

SUMMER TRAINING
at
National Health Mission,Rajasthan

HWC Portal and NCD software of Ayushman Bharat Program: A Review of the Data Reporting

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“Education without application is just Entertainment.”

— Tim Sanders

To develop Professionalism in the personality, classroom learnings with practical experience plays a main role.

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ABBREVIATIONS

• NCD	Non-Communicable Diseases
• HWC	Health and Wellness center
• MO	Medical Officer
• CBAC	Community Based Assessment Checklist
• NHM	National Health Mission
• NPCDCS	National Programme for Prevention and Control of Cancer, Diabetes, Cardiovascular Diseases and Stroke
• CCU	Cardiac Care Units
• IEC	Information, education, communication
• CVDs	Cardiovascular Diseases
• BCC	Behaviour Change Communication
• NGO	Non-government organization
• TCCC	Tertiary Care Cancer Centers
• SCI	State Cancer Institutes
• COPD	Chronic Obstructive Pulmonary Disease
• CKD	Chronic Kidney Disease
• OPD	Outpatient department
• RBSK	Rashtriya Bal Swasthya Karyakram
• NPCBV	National Programme for Control of Blindness and Visual Impairment
• PHC	Primary health center
• NMHP	National Mental Health Programme
• NPHCE	National Programme for Healthcare of Elderly
• NPPMBI	National Programme for Prevention and Management of Burning Injuries
• NTCP	National Tobacco Control Programme
• NOHP	National Oral Health Programme
• NPPC	National Programme for Palliative Care

ABOUT THE ORGANISATION



VISION

“Attainment of Universal Access to Equitable, Affordable and Quality health care services, accountable and responsive to people’s needs, with effective inter-sectoral convergent action to address the wider social determinants of health.”

The National Health Mission (NHM) was launched on 1st May 2013 by Government of India that circumscribes two sub-mission as National Rural Health Mission (NRHM launched in 2005) and National Urban Health Mission (NUHM launched in 2013).

It is a national effort at ensuring provision of effective healthcare through a range of interventions at individual, household, community, and critically at the health system levels.

OBJECTIVES

- Reduction in Infant Mortality Rate (IMR) and Maternal Mortality Ratio (MMR).
- Universal access to public health services such as Women’s health, child health, water, sanitation & hygiene, immunization, and Nutrition.
- Prevention and control of communicable and non-communicable diseases, including locally endemic diseases.
- Access to integrated comprehensive primary healthcare.
- Population stabilization, gender, and demographic balance.
- Revitalize local health traditions and mainstream.
- Promotion of healthy lifestyles.

