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# Assessment of Comprehensive Primary Healthcare Services through Health and Wellness Centres in Odisha



Indian Institute of Public Health, Bhubaneswar (IIPHB)



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INSTITUTE OF  
PUBLIC HEALTH  
BHUBANESWAR



# **Assessment of Comprehensive Primary Healthcare Services through Health and Wellness Centres in Odisha**

**(FUNDED BY NHM, GOVERNMENT OF ODISHA)**

## **FINAL REPORT**

December 2020

Prepared by:

**Indian Institute of Public Health, Bhubaneswar**

**An Institute of Public Health Foundation of India**

Plot No: 267/3408, Jayadev Vihar, Mayfair Lagoon Road, Bhubaneswar-13

Contact: [bhuputra.panda@iiphb.org](mailto:bhuputra.panda@iiphb.org) / 9438507024 (M)

A study conducted by:  
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**Head Office:**

Public Health Foundation of India  
Delhi NCR  
Plot No. 47, Sector 44,  
Institutional Area, Gurgaon – 122002  
Phone: 01244722900 / 01244781400  
[www.phfi.org](http://www.phfi.org)

**Corresponding author:**

[bhuputra.panda@iipbh.org](mailto:bhuputra.panda@iipbh.org)

## **STUDY TEAM**

### **Core team**

#### **Dr Bhuputra Panda, PhD**

Additional Professor and PI, IIPH-Bhubaneswar

#### **Mr Srinivas Nallala, MSW, MPH**

Associate Professor and Co-I, IIPH-Bhubaneswar

### **Field Team**

Mr Zaky Khan, Mr Rudra Prasad Panigrahy, Mr Paramjyot Panda,

Mr Debasis Lenka and Mr Niranjan Sahoo.

### **Advisory**

#### **Dr Subhash Salunke, MD**

Director –IIPH, Bhubaneswar and Advisor to this study



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## ACKNOWLEDGEMENTS

At the very outset, we are very much thankful to MD-NHM, Government of Odisha for commissioning this study on evaluation of 'comprehensive primary healthcare services under health and wellness centres (HWCs) in Odisha' to IIPH Bhubaneswar. This is a unique exercise in terms of the objective to provide actionable inputs to policy makers, programme managers and planners for strengthening various services under HWCs in the state.

Due to Cov-19 situation in the State and the subsequent lock-downs and shut-downs, the team suffered a lot in terms of data collection and analysis; Consequently, the entire process got delayed by at least a couple of months. Nevertheless, the field team were determined to complete data collection without compromising with the quality of data, for we are thankful to the entire team.

This report was prepared after synthesizing a lot of primary data collected through visits to the HWCs, interviewing patients who availed services from the sample HWCs and interviewing service providers/programme managers to explore their perspectives about the situation and challenges they faced during delivery of services.

The report chronologically discusses the study objectives, methodology and results, followed by conclusion and recommendations in a logical fashion. We are confident that the study findings will be useful for strengthening HWCs in the State.

We are thankful to Dina Bandhu Sahoo - Team Leader of SHSRC, the SPM-NHM, the CDMOs of sample districts, block medical officers of sample blocks and patients who agreed to participate in the interviews.

Last but not the least, we are very much thankful to the community members, key informants and respondents for their contribution, cooperation and support.



Dr Bhuputra Panda, PhD (Public Health, TISS)  
Additional Professor and PI, IIPH-Bhubaneswar





## ABBREVIATIONS

ASHA:	Accredited Social Health Activist
AWW:	Anganwadi Worker
ANM:	Auxiliary Nurse and Mid-wife
ANC:	Ante Natal Care
BCC:	Behavior Change Communication
BPM:	Block Programme Manager
BPO:	Block Programme Organizer
BDO:	Block Development Officer
CDMO:	Chief District Medical Officer
CHC:	Community Health Centre
DPM:	District Programme Manager
GKS:	Gaon Kalyan Samiti
LHV:	Lady Health Visitor
MO:	Medical Officer
PHC:	Primary Health Centre
IPC:	Inter Personal Communication
IMR:	Infant Mortality Rate
MDG:	Millennium Development Goal
NRHM:	National Rural Health Mission
FGD:	Focus Group Discussion
IDI:	In Depth Interview
PRI:	Panchayat Raj Institution
MPW-M:	Multi-Purpose Worker - Male
MPHS:	Multi-Purpose Health Supervisor
RCH:	Reproductive Child Health
MCP:	Mother and Child Protection
RTI:	Reproductive Tract Infection
RI:	Routine Immunization
RMNCH:	Reproductive, Maternal, Neonatal, Child Health
PW:	Pregnant Women
MO:	Medical Officer

SC:	Sub Centre
SDG:	Sustainable Development Goal
SAMPurNA:	Sishu Abom Matru Mrityuhara Purna Nirakaran Abhijan
VHND:	Village Health and Nutrition Day

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## EXECUTIVE SUMMARY

### **Background**

Primary health care is regarded as one of the most important determinants for achieving universal health coverage (UHC) goals. Existence of a robust and responsive health system is essential to deliver primary healthcare services to a vast majority of India's population. The National Health Mission (NHM), the country's flagship health systems strengthening programme, envisages "attainment of universal access to equitable, affordable and quality health care which is accountable and responsive to the needs of people".

Recent estimates indicate that in India non-communicable diseases (NCD) account for 53 % of all deaths and therefore the range of services delivered at the primary care level ought to consider these epidemiological shifts.

The report of the Primary Health Care Task Force, Government of India, provided valuable insights about the ideal structure and processes that need to be built into the country's health systems as to enable delivery of comprehensive primary health care (CPHC). Further, the National Health Policy, 2017 recommended for strengthening the delivery of primary health care through an innovative platform of "Health and Wellness Centres" (HWC) which would act as the local hub to address most of the communicable and non-communicable diseases of about 5 to 10 thousand population.

Some of the key principles adopted under this initiative are: transforming Sub Centres and Primary Health Centres to Health and Wellness Centres; expanding the range of comprehensive primary health care services; ensuring a people-centred, holistic, equity-driven and locally responsive delivery of services; providing high quality care and infusing technology into the health system for information management; emphasizing health promotion; promoting public health action through active engagement and capacity building of community platforms and individual volunteers; and ensuring integration of Yoga and AYUSH to cater to the needs of the local population.

The services envisaged at the HWC level include early identification, basic management, and counselling; adherence to protocols on treatment and follow-up care; continuity of care by

appropriate referral; optimal home and community follow-ups; and health promotion and prevention for the expanded range of services.

Subsequently, it was decided to convert the existing Sub Centres (SC) catering to 3-5 thousand population in to Health and Wellness Centres. The underlying principle adopted to synergize these HWCs was ‘less than 30 minutes of time to care’. It was further proposed to convert the primary healthcare centres (PHC) of rural and urban areas in to HWCs. A basket of comprehensive primary health care was offered in these centres through outreach services, mobile medical units (MMU) and home-based care – in all these set-ups the principle was to offer seamless continuum of care with the basic principles of equity, universality and zero out-of-pocket expenditure.

In Odisha, the state government introduced these initiatives and established HWCs across the State in a phased manner. As per the recent reports of NHM, about 1004 institutions (PHCs and SCs) are implementing the mandate of HWCs. However, there has not been any formal assessment on the modalities, mandate, and services being provided under such HWCs. Therefore, we were assigned by the NHM, Government of Odisha to undertake a rapid assessment exercise, document best practices and challenges in implementing the programme, and provide implementation support to the state and district administration for expansion of this initiatives to more institutions.

## **Objectives**

1. To conduct a rapid assessment of comprehensive primary health care services being offered under HWCs (SC and PHC) in Odisha
2. To document best practices and challenges in implementing the HWC initiative
3. To recommend actionable scaling up strategies to the state government

## **Methodology**

We adopted a cross-sectional study design and used a mixed method approach of quantitative and qualitative techniques for data collection and analysis. We selected two KBK and two non-KBK districts randomly and further selected six HWCs (some PHCs and some SCs converted) from each of these four sample districts; thus, a total of 24 HWCs were studied and presented in this report. Details of the district-wise sampled institutions are: Mayurbhanj had 1 SC, 1 UPHC and 4 PHC; Kandhamal had 1 SC and 5 PHC; Koraput had 1 UPHC and 5 PHC; and Dhenkanal had 1 SC, 1 UPHC and 4 PHC).

Primary data were collected through four tools: one semi-structured interview of patient exit interview; one semi-structured interview of service providers; one in-depth interview guide for community/GKS members; and observation checklist for recording observation of the study team about infrastructure, HR and other health system-related dimensions. We also collected secondary performance data on selected parameters.

A total of 480 interview of patients, 37 interview of service providers, 28 in-depth interviews of key informants and observation of 24 HWCs were recorded, analysed and presented in this report. Ethical standards were maintained during data collection.

### **Key findings**

With respect to patients' awareness on HWCs, it was found that only about 61% of the respondent had ever heard about HWC. On utilization of various services, it was found about 40% of the respondents utilized health services related to screening, prevention, control and management of NCD - more than patients availing services related to management of communicable diseases (29.6%). More than 90% of the patients reported that they had observed some or other changes in HWC during last 2 years.

About 85% respondents cited availability of free medicine, about 82% spoke about cleanliness of health centres, about 68% cited better infrastructure and availability of all health care staff (56%) as desirable changes due to declaration of HWC. However, only 11% mentioned about the changes in the ambulance services and referral services (13.2%) and the least changes were seen on screening for mental illnesses (0.5%). Further, about three-fourth of the patients reported they were satisfied to a great extent with the services provided by the HWC.

All the patients reported that they did not pay any money to any of the service providers. About four-fifth of the patients reported that they were always getting medicine adequately. About 44% cited non-availability of services in the government centers/HWC as the reason for visiting other health centers.

Only about 36% of respondents (patients) reported of group meetings being conducted at village by HWC staff.

The patients were asked if they had ever heard of about telemedicine. Out of the 480 patients, very surprisingly only three patients reported to have had ever heard about telemedicine.



About 96% of the patients reported that they found healthcare facilities of HWC is better now than before it was converted into HWC.

Only about one-fifth of the respondents were aware of yoga sessions being held in the HWC. The average distance travelled by the health care workers to reach HWC was 12 kms. About 30% of them were working with same designation for >10 years.

Only about 30% service providers reported screening and basic management of mental illnesses. Out of the 37 respondents, very surprisingly not a single one reported of providing telemedicine services in their respective HWC.

When asked about the reasons for such referrals, about 81% respondents cited unavailability of service in the HWC and 16% mentioned about unavailability of specialized doctors as the reasons for such referrals.

They reported an average patient load of 43 per day earlier, which had increased to 57 per day after it was declared as HWC. Further, about 68% service providers reported shortage of medicines and /or consumable after it became HWC.

About 61% service providers reported that the higher-level officers used to visit monthly for monitoring purpose.

Further, about three-fourth of the respondents reported receiving good support from GKS. About 73% of the respondents said they depended upon front-line health personnel like ASHA, ANM for awareness generation.

Most of the HWCs across four districts witnessed an increment in the number of outdoor patients during the post-HWC period as compared to the pre-HWC period.

In 75% of HWCs, functional separate toilets for male and female were observed. Further in five-sixth of the HWCs computer was installed and functioning as well regular data entry and updating was being carried out.

In 14 (58.3%) HWCs the Yoga center was functioning and an MOU with the Yoga teacher was available.

Tests such as Blood urea and creatinine (20.8%), Liver Function Tests (enzymes) (16.7%) and Lipid profile (4.2%) were not being carried out in most of the HWCs.

Only 60% of the health care workers such AYUSH Medical Officer, Lab Technician and MPHW (M) were in position out of the total sanctioned strength. Further, only 50% of the Staff Nurse and LHV were in positioned. Out of the 10 sanctioned MPHW (M), 4 of them were in position.

It was observed that, the district officials like DPM, DMRCH and MO in PHCs were well aware about the HWC and its services, whereas, other paramedical staff like pharmacist, ANM, staff nurse, ASHA, LT have had limited understanding about the HWC activities and services.

### **Specific recommendations**

1. Focus on community awareness generation about HWC and the services being provided under the brand of HWC. Inter-personal communication and mass-media campaigns could be resorted to saturate the information to the community members.
2. About 40% respondents utilized NCD services as against 29% for communicable diseases. This signifies the demographic and epidemiological shift that is taking place in rural pockets of Odisha. Therefore, more emphasis needs to be given to NCD screening and management, especially diabetes, hypertension and mental illnesses.
3. A remarkable change in the functioning of HWCs was observed by most of the participants which is symbolic of the success of the government in terms of reaching out to the most vulnerable. However, this gain needs to be sustained through continuous IEC and BCC activities.
4. About 85% respondents mentioned availability of free medicine, about 82% spoke about cleanliness of health centres. Conversely about 15% still don't know or avail free medicines and about 18% don't appreciate the cleanliness practices. Therefore, during training / orientation of the health workers this component need to be re-emphasized upon.
5. About 50 to 70% respondents appreciated better infrastructure (68%) availability of all health care staff in the HWC. Thus, there is a huge gap with regard to improving both the components. While the former is a local responsibility, the later needs involvement of policy makers in terms of timely deployment and transfer of staff for the HWCs to deliver optimally.
6. Screening of mental illnesses is still highly neglected. Immediate steps need to be taken by the department in collaboration with the NCD cell to train the staff on this domain.
7. About three-fourth of the patients reported they were satisfied to a great extent with the services provided by the HWC. Moreover, all the patients reported that they did not pay any money to

any of the service providers. Both findings are excellent indicators about the commitment of local staff posted in the HWCs. The momentum needs to be sustained.

8. Only about 36% of respondents reported of group meetings being conducted at village by HWC staff. Thus, this component should be focused upon during the regular training and review activities of the HWCs at the district level.
9. Only about one-fifth of the respondents were aware of yoga sessions being held in the HWC. It is now a universally accepted technique to address most of the NCDs. Thus, engagement of Yoga teachers and sensitization of the health staff is necessary to offer Yoga services to the catchment population.
10. Awareness about tele-medicine was extremely poor both among the patients and the service providers. In the times to come, tele-medicine services are likely to emerge as alternate mechanisms to reach out to a vast majority of rural pockets. Thus, this component needs an immediate redressal.
11. On the one hand there is a definite increase in the average number of patients walking into the HWC and on the other hand there is about 50% vacancy of key staff such as Pharmacist, Lab Technician and Nurses. Therefore, the department needs to rationalize deployment of essential Human Resources to the HWCs.
12. Monitoring and supervision by the superior officials was found to be working in about 69% instances. Studies time and again have highlighted the importance of supportive supervision to strengthen the quality and quantum of services. These principles need to be institutionalized on a priority basis.
13. In 75% of HWCs, functional separate toilets for male and female were observed and in five-sixth of the HWCs the computer was installed and functioning as well regular data entry and updation. Both the components are non-negotiable aspects of non-clinical quality of care. Need immediate attention of district and state officials to ease the flow of female patients to the HWCs and to strengthen MIS, respectively.
14. Tests such as Blood urea and creatinine (20.8%), Liver Function Tests (enzymes) (16.7%) and Lipid profile (4.2%) were not being carried out in most of the HWCs. The department needs to take a call on this dimension.
15. It was observed that, the district officials like DPM, DMRCH and MO in PHCs were well aware about the HWC and its services, whereas, other paramedical staff like Pharmacist, ANM, Staff nurse, ASHA, LT have had limited understanding about the HWC activities and services. Prioritization of training and orientation to these front-line workers is essential to ensure provision of expanded basket of services under the HWCs.

