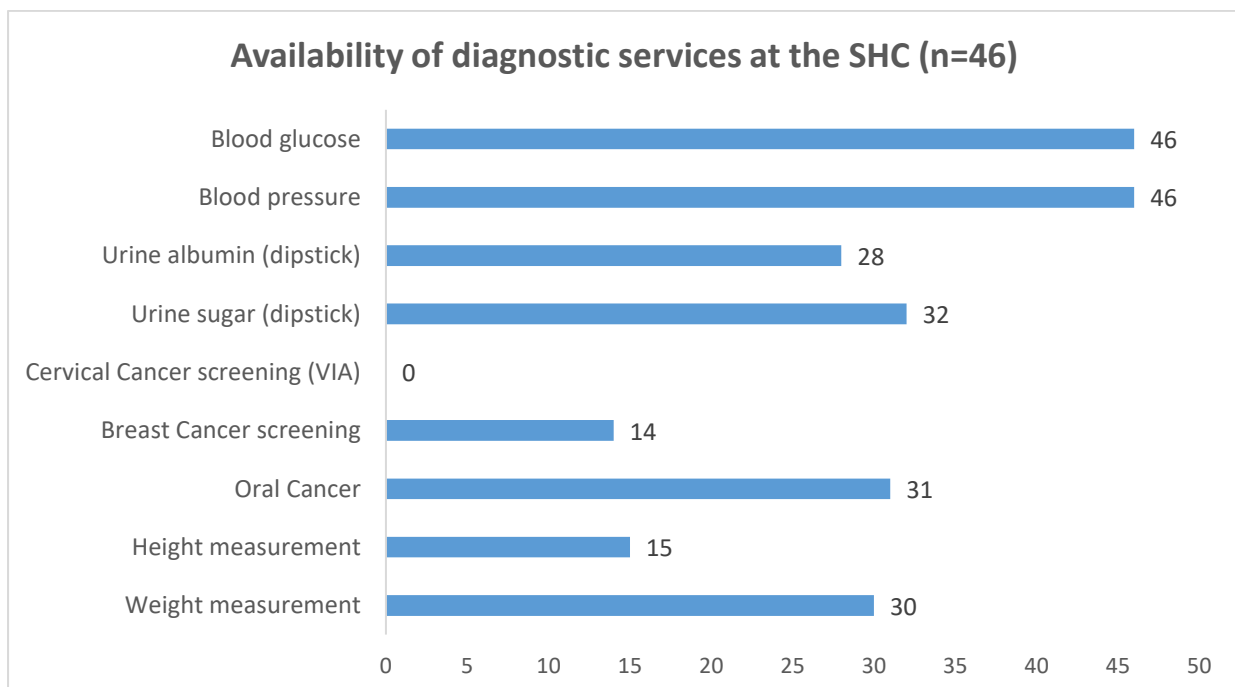


Fig 6: Graph depicting availability of diagnostic services at the SHC-HWC

The overall facilities were the lowest in the General Readiness domain followed by Availability of essential drugs. The compliance was the highest in the Human Resources domain. Trained HR was found at almost all the SHC-HWCs. The overall service availability and readiness of the SHC-HWC for NCD management was found to be sub-optimal.