MISSION STRUCTURE

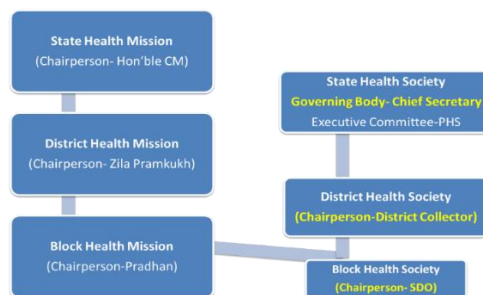


Figure:1

ORGANOGRAM

Organizational Structure of NHM

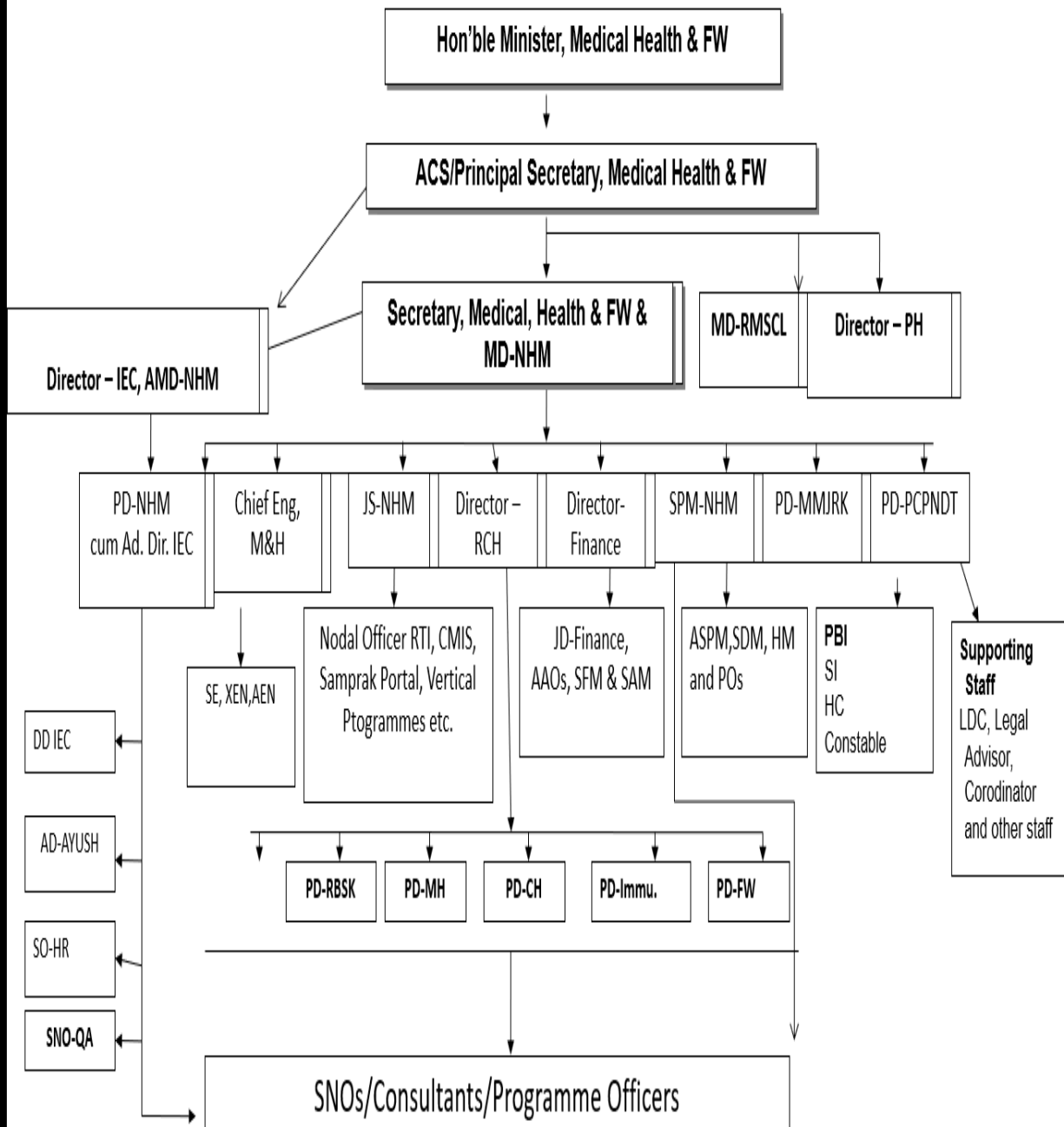


Figure:2

ORGANISATIONAL LEARNINGS

A training plan was made through which we were provided with the knowledge related to different departments working under the organisation that would help us in selecting the projects according to our area of interest.

Training plan includes the following components as-

- Maternal Health
- Child Health
- Immunisation
- RBSK
- Family Welfare
- ASHA
- Quality Assurance
- UHC/HWC
- Integrated Ambulance
- NUHM
- NCD

MATERNAL HEALTH

The Maternal Health covers the duration from conception to 42 days of delivery.

In Rajasthan, every year more than 17 lakhs women conceive out of which 2 lakhs are high risk pregnancies.

➤ Anti Natal Care

1. ANC Registration should be done at the earliest stage of pregnancy, at least by 12th week.
2. Registration is done with detailed checkup based on set parameters (Height, Weight, Hemoglobin, Previous Medical History, Blood Pressure)
3. Regular ANC check-ups periodically out of which at least one should be done by Medical Officer.
4. 1st visit at 12th week, 2nd visit at 16th to 20th week, 3rd visit at 24th to 32nd week, 4th visit at 34th to 36th week.
5. 1st dose of Tetanus Toxoid injection is given at the time of registration, 2nd dose after one month.
6. Second dose is considered as booster dose if the pregnancy is within 3 years of previous pregnancy.

➤ **Pregnant and Child Tracking System**

Through this system 1st time pregnancies are registered wherein name & address are entered which generates a unique PCTS Id.

- If the mother has already conceived once the second pregnancy is re registered.

➤ **Universal Search Window**

Initial three digits of both parent's name & age range are used to search for registrations that is already being done to avoid duplications. This also makes system to be monitored easily.