16. Visit of front-line health workers to the households was found to be relatively poor in some of the HWCs as cited by the GKS members. This component needs to be emphasized upon time and again during review meetings and supervisory visits.
17. Patients are not spending money from their pockets for purchase of medicines is an excellent development which has the potentiality to reduce the out of pocket expenses on health care, however adherence to treatment protocols needs regular scrutiny. For primary care the providers were found to have been well-trained but for referral and follow-up refresher trainings need to be conducted every six months.



**Assessment of Comprehensive Primary Healthcare Services  
through Health and Wellness Centres (HWC) in Odisha**



## BACKGROUND

Primary health care is regarded as one of the most important determinants for achieving universal health coverage (UHC) goals. Existence of a robust and responsive health system is essential to deliver primary healthcare services to a vast majority of India's population. The National Health Mission (NHM), the country's flagship health systems strengthening programme, envisages "attainment of universal access to equitable, affordable and quality health care which is accountable and responsive to the needs of people". Through a continuum of care approach, investments during the first and second phase of the NHM were made to strengthen the Reproductive and Child Health (RCH) services and reduce the burden of communicable and non-communicable diseases. While such a focus intervention enabled improvements in key indicators related to RCH and communicable diseases, but it needed to address the health care challenges that were emerging out of the rapid demographic and epidemiological transitions that the country was experiencing since the beginning of 21<sup>st</sup> Century. [1, 2] Recent estimates indicate that in India non-communicable diseases (NCD) account for 53 % of all deaths [3] and therefore the range of services delivered at the primary care level ought to consider these epidemiological shifts.

The report of the Primary Health Care Task Force, Government of India, provided valuable insights about the ideal structure and processes that need to be built into the country's health systems as to enable delivery of comprehensive primary health care (CPHC). Further, the National Health Policy, 2017 recommended for strengthening the delivery of primary health care through an innovative platform of "Health and Wellness Centres" (HWC) which would act as the local hub to address most of the communicable and non-communicable diseases of about 5 to 10 thousand population. It also has declared the intentions of the government to commit about two-thirds of the health budget to strengthen primary health care. [1]

Some of the key principles adopted under this initiative are: transforming Sub Centres and Primary Health Centres to Health and Wellness Centres; expanding the range of comprehensive primary health care services; ensuring a people-centred, holistic, equity-driven and locally responsive delivery of services; providing high quality care and infusing technology into the health system for information management; emphasizing health promotion; promoting public health action through active engagement and capacity building of community platforms and individual volunteers; and ensuring integration of Yoga and AYUSH to cater to the needs of the local population.



The services envisaged at the HWC level include early identification, basic management, and counselling; adherence to protocols on treatment and follow-up care; continuity of care by appropriate referral; optimal home and community follow-ups; and health promotion and prevention for the expanded range of services.

Subsequently, it was decided to convert the existing Sub Centres (SC) catering to 3-5 thousand population in to Health and Wellness Centres. The underlying principle adopted to synergize these HWCs was ‘less than 30 minutes of time to care’. It was further proposed to convert the primary healthcare centres (PHC) of rural and urban areas in to HWCs. A basket of comprehensive primary health care was offered in these centres through outreach services, mobile medical units (MMU) and home-based care – in all these set-ups the principle was to offer seamless continuum of care with the basic principles of equity, universality and zero out-of-pocket expenditure.

In Odisha, the state government introduced these initiatives and established HWCs across the State in a phased manner. As per the recent reports of NHM, about 1004 institutions (PHCs and SCs) are implementing the mandate of HWCs. However, there has not been any formal assessment on the modalities, mandate, and services being provided under such HWCs. Therefore, we were assigned by the NHM, Government of Odisha to undertake a rapid assessment exercise, document best practices and challenges in implementing the programme, and provide implementation support to the state and district administration for expansion of this initiatives to more institutions.

### Aims and objectives

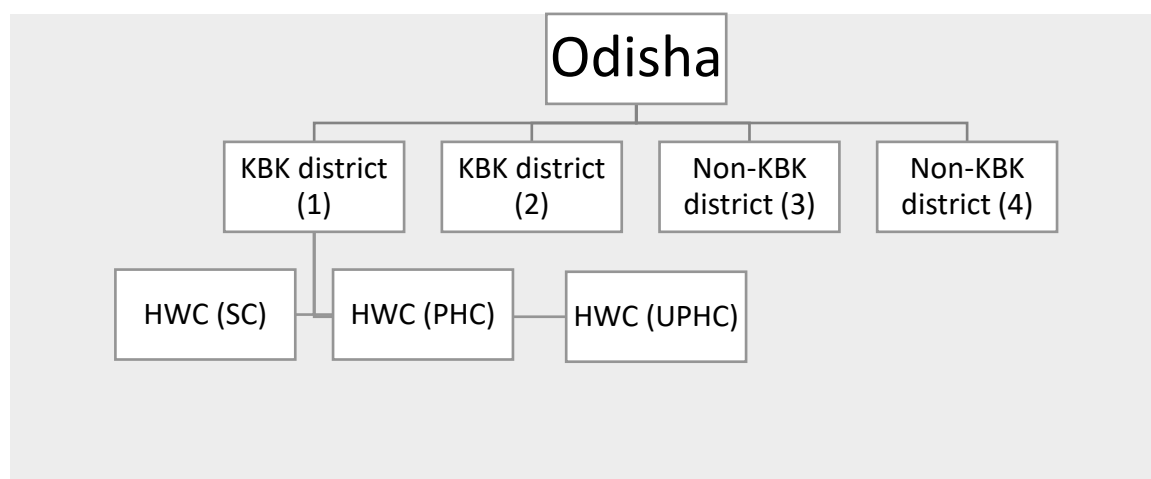
1. To conduct a rapid assessment of comprehensive primary health care services being offered under HWCs (SC and PHC) in Odisha
2. To document best practices and challenges in implementing the HWC initiative
3. To recommend actionable scaling up strategies to the state government

## METHODOLOGY

### Study design

We adopted a cross-sectional study design and used a mixed method approach of quantitative and qualitative techniques for data collection and analysis. We selected two KBK and two non-KBK districts randomly and further selected six HWCs (some PHCs and some SCs converted) from each of these four sample districts; thus total of 24 HWCs were studied in this report. Details of the district-wise sampled institutions are: Mayurbhanj had 1 SC, 1 UPHC and 4 PHC; Kandhamal had 1 SC and 5 PHC; Koraput had 1 UPHC and 5 PHC; and Dhenkanal had 1 SC, 1 UPHC and 4 PHC.

**Chart 1 – Sampling technique for data collection**



### Data collection

Primary data were collected through four tools: one semi-structured interview of patient exit interview; one semi-structured interview of service providers; one in-depth interview guide for community/GKS members; and observation checklist for recording observation of the study team about infrastructure, HR and other health system-related dimensions. We also collected secondary performance data on selected parameters.

Interview with patients were conducted while they were exiting the institutions. On an average, about 20 such exit interviews were conducted per HWC. Given we visited 24 such sample HWCs, thus the total sample was 480 patient interviews. Interview of service providers was conducted using all ethical standards. In total we conducted 37 such interview of service providers. In-depth interviews (IDI) were conducted with the village heads, GKS members, community representatives and total of 28 such IDIs were conducted, recorded, transcribed and translated in to English language for analysis.

The patient exit interview tool contained questions related to socio-demographic characteristics of the respondent, the health system readiness to launch and deliver the expanded basket of health care services under HWC mandate, and the experience of the respondents with regard to availability, accessibility and quality of services. The IDI guide consisted of questions related to the experiences, enablers and barriers of service providers and the managerial cadre with respect to delivery of services under the HWCs. The tool on secondary performance data had questions related to outpatient visits, visits of diabetes, hypertension, cancer, mental health disorders, etc. for a period of 39 months (March 2017-18 to May 2020-21) from all the 24 HWCs that we visited.

The tool for patient exit interview is attached in **Appendix 1.1**; the tool for interview of service providers in **Appendix 1.2**; the tool for In-depth interview of GKS members in **Appendix 1.3**; and the tool on observation checklist of HWC in **Appendix 1.4**.

### Data analysis

Descriptive analysis techniques were used to present the findings of quantitative data. Frequency with percentage and mean are shown to describe the results. Analysis of quantitative data was undertaken using Excel, R and Stata software. The qualitative data were analyzed thematically and presented in the report.

The following principles of HWCs were considered while developing the tools for data collection:

1. Transform existing Sub Health Centres and Primary Health Centres to Health and Wellness Centers to ensure universal access to an expanded range of Comprehensive Primary Health Care services;
2. Ensure a people-centered, holistic, equity sensitive response to people's health needs through a process of population empanelment, regular home and community interactions and people's participation;
3. Provide delivery of high-quality care and advanced technologies including IT systems;
4. Emphasize health promotion (including through school education and individual centric awareness) and promote public health action through active engagement and capacity building of community platforms and individual volunteers;
5. Enable the integration of Yoga and AYUSH as appropriate to people's needs.

The services envisaged at the HWC level that were studied in detail are:

- Early identification, basic management, counselling services;
- Ensuring adherence to treatment protocols and follow-up care;
- Ensuing continuity of care by appropriate referrals;
- Optimal home and community follow-up, and health promotion and prevention for the expanded range of services; and
- Care provision at every level as per clinical pathways and standard treatment guidelines.

### Ethical issues and quality assurance

First, the study was sanctioned and approved by the National Health Mission, Government of Odisha. This study didn't involve any invasive procedures during data collection, neither did it resort to collection of any sensitive information. After approval of the study objectives, methodology and data collection tools by the Mission office, the cooperation letter was obtained from the Mission Directorate for data collection from the sample districts / HWCs. The team was hired, trained and deployed to the field for data collection. Due to Covid-19 restrictions the data collection process got delayed by about 4 months. Thus, the team collected data during July – September 2020 in compliance with the Covid-19 guidelines of the government of Odisha. Data were anonymized and analysis during October. Informed consent was obtained before interviewing the respondents. In-depth interviews were recorded in voice recorders, transcribed and translated into English language subsequently. All ethical standards were maintained throughout the study period. Review meetings were conducted with the field team during data collection. The P.I and the Co. I also visited sample institutions during data collection period to cross-check the validity of data being collected by the field team.

## RESULTS

### Analysis of patient exit interviews

The section below presents key findings of patient exit interviews.

**Table 2.1: Socio-economic and demographic characteristics of study patients**

Variable	Category	N (%)
<b>Gender</b>	Female	217 (45.2)
	Male	263 (54.8)
<b>Age</b>	Mean	44
<b>Age-group</b>	Up to 30 years	132 (27.5)
	31-60 years	260 (54.2)
	Above 60 years	88 (18.3)
<b>Education</b>	No formal education	81 (16.9)
	Primary (1 <sup>st</sup> -5 <sup>th</sup> )	146 (30.4)
	Secondary (6 <sup>th</sup> -10 <sup>th</sup> )	163 (34)
	Higher secondary (11 <sup>th</sup> -12 <sup>th</sup> )	46 (9.6)
	Graduate(13 <sup>th</sup> -15 <sup>th</sup> )	41 (8.5)
	Above graduate	3 (0.6)
<b>BPL</b>	No	195 (40.6)
	Yes	285 (59.4)
<b>Household size</b>	Mean	5.34
<b>Monthly income</b>	Median	6000
<b>Living inside the HWC coverage area</b>	No	44 (9.2)
	Yes	436 (90.8)
<b>Years of living within the HWC coverage area</b>	<= 3 years	9 (2))
	>3 years	427 (98)
<b>Distance covered to reach at HWC</b>	<=3 k.ms	374 (77.9)
	4-5 K.ms	65 (13.6)
	>5 K.ms	41 (8.5)

The socio-economic and demographic characteristics of study participants are shown in **table 2.1**. About 55% of the patients were male and 45% were female participants. The mean age of the patients was 44 years. About 27.5 % of the patients were from the younger age group up to 30 years, and 18% of the sample consisted of older age group. About one-fifth of the study population was illiterate with no formal education, and only 18.7% had higher secondary education and above. About 40% of the respondent were below poverty line (BPL). The mean household size of the respondent was about 5. The median monthly income was INR 6000. Majority of the patients (90.8%) were living inside the HWC coverage area. Similarly, about 98% of the respondents was living within the same HWC coverage area for more than three years. About 78% patients said they travelled less than 3 km to reach the HWC and 8.5% of the patients covered more than 5 km to reach and avail health services from the HWC.

**Table 2.2: Awareness of patients regarding HWC**

Variable	Category	N (%)
Ever heard?	No	188 (39.2)
	Yes	292 (60.8)
Sources of awareness	Walkathon, cyclothon, mini marathon involving school students.	0 (0.00)
	Walkathon, cyclothon, mini marathon involving youth club.	2 (0.7)
	Walkathon, cyclothon, mini marathon involving SHG.	3 (1)
	Miking	13 (4.5)
	Competitions like debate, Rangoli, drawing, Quiz etc.	0 (0.00)
	Local sports	1 (0.3)
	HWC name board and painted walls	100 (34.2)
	Focused group discussions among different beneficiaries	40 (13.7)
	Video shows using PICO projector	1 (0.3)
	Talk shows	2 (0.7)

Variable	Category	N (%)
	Healthy baby show, SHGs etc.	1 (0.3)
	Media briefing	0 (0.00)
	From health personnel like ASHA, ANM	205 (70.2)
	Street play / Folk theatre	4 (1.4)
	Poster campaign	55 (18.8)
	Leaflet distribution	17 (5.8)
	Others	45 (15.4)

In **table 2.2**, awareness of patients regarding HWC are shown in this table. Only about 61% of the respondent ever heard about HWC. The major source of their awareness was from the health personnel like ASHA, ANM (70.2%), HWC name board and painted walls (34.2%), poster campaign (18.8%) and about 13.7% of the came to know about the HWC from the focus group discussions among different beneficiaries. In **table 2.3**, utilization of HWC services by patients are presented. The major services availed by the respondent or family members from HWC in last 6 months were free medicine (97.3%), general out-patient care for acute illness (76.5%), diagnostic services (58.8%). Interestingly, about 40% of the respondents utilized health services related to screening, prevention, control and management of NCD - more than patients availing services related to management of communicable diseases (29.6%).