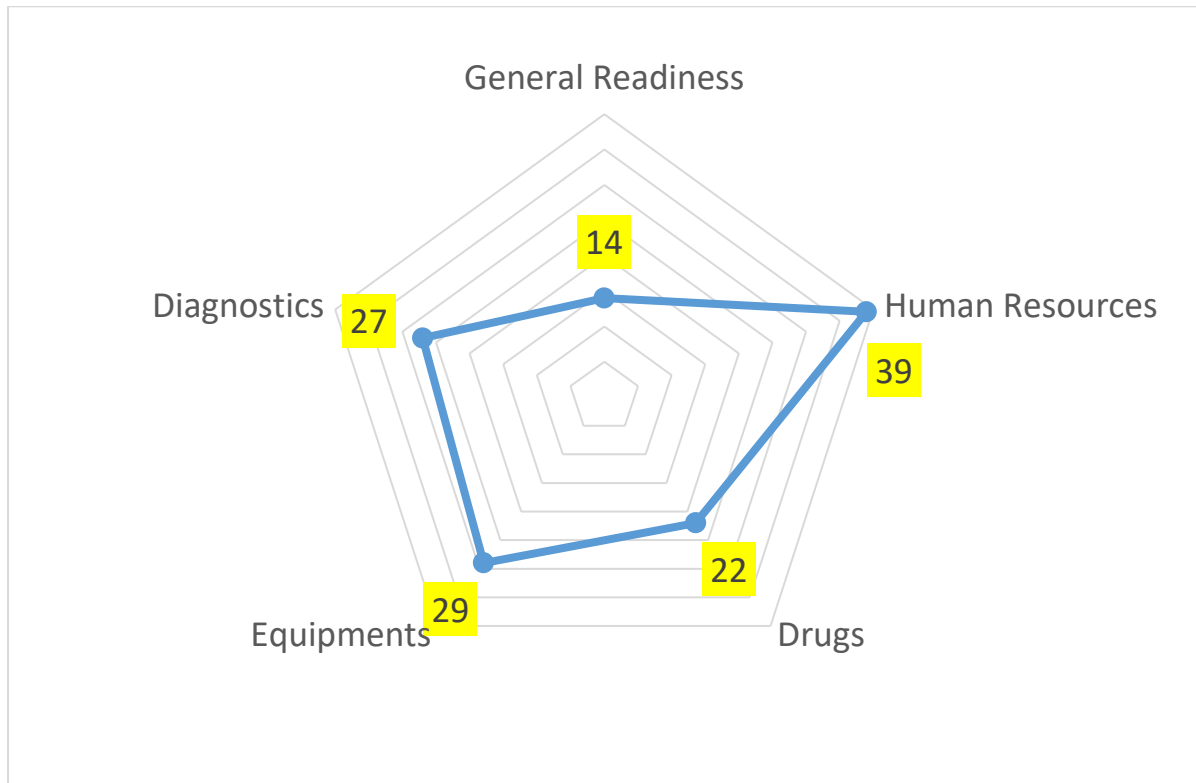


Fig 7: Radar diagram depicting average availability of facilities in each of the five domains

DISCUSSION

In this study, we attempted to assess the service availability and readiness of sub-health centre - health and wellness centres under Ayushman Bharat for management of Non-communicable diseases. On extensive literature review, no study was found to be available in India regarding the assessment of SHC-HWC for NCD management based on Ayushman Bharat CPHC operational guidelines and WHO-SARA tool. But very few studies have been conducted in India to assess the readiness of PHCs and CHCs for providing NCD related services. Not many studies have been conducted for the assessment of primary healthcare centres for NCD management worldwide.

A study on the assessment of primary care facilities for CVDs preparedness in Madhya Pradesh revealed that the availability of facilities was the least in the domain of diagnostic services followed by drugs and then human resources. Another study on readiness of primary and community health centres for non-communicable disease related services in Bengaluru also showed that the availability was the least in the drugs and diagnostic sections respectively. No study has been conducted till date which focusses primarily on the readiness of sub-centres for NCD management, NCD screening and management being a major cornerstone under Ayushman Bharat. This study revealed that the overall facilities were the lowest in the General Readiness domain followed by Availability of essential drugs. The compliance was the highest in the Human Resources domain. Trained HR was found at almost all the SHC-HWCs.

Immediate focus is required on the infrastructure of the sub centres in order to be able to provide basic amenities for both the health staff and the patients. Majority sub centres did not have a regular power or water supply. SHCs lacked functional toilets and proper drainage and bio-medical waste management system. Availability of essential drugs and diagnostics were also not up to the mark. Majority centres did not have at least one class of anti-diabetic and anti-hypertensive medicines. Basic diagnostic services were missing at majority sub centres. Lack of diagnostic services can be attributed to lack of equipment. Services for diabetes and hypertension diagnosis and management were fairly available but for the cancers – oral, breast and cervical, services are not at all available. Trained HR and front-line workers are present at all the facilities.