CHILD HEALTH

➤ **ANEMIA MUKT RAJASTHAN**

1. Weekly Iron Folic- Acid Supplement (WIFS)

- This is for age group of 10 to 19 years, specifically for school going boys & out of schoolgirls.
- Weekly IFA blue (500microgm Folic Acid & 60 mg iron) is administered.

2. National Iron Plus Initiative (NIPI)

- This for age group of 6 months to 10 years.
- IFA Syrup is administered bi-weekly i.e. Monday & Thursday in children of 6 months to 59 months.
- IFA Pink is administered weekly among school going boys & girls.

3. National Deworming Day (NDD)

- Its celebrated in February & August
- Target age group is 1 to 19 years.
- From age group of 1 to 2 years half tablet, and rest is given one tablet.

SPECIAL NEWBORN CARE UNIT

- SNCU is included in facility based newborn care along with Newborn Stabilizing Unit (NBSU) and Newborn Care Corners (NBCC)
- Facility for infants whose weight is below 1800 gram and are up to 28 days old.
- It is successful in identifying 23 types of diseases according to GOI.
- SNCUs software was developed by UNICEF.

MAA

- It was started in 2016 and includes training of the MOs, ANMs, GNMs, etc.

YASODHA

- This program is exclusively for breast feeding at community level and various other awareness.

MOTHERS MEETING

- Done by ASHA's.

IMMUNIZATION

- It starts from mother through Tetanus Toxoid
- Vaccination to be done once a child is born are as follows: -
 1. BCG – Immediately after Birth
 2. Hepatitis – Up to 24 hours of birth
 3. Oral Polio Vaccine – Within 15 days of birth
 4. Pentavalent, PCV, FIPV, Rota Virus – 6 weeks from birth
 5. Pentavalent, Rota Virus, VAPP (Vaccine Apteritive Paralysis Polio) – 10 Weeks
 6. Pentavalent, Rota Virus, PCV, FIPV, OPV – 14 weeks
 7. PCV, Measles, Vitamin A – 9 completed months.
- There should be at least a gap of 28 days between two vaccines.
- Open Vile Policy

RASHTRIYA BAL SURAKSHA KARYAKARAM

- Early identification and intervention for children from birth to 18 years.
- It covers 4 D's
 1. Defect at Birth
 2. Deficiencies
 3. Diseases
 4. Developmental Delays (disability)
- RBSK teams are appointed for nutrition support program as well as referrals.

ASHA

- Accredited Social Health Activist (ASHA)
- There is one ASHA over per thousand population.

- NRHM engaged, on incentive based, ASHAs in 2005.
- ASHAs are the part communication program.
- ASHAs are provided with incentives for mobilization as per schemes.
- Other than that, ICDS provides Rs 2500/month to every ASHA.
- There are 52000 ASHAs in Rajasthan out of 55800 sanctioned posts.
- Eligibility criteria for ASHAs- 10th passed, community person.
- ASHA-soft launched in 2014 for payment of incentives to ASHAs and to control false reporting.

FAMILY WELFARE

- **Objective:** to reduce Total Fertility Rate (TFR) to 2.1%
- According to NFHS-4 TFR of India is 2.2% while that of Rajasthan is 2.4%
- Reasons of high TFR include unmet needs (contraceptives, transportation, etc.)
- No Scalpel Vasectomy and tubectomy.
- Sterilization may be postpartum, post abortion and interval
- Sterilization cannot be done from 8th to 42nd day of delivery.
- **Contraception methods**
 1. Temporary Methods: - Male & Female Condoms, IUDs, Hormonal Pills, etc.
 2. Permanent Methods: - Vasectomy & Tubectomy
- **Programs for Family Welfare: -**
 1. Mission Pariwar Vikas (MPV)
 2. Prerna
 3. Indemnity (Compensation system for Failure cases)
 4. Sass Bahu Sammelan
- **Monitoring System for Family Planning**
 1. Family Planning Logistics Management Information System (FPLMIS)
 2. Antara Raj Software
 3. Eligible Couple Tracking System (ECTS)
- **GAPS**
 1. Sector Meetings were not done efficiently.
 2. Training were not done with quality
 3. Improper Counselling
 4. Scarce Resources

QUALITY ASSURANCE

- It focuses on procedures more than on infrastructure.
- There are certain checklist parameters for healthcare centers-
District hospitals- 18 parameters
Community health centers- 12
Primary health centers- 6
- **KAYAKALP**- It works towards promoting cleanliness, hygiene, and infection control practices and to incentivize and recognize such public healthcare facilities that show exemplary performance in these areas.
- **Assessment methods**-
 - 1.Observations (OB)
 - 2.Staff Interview (SI)
 - 3.Record Review (RR)
 - 4.Patient Interview (PI)
- There are certain scoring cards for each healthcare facility based on which they are assessed.