**Table 2.3: Utilization of HWC services by patients**

Variable	Category	N (%)
<b>Services availed by the respondent or family members from HWC in last 6 months</b>	Care in pregnancy and child-birth	59 (12.3)
	Maternal and new born care service	58 (12.1)
	Childhood and adolescent health care services	56 (11.7)
	Family planning and contraceptive services	9 (1.9)
	Management of communicable diseases	142 (29.6)

Variable	Category	N (%)
	General out-patient care for acute illnesses	167 (76.5)
	Screening, prevention, control and management of NCD	189 (39.4)
	Care for common ophthalmic diseases	33 (6.9)
	ENT related services	27 (5.6)
	Basic oral and dental care	27 (5.6)
	Elderly and palliative health care services	73 (15.2)
	Emergency medical services including burns and trauma cases	30 (6.2)
	Screening and basic management of mental illness	8 (1.7)
	Diagnostic services	282 (58.8)
	Free medicines	467 (97.3)

**Table 2.4: Perceptions of patients about the changes in HWC**

Variable	Category	N (%)
<b>Observed any changes in HWC during last 2 years</b>	No	39 (8.1)
	Yes	441 (91.9)
<b>Changes observed in HWC</b>	Cleanliness of health center	360 (81.6)
	Visit of more patients to govt health center	150 (34)
	Availability of all health care staff	247 (56)
	Medicines for diabetes, hypertension and cancer	169 (38.3)
	Screening for mental illness	2 (0.5)
	Yoga sessions	42 (9.5)
	Quick diagnosis using RDK	94 (21.3)
	Availability of Lab technician	156 (35.4)
	Availability of free medicines	375 (85)



Variable	Category	N (%)
	Referral services	58 (13.2)
	Ambulance Services	50 (11.3)
	Better infrastructure	298 (67.6)

The perceptions of patients about the changes in HWC are shown in **table 2.4**. More than 90% of the patients reported that they had observed some or other changes in HWC during last 2 years. Subsequently, they were asked to specify the type of changes that they observed in the HWC. About 85% respondents mentioned availability of free medicine, about 82% spoke about cleanliness of health centres. Better infrastructure (68%), availability of all health care staff (56%), medicines for diabetes, hypertension and cancer (38.3%) were also mentioned by respondents as desirable changes that occurred in the HWCs during the last two years. However, only 11% mentioned about the changes in the ambulance services and referral services (13.2%) and the least changes were seen on screening for mental illnesses (0.5%).

**Table 2.5: Satisfaction of patients regarding HWC**

Variable	Category	N (%)
<b>Satisfaction with HWC services</b>	To a great extent	359 (74.8)
	Somewhat	103 (21.5)
	Very little	18 (3.8)
<b>Waiting time to meet with doctor/nurse</b>	Up to 2 minutes	204 (42.5)
	3-5 minutes	124 (25.8)
	6-10 minutes	80 (16.7)
	10-30 minutes	63 (13.1)
	30-60 minutes	9 (1.9)
<b>Time spent with doctor/nurse for treatment</b>	Up to 2 minutes	106 (22.1)
	3-5 minutes	262 (54.6)
	6-10 minutes	81 (16.9)

Variable	Category	N (%)
	10-25 minutes	31 (6.5)
<b>Any health worker advised to buy medicine from outside</b>	No	456 (95)
	Yes	24 (5)
<b>Any payment made to service provider</b>		
	No	480 (100)

In **table 2.5**, satisfaction of patients regarding HWC is shown. Patients were asked about their satisfaction with HWC services: for instance how long they had to wait to consult the doctor, the amount of time spent with the doctor etc. About three-fourth of the patients reported they were satisfied to a great extent with the services provided by the HWC, about one-fourth were somewhat satisfied and about 4% were had very little satisfaction. About 68% of the patients had to wait for just 5 minutes to meet the doctor/nurse and only about 2% told that they waited for more than 30 minutes to meet the doctor. About 95% of the respondent said they were not advised by any health worker to buy medicine from outside. All the patients reported that they did not pay any money to any of the service providers.

**Table 2.6: Utilization and accessibility of free medicines from the HWC**

Variable	Category	N (%)
<b>Availed free medicines</b>	Yes, always	427 (89)
	Yes, sometimes	52 (10.8)
	No, not at all	1 (0.2)
<b>Getting medicines adequately</b>	Yes, always	384 (80)
	Yes, often/sometimes	94 (19.6)
	No, never	2 (0.4)
<b>Getting medicines timely</b>	Yes, always	401 (83.5)
	Yes, often	77 (16)
	No, never	2 (0.4)

Questions on utilization and accessibility of free medicines from the HWC were asked to the patients. About 89 % of the patients revealed that they always availed free medicines from the

HWC. Four-fifth of the patients reported that they were always getting medicine adequately. Similarly, about 83.5% of the respondents mentioned that they were always timely getting medicines (**Table 2.6**).

**Table 2.7: Visiting health service provider other than HWC**

Variable	Category	N (%)
<b>Visiting service provider other than HWC?</b>	No	173 (36)
	Yes	307 (64)
<b>Type of service provider visited</b>	Other government hospital	278 (90.6)
	Private hospital	21 (6.8)
	Private clinic	30 (9.8)
	Pharmacy shop	33 (10.7)
	Others	1 (0.3)
<b>Reason for visiting elsewhere</b>	Referred by HWC doctor	90 (29.3)
	No faith on government hospitals/HWC	6 (2)
	Non-availability of prescribed medicines	8 (2.6)
	Not satisfied with government services	8 (2.6)
	Non-availability of services in the government centers/HWC.	135 (44)
	Medicines quality are not good.	10 (3.3)
	Others	50 (16.3)

Patients were asked about their health seeking behavior in terms of visiting health centres other than HWC. About 64% of the patients revealed that they visited other health service providers apart from HWC. On being asked about the type of health service providers they visited other than HWC, more than 90% visited other government hospitals, while about 6.8% respondents mentioned about other private hospitals and about 9.8% of them spoke about other private clinics, while about 11% patients said they visited pharmacy shops for seeking care. On being

asked, what were the reasons for seeking care from other service providers, about 29% of respondents informed that they were referred by HWC doctor and about 44% cited non-availability of services in the government centers/HWC as the reason for visiting other health centres (Table 2.7).

**Table 2.8: Awareness of patients about Community engagement of HWC**

Variable	Category	N (%)
Group meeting conducted at village level by HWC	No	308 (64.3)
	Yes	172 (35.8)
Number of meetings conducted during last six months	Up to 5	146 (84.9)
	More than 5	16 (9.3)
	Can't say	10 (5.8)
Who all were present in those meetings	MO	14 (8.1)
	MPHW(F)	78 (45.3)
	LHV	2 (1.2)
	MPHW(M)	12 (7)
	Lab technician	7 (4.1)
	GKS members	113 (65.7)
	Village head	109 (63.4)
	Local people	144 (83.7)
	Lactating mothers	63 (36.6)
	Others	124 (72.1)

In **table 2.8**, the findings on awareness of patients about community engagement of HWC is presented. About 36% of respondents reported of group meetings being conducted at village by HWC staff. They were further asked about the number of meetings conducted during last six months and about 85% reported that up to 5 such meetings had been conducted during the last six months in their places of residence. On being asked about who all were present in those meetings, the responses were: MO (8.1%), MPHW-F (45.3%), LHV (1.2 %), MPHW-M (7%), laboratory technician (4.1%), GKS members (65.7%), village head (63.4%), local people (83.7%), lactating mothers (36.6%) and others (72.1%).

In **table 2.9**, awareness of patients regarding telemedicine is shown. The patients were asked if they had ever heard of about telemedicine. Out of the 480 patients, very surprisingly only three patients reported to have had ever heard about telemedicine.

**Table 2.9: Awareness of patients regarding telemedicine**

Variable	Category	N (%)
Ever heard?	No	477 (99.4)
	Yes	3 (0.6)

In **Table 2.10**, patients' perception about differences of health care facilities before and after declaration of HWC is captured. About 96% of the patients reported that they found healthcare facilities of HWC is better now than before it was converted into HWC. These patients were asked to specify the reasons for saying so. On that questions the various reasons were cited as: availability of services for chronic diseases (40.5%), cleanliness of the premises (75.2%), good infrastructure (71.2%), availability of free medicines (94.6%), availability of staff (67.5%), and availability of free diagnosis facility (43.4%).

**Table 2.10: Patient's perception in differences of health care facilities before and after declaration of HWC**

Variable	Category	N (%)
Healthcare facilities of HWC better than before	No	21 (4.4)
	Yes	459 (95.6)
Reasons for HWC being better	Availability of services for chronic diseases	186 (40.5)
	Cleanliness of the premises	345 (75.2)
	Good infrastructure	327 (71.2)
	Free medicine	434 (94.6)
	Availability of staffs	310 (67.5)
	Availability of free diagnosis facility	199 (43.4)
	Any other	38 (8.3)

**Table 2.11: Awareness of patients regarding yoga sessions at HWC**

Variable	Category	N (%)
Yoga sessions being held in HWC	No	386 (80.4)
	Yes	94 (19.6)
Frequency of conducting Yoga sessions	Weekly	70 (74.5)
	Fortnightly	2 (2.1)
	Can't say	22 (23.4)
Ever participated in Yoga	No	54 (57.4)
	Yes	40 (42.6)
How useful is Yoga	To a great extent	335 (69.8)
	Somewhat	109 (22.7)
	Very little	28 (5.8)
	Not at all	8 (1.7)

In **table 2.11**, awareness of patients regarding yoga sessions at HWC is shown. Only about one-fifth of the respondents were aware of yoga sessions being held in the HWC. Further, when asked if they were aware about the frequency of yoga sessions being conducted, about three-fourth of the patients reported that weekly yoga sessions were being held at HWC. About 57.6% of the respondents had never participated in the yoga session. Lastly, when asked about usefulness of attending yoga sessions from amongst those who attended the sessions, about 70% of them replied affirmatively; while only 2% respondents replied that yoga was not at all useful.

## Analysis of service providers' interviews

**Table 2.12: Demographic characteristics of study service providers**

Variable	Category	N (%)
<b>Designation</b>	Additional ANM	1 (2.7)
	ANM	8 (21.6)
	Assistant Surgeon	1 (2.7)
	Chief Health Officer	2 (5.4)
	Medical Officer	6 (16.2)
	Medical Officer (AYUSH)	6 (16.2)
	Mo/IC	1 (2.7)
	MPHW(M) working as Pharmacist	2 (5.4)
	Pharmacist	6 (16.2)
	Staff Nurse	4 (10.8)
<b>Age</b>	Mean	41
<b>Age-group</b>	Up to 30 years	9 (24.3)
	31-60 years	25 (67.6)
	Above 60 years	3 (8.1)
<b>Living with in the premises</b>	No	14 (37.8)
	Yes	23 (62.2)
<b>Average distance travelled by service providers to reach at HWC</b>	Mean (SD)	12 (9.86)
<b>Total service period</b>	Up to 3 years	7 (18.9)
	3+ to 10 years	10 (27)
	More than 10 years	20 (54.1)
<b>Duration of working in current designation</b>	Up to 3 years	14 (37.8)
	3+ to 10 years	12 (32.4)
	More than 10 years	11 (29.7)

The demographic characteristics of service providers are shown in **table 2.12**. The mean age of the service provider was 41 years. The designation of health care workers who were

interviewed consisted of Additional ANM and ANM (21.6%), assistant surgeon, community health officer, medical officer (16.2%), AYUSH medical officer (16.2%), MO in-charge, MPHW (M) working as pharmacist, pharmacist (16.2%) and staff nurse (10.8%). About 24.3 % of the health care workers were from the younger age group (up to 30 years), about 67.6% was from the middle age group (31 to 60 years) and about 8.1% of the respondents were from the older age group (above 60 years). Majority of the respondents (62.2%) were living inside the premises of HWC. The average distance travelled by the health care workers to reach HWC was 12 kms. About 18.9%, had a total work experience ranging from 0 to 3 years, 27% had a work experience ranging from 3 to 7 years and about 54% of the health care workers had a work experience of more than 10 years. Further, about 37.8% of the respondents worked in current designation for last 0-3 years, while about 30% of them were working with the same designation for >10 years.

**Table 2.13: Health care services provided by HWC**

Variable	Category	N (%)
<b>Population based screening</b>	No	6 (16.2)
	Yes	31 (83.8)
<b>Services provided in HWC</b>	Care in pregnancy and child-birth	32 (86.5)
	Maternal and new born care service	33 (89.2)
	Childhood and adolescent health care services	32 (86.5)
	Family planning and contraceptive services	17 (45.9)
	Management of communicable Diseases	35 (94.6)
	General out-patient care for acute illnesses	37 (100)
	Screening, prevention, control and management of NCD	35 (94.6)
	Care for common ophthalmic diseases	23 (62.2)
	ENT related services	23 (62.2)
	Basic oral and dental care	21 (56.8)
	Elderly and palliative health care services	22 (59.5)



Variable	Category	N (%)
	Emergency medical services including Burns and trauma cases	18 (48.6)
	Screening and basic management of mental illness	11 (29.7)
	Diagnostic services	27 (73)
	Free medicines	37 (100)
<b>Providing Tele-medicine services</b>	No	37 (100)

Questions related to health services provided by the HWC were asked to the study respondents. Around 84% reported that population-based screenings were carried out in their HWC areas. On being asked about the various types of services that were provided in the HWC, majority of respondents reported about out-patient care for acute illnesses (100%), screening, prevention, control and management of NCD (94.6%), maternal and new born care service (89.2%), childhood and adolescent health care services (86.5%), care in pregnancy and child-birth (86.5%) among others. However, only about 30% service providers reported screening and basic management of mental illnesses. The service providers were further asked as to whether they were providing telemedicine services. Out of the 37 respondents, very surprisingly not a single one reported of providing telemedicine services in their respective HWC (Table 2.13).

**Table 2.14: Referral system and transportation services provided by HWC**

Variable	Category	N (%)
<b>Referring to other health institutions</b>	Yes	37 (100)
<b>Institutions where patients are referred</b>	CHC	23 (62.2)
	DHH	13 (35.1)
	Private hospital	0 (0.00)
	PHC	1 (2.7)
<b>Condition of patients who are referred</b>	NCD	10 (27)

Variable	Category	N (%)
	CCD	2 (5.4)
	Both NCD & CCD	17 (45.9)
	Others	8 (21.6)
<b>Reasons for referring patients elsewhere</b>	Unavailability of service in the HWC	30 (81.1)
	Unavailability of specialized doctors	6 (16.2)
	Unavailability of medicines	0 (0.00)
	Others	1 (2.7)
<b>Emergency patients getting transported by</b>	Govt. ambulance	24 (64.9)
	Private ambulance	6 (16.2)
	Leaving up to them	7 (18.9)
<b>Linkage with 108 ambulance</b>	Always available	18 (48.6)
	Sometimes not available	12 (32.4)
	No linkage	7 (18.9)

The referral system and transportation services provided by HWC are shown in **table 2.14**. The respondents were asked about their referral and transportation system in their respective HWCs. All the services providers reported that they were referring patients to other health institutions. On being asked as to the place of their referral, about 62% informed they referred to a community health centre (CHC) and 35% referred to district hospital (DH); only about 3% referred to another PHC. Further, about 27% service providers reported that patients suffering from NCDs were referred to other health institution, whereas about 46% said patients suffering from both NCDs and CDs were referred. However only about 5% of respondents referred patients to other institutions for communicable diseases (CD). When asked about the reasons for such referrals, about 81% respondents cited unavailability of service in the HWC and 16% mentioned about unavailability of specialized doctors as the reasons for such referrals. About 65% respondents used public ambulances for transporting emergency patients to other health institutions.