Lack of drugs and diagnostics at the SHC indicates lack of proper standards and guidelines for management of NCDs at the SHC-HWC. The study revealed the need to strengthen the facilities in terms of availability of drugs, diagnostic capacity and equipment. Community mobilization, follow ups and screening for risk factors are important tasks for the health workers, thus they need to be strengthened by training all the available manpower. There are two limitations of the study, firstly, the study does not cover other aspects of service delivery like accessibility and affordability and secondly, the interviewer couldn't visit the SHC-HWC herself, hence in depth information could not be obtained.

CONCLUSION

This study concludes that the level of facilities in the SHC-HWCs for providing NCD related services is sub-optimal. Major reasons are lack of basic infrastructure and amenities at the SHC-HWC and lack of essential drugs and diagnostic services. Therefore, health system strengthening in the form of human resources, functional laboratories and equipment, and supply of medicines are essential at PHCs and CHCs. As NCDs are becoming the leading causes for mortality and morbidity in India, focused attention is needed from decision makers and policy planners.

STUDY INSTRUMENT

Service Availability and Readiness Assessment for NCD Management in SHC-HWC
Section 1: General Readiness of the SHC
1. Does the facility have regular electricity supply? ☐ Yes ☐ No
2. Does the facility have power back up (generator or inverter)? ☐ Yes ☐ No
3. Does the facility have a continuous water supply? ☐ Yes ☐ No
4. Does the facility have a functional toilet? ☐ Yes ☐ No
5. Does the facility have a Bio-Medical waste management system? ☐ Yes ☐ No
6. Does the facility have a proper drainage system? ☐ Yes ☐ No
7. Does the facility have a separate space for laboratory/diagnostic services? ☐ Yes ☐ No

8. Does the facility have a separate space for medicine dispensation? ☐ Yes ☐ No
9. Does the facility have a separate room for with privacy for screening? ☐ Yes ☐ No
10. Is the facility a delivery point? ☐ Yes ☐ No
11. How many CBAC forms have been filled till now? _____
12. Does the facility conduct wellness activities? ☐ Yes ☐ No
13. Where do you refer the patient for further treatment? ☐PHC ☐CHC ☐District Hospital ☐Private Hospital/clinic
Section 2: Human Resource and training
14. Is the CHO trained on NCD diagnosis and management? ☐ Yes ☐ No
15. Are all the ASHA trained on NCD management? ☐ Yes ☐ No

16. Is the ANM trained on NCD management?
☐ Yes ☐ No
17. Has the CHO received VIA training for cervical cancer?
☐ Yes ☐ No
18. Does the facility have guidelines for diagnosis and treatment of NCDs?
☐ Yes ☐ No
Section 3: Essential Drugs
19. Does the facility have all the essential drugs as the Ayushman Bharat guidelines?
☐ Yes ☐ No
20. Does the facility have at least one type of anti-diabetic drug?
☐ Yes ☐ No
21. Does the facility has at least one type of anti-hypertensive drug?
☐ Yes ☐ No

22. Which of the following drugs are available at the facility? (Tick all the drugs which are available at the SHC) ☐ Metformin ☐ Glimepiride ☐ Furosemide ☐ Amlodipine ☐ Amoxicillin ☐ Salbutamol ☐ Aspirin ☐ Glibenclamide ☐ Atenolol ☐ Propanalol ☐ Insulin
23. Has any type of anti-diabetic drug ever been available at the SHC? ☐ Yes ☐ No
24. Has any type of anti-hypertensive drug ever been available at the SHC? ☐ Yes ☐ No
Section 4: Equipment

25. What all instruments are available at the SHC? (Tick all the instruments which are available at the facility)

- ☐ Glucometer
- ☐ Glucometer strips
- ☐ Weighing machine (adult)
- ☐ BP machine
- ☐ Stethoscope
- ☐ Torch
- ☐ Hub cutter
- ☐ Mouth mirror
- ☐ Measuring tape
- ☐ Surgical/sterile gloves
- ☐ Scissors
- ☐ Disposable sterile swabs
- ☐ Disposable lancets

Section 5: Diagnostic/Lab services

26. What all diagnostic/laboratory services are available at the SHC? (Tick all the services which are available at the facility)