NATIONAL URBAN HEALTH MISSION

NUHM was approved on 1st May 2013 but implemented in Rajasthan in December 2014 as a sub-mission of NHM.

- It mainly focuses on Slums & Vulnerable population of Urban India.
 - NUHM is focused on Primary Health Care.
 - There were city dispensaries which were upgraded to PHCs.
 - Human Resources, Financial & Infrastructural gaps were analyzed.
 - To overcome HR gaps 3 personnel were recruited –
 1. Account -Cum -Data Entry Officer (ACDEO)
 2. Public Health Manager (PHM)
 3. Support Staff
 - The main problem was lack of fund.
- **MAHILA AROGYA SAMITI (MAS) –**
- To assure community participation Mahila Arogya Samiti were appointed.
 - These consists of 10-12 women who are from the same community.

- There is one President, one Secretary and other members.
 - A bank account is opened in their name in which they get fund for the activities like meetings.
 - There are currently 4708 MAS's in Rajasthan.
 - Rajasthan is the only state to create MAS's.
-
- **In Rajasthan, NUHM is working in 61 cities with population of 50,000 plus.**
 - There are 245 Urban Primary Health Centers (U-PHC's) in Rajasthan.
 - Apart from U-PHC's, in 2016 secondary health systems i.e. Urban-Community Health Centers (U-CHC's) were brought in. Till now, there are 13 U-CHC's.
 - Apart from Primary & Secondary health system on community level there are outreach services like Urban Health & Nutrition day (UHND) & camps.
 - UHND Day covers ANC service for pregnant women & immunization for children
 - Every U-CHC should have one outreach service camp per month.

MEDICAL MOBILE UNITS - These are integrated Ambulances which should conduct 20 camps in a month.

HEALTH KIOSK – These are small sized cabins for ANM's situated in urban slums to cater health needs of the people. There are currently 8 functional kiosks.

INTEGRATED AMBULANCE

There are 3 types of Ambulance Services: -

1. Basic Life Support Ambulance (BLSA)
2. Advanced Life Support Ambulance (ALSA)
3. Base Ambulance

BLSA - There are currently 2 Ambulance Services in Rajasthan

1. 102 (104 in Rajasthan) – For Maternal & Child Services & Medical Advisory Services.
2. 108 – For Emergency Purpose.

ALSA – Started in 2017. The Basic difference between BLSA & ALSA is presence of defibrillators & Ventilators. There is 1 ALSA in each district (34 in Rajasthan)

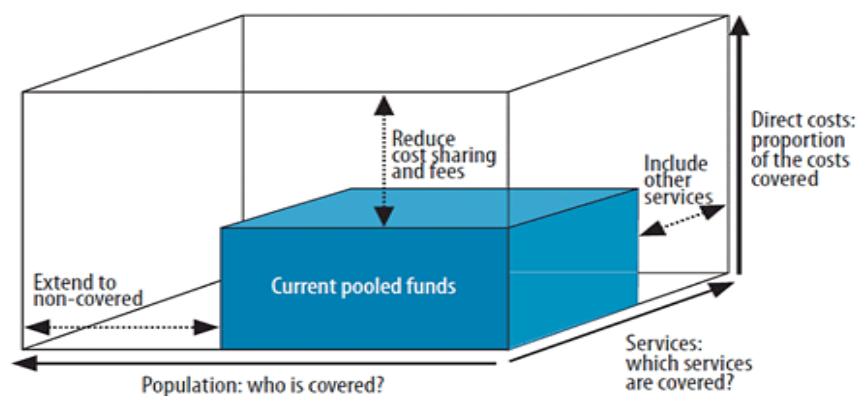
BASE AMBULANCE – These are on paid basis and for non-emergency services. These are 182 in number. In case of unavailability of emergency ambulances, they also provide services free of cost.

UNIVERSAL HEALTH COVERAGE

- It works on Accessible, Affordable, Quality health service without any financial hardships.
1. Population: - who is covered – The pooled funds are used to extend coverage to individuals those who were not covered.
 2. Services: - which services are covered – Funds extend to cover the services which were previously not covered.
 3. Direct costs: - proportion of the costs covered – Reduce the direct cost needed for each service.