**Table 2.15: Perception of service providers about public response on HWC**

Variable	Category	N (%)
<b>Public response towards HWC</b>	Very good	22 (59.5)
	Good	15 (40.5)
	Not that good	0 (0.00)
	Unable to judge	0 (0.00)
<b>Per day average patient visiting HWC</b>	Mean	57.24
<b>Per day average patient visits before HWC</b>	Mean	42.73

The perception of service providers about public responses that they were getting on the kind of health care being offered under the HWC are shown in **table 2.15**. About 59.5% service providers ranked the responses as ‘very good’, while the rest of them reported the public response as ‘good’. The service providers were further asked about the average patient load in HWC per day prior to it becoming an HWC and after it became a HWC. They reported an average patient load of 43 per day earlier, which had increased to 57 per day after it was declared as an HWC. Thus, as per the estimation of the service providers, there is about 33% increment in the average daily patient load in the HWCs after they were declared to function as HWCs.

**Table 2.16: Indenting medicines and consumables by HWC**

Variable	Category	N (%)
<b>Indenting medicines/consumables</b>	CHC	29 (78.4)
	DHH	8 (21.6)
	Nearest PHC	0 (0.00)
	Supervisor	0 (0.00)
<b>Frequency of indenting medicines/consumables</b>	Weekly	0 (0.00)
	Fortnightly	0 (0.00)

Variable	Category	N (%)
	Monthly	33 (89.2)
	Quarterly	4 (10.8)
	Yearly	0 (0.00)
<b>Shortage of medicines/consumables after it became HWC</b>	No	12 (32.4)
	Yes	25 (67.6)

In **table 2.16** we present the information on indenting medicines and consumable by HWC. About four-fifth of the respondents reported that they are indenting medicines and consumable from community health centers (CHC). When asked about the frequency of indenting medicines, 89% respondents mentioned that they were indenting medicines and other consumables on a monthly basis. Further, about 68% service providers reported shortage of medicines and /or consumable after it became HWC.

**Table 2.17: Monitoring and accountability mechanisms of HWC**

Variable	Category	N (%)
<b>Any higher-level officer visited for monitoring</b>	No	1 (2.7)
	Yes	36 (97.3)
<b>Who visited in last 3 months for monitoring</b>	Chief health officer	5 (13.9)
	Block level officer	28 (77.8)
	District level officer	25 (69.4)
	Supervisor	1 (2.7)
<b>Frequency of monitoring visits</b>	Weekly	2 (5.6)
	Fortnightly	1 (2.7)
	Monthly	22 (61.1)
	Quarterly	11 (30.6)

Variable	Category	N (%)
	Yearly	0 (0.00)
<b>Enumeration of every family members done for HWC</b>	Fully completed	19 (51.4)
	Partially completed	11 (29.7)
	Not started	7 (18.9)
<b>Who is performing data entry job</b>	Data entry person	4 (10.8)
	Operations staff	33 (89.2)
	No designated person	0 (0.00)
<b>Computer installed and functioning</b>	No	1 (2.7)
	Yes	36 (97.3)
<b>Software installed in the systems</b>	Yes	36 (100)
<b>Conducted any village level meeting during last 6 months</b>	No	11 (29.7)
	Yes	26 (70.3)
<b>Who all were present in those meetings</b>	MO	10 (38.5)
	CHO	2 (7.7)
	MPHW(F)	17 (65.4)
	LHV	4 (15.4)
	MPHW(M)	13 (50)
	Lab technician	6 (23.1)
	GKS members	21 (80.8)
	Village head	16 (61.5)
	Local people	19 (73.1)
	Lactating mothers	14 (53.8)
	Others	13 (50)

Monitoring and accountability mechanism of HWC are shown in **table 2.17**. Various questions on monitoring and accountability mechanism of HWC were asked to the service providers. Out of the 37 respondents, 36 of them mentioned that higher level officers visited their HWC to monitor and supervise on a regular basis. Further, on being asked as to who visited in last 3 months for monitoring, about 78% reported block level officers and 69% reported district level officers as the visitors. About 61% said the higher-level officers used to visit monthly for monitoring purpose. Around half of the respondents stated that they fully completed enumeration of each and every family member for HWC, while 19% said that they had not started the process yet. Except one respondent, all the respondents said computer is installed along with the software and their system is functioning well. About 70% of the respondents said that they had conducted village level meetings during the last 6 months. They further mentioned that various stakeholders participated in those monthly meetings as: GKS members (81%), local people (73.1%), lactating mothers (53.8%), MPHW-F (65.4%), and village head (61.5%) among others.

**Table 2.18: Support from GKS to HWC**

Variable	Category	N (%)
<b>Any support from GKS</b>	No	9 (24.3)
	Yes	28 (75.7)
<b>Different forms of support</b>	Creating awareness among people	21 (75)
	Financial support	0 (0.00)
	Cleanliness of premises	11 (39.3)
	Conducting yoga session	6 (21.4)
	Conducting VHND	11 (39.3)
	Screening the population	13 (46.4)
	Others	2 (7.1)

In **table 2.18**, response of service providers about the kind of support that they were getting from Gaon Kalyan Samiti (GKS) members are shown. About three-fourth of the respondents reported receiving good support from GKS. Further, these respondents were asked about the different forms of support they received from GKS members. Three-fourth of the respondents

informed that the GKS supported in creating awareness among people. They further mentioned about the support of GKS members for screening the population. However, no financial support was received from GKS.

**Table 2.19: Awareness and training regarding HWC**

Variable	Category	N (%)
For creating community level awareness	Walkathon, Cyclothon, Mini Marathon involving school students.	1 (2.7)
	Walkathon, Cyclothon, Mini Marathon involving Youth club.	2 (5.4)
	Walkathon, Cyclothon, Mini Marathon involving SHG.	4 (10.8)
	Miking	5 (13.5)
	Competitions like debate, Rangoli, drawing, Quiz etc.	1 (2.7)
	Local sports	1 (2.7)
	HWC name board and painted walls	13 (35.1)
	Focused Group Discussions among different beneficiaries	7 (18.9)
	Video Shows using PICO projector	0 (0.00)
	Talk Shows	2 (5.4)
	Healthy baby show, SHGs etc.	0 (0.00)
	Media Briefing	0 (0.00)
	Through health personnel like ASHA, ANM etc.	27 (73)
	Street play / Folk theatre	3 (8.1)
	Poster Campaign	20 (54.1)
	Leaflet distribution	16 (43.2)
	Others	5 (13.5)

Variable	Category	N (%)
Providing any HWC related training to frontline health workers	No	13 (35.1)
	Yes	24 (64.9)
Frequency of training	Monthly	15 (62.5)
	Quarterly	4 (16.7)
	Yearly	5 (20.8)

In **table 2.19**, awareness and training regarding HWC are shown. The respondents were asked about the methods they were using for creating community awareness about HWC. About 73% of the respondents said they depended upon front-line health personnel like ASHA, ANM for awareness generation. Some respondents mentioned about other methods such as poster campaign (54%), leaflet distribution (43.2%), HWC name board and painted walls (35.1%) among others. About 65% said they were providing HWC related training to frontline health care workers. Further, about 62.5% of service providers informed that they were conducting monthly training sessions for front-line health workers.





## Analysis of secondary performance data

**Table 2.20: Differences in mean outpatient visit, NCDs screening and treatment in pre and post declaration as HWC, Kandhamal**

	Gutingia			Kainjhar			Badagada			Sudra			Simanbadi			Gochhapada		
	Pre	Post	Inc/dec (+/-)	Pre	Post	Inc/dec (+/-)	Pre	Post	Inc/dec (+/-)	Pre	Post	Inc/dec (+/-)	Pre	Post	Inc/dec (+/-)	Pre	Post	Inc/dec (+/-)
Outpatient visits	890	1228	338	159	173	14	738	371	-367	605	685	80	1476	1768	292	1114	1825	711
Diabetes identification	0	5	5	0	5	5	4	5	1	0	6	6	4	32	28	0	10	10
Diabetes treated	0	6	6	0	0	0	4	5	2	0	6	6	0	31	31	0	6	6
Hypertension identification	15	30	15	0	4	4	13	9	-4	0	7	7	28	106	78	18	56	38
Hypertension treated	15	30	15	0	0	0	12	10	-3	0	7	7	28	106	78	16	39	22
Cancer identification	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Cancer treated	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Mental disorder identification	1	0	-1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Mental disorder treated	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

**Table 2.21: Differences in mean outpatient visit, NCDs screening and treatment in pre and post declaration of HWC Mayurbhanj**

	Marangtan di			Jharpokhar ia			Manatri			Debendrap ur			Moroda			Khairban i		
	Pre	Post	Inc/dec (+/-)	Pre	Post	Inc/dec (+/-)	Pre	Post	Inc/dec (+/-)	Pre	Post	Inc/dec (+/-)	Pre	Post	Inc/dec (+/-)	Pre	Post	Inc/dec (+/-)
Outpatient visits	117 6	111 6	-60	781	910	129	204 0	299 8	958	56 3	251 7	1954	222 5	270 5	480	0	26 6	266
Diabetes identification	0	0	0	0	3	3	9	14	4	13	68	55	21	29	8	0	1	1
Diabetes treated	0	1	1	0	3	3	9	14	4	13	68	55	14	23	8	0	2	2
Hypertension identification	3	0	-3	21	35	14	39	65	26	24	102	78	171	134	-36	0	4	4
Hypertension treated	44	71	27	21	35	14	39	65	26	24	87	63	168	127	-41	0	6	6
Cancer identification	5	0	-5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Cancer treated	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Mental disorder identification	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Mental disorder treated	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

**Table 2.22: Differences in mean outpatient visit, NCDs screening and treatment in pre and post declaration of HWC Dhenkanal**

	Katagada			Baldiabandha			Baulpur			Joranda			Sirimula			Dadarghati		
	Pre	Post	Inc/dec (+/-)	Pre	Post	Inc/dec (+/-)	Pre	Post	Inc/dec (+/-)	Pre	Post	Inc/dec (+/-)	Pre	Post	Inc/dec (+/-)	Pre	Post	Inc/dec (+/-)
Outpatient visits	1514	2430	915	939	863	-76	23	80	57	1054	1286	232	0	1323	1323	1508	1559	51
Diabetes identification	2	2	1	2	6	4	1	2	1	39	50	11	0	74	74	2	7	4
Diabetes treated	49	106	57	0	5	5	0	0	0	39	50	11	0	12	12	2	6	4
Hypertension identification	2	7	5	0	8	8	1	1	0	46	74	28	0	126	126	16	14	-2
Hypertension treated	79	161	82	0	8	8	0	0	0	46	74	28	0	72	72	17	13	-4
Cancer identification	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Cancer treated	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Mental disorder identification	0	0	0	0	0	0	0	0	0	4	9	4	0	0	0	0	0	0
Mental disorder treated	0	0	0	0	0	0	0	0	0	4	9	4	0	0	0	0	0	0

**Table 2.23: Differences in mean outpatient visit, NCDs screening and treatment in pre and post declaration of HWC Koraput**

	Dumbaguda			Padwa			Sunki			Semliguda			LR			Kumli		
	Pre	Pos t	Inc/dec (+/-)	Pre	Pos t	Inc/dec (+/-)	Pre	Pos t	Inc/dec (+/-)	Pre	Pos t	Inc/dec (+/-)	Pre	Pos t	Inc/dec (+/-)	Pre	Pos t	Inc/dec (+/-)
Outpatient visits	389	409	20	776	847	72	610	676	66	1681	1210	-471	1676	2073	397	587	656	69
Diabetes identification	0	2	2	2	1	-1	2	7	5	9	11	2	17	33	16	0	2	2
Diabetes treated	0	2	2	0	0	0	2	7	5	9	11	2	124	480	356	0	2	2
Hypertension identification	0	3	2	23	26	4	3	11	8	38	61	23	13	61	49	16	22	6
Hypertension treated	0	1	1	21	0	-21	3	11	8	38	61	23	107	671	564	16	22	6
Cancer identification	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Cancer treated	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Mental disorder identification	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Mental disorder treated	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

In **table 2.20**, differences in mean outpatient visit, NCDs screening and treatment in pre and post declaration of HWC of Kandhamal district is shown. Among the 6 HWCs studied, 5 of them saw an increment in the number of outdoor patients in the post HWC period as compared to the pre HWC. However, in Badagada HWC the mean outpatient has fallen in the post HWC period. Identification of diabetes cases among the 6 HWCs has increased in the post HWC period. Similarly, results were seen on the mean number of diabetes patients treated. With regard to diabetes identification and treatment the proportion of increment was high in Simanbadi and Gochhapada HWCs as compared to the rest four centers. The mean hypertension cases among the HWC has also increased in the post HWC period except for Badagada. Similarly, results were seen on the mean number of hypertension patients treated. Simanbadi and Gochhapada HWC witnessed higher proportion of increment in hypertension identification and treatment.

In **table 2.21**, differences in mean outpatient visit, NCDs screening and treatment in pre and post declaration of HWC in Mayurbhanj district is shown. Among the 6 HWCs studied, 5 of them saw an increment in the number of outdoor patients in the post HWC period as compared to the pre HWC. However, in Marangtandi HWC the mean outpatient had fallen in the post HWC period. With regard to diabetes identification, it was found that the mean case identification among the 5 HWC had increased in the post HWC period. In both diabetes identification and treatment largest proportion of increment changes were seen in Debendrapur HWC. Mean hypertension identification has increased in the post HWC period in 4 HWCs. However, in the two HWCs (Marangtandi and Moroda) it had fallen. Similar results were seen with respect to the mean number of hypertension patients except for Moroda. In both hypertension identification and treatment largest increment changes were seen in Debendrapur HWC.

In **table 2.22**, differences in mean outpatient visit, NCDs screening and treatment in pre and post declaration of HWC of Dhenkanal district is shown. Among the 6 HWC surveyed, 5 of them saw an increment in the number of outdoor patients in the post HWC period as compared to the pre HWC. However, in Baldiabandha HWC the mean outpatient has fallen in the post HWC period. All the 6 HWCs saw an increment in both mean diabetes identification and mean number of diabetes patients treated. However, Katagada and Sirimula HWC saw the large

increment in diabetes identification and treatment as well. With regard to hypertension identification and treatment, 4 HWCs saw an increment, while in one (Baulpur) there was no change and in the last one (Dadarghati) it had fallen. Joranda HWC saw an increment in both mental disorder identification and mental disorder treatment.