- ☐ Urine albumin (dipstick)
- ☐ Urine sugar (dipstick)
- ☐ Blood glucose
- ☐ VIA for cervical cancer
- ☐ Breast cancer screening
- ☐ Blood pressure
- ☐ Weight measurement
- ☐ Height measurement

BIBLIOGRAPHY

- Colonel, E., Cotter, C. L. E., Dadabhoy, I. M. S. ; D. J. R., Bombay, M. R. C. P. O. B. E., & Member, M. L. A. (n.d.). *Lond.*), *ex-President of the All-India Association of Medical Women*. Retrieved from https://www.nhp.gov.in/sites/default/files/pdf/Bhore_Committee_Report_VOL-1.pdf
- *National Health Policy GOVERNMENT OF INDIA MINISTRY OF HEALTH It FAMILY WELF'ARE NEW DELM.* (n.d.). Retrieved from https://www.nhp.gov.in/sites/default/files/pdf/nhp_1983.pdf
- *NATIONAL RURAL HEALTH MISSION Meeting people's health needs in rural areas Framework for Implementation 2005-2012 Ministry of Health and Family Welfare.* (n.d.). Retrieved from <https://www.nipccd-earchive.wcd.nic.in/sites/default/files/PDF/NRHM - Framework for Implementation - 2005-MOHFW.pdf>
- *NATIONAL RURAL HEALTH MISSION Meeting people's health needs in rural areas Framework for Implementation 2005-2012 Ministry of Health and Family Welfare.* (n.d.). Retrieved from <https://www.nipccd-earchive.wcd.nic.in/sites/default/files/PDF/NRHM - Framework for Implementation - 2005-MOHFW.pdf>
- *NatioNal Health Mission (NHM).* (n.d.). Retrieved from <https://mohfw.gov.in/sites/default/files/56987532145632566578.pdf>
- India, P. commission of. (2011). *High Level Expert Group rept on Universal Health coverage for India.*
- *in writing from the Planning Commission, Government of India.* (2013). Retrieved from www.sagepub.in
- *IN THE YEAR 2015, LEADERS FROM 193 COUNTRIES OF THE WORLD.* (n.d.). Retrieved from https://www.undp.org/content/dam/undp/library/corporate/brochure/SDGs_Booklet_Web_En.pdf
- *National Health Policy GOVERNMENT OF INDIA MINISTRY OF HEALTH It FAMILY WELF'ARE NEW DELM.* (n.d.). Retrieved from https://www.nhp.gov.in/sites/default/files/pdf/nhp_1983.pdf
- Primary, C., Care, H., & Centers, W. (n.d.). *Comprehensive Primary Health Care through Health and Wellness Centers Operational Guidelines.*

- MoHFW-GoI. (2015). *report of Task force on Comprehensive primary health care*.
- *THE NATIONAL MEDICAL JOURNAL OF INDIA*. (2015). Retrieved from <http://finmin.nic.in/pru/Publications.htm>
- Course, A. A. T. H. E. (2013). *Bridge Programmes in Community Health for Nurses and for Ayurveda Practitioners* ". 1–19.
- National Health Systems Resource Centre, . 2019. “Ayushman Bharat: Comprehensive Primary Health Care through Health and Wellness Centers-Operational Guidelines,” 96. [http://nhsrcindia.org/sites/default/files/Operational Guidelines For Comprehensive Primary Health Care through Health and Wellness Centers.pdf](http://nhsrcindia.org/sites/default/files/Operational%20Guidelines%20For%20Comprehensive%20Primary%20Health%20Care%20through%20Health%20and%20Wellness%20Centers.pdf).
- Pakhare, Abhijit, Sanjeev Kumar, Swati Goyal, and Rajnish Joshi. 2015. “Assessment of Primary Care Facilities for Cardiovascular Disease Preparedness in Madhya Pradesh, India.” *BMC Health Services Research* 15 (1): 1–8. <https://doi.org/10.1186/s12913-015-1075-x>.
- Singh, Tulika, and S Nagesh. 2017. “Magnitude and Correlates of Hypertension among Geriatric Women in a Resettlement Colony of Delhi.” *Int J Non-Commun Dis* 2 (3): 45–48. <https://doi.org/10.4103/jncd.jncd>.