Pillars of UHC

1. Human Resources
2. Infrastructure
3. Health Technology
4. Free Drug & Diagnostics
5. Financial Protection (Insurance)



Three dimensions to consider when moving towards universal coverage

Figure:3

NON-COMMUNICABLE DISEASES (NCDs)

Non-communicable diseases (NCDs) are the leading cause of adult mortality and morbidity worldwide. Keeping in view that there are common preventable risk factors for Cancer, Diabetes, CVD & Stroke, Government of India initiated a National Programme for Prevention and Control of Cancers, Diabetes, Cardiovascular Diseases and Stroke (NPCDCS) during 2010-11 after integrating the National Cancer Control Programme (NCCP) with National Programme for Prevention and Control of Diabetes, Cardiovascular Diseases and Stroke (NPDCS). The focus of NPCDCS is on promotion of healthy lifestyles, early diagnosis and management of diabetes, hypertension, cardiovascular diseases & common cancers e.g. cervix cancer, breast cancer & oral cancer.

Programmes includes:

- National Programme for prevention & Control of Cancer, Diabetes, Cardiovascular Diseases & stroke (NPCDCS)
- National Programme for Control of Blindness & Visual Impairment (NPCBVI)
- National Mental Health Programme (NMHP)
- National Programme for healthcare of Elderly (NPHCE)
- National Programme for the Prevention & Control of Deafness (NPPCD)
- National Tobacco Control Programme (NTCP)
- National Oral Health Programme (NOHP)
- National Programme for Palliative care (NPPC)
- National Programme for Prevention & Management of Burn Injuries (NPPMBI)
- Other Non-Communicable Disease Control Programmes

AYUSHMAN BHARAT-HEALTH AND WELLNESS CENTRES

Ayushman Bharat (AB) is an attempt to move from a selective approach to health care to deliver comprehensive range of services spanning preventive, promotive, curative, rehabilitative and palliative care. It has two components which are complementary to each other. Under its first component, 1,50,000 Health & Wellness Centres (HWCs) will be created to deliver Comprehensive Primary Health Care, that is universal and free to users, with a focus on wellness and the delivery of an expanded range of services closer to the community. The second component is the Pradhan Mantri Jan Arogya Yojana (PM-JAY) which provides health insurance cover of Rs. 5 lakhs per year to over 10 crore poor and vulnerable families for seeking secondary and tertiary care.

HWC are envisaged to deliver expanded range services that go beyond Maternal and child health care services to include care for non -communicable diseases, palliative and rehabilitative care, Oral, Eye and ENT care, mental health and first level care for emergencies and trauma , including free essential drugs and diagnostic services.

Expanded range of services

The expansion of services has been planned in incremental manner. As a first step, Screening, Prevention, Control and Management of Non-communicable Diseases and Chronic Communicable diseases like Tuberculosis and Leprosy has been introduced at HWCs.

1. Care in pregnancy and childbirth.
2. Neonatal and infant health care services
3. Childhood and adolescent health care services.
4. Family planning, Contraceptive services, and Other Reproductive Health Care services
5. Management of Communicable diseases: National Health Programs
6. Management of Common Communicable Diseases and General Out-patient care for acute simple illnesses and minor ailments
- 7. Screening, Prevention, Control and Management of Non-Communicable diseases and chronic communicable disease like TB and Leprosy**
8. Basic Oral health care
9. Care for Common Ophthalmic and ENT problems
10. Elderly and Palliative health care services
11. Emergency Medical Services
12. Screening and Basic management of Mental health ailment

Key Components

The delivery of CPHC through HWCs involve is complex task as it requires a paradigm shift at all levels of health systems. The operationalization of HWCs requires several inputs.



Figure:4

Key Milestone

The first HWC was launched in Bijapur, Chhattisgarh on April 18th, 2018. In the first year, over 17,000 HWCs were operationalized, more than the target of 15,000 set for FY 2018-19.