In **table 2.23**, differences in mean outpatient visit, NCDs screening and treatment in pre and post declaration of HWC of Koraput district is shown. In Semliguda HWC the mean outpatient load had fallen in the post HWC period. For both diabetes identification and treatment as well as for hypertension identification and treatment there was an increment across the HWCs surveyed except for Padwa. With regard to outpatient visits, diabetes identification and treatment and hypertension identification and treatment, largest increment changes were seen in LR HWC.

## Analysis of observation checklist of HWCs

**Table 2.24: Facilities observed in the HWCs during the study visit**

S. No	Observation checklist	N (%) / Mean
1	Infrastructure (number of rooms)	8.75
2	Infrastructure: functional separate toilets (M and F)	18 (75)
3	Infrastructure: waiting room/space	24(100)
4	Drinking water for patients	21(87.5)
5	Fan for patients	19 (79.2)
6	Tape water for patients	22 (91.7)
7	Investigation (LT)	17 (70.8)
8	Display of adequate and relevant IEC materials	23 (95.8)
9	Display of list of available services	23 (95.8)
10	Display of branding	21 (87.5)
11	Computer is installed and functioning	20 (83.3)
12	Regularly data entry and updating done?	20 (83.3)
13	Yoga center is functioning?	14 (58.3)
14	MoU with yoga teacher done?	14 (58.3)

**Table 2.24** is a frequency table of the facilities observed in the HWC during the study visit. The average number of rooms in HWC was estimated to be 9. In 75% of HWCs, functional separate toilets for male and female were observed to be available. In all the health centers waiting rooms were available. Availability of drinking water for patients (87.5%), fan (79.2%) and tape water (92%) were observed in most of the visited HWCs. Similarly, investigation (LT) facilities were found in 71% of the HWCs. Out of the 24 HWCs visited, 23 of them displayed adequate and relevant IEC materials as well as listed available resources. In five-sixth of the HWCs computer was installed and functioning as well regular data entry and updating was being carried out. In 14 (58.3%) HWCs yoga center was functioning and an MOU with yoga teacher was available.



**Table 2.25: Wellness activities undertaken by HWC during the last one year**

<b>Day</b>	<b>Wellness Activities</b>	<b>Frequency n (%)</b>
4th February World Cancer Day	Awareness Generation and importance of healthy eating habits exercise etc. and Cancer screening camps at AB- AB- HWCSs for early detection special focus on ASHA ANM Anganwadi (AAA) of 3 common cancers with workers.	10 (41.7)
8th March International Women 's Day	Walkathon for women and girls for 'Healthy Living' on the lines of Fit India	5 (20.8)
7th April -14th April World Health Day & AB-HWC Day	Cyclathon for children, adolescents and adults.	5 (20.8)
31st May World No Tobacco Day	No tobacco oath in schools and colleges	9 (37.5)
21st June International YOGA Day	Yoga activities at all AB- HWCSs	15 (62.5)
11th July World Population Day	Village walks	4 (16.7)
15th August Independence Day	Local sports competition e.g. Kite flying	16 (66.7)
1st-7th September National Nutrition Week	Demonstration of eat right and eat healthy -Magic box for demonstrating food adulteration	7 (29.2)
1st October World Elderly Day	Community March for all the elderly	3 (12.5)
7th November National Cancer Awareness Day	Camp for eat healthy & eat right, screening for NCDs, local sports	6 (25.0)
12th December Universal Health Coverage Day	Yoga and Wellness activities for health promotion and NCD screening camps	6 (25.0)

**Table 2.25** is a frequency table of the wellness activities undertaken by HWC during the last one year. Major wellness activities undertaken by HWC during the last one year were: local sports competition such as Kite Flying (66.7%) on 15th August, Independence Day celebration, Yoga activities at all AB-HWCSs (62.5%) on 21st June International YOGA Day etc. The least wellness activities undertaken by HWC were activities such as Community March for all the elderly (12.5%) and Village walks (16.7%) among others.

**Table 2.26: Diagnostic services provided at HWC**

S. No	Diagnostic services	N (%)
1	Hemoglobin Estimation	20 (83.3)
2	TC, DC, ESR	12 (50)
3	Blood grouping and typing	13 (54.2)
4	Urine Pregnancy Rapid Test	22 (91.7)
5	Urine Albumin (Urine Dipstick)	18 (75)
6	Urine Sugar (Urine Dipstick)	16 (66.7)
7	Urine Microscopy	11 (45.8)
8	Stool (Ova & Cyst)	10 (41.7)
9	Blood Glucose & HBAIC	20 (83.3)
10	Malaria Smear, Rapid Diagnostic Kit (RDK)	23 (95.8)
11	Serology for vector borne disease-Dengue, Filariasis, Malaria	7 (29.2)
12	Rapid Syphilis Test	16 (66.7)
13	HIV Serology: Rapid Test	18 (75)
14	Typhoid serology	11 (45.8)
15	Hepatitis testing- basic HBs Ag	11 (45.8)
16	Sickle Cell testing	6 (25)
17	TB Microscopy- AFB Smear	7 (29.2)
18	Liver Function Tests (enzymes)	4 (16.7)
19	Blood urea, creatinine	5 (20.8)
20	Lipid profile	1 (4.2)

**Table 2.26** is a frequency table of the diagnostic services provided at HWC. Major diagnostic services given in the HWC were: Malaria Smear, Rapid Diagnostic Kit or RDK (95.8%), Urine Pregnancy Rapid Test (91.7%), Hemoglobin estimation and Blood Glucose & HBA1C (83.3), HIV Serology Rapid Test (75%). Tests such as Blood urea and creatinine (20.8%), Liver Function Tests (enzymes) (16.7%) and Lipid profile (4.2%) were not being carried out in most of the HWCs.

**Table 2.27: HR situation of HWC**

Designation	Sanctioned N (%)	In position N (%)
Medical officer (MO)	21 (87.5)	20 (95.2)
Medical officer (AYUSH)	15 (62.5)	9 (60.0)
Community Health Officer (CHO)	5 (20.8)	3 (60.0)
Staff Nurse	14 (58.3)	7 (50.0)
ANM	22 (91.7)	20 (90.9)
Pharmacist	21 (87.5)	21 (100.0)
Data Entry Operator	9 (37.5)	3 (33.3)
Lab Technician	20 (83.3)	12 (60.0)
MPHW (M)	10 (41.7)	4 (40.0)
LHV	10 (41.7)	5 (50.0)
Attendant	21 (87.5)	18 (85.7)
Sweeper	17 (70.8)	13 (76.5)

The human resources (HR) situation of HWC are shown in above **table 2.27**. All the positions of sanctioned pharmacists in the HWCs were in position (21 out of 21). Out of the 21 medical officers who were sanctioned, 20 of them were in position. With regard to ANMs, out of those who were sanctioned 91% of them were in position. Only 60% of the health care workers such AYUSH Medical Officer, Lab Technician and MPHW (M) were in position out of the total sanctioned strength. Further, only 50% of the Staff Nurse and LHV were in positioned. Out of the 10 sanctioned MPHW (M), 4 of them were in position.

## Analysis of In-depth interviews

### **Awareness about HWC and services provided**

#### *Awareness about HWC*

Majority of the study participants said that the HWC program being implemented since the year 2018, in a phased manner – 1<sup>st</sup> phase, 2<sup>nd</sup> phase and 3<sup>rd</sup> phase. The districts started implementing HWC program with few facilities in the year I and scaled up in year II and III to reach the entire district. In most of the districts, only in the 3<sup>rd</sup> phase the programme is expanded to the entire district. Thus, in many places the HWC programme was implemented just the last year. It was observed that, the district officials like DPM, DMRCH and MO in PHCs are well aware about the HWC and its services, whereas, other paramedical staff like pharmacist, ANM, staff nurse, ASHA, LT have limited understanding about the HWC activities and services. These staff mention about the NCD services when asked about HWC activities.

Some district officials shared that prior to HWC people had the mentality that they have to visit hospital only when they are sick but now the mentality of people is changing fast: ‘they need to visit HWC to stay healthy’ is the new emerging trend. Before setting up of HWC, the village people used to go to block level hospitals for their health check-up which is time consuming and an expensive process as the road communication facility is very poor in most of the places. Due to this, some people were unable to reach the higher-level hospitals and were suffering. But after the initiation of HWCs, most of the people receiving basic diagnosis, treatment and also medicines at free of cost at a nearest place to them. And only complicated cases are getting referred to higher level health facilities and at the same time it (HWC) has reduced the burden on CHCs and DHHs. In similar lines, earlier people were going to some informal doctors and were getting suffered from exploitation as they didn’t had faith on government health services due to access issues. Whereas now, gradually people are getting to know about the service availability, quality and they have started coming to the HWC for treatment in increased numbers. They viewed that the HWC is very good concept from a public health point of view. However, some HWC specific trainings need to be conducted to block level managerial people, district level managerial people and all BPMs, PHOs, AYUSH doctors and district level consultants. It is even better, if these staff members are trained by taking them to a demonstration site where HWC concept is well functioning.

Only some of the community members who are living nearby the PHCs are aware of the HWC services. Those who are aware of HWC services, know that the diagnostic services and treatment for diabetes and hypertension are provided here, however, majority of the people have no knowledge about HWC activities or services.

At the time of launching the HWC programme, awareness activities about HWC - such as wall paintings and miking in villages, leaflet distribution, meetings at PHCs with community members etc. were carried out to inform people about the center and facilities. The ASHA workers and ANMs conducted village level meetings about NCD. So, people are aware about the diabetes and hypertension treatment services availability at PHC.

Most of the stakeholders expressed that the Health and Wellness Center (HWC) is a very good concept for providing NCD services to the community. In the past, people were not able to get diagnostic services at the PHC for the NCDs like blood pressure, diabetes, and cancer. However, now front-line health workers get trained in community screening for blood pressure, diabetes etc., able to identify cases and refer them to PHC as well as regularly follow up. HWC strategy provides health services in a mission mode, like - screening at the community level, referral of cases to PHC, confirm cases by lab test, provide medicines, follow up and teaching exercises in the center by trained yoga teacher.

“Earlier we use to have Primary Health Centers where doctor is supposed to run the center but in practice most of the places pharmacists run the center. Beneficiaries get very minimal services from the center... basically, beneficiaries get medicines and minor services. However, in HWC beneficiaries get the service in a combat manner. For making it successful, we have equipped PHCs with needed logistics. HWC is basically focusing on Non-Communicable diseases like hypertension, diabetes etc. HWC provides free medicine and yoga training as well. We have also included Yoga teacher in the HWC. So, I am sure that there is huge difference in PHC and HWC.” – said a district project manager

“Nowadays people are able to get the tests like diabetes and hypertension tests done here. They were paying around Rs.100 or Rs.150 per test. Now it is done at free of cost, available close by and they need not travel far for this” – said an ASHA worker

“Earlier, we treated minor things in PHCs but now handling major cases like co-morbid conditions. Earlier, we used to refer them to higher center but now in HWC some facilities are available where most cases like diabetic, BP patients are getting the basic

treatment here. Now that few PHCs upgraded as HWCs, they act as delivery points. This helps many pregnant women, who are staying in far off places, whose deliveries were taking place in homes. Now, because the delivery services are being provided at HWC level, the home delivery percentage has gone down and the institutional deliveries are increased.” – said a medical officer in-charge

### *Community Awareness*

The community members who have availed services of HWC are appreciating the services provided. They clearly see a difference in the infrastructure, cleanliness of health centres, increased human resources, and availability of medicines. Some also stated that the medicines provided from HWC are of good quality and cured their ailments. Some HWCs also started conducted Yoga classes and people liking these sessions. With all these facilities, there is a definite increase in demand for HWC services.

Before becoming HWC, most of the local village people were not aware about the symptoms of NCDs like hypertension, diabetes, cancer etc. After the HWC concept introduced, due to door to door survey conducted by ASHAs at the village level and referral of NCD suspected high risk cases to the HWCs for confirmation by the doctors, most of the community became aware of NCDs. Some people are getting to know about HWC, from other people who have availed service from HWC. At village level, the HWC staff are celebrating several events, like - Mother's Day, breast feeding day by conducting rally with the help of GKS, SHG, RKS, MAS members, which is also helping in creating awareness in the communities. In some places, they are also conducting street plays like Daskathia to generate awareness.

In some of the HWCs, the yoga classes are being conducted with few people. As per the GKS members, most of the village people are too much occupied with their daily jobs and field works, if they attend yoga classes without doing their job, they will not get money to survive. Also, they opined that as the villagers are doing labour work on a daily basis, which itself is an exercise, therefore, they do not need yoga.

It was found that, none of the sampled HWCs implemented the tele-medicine concept. As per the district level officials, for implementing tele-medicine concept more manpower and infrastructure such as electronics components like monitor with camera, internet connectivity is required, therefore, it's a challenge for now.

The monitoring visits to HWCs are conducted by block level officers more frequently and the district level officers on a monthly or quarterly basis.

### **Perspectives about infrastructure and medicines at HWC**

Most of the study participants expressed their satisfaction with the infrastructure after upgrading the facilities to HWCs. They mentioned about increased infrastructure of the HWCs, like a hall for yoga, adequate patient waiting space, room for the doctor, pharmacist, indoor rooms and meeting hall. Some also mentioned about the makeover or beautification of the facility - like branding, colorfulness, posters hoardings etc. Some also appreciated that the HWCs now look like private hospitals, particularly with the makeover and additions to infrastructure. The study participants told that all these changes have resulted in further increased patient load and acceptance of public health services. However, few study participants expressed concerns about non-availability of staff quarters at HWCs.

The doctors, pharmacists and ANMs said that quantity and quality of medicines and instruments has changed after transforming the facilities to HWCs. Majority viewed that the HWCs are getting adequate number of medicines and the patients are provided medicines free of cost. Most of the medicines prescribed by the doctor, people are availing from the HWC itself. And occasionally in case of medicine stock-out, patients are advised to take medicines after some days or to buy medicines from outside.

“Earlier, there were rooms, but medicines were not supplied enough but now the supply of medicines is good. In the past, doctors were not available, whereas now doctors are appointed. Only sometimes, medicines are prescribed to purchase, if not available here.” – said an Anganwadi worker

“We have been approved four indoor rooms, a meeting hall, a yoga hall and patient waiting space. Now, we are doing lab tests and providing medicines for blood pressure and diabetes. As a result, there has been an increase in the patient load from 40 to 60 per day.” - said a medical officer in-charge

In the past, the government has not full filled the medicine requirements. After HWC, there are so many changes to the hospitals, like laboratory instruments, medicines and HR etc. now it looks almost like a private hospital.” – said a DMRCH

Mostly in PHC (N) and UPHC HWCs, computers are provided for data entry. Data entry persons are appointed only in UPHCs where as in PHC (N) the operations staffs are doing data

entry and they are getting overburdened. In SC HWCs, instead of computers they were provided with tablet phones in which they are doing data entry.

### **Perspectives about Human resources at HWC**

The study participant said that, most of the staff positions are vacant in HWCs. Many centers are only managed by doctors and pharmacists. Doctors are available because they will get extra marks for their PG entrance, however, if and when the doctors get PG seat, then the post will be lying vacant. And when a new doctor joins then he/she may not be aware about the components of the HWC. In some places, the medical officers or even AYUSH doctors are not deployed in HWCs. In some places the doctors are posted but they don't come daily, or they are deputed to some other hospital.

“The main component of HWC is the Human resources. Sometimes we provide the training to the Medical officer and Medical officer left the job because they get the PG, or they get transferred to another PHC, which may not be an HWC. So, again there is a need of training to the new Medical officer and this process will continue. If you see in Koraput district, then you will find we have 149 vacancies for the medical officer position. Sometimes, we establish the HWC and at that time all the staff are there and after two to three months, the Medical officer might have left because he got a PG seat. Even we are planning to deploy an AYUSH doctors, but still that is also we could not fill. So, as per my opinion one medical officer should stay in PHC New (HWC) for at least two years, so that he/she may provide his service to the community. Even placing an AYUSH doctor could help, as he/she can manage the center. Government is providing adequate funds and now we have only one problem that is, non-availability of human resource.” – said a district project manager

As per some of the district level officers due to unavailability of LTs they were unable to provide LTs in all the HWCs. Also, in some HWCs the LTs were posted in daily wage basis from the NIDAN fund. Also, there is vacancies in ANM posts at HWCs. For instance, in entire Kandhamal district there are no additional ANMs in SCs. When additional ANMs were posted at that time the ANM posts were vacant in SCs. So, all additional ANMs became ANMs. Therefore, availability of adequate human resources is one of the main concerns. In many places, an MPHWS (M) is posted in SC. After few days, the MPHWS (M) is placed as a pharmacist in a different PHC (N), as the post vacant and their qualification requirement is fulfilled.



At the Sub Centre level HWCs, the CHOs got posted for attending to OPD services. Previously, as there were only ANMs posted at SCs and they were overburdened to manage field work as well as OPD, they were focussing more on field work and neglecting OPD. Now with the availability of CHOs for attending the OPD at SC HWCs, faith of people on local health facility has increased. However, in all the SC level HWCs, the CHO positions are not filled up. And in some places, the CHOs are deputed to somewhere else, which is resulting in irregular OPD services.

“Earlier we used to have less medicine and now we are getting sufficient medicines and RDK. ANM and ASHA does the NCD screening and give the report to me then will share the data with the CHC. Also, now we are getting good amount of antibiotic. We don’t have lab technician, sweeper or any attendant. It’s only me and pharmacist.” – said a medical officer in-charge

“We have issue of lab technicians in the district. To fill the vacancies, we have posted notice for recruitment. Unfortunately, we have got only two applicants for lab technicians. Yes, we also have provision for lab technician in the HWCs and we could not fill the positions due to non-availability of lab technician in the district.” – said a district project manager.

### **Suggestions by Stakeholders for improving HWC services**

Provided below are suggestions by study participants to further strengthen the health and wellness centers and improve services:

- Most of the centers do not have the staff as prescribed by the HWC guidelines. Therefore, filling the vacant posts will be improve quality of services.
- To increase number of diagnostic tests and services at the HWCs as there is need.
- Some of the hospitals lack electricity and water availability, these basic requirements must be ensured at all the HWCs.
- Efforts to improve road connectivity are crucial in increasing access to services.
- The NCD treatment services not available in some CHCs but available in HWCs. And these HWCs indent NCD medicines from CHC. So, the district officials suggested that the NCD services must be available at all levels of public health facilities.
- Some of the district officials said that adequate training is needed for both district and block officials on HWCs management which includes compliance with standard treatment

protocol and follow-up care. They further informed that even though for most of the essential primary care the staff are trained on treatment protocol but for advanced health problems, they routinely refer the cases higher up.

- Most of the staff expressed concern about delay in salary disbursement and suggested to issue salary on time. If salary comes on time, it will motivate the staff and there will be increase in the quality of the services.
- To construct staff quarters for stay at HWCs, at least for one staff will increase availability of services during night time also and in case of emergency people can access.
- GKS members suggested to provide following services at HWCs - more staff for conducting deliveries, indoor bed facility, ICU, ECG, X-ray, an ambulance, a special ambulance for elderly people those are unable to move and waiting space inside the HWC boundary for patients coming from long distances during the closing hours of HWC.
- Some GKS members suggested to provide following services at HWCs – more staff for conducting deliveries, indoor bed facility, ICU, ECG, X-ray, an ambulance, a special ambulance for elderly people who are unable to move and waiting space inside the HWC boundary for patients coming from long distances during the closing hours of HWC.
- As the area of services increased, the RKS fund which is Rs.75000 should also be increased to encourage the HWC staff.
- AYUSH doctors are getting a team-based incentive of Rs.2000, if that can be further increased it could further motivate them to provide better services.

“We have sufficient space now. First, we need to have staff quarters and filling vacancies, then it will be good. There is need for infrastructure development. And if we call for minor repairs then they are not coming. For everything they need a 10-lakh budget and they will do only the big things. Also, if we do service and we are not getting salary then nobody will show the interest. And even my increment has been sanctioned since last two months, but I did not receive my salary, so please kindly give our salary on time so that we can motivate our self.” - said a medical officer in-charge

“We need more facilities. We don’t have electricity, just a few days back only we got the electricity, we need (mobile) network, staff and we don’t have water facility. Here, we are facing a lot of problems, people are coming and looting the center. Recently they have stolen the water tank and from then we don’t have water facility.” - said a medical officer in-charge

“If government can increase few more important lab tests, if could provide X ray or ultrasound services that is also good because we don't have X ray facilities here, not even at CHC. So, when we refer patients to Koraput, some time they don't go because it's about 70 km away from this place. Even if these services are made available at CHC level, then also it would be nice, and the patients get benefited.” - said a medical officer in-charge

## DISCUSSION

In this study, we used a mixed-method cross-sectional study design - Quantitative and Qualitative method - to conduct a rapid assessment of comprehensive primary health care services being offered under HWC PHC/SC; document best practices and challenges in implementing the programme; and recommend a scaling up strategy to the state government. Furthermore, qualitative interviews were conducted among the service providers and managerial cadre to explore about their perspectives on the various services being provided in HWCs, the enablers and barriers they were facing in making UHC goals a reality. To the best of our knowledge, this is the first study in the state, which generated evidence on primary health care services being offered under HWC and critical challenges faced by service providers in implementing the programs under HWCs.

This study generated vital evidence on awareness and satisfaction about HWCs, health care services provided by HWCs, referral and transportation system, monitoring, and accountability mechanisms. Data on various facilities observed during the visit and facilities available at the HCWs were collected and analyzed. Further evidence on health care service utilization before and after the declaration of HCW was also collected and analyzed.

Based on our analysis of the collected data from patients it was found that awareness about HCW was low - only about 61% ever heard of HCW and their major source of awareness was health personnel like ASHA, ANM. The major services availed by the patients were free medicine (97.3%), general out-patient care for acute illness (76.5%), diagnostic services (58.8%). About 40% of the respondents utilized health services related to screening, prevention, control and management of NCD which was higher than patients availing services on management of communicable diseases (29.6%). This reiterates the understanding that the burden of NCDs is slowly but surely increasing even in rural areas of Odisha.

About three-fourth of the patients said they were satisfied to a great extent with the services provided by the HWC. About 68% of them had to wait just for 5 minutes to meet the doctor/nurse which indicates that the HCWs are not overburdened with patients and that reduction in waiting time increases the chance of seeking health care. About three-fourth of the patients spent just 5 minutes with the doctor for their treatment which entails that patients might be visiting for very minor ailments or that doctors might not be giving sufficient time to patients for a detailed examination. About 95% of the respondent said they that they were not

advised by any health workers to buy medicine from outside and all the patients reported that they did not pay any money to any service provider. This finding is a desirable step towards reduction of out of pocket expenditure (OOPE) to a great extent. Reduction in OOPE is key to increasing the health seeking behavior and universal health coverage. Majority (89%) of the people availed free medicines and almost all of them were always getting medicines adequately and timely.

About 64% of the patients were seeking health care other than HCWs. Most of them visited other public hospitals, while about 17% went to private hospitals/clinics and some visited pharmacy shops (11%). The two main reasons of patients looking for health care outside of HCWs was referral from HCW and non-availability of services in the HWC. We found that community engagement of HCW is low. One of the surprising results we found from this study is almost none (99.4%) of the patients did ever hear of telemedicine. About 96% found healthcare facilities of HWC to be better now than before it was declared as HWC. The main reason for thinking so was the system strengthening, availability of services for chronic diseases (40.5%), cleanliness of the premises (75.2%), good infrastructure (71.2%), free medicine availability (94.6%), availability of staff (67.5%), and availability of free diagnostic services (43.4%).

Awareness about yoga was is very low, only about one-fifth of the respondents were aware of yoga sessions being held in the HWC and 57.6% never participated in the yoga session, though about 70% of those who participated said yoga was useful to a great extent.

Around 84%, service provider reported that population-based screening was carried out in their HWC. The major health care services provided by them were general out-patient care for acute illnesses (100%), screening, prevention, control and management of NCDs (94.6%), maternal and new born care service (89.2%), childhood and adolescent health care services (86.5%), care in pregnancy and child-birth (86.5%) among others. However, only about 30%, reported screening and basic management of mental illness. Very surprisingly, not a single service provider provided telemedicine services.

All the service providers were referring patients to other health institutions. About 62% referred to CHC, 35% to DHH and only about 3% to PHC. About 27% respondents cited that patients suffering from NCDs were referred to other health institution, whereas about 46% said patients suffering from both NCDs and CDs were referred. However very negligible proportion (5%) respondents mentioned that they referred patients for communicable diseases as well.

About 81% of service providers referred patients elsewhere due to unavailability of services in the HWC and 16% due to unavailability of specialized doctors. About 65% used government ambulance for transporting emergency patients to other health institutions. With regard to patient load during pre-and post-HWC declaration, service providers mentioned that it has increased from 43 patients per day prior to HWC declaration to 57 patients per day after HWC declaration.

About four-fifth of service providers were indenting medicines and consumable from community health centers and about 89% were indenting medicines and consumables on a monthly basis. About 68% respondents highlighted about shortage of medicines and /or consumable after the centre was declared an HWC.

Out of the 37 service provider respondents, 36 of them said higher level officers visited their HWC to monitor and supervise. About 78% block level officers and 69% district level officers visited in last 3 months for monitoring. About 61% respondents said the higher-level officers used to visit monthly for such monitoring. Except for one respondent, all the respondent said computer is installed along with the software and their system is functioning well. About 70% of the respondents said that they had conducted village level meeting during the last 6 months.

Three-fourth of the providers received support from GKS. They majorly helped in creating awareness among people. The other major support they received from GKS was support on the screening the population. However, no financial was support was received from GKS.

About 75% HWCs were creating community awareness through health personnel like ASHA, ANM etc. Through, poster Campaign (54%), Leaflet distribution (43.2%), HWC name board and painted walls (35.1%) among others. About 65% provider were providing HWC related training to frontline health care workers and 62.5% conducted monthly training for health workers.

Among the 6 HWCs surveyed from Kandhamal district, 5 of them saw an increment in the number of outdoor patients in the post HWC period as compared to the pre HWC. However, in Badagada HWC the mean outpatient has fallen in the post HWC period. Mean diabetes identification among the 6 HWC has increased in the post HWC period, similarly results were seen on the mean number of diabetes patients treated. In both diabetes identification and treatment larger increment changes were seen in Simanbadi and Gochhapada HWC. Mean hypertension identification among the HWC has also increased in the post HWC period except for Badagada, similarly results were seen on the mean number of hypertension patients treated.

Simanbadi and Gochhapada HWC saw the large increment in hypertension identification and treatment as well.

Among the 6 HWC surveyed from Mayurbhanj district, 5 of them saw an increment in the number of outdoor patients in the post HWC period as compared to the pre HWC. However, in Marangtandi HWC the mean outpatient has fallen in the post HWC period. Mean diabetes identification among the 5 HWC has increased in the post HWC period, similarly results were seen on the mean number of diabetes patients treated. In both diabetes identification and treatment largest increment changes were seen in Debendrapur HWC. Mean hypertension identification has increased in the post HWC period in 4 HWC. However, in the two HWC (Marangtandi and Moroda) it had fallen, similar results were seen on the mean number of hypertension patients except for Moroda. In both hypertension identification and treatment largest increment changes were seen in Debendrapur HWC.

Among the 6 HWC surveyed from Dhenkanal district, 5 of them saw an increment in the number of outdoor patients in the post HWC period as compared to the pre HWC. However, in Baldiabandha HWC the mean outpatient has fallen in the post HWC period. All the 6 HWC saw an increment in both mean diabetes identification and mean number of patients treated. However, Katagada and Sirimula HWC saw the large increment in diabetes identification and treatment as well. In both hypertension identification and treatment, 4 HWC saw an increment, one (Baulpur) remain unchanged and one (Dadarghati) had fallen. Joranda HWC saw an increment in both mental disorder identification and as well mental disorder treatment.

Among the 6 HWC surveyed from Koraput district, 5 of them saw an increment in the number of outdoor patients in the post HWC period as compared to the pre HWC. However, in Semliguda HWC the mean outpatient had fallen in the post HWC period. For both diabetes identification and treatment as well as for hypertension identification and treatment there was increment across the HWC surveyed except for Padwa. For mean outpatient visits, diabetes (identification and treatment) and hypertension (identification and treatment) largest increment changes was seen in LR HWC.

The average number of rooms in HWC is about 9. In 75% of HWC, functional separate toilets for male and female were observed. In all the health centers were equipped with waiting room. Drinking water for patients (87.5%), fan (79.2%), tape water about (92%) were observed in the visited HWC. Similarly, investigation (LT) facilities were found in 71% of the HWC. Out of the 24 HWC visited, 23 of them displayed adequate and relevant IEC materials as well as list available resources. In five-sixth of the HWC computer was installed and functioning as well regular data entry and updating was done. Out of the 24 HWC visited, in 14 (58.3%) HWC yoga center was functioning as well as MOU with yoga teacher was done.

Major wellness activities undertaken by HWC during the last one year were: Local sports competition e.g. Kite flying (66.7%) on 15th August, Independence Day, Yoga activities at all AB- HWCSs (62.5%) on 21st June International YOGA Day etc. The least wellness activities undertaken by HWC were activities such as Community March for all the elderly (12.5%), Village walks (16.7%) among others. Only a very few HWCs undertook wellness activities, undertaking these activities are very useful way to promote awareness among the community about the HCWs as well as for creating healthier habits in the general population.

Major diagnostic services given in the HWC were: Malaria Smear, Rapid Diagnostic Kit (RDK) (95.8%), Urine Pregnancy Rapid Test (91.7%), Hemoglobin estimation and Blood Glucose & HBA1C (83.3), HIV Serology Rapid Test (75%). Services such as Blood urea/creatinine (20.8%), Liver Function Tests (enzymes) (16.7%) and Lipid profile (4.2%) were not adequately available across studies HWCs. Unavailability in diagnostic services may lead to patients seeking help from other service provider and have to incur OOPe for these diagnostic services.