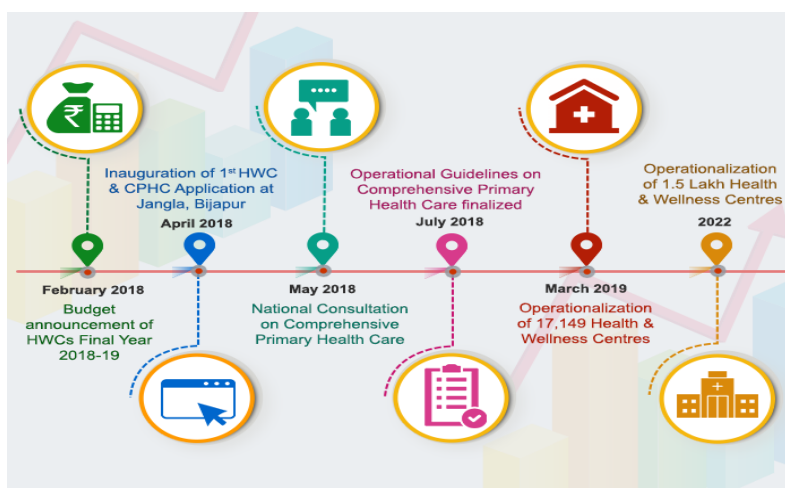


Figure:5

Roll out plan

Given the magnitude of inputs required to strengthen the primary health care facilities, the operationalization of HWC has been planned in a phased manner till the year 2022.

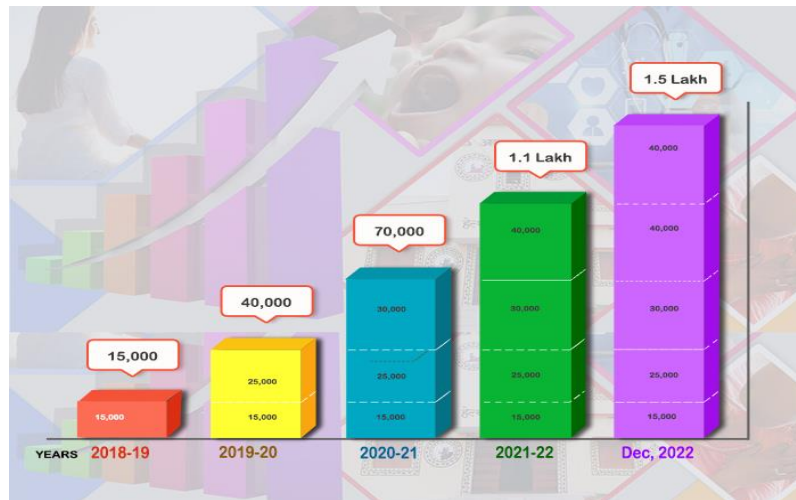


Figure:6

HWC Portal and NCD software of Ayushman Bharat Program: A Review of the Data Reporting

INTRODUCTION

India is experiencing a rapid health transition with a rising burden of Non-Communicable Diseases (NCD) surpassing the burden of Communicable diseases like water-borne or vector-borne diseases, TB, HIV, etc. The Non-Communicable Diseases like Cardiovascular diseases, Cancer, Chronic Respiratory Diseases, Diabetes, etc. are estimated to account for around 60% of all deaths. NCDs cause considerable loss in potentially productive years of life. Losses due to premature deaths related to heart diseases, stroke and Diabetes are also projected to increase over the years.

In order to prevent and control major NCDs, the National Programme for Prevention and Control of Cancer, Diabetes, Cardiovascular Diseases and Stroke (NPCDCS) was launched in 2010 with focus on strengthening infrastructure, human resource development, health promotion, early diagnosis, management and referral.

Under NPCDCS, NCD Cells are being established at National, State and District levels for programme management, and NCD Clinics are being set up at District and CHC levels, to provide services for early diagnosis, treatment, and follow-up for common NCDs. Provision has been made under the programme to provide free diagnostic facilities and drugs for patients attending the NCD clinics. Cardiac Care Units (CCU) are also being set up in identified districts for providing facilities for emergency Cardiac Care. Day Care Centres at the identified districts are setup to provide facilities for Cancer care.

During the period 2010-2012, the programme was implemented in 100 districts across 21 States. Review of the initial phase of programme implementation helped to identify the bottle-necks and accordingly the programme was re-strategized and scaled-up. The programme aims to cover the entire country by March 2017.

The modified strategies are as follows:

1. Health promotion through behaviour change with involvement of community, civil society, community-based organizations, media etc.
2. Outreach Camps are envisaged for opportunistic screening at all levels in the health care delivery system from sub-centre and above for early detection of diabetes, hypertension, and common cancers.
3. Management of chronic Non-Communicable diseases, especially Cancer, Diabetes, CVDs and Stroke through early diagnosis, treatment and follow up through setting up of NCD clinics.
4. Build capacity at various levels of health care for prevention, early diagnosis, treatment, IEC/BCC, operational research, and rehabilitation.