Only 60% of AYUSH Medical officers, Lab Technicians and MPHW (M) were in position out of total sanctioned. Further, only 50% of the Staff Nurse and LHV were in positioned. Out of the 10 MPHW (M) who were sanctioned, 4 of them were in position. The HR situation in the HWCs needs improvement to make them institutions of universal care.



## CONCLUSION

The study found that with regard to provisioning and delivery of comprehensive primary health care services in Odisha under health and wellness centres (HWC), the front-line health workers and service providers are putting in their best efforts to offer the expanded range of primary health care services to a vast majority of population, as reflected in the results obtained from four districts. However, the challenges lie mostly in terms of readiness of the health system to incorporate such a wide-spectrum of services, especially in terms of filling-up vacancies, building capacity of service providers, infusing technology for reporting and monitoring of services, and providing leadership at the district level for local decision making. The focus on mental health disorders, health promotion and community participation needed renewed focus of the district administration to match the mandate of the programme and to help attain the universal health coverage goals.

## SPECIFIC RECOMMENDATIONS

1. Focus on community awareness generation about HWC and the services being provided under the brand of HWC. Inter-personal communication and mass-media campaigns could be resorted to saturate the information to the community members.
2. About 40% respondents utilized NCD services as against 29% for communicable diseases. This signifies the demographic and epidemiological shift that is taking place in rural pockets of Odisha. Therefore, more emphasis needs to be given to NCD screening and management, especially diabetes, hypertension and mental illnesses.
3. A remarkable change in the functioning of HWCs was observed by most of the participants which is symbolic of the success of the government in terms of reaching out to the most vulnerable. However, this gain needs to be sustained through continuous IEC and BCC activities.
4. About 85% respondents mentioned availability of free medicine, about 82% spoke about cleanliness of health centres. Conversely about 15% still don't know or avail free medicines and about 18% don't appreciate the cleanliness practices. Therefore, during training / orientation of the health workers this component need to be re-emphasized upon.
5. About 50 to 70% respondents appreciated better infrastructure (68%) availability of all health care staff in the HWC. Thus, there is a huge gap with regard to improving both the components. While the former is a local responsibility, the later needs involvement of

policy makers in terms of timely deployment and transfer of staff for the HWCs to deliver optimally.

6. Screening of mental illnesses is still highly neglected. Immediate steps need to be taken by the department in collaboration with the NCD cell to train the staff on this domain.
7. About three-fourth of the patients reported they were satisfied to a great extent with the services provided by the HWC. Moreover, all the patients reported that they did not pay any money to any of the service providers. Both findings are excellent indicators about the commitment of local staff posted in the HWCs. The momentum needs to be sustained.
8. Only about 36% of respondents reported of group meetings being conducted at village by HWC staff. Thus, this component should be focused upon during the regular training and review activities of the HWCs at the district level.
9. Only about one-fifth of the respondents were aware of yoga sessions being held in the HWC. It is now a universally accepted technique to address most of the NCDs. Thus, engagement of Yoga teachers and sensitization of the health staff is necessary to offer Yoga services to the catchment population.
10. Awareness about tele-medicine was extremely poor both among the patients and the service providers. In the times to come, tele-medicine services are likely to emerge as alternate mechanisms to reach out to a vast majority of rural pockets. Thus, this component needs an immediate redressal.
11. On the one hand there is a definite increase in the average number of patients walking into the HWC and on the other hand there is about 50% vacancy of key staff such as Pharmacist, Lab Technician and Nurses. Therefore, the department needs to rationalize deployment of essential Human Resources to the HWCs.
12. Monitoring and supervision by the superior officials was found to be working in about 69% instances. Studies time and again have highlighted the importance of supportive supervision to strengthen the quality and quantum of services. These principles need to be institutionalized on a priority basis.
13. In 75% of HWCs, functional separate toilets for male and female were observed and in five-sixth of the HWCs the computer was installed and functioning as well regular data entry and updatation. Both the components are non-negotiable aspects of non-clinical quality of care. Need immediate attention of district and state officials to ease the flow of female patients to the HWCs and to strengthen MIS, respectively.
14. Tests such as Blood urea and creatinine (20.8%), Liver Function Tests (enzymes) (16.7%) and Lipid profile (4.2%) were not being carried out in most of the HWCs. The department needs to take a call on this dimension.

15. It was observed that, the district officials like DPM, DMRCH and MO in PHCs were well aware about the HWC and its services, whereas, other paramedical staff like Pharmacist, ANM, Staff nurse, ASHA, LT have had limited understanding about the HWC activities and services. Prioritization of training and orientation to these front-line workers is essential to ensure provision of expanded basket of services under the HWCs.
16. Visit of front-line health workers to the households was found to be relatively poor in some of the HWCs as cited by the GKS members. This component needs to be emphasized upon time and again during review meetings and supervisory visits.
17. Patients are not spending money from their pockets for purchase of medicines is an excellent development which has the potentiality to reduce the out of pocket expenses on health care, however adherence to treatment protocols needs regular scrutiny. For primary care the providers were found to have been well-trained but for referral and follow-up refresher trainings need to be conducted every six months.

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## ANNEXURES

Study tools as follow in subsequent pages as a part of the annexures.

**Patient Exit Interview tool**

(Evaluation of Comprehensive Primary Healthcare services offered under HWCs)

Questionnaire number  Date   Health center type ☐ SC ☐ PHC ☐ UPHCName of the HWC \_\_\_\_\_ HWC number District name ☐ 1. Dhenkanal ☐ 2. Kandhamal ☐ 3. Koraput ☐ 4. Mayurbhanj

Block name \_\_\_\_\_ CHC name \_\_\_\_\_

**Informed consent****Introduction**

Namaste. we have come from IIPH Bhubaneswar. Currently, we are conducting a study to know the status of the Health and Wellness Center (HWC). In this regard, we would like to ask you some questions, which may take about 15-20 min of your time. Your responses will be kept strictly confidential. Participation in this study is voluntary and you are free to leave the interview any time and/or not respond to specific questions. However, the information provided by you would be helpful in strengthening the health services. If you agree to be interviewed, please sign the consent.

For any future queries, you may contact **Dr Bhuputra Panda**, Associate Professor and P.I of this study. **Email: [bhuputra.panda@iipbh.org](mailto:bhuputra.panda@iipbh.org)**

**Consent**

The purpose of this study has been explained to me by the interviewer. I have had the opportunity to clarify my concerns, if any. I understand that my participation is voluntary and that I am free to withdraw at any time without giving any reason. I agree to take part in the study.

**Name of the participant****Signature**    
DD / MM / YYYY**Name of the person taking consent****Signature**    
DD / MM / YYYY

## A. Demographic characteristics of the respondent

Q.no.	Questions	Responses
1.	Name of the respondent	
2.	Name of the Village/Town	
3.	Gender of the respondent	1. Female 2. Male 3. Transgender
4.	Age (in completed number of years)	<input type="text"/> <input type="text"/>
5.	Educational qualification (completed years of education)	<input type="text"/> <input type="text"/>
6.	Is the respondent BPL	1. Yes 2. No
7.	What are the complaints for which you visited the centre today?	----- (Name of symptoms/disease/condition)
8.	Total number of members in the household	<input type="text"/> <input type="text"/>
9.	Average monthly income of the household (INR)	<input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>

## B. Awareness and satisfaction about HWC

10.	Are you living in the same area where health center is located?	1. Yes 2. No
11.	If yes, for how long have you been staying in this area?	<input type="text"/> <input type="text"/> years
12.	What is the distance you travel to reach the HWC ?	<input type="text"/> <input type="text"/> Kms.
13.	Have you ever heard about HWC ?(Swasthya o Arogya Kendra)	1. Yes 2. No .....(skip 14)
14.	If Yes, from where did you first come to know about HWC ? (Multiple responses possible)	a. Walkathon, Cyclothon, Mini Marathon involving school students. b. Walkathon, Cyclothon, Mini Marathon involving Youth club. c. Walkathon, Cyclothon, Mini Marathon involving SHG. d. Miking e. Competitions like debate, Rangoli, drawing, Quiz etc. f. Local sports g. HWC name board and painted walls

		<ul style="list-style-type: none"> <li>h. Focused Group Discussions among different beneficiaries</li> <li>i. Video Shows using PICO projector</li> <li>j. Talk Shows</li> <li>k. Healthy baby show, SHGs etc</li> <li>l. Media Briefing</li> <li>m. From health personnel like ASHA, ANM</li> <li>n. Street play / Folk theatre</li> <li>o. Poster Campaign</li> <li>p. Leaflet distribution</li> <li>q. Others (specify) _____</li> </ul>
15.	<p>What are the services you or your family members have availed from the HWC in last 6 months? (Multiple responses possible)</p>	<ul style="list-style-type: none"> <li>a. Care in pregnancy and child-birth</li> <li>b. Maternal and New born care service</li> <li>c. Childhood and Adolescent health care services</li> <li>d. Family planning and contraceptive services</li> <li>e. Management of Communicable Diseases (Malaria,Dengue,TB,Filaria etc.)</li> <li>f. General Out-patient care for Acute illnesses</li> <li>g. Screening, prevention, control and management of NCD (Hyper tension, cancer, diabetes and mental illness)</li> <li>h. Care for common ophthalmic diseases</li> <li>i. ENT related services</li> <li>j. Basic oral and dental care</li> <li>k. Elderly and Palliative Health Care services</li> <li>l. Emergency medical services including Burns and Trauma cases</li> <li>m. Screening and basic management of mental illness</li> <li>n. Diagnostic services</li> <li>o. Free medicines</li> </ul>
16.	<p>During last two years have you observed any remarkable changes in your HWC?</p>	<ul style="list-style-type: none"> <li>1. Yes</li> <li>2. No.....skip to 19</li> </ul>
17.	<p>What are the changes you have observed in the hospital? (Multiple responses possible)</p>	<ul style="list-style-type: none"> <li>a. Cleanliness of health center</li> <li>b. Visit of more patients to govt health center</li> <li>c. Availability of all health care staff</li> <li>d. Medicines for diabetes, hypertension and cancer</li> <li>e. Screening for mental illness</li> <li>f. Yoga sessions</li> <li>g. Quick diagnosis using RDK</li> <li>h. Availability of Lab technician</li> <li>i. Availability of free medicines</li> <li>j. Referral services</li> <li>k. Ambulance Services</li> <li>l. Better infrastructure</li> </ul>

18.	Are you satisfied with the services provided by the HWC?	1. To a Great Extent 2. Somewhat 3. Very Little 4. Not at All
19.	How long did you wait today to meet the doctor/nurse?	<input type="text"/> <input type="text"/> Minutes
20.	How much time did the doctor/nurse spend with you today?	<input type="text"/> <input type="text"/> Minutes
21.	Did any health worker advise you to buy medicines from outside?	1. Yes 2. No
22.	If yes, what are the medicines?	----- -----
23.	Did you pay any money to any of the service providers today?	1. Yes 2. No -----Skip 24
24.	If yes, how much and to whom?	a. Doctor -----(INR) b. Nurse----- (INR) c. Pharmacist ----- (INR) d. Lab Technician----- (INR) e. ANM ----- (INR) f. ASHA----- (INR) g. Others (specify) ----- (INR)
25.	Are you and your family members availing free medicines from the HWC?	1. Yes, always 2. Yes, sometimes 3. No, not at all
26.	Are you getting medicines adequately?	1. Yes, always 2. Yes, often/sometimes 3. No, never
27.	Are you getting medicines timely?	1. Yes, always 2. Yes, often 3. No, never
28.	Do you or your family members also visit other service providers, other than the HWC?	1. Yes 2. No-----skip 29 and 30



29.	If yes, which of the following are you or your family members visiting? (Multiple response)	a. Other government hospital b. Other private hospital c. Other Private clinic d. Pharmacy shop e. Others_____
30.	Reason for visiting other hospitals/clinics to avail health services?(Main reason)	1. Referred by HWC doctor 2. No faith on government hospitals/HWC 3. Non-availability of prescribed medicines 4. Not satisfied with government services 5. Non availability of services in the government centres/HWC. 6. Medicines quality are not good. 7. Others_____
31.	Is there any group meeting conducted at village level by the HWC?	1. Yes 2. No-----skip 32 and 33
32.	If yes, could you recollect and tell us how many meetings have been conducted during last 6 months?	<input type="text"/> <input type="text"/> Number of meetings
33.	Who all were present in those meetings? (Multiple responsees possible)	a. MO b. MPHW(F) c. LHV d. MPHW(M) e. Lab technician f. GKS members g. Village head h. Local people i. Lactating mothers j. Others_____
34.	Have you ever heard about tele-medicine?	1. Yes 2. No..... (skip 35 and 36)
35.	From where did you first hear about tele-medicine?	1. Health Center staff 2. Own experience 3. GKS members 4. Village people 5. Others_____
36.	Do you feel tele-medicine is really helpful for the patients?	1. Definitely 2. Very Probably 3. Probably 4. Possibly 5. Probably Not 6. Definitely Not

37.	If YES/NO, why do you say so?	
38.	Do you think the healthcare facilities provided by the HWC is better than before?	1. Yes 2. No .....(skip 39)
39.	If yes, why are you thinking so? (Multiple responses possible)	a. Availability of services for chronic diseases b. Cleanliness of the premises c. Good infrastructure d. Free Medicine e. Availability of staffs f. Availability of free diagnosis facility g. Any other (please specify)_____
40.	Are you aware of 'yoga' sessions being held in the HWC?	1. Yes 2. No .....(skip 41 and 42)
41.	If yes, how frequently 'yoga' sessions are being conducted?	1. Weekly 2. Fortnightly 3. Monthly 4. Quarterly 5. Can't say
42.	Have you ever participated in the Yoga ?	1. Yes 2. No
43.	Is it useful, in your opinion?	1. To a Great Extent 2. Somewhat 3. Very Little 4. Not at All
44.	What extra services are you getting from the HWC as compared to the earlier SC/PHC?	

45.	Overall, what is your view about the functioning of HWC? (Probe: why do you say so?)
46.	What is it that you like about the HWC? Any thing else?
47.	Is there any thing that you dislike or any concerns? What else?

48.	How can we further improve the services of HWC? Anything else?
49.	Do you have any other comments, suggestions regarding the HWC?

**Thank and close the interview**

**MO/CHO/Pharmacist/ANM/SN Interview tool**

(Evaluation of Comprehensive Primary Healthcare Services offered under HWCs)

Questionnaire number Date Health center type ☐ SC ☐ PHC ☐ UPHC

Name of the HWC \_\_\_\_\_

District name ☐ 1. Dhenkanal ☐ 2. Kandhamal ☐ 3. Koraput ☐ 4. Mayurbhanj

Block name \_\_\_\_\_ CHC name \_\_\_\_\_

**Informed consent****Introduction**

Namaste. I have come from IIPH Bhubaneswar. Currently, we are conducting a study to know the status of the functioning of the Health and Wellness Center (HWC). In this regard, I would like to ask you some questions, which may take about 15-20 min of your time. Your responses will be kept strictly confidential. Participation in this study is voluntary and you are free to leave the interview any time and/or not respond to specific questions. However, the information provided by you would be helpful in strengthening the health services. If you agree to be interviewed, please sign the consent.

For any future queries, you may contact **Dr Bhuputra Panda**, Associate Professor and P.I of this study. **Email: [bhuputra.panda@iipbh.org](mailto:bhuputra.panda@iipbh.org)**

**Consent**

The purpose of this study has been explained to me by the interviewer. I have had the opportunity to clarify my concerns, if any. I understand that my participation is voluntary and that I am free to withdraw at any time without giving any reason. I agree to take part in the study.

**Name of the participant****Signature**
 /  /   
 DD / MM / YYYY
**Name of the person taking consent****Signature**
 /  /   
 DD / MM / YYYY

## Interview Schedule

Q.no.	Questions	Responses
1.	Name of the respondent?	
2.	Designation of the respondent?	
3.	Age of the respondent? (in completed years)	<input type="text"/> <input type="text"/> Years
4.	Are you living within the premises of the HWC?	1. Yes 2. No
5.	If 'No', what is the distance you are travelling to reach the HWC?	----- (Kms)
6.	What is the duration of your total service period?	<input type="text"/> <input type="text"/> Years <input type="text"/> <input type="text"/> Months
7.	For how long you are working in the current designation?	<input type="text"/> <input type="text"/> Years <input type="text"/> <input type="text"/> Months
8.	What kind of health problems / patients do you deal with regularly in the HWC?	----- -----
9.	Is Population based screening(PBS) done in your HWC ?	1. Yes 2. No
10.	What are the services provided in this HWC? (multiple responses possible)	a. Care in pregnancy and child-birth b. Maternal and New born care services. c. Childhood and Adolescent health care services d. Family planning and contraceptive services e. Management of Communicable Diseases (Malaria,Dengue,TB,Filaria etc.) f. General Out-patient care for Acute illnesses g. Screening, prevention, control and management of NCD (Hyper tension, cancer, diabetes and mental illness) h. Care for common ophthalmic diseases i. ENT related services j. Basic oral and dental care k. Elderly and Palliative Health Care services l. Emergency medical services including Burns and Trauma cases m. Screening and basic management of mental illness n. Diagnostic services o. Free medicines
11.	Are you providing Tele-medicine services?	1. Yes 2. No

12.	Are you reffering patients to other health institutions?	1. Yes 2. No .....(skip to 16)
13.	If yes, mostly where you are reffering to?	1. CHC 2. DHH 3. Private hospitals 4. Others (Specify)_____
14.	For which types of health conditions / patients you are reffering to other health institutions?	1. NCD (hypertension, cancer, diabetes and mental illnesses) 2. CCD (diarrhoe, malaria, TB, etc) 3. Both NCD and CCD 4. Others (Specify)_____
15.	Why are you reffering the patients to other health institutions?(main reason)	1. Unavailability of facility in the HWC 2. Unavailability of specialized doctor 3. Unavailability of medicines 4. Others (specify)_____
16.	How are you transporting emergency patients?(most of the time)	1. Govt. ambulance 2. Private aumbulance 3. Leaving upto them 4. Others (specify)_____
17.	How is the linkage with 108?	1. Always available 2. Sometimes not available 3. No linkage
18.	How is the public response towards the HWC?	1. Verygood 2. Good 3. Not that good (as usual like before) 4. Unable to judge
19.	On an average how many patients visiting HWC every day?	Number of patients_____
20.	Average number of patients used to come to this Health center before it became a HWC?	Number of patients_____
21.	Where are you indenting the medicines and consumables from?	1. CHC 2. DHH 3. Nearest PHC 4. Supervisor 5. Others (specify)_____
22.	How frequently you are indenting medicines?	1. Weekly 2. Fortnightly 3. Monthly 4. Quaterly 5. Yearly
23.	Are there instances of shortage of any medicine and /or consumables after this centre became a HWC?	1. Yes 2. No .....(Skip 24)
24.	If yes, how do you manage those situations?	

25.	Is any higher level official visiting this HWC to monitor and supervise?	1. Yes 2. No .....(Skip to 30)
26.	If yes, who amongst the following have visited this HWC in last three months for monitoring? (Multiple responses possible)	a. CHO b. Block level officers c. District level officers d. Others (specify)_____
27.	How frequently are the monitoring visits taking place?	1. Weekly 2. Fortnightly 3. Monthly 4. Quaterly 5. Yearly
28.	Is enumeration of each and every family members done for the HWC?	1. Yes, fully completed 2. Yes, partially completed 3. Not done/started
29.	Who is doing the data entry at the HWC?	1. Data entry person (appointed) 2. Operations staff 3. No designated person
30.	Is the computer installed and functioning?	1. Yes 2. No
31.	Is the software installed in your system?	1. Yes 2. No
32.	Have you conducted any village level meeting in the last six months?	1. Yes 2. No .....(Skip 33)
33.	If yes, who all were present in the last meeting? (Multiple responses possible)	a. MO b. CHO c. MPHW(F) d. LHV e. MPHW(M) f. Lab technicians g. GKS members h. Village head i. Local people j. Lactating mothers k. Others_____
34.	Are you getting any support from the GKS?	1. Yes 2. No .....(Skip 35)
35.	What kind of support you are getting from GKS? (Multiple responses possible)	a. Creating awareness among people b. Financial support c. Cleanliness d. Conducting yoga session e. Conducting VHND f. Screening the population g. Others (Specify)_____
36.	What are you doing for creating community awareness about HWC? (Multiple responses possible)	a. Walkathon, Cyclothon, Mini Marathon involving school students b. Walkathon, Cyclothon, Mini Marathon involving Youth clubs c. Walkathon, Cyclothon, Mini Marathon



		involving SHGs d. Miking e. Competitions like Debate, Rangoli, drawing, Quiz etc. f. Local sports g. HWC name board and painted walls h. Focused Group Discussions among different beneficiaries i. Video Shows using PICO projector j. Talk Shows k. Healthy baby show, SHGs etc l. Media Briefing m. From health personals like ASHA, ANM n. Street play / Folk theatre o. Poster Campaign p. Leaflet distribution q. Others(Specify) ____
37.	Are you providing any HWC related training to frontline health workers?	1. Yes 2. No .....(Skip 38)
38.	If Yes, how frequently you conduct such trainings?	1. Weekly 2. Fortnightly 3. Monthly 4. Quaterly 5. Yearly 6. Others -----
39.	Please explain how you are using the untied funds to improve the HWC?	
40.	Would you like to describe about the support you receive from the community / SHG? Why do you say so?	

41.	Overall, what is your view about the functioning of HWC? Why do you say so?
42.	How can we further improve the services of HWC? Anything else?
43.	Do you have any other comments, suggestions regarding the HWC?

**Thank and close the interview**

**Key informant (GKS, SHG etc) Interview tool**

(Evaluation of Comprehensive Primary Healthcare Services offered under HWCs)

Questionnaire number Date Health center type ☐ SC ☐ PHC ☐ UPHC

Name of the HWC \_\_\_\_\_ Village Name \_\_\_\_\_

District name ☐ Dhenkanal ☐ Kandhamal ☐ Koraput ☐ Mayurbhanj

Block name \_\_\_\_\_ CHC name \_\_\_\_\_

**Informed consent****Introduction**

Namaste. we have come from IIPH Bhubaneswar. Currently, we are conducting a study to know the status of the functioning of the Health and Wellness Center (HWC). In this regard, we would like to ask you some questions, which may take about 15-20 min of your time. Your responses will be kept strictly confidential. Participation in this study is voluntary and you are free to leave the interview any time and/or not respond to specific questions. However, the information provided by you would be helpful in strengthening the health services. If you agree to be interviewed, please sign the consent.

For any future queries, you may contact **Dr Bhuputra Panda**, Associate Professor and P.I of this study. **Email: [bhuputra.panda@iipbh.org](mailto:bhuputra.panda@iipbh.org)**

**Consent**

The purpose of this study has been explained to me by the interviewer. I have had the opportunity to clarify my concerns, if any. I understand that my participation is voluntary and that I am free to withdraw at any time without giving any reason. I agree to take part in the study.

**Name of the participant****Signature**
 /  /   
DD / MM / YYYY
**Name of the person taking consent****Signature**
 /  /   
DD / MM / YYYY

### **IN-DEPTH INTERVIEW GUIDE**

1. Could you tell us about HWC in your area? When did it start? How it is different from the earlier health facility?
2. Is there a difference in staff, infrastructure, facilities/services etc? What else?
3. After HWC, how is the acceptance of public? Is there an increase/decrease in number people availing services?
4. Are you in any way associated with HWC? If yes, how and what do you do?
5. Overall, what is your view about the functioning of HWC? Why do you say so?
6. How can we further improve the services of HWC? Anything else?
7. Do you have any other comments, suggestions regarding the HWC?

**CHECKLIST FOR OBSERVATION AND PERFORMANCE OF HWC**

Name of the HWC: -----

Block: -----

District: -----

When was this facility declared as HWC (month and year): -----

**Q1. Observation checklist**

		<b>Observed in HWC</b>
1	Infrastructure (number of rooms)	
2	Infrastructure: functional separate toilets (M and F)	
3	Infrastructure: waiting room/space	
4	Drinking water for patients	
5	Fan for patients	
6	Tape water for patients	
7	Investigation (LT)	
8	Display of adequate and relevant IEC materials	
10	Display of list of available services	
11	Display of branding	
12	Computer is installed and functioning	
13	Regularly data entry and updation done?	
14	Yoga center is functioning?	
15	MoU with yoga teacher done?	

**Q2. Which of the following have you celebrated as “health day” in last one year?**

Sl. No.	Date	Day	Sl. No.	Date	Day
1	12 <sup>th</sup> January	National Youth Day	21	01-07 August	World Breast Feeding Day/Week
2	24 <sup>th</sup> January	Save the Girl Child Day	22	10th August	National Deworming Day
3	30 <sup>th</sup> January	Anti-Leprosy Day	23	15th August	Independence Day
4	4 <sup>th</sup> February	World Cancer Day	24	25th Aug to 8th Sep	Eye Donation Fortnight
5	10 <sup>th</sup> February	National Deworming Day	25	01-07 September	National Nutrition Week
6	11 <sup>th</sup> February	International Epilepsy Day	26	29th September	World Heart Day
7	8 <sup>th</sup> March	International Women’s Day	27	1st October	World Elderly Day
8	24 <sup>th</sup> March	World Tuberculosis Day	28	8th October	World Sight Day
9	7 <sup>th</sup> April	World Health Day	29	10th October	World Mental Health Day
10	11 <sup>th</sup> April	National Safe Motherhood day	30	21st October	World Iodine Deficiency Disorder Day
11	14 <sup>th</sup> April	Ayushman Bharat-Health and Wellness Centre Day	31	29th October	World Stroke day
12	25 <sup>th</sup> April	World Malaria Day	32	7th November	National Cancer Awareness Day
13	10 <sup>th</sup> May	Mother’s Day	33	12th November	World Pneumonia Day
14	28 <sup>th</sup> May	Menstrual Hygiene Day	34	14th November	Children’s Day
15	28th May to 8th June	Intensified Diarrhoea Control Fortnight	35	14th November	World Diabetes Day
16	31st May	World No Tobacco Day	36	15-21 November	Newborn Week
17	14th June	World Blood Donor Day	37	17th November	World Prematurity Day
18	21st June	International YOGA Day	38	21 Nov to 4th Dec	NSV Fortnight
19	11th July	World Population Day	39	1st December	World AIDS Day
20	28th July	World Hepatitis day	40	12 <sup>th</sup> December	Universal Health Coverage Day

**Q3. Which of the following wellness activities have you undertaken during last one year?**

S.no	Date	Day	Proposed Wellness Activities
1	4 <sup>th</sup> February	World Cancer Day	Awareness Generation and importance of healthy eating habits exercise etc.
			Cancer screening camps at AB- AB-HWCSs for early detection of 3 common cancers with special focus on ASHA ANM Anganwadi (AAA) workers.
2	8 <sup>th</sup> March	International Women 's Day	Walkathon for women and girls for 'Healthy Living' on the lines of Fit India
3	7 <sup>th</sup> April -14 <sup>th</sup> April	World Health Day & AB-HWC Day	Cyclathon for children, adolescents and adults.
4	31 <sup>st</sup> May	World No Tobacco Day	No tobacco oath in schools and
			colleges
5	21 <sup>st</sup> June	International YOGA Day	Yoga activities at all AB- HWCSs
6	11 <sup>th</sup> July	World Population Day	Village walks
7	15 <sup>th</sup> August	Independence Day	Local sports competition e.g. Kite
			flying
8	01-07 September	National Nutrition Week	Demonstration of eat right and eat healthy - Magic box for demonstrating food adulteration
9	1 <sup>st</sup> October	World Elderly Day	Community March for all the elderly
10	7 <sup>th</sup> November	National Cancer Awareness Day	Camp for eat healthy & eat right, screening for NCDs, local sports
11	12 <sup>th</sup> December	Universal Health Coverage Day	Yoga and Wellness activities for health promotion and NCD screening camps

**Q4. Which of the following diagnostic services given at this HWC (PHC / UPHC / SC)**

SI. No.	At the HWC — PHC / UPHC — HWC
1	Hemoglobin Estimation
2	TC, DC, ESR
3	Blood grouping and typing
4	Urine Pregnancy Rapid Test
5	Urine Albumin (Urine Dipstick)
6	Urine Sugar(Urine Dipstick)
7	Urine Microscopy
8	Stool ( Ova & Cyst)
9	Blood Glucose & HBA <sub>1</sub> C
10	Malaria Smear, Rapid Diagnostic Kit (RDK)
11	Serology for vector borne disease-Dengue, Filariasis, Malaria
12	Rapid Syphilis Test
13	HIV Serology: Rapid Test
14	Typhoid serology
15	Hepatitis testing- basic HBs Ag
16	Sickle Cell testing
17	TB Microscopy- AFB Smear
18	Liver Function Tests (enzymes)
19	Blood urea, creatinine
20	Lipid profile

**Q6. HR situation in the HWC**

Designation	Sanctioned (Y/N)	In position (Y/N)	Since when?	Remarks
Medical officer (MO)				
Medical officer (Ayush)				
Community Health officer (CHO)				
Staff Nurse				
ANM				
Pharmacist				
Data Entry operator				
Lab Technician				
MPHW (M)				
LHV				
Attendant				
Sweeper				
Others				

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BHUBANESWAR

**Indian Institute of Public Health, Bhubaneswar (IIPHB)**

Plot No: 267/3408, Jaydev Vihar, Mayfair Lagoon Hotel Road

Bhubaneswar - 751013

Phone: +91-674-6655601