5. Provide support for diagnosis and cost-effective treatment at primary, secondary and tertiary levels of healthcare.
6. Provide support for development of database of NCDs through a robust Surveillance System and to monitor NCD morbidity, mortality, and risk factors.

Total cost of the programme for period 2012-margins2017 is Rs. 8,096 crores (share of Government of India is Rs. 6,535 crore and that of State Governments is Rs. 1,561 crore). The funds are being provided to the States under NCD Flexi-Pool through State PIPs of respective States/UTs, with the Centre to State share in ratio of 60:40 (except for NE and Hilly States, where the share is 90:10).

For the Cancer component, there is the Tertiary Care Cancer Centers (TCCC) scheme, which aims at setting up/strengthening of 20 State Cancer Institutes (SCI) and 50 TCCCs for providing comprehensive cancer care in the country. Under the scheme there is provision for giving a 'one-time grant' of Rs. 120 crore per SCI and Rs. 45 crores per TCCC, to be used for building construction and procurement of equipment, with the Centre to State share in the ratio of 60:40 (except for North-Eastern and Hilly States, where the share is 90:10).

PROGRAMME PERFORMANCE

As on March 2016, the programme is under implementation in all 36 States/UTs. A total of 298 District NCD Cells and 293 District NCD Clinics have been established in the country. Also, there are 103 functional Cardiac Care Units for emergency cardiac care and 64 Day-Care Centres for Cancer care at the District levels in the country.

During 2015-2016, more than 1.29 crore persons have been screened in the designated NCD Clinics. Among these NCD Clinic attendees, around 8% were diagnosed to be Diabetics and 12% were Hypertensives. Also, around 90,000 persons were diagnosed to be suffering from Cardiovascular diseases and over 13,000 persons were detected to be having common Cancers (including Oral, Cervical and Breast Cancers) among them. During 2015-2016, around 96 lakh persons were screened under various outreach activities for common NCDs (in Camps and PHC/SC), and they were referred to higher Centres for diagnosis and management.

RECENT INITIATIVES UNDER NPCDCS

1. Inclusion of guidelines for prevention and management of Chronic Obstructive Pulmonary Disease (COPD) and Chronic Kidney Disease (CKD) under NPCDCS, to prevent and manage the chronic respiratory and kidney diseases respectively, which are also major causes of death due to NCDs.
2. For early detection of Diabetes, Hypertension and common Cancers in the community, guidelines are being issued to the States for **initiating “Population-based Screening of common NCDs”** utilizing the services of the Frontline-workers and Health-workers under the existing Primary Healthcare System, which is also implementing as a one of the basic service under HWC as mentioned in
3. Pilot project on ‘Integration of AYUSH with NPCDCS’ has been initiated in six districts in the country. AYUSH facilities and methodologies are being integrated with NPCDCS services for prevention and management of common NCDs, wherein the practice of Yoga is an integral part of the intervention.
4. Pilot intervention has been initiated for the prevention and control of Rheumatic Fever and Rheumatic Heart Disease under the platforms of NPCDCS and RBSK (Rashtriya Bal Swasthya Karyakram), in three select districts (Gaya - Bihar, Firozabad - Uttar Pradesh and Hoshangabad - Madhya Pradesh). This intervention would be scaled up to other districts in a phased manner.
5. Another initiative is the integration of RNTCP with NPCDCS, wherein the “National Framework for Joint Tuberculosis-Diabetes collaborative activities” has been developed to articulate a national strategy for ‘bi-directional screening’, early detection and better management of Tuberculosis and Diabetes comorbidities in India.

LITERATURE REVIEW:

- Erastus in 2019, in his research paper with his main objective of this study was to assess the quality of Non communicable disease data. The assessment utilized secondary data collected by the Non-communicable disease program and stored in the ‘Non communicable disease database’. The study used a cross sectional study design to answer to its study objectives. This study used quantitative data. Data on age, sex, type of Non-communicable disease, creatinine result counts and date of enrolment into Non-communicable disease programme was extracted. Document review, especially patient files was used to allow for verification of information. Descriptive analysis was the main analysis. The assessment focused on three aspects of data quality: data completeness, data timeliness and data validity. The findings of the study revealed that there were data quality gaps in the Noncommunicable disease data. These gaps included discrepancies in data completeness and data timeliness. The database had 4893 individual patient records entered it with 1886 of those having

been entered before the beginning of the year 2012. More than 40% of the total 4893 records entered in the 'Non communicable diseases database', had data incompleteness and data timeliness gaps. Data validity was the only data quality principle that passed the test of good quality data. Based on the findings of the study, assessment concluded that the NCD data at Medicines Sans Frontiers project was not of good quality. The study recommends a systematic review of the programmatic data collection system to address data quality gaps identified in the study.

- Krishnan, Gupta¹, Ritvik, Baridalyne Nongkynrih, JS Thakur in a research paper for prevention and control of common noncommunicable diseases (NCDs) through behaviour and lifestyle changes, and to provide early diagnosis and management of common NCDs. M and E of program requires identification of indicators that measure inputs, process, outputs, and outcomes. However, the routine data collection and compilation could be the responsibility of Central Bureau of Health Intelligence. Integrated population-based surveys with existing disease and behaviour surveillance could be undertaken by National Centre for Disease Control. The national NCD cell should compile all this information into a meaningful policy brief so that appropriate programmatic interventions can be identified. The launch of a national program to tackle the burden of NCDs is just the beginning, and the final success of the program will depend on how effectively we monitor and evaluate it.
- Dr Ala Alwan , Prof David, colin Douglas-in 2010 wrote a research paper showed data from WHO data sources and published work for prevalence of tobacco use, overweight, and cause-specific mortality in 23 low-income and middle-income countries with a high burden of non-communicable disease. Data for national capacity for chronic disease prevention and control were generated from a global assessment that was done in WHO member states in 2009–10. Although reliable data for cause-specific mortality are scarce, non-communicable diseases were estimated to be responsible for 23.4 million (or 64% of the total) deaths in the 23 countries that we analyzed, with 47% occurring in people who were younger than 70 years.

RATIONALE:

Seeking and receiving health information are critical aspects. However, many informational sources lack accurate content. This study explores the challenges and the gap between information desired and information received from different portals of Ayushman Bharat Program aiming at maintaining the authenticity and transparency in the data for Non-Communicable Diseases.

RESEARCH QUESTION:

What are the gaps in Data Reporting with respect to Health and wellness center Portal and Non-Communicable diseases software of Ayushman Bharat Program?

OBJECTIVE:

- To review and identify the gaps in data reporting with respect to HWC Portal and NCD software.
- To recommend interventions that can be implemented strategically to overcome the gaps among NCD portals.

METHODOLOGY:

Followings are the description of indicators chosen and tools used for study:

- 1) Population Enumeration: To ensure equitable population coverage to address issues of marginalization, the frontline workers would create population -based household lists and undertake registration of all individuals and families residing within the catchment area of an HWC. The ASHA is responsible for undertaking the Population Enumeration of all those aged 30 years and above through home visits. She will register or list all eligible adults, (women and men) fill in details specific to Non-Communicable Diseases and it will be updated every 6 months. She will be given a specific register to record this information. ASHA will also fill a health card for everyone, which will have a unique ID/ AADHAR number issued by the state/district. The card will record health events (screening/diagnosis/treatment/complications, etc.). This would enable follow-up by the medical officer at the PHC level, or at a higher level of facility. They will also record their treatment decisions and other findings on the card. This will help us to know the treatment plan for the individual thus help in ensuring continuity of care. The format to be filled by the ASHA is attached at Annexure- 1. ANM support the ASHA through field visits in completing this enumeration. ANM will be responsible for cross verification of 10% population.
- 2) Total Individuals Enumerated: In case of NDC's only 30+ individuals are registered for population -based household listing within the catchment area.
- 3) CBAC forms- Community Based Assessment checklist for early detection of NCD's, The CBAC is designed to collect details related to history of symptoms and Behavioural factors. They include

tobacco and alcohol consumption, amount of physical activity, measurement of waist circumference, family history of high blood pressure, diabetes, heart disease and presence of common symptoms for common cancers, epilepsy, and respiratory diseases. The ASHA is responsible for filling the CBAC (Annexure-2) for all women and men aged 30 years and above. CBAC is helpful to the ASHAs to remember the key risk factors, helps identify those who must be prioritized to attend the screening day and refer the individuals. People with a CBAC score of 4 and above will need to be prioritized for screening. ANM's task is to review the completed CBAC filled by the ASHA in your coverage area to ensure that it is filled and correct. The ASHA facilitator can also undertake this task.

4) Screening: is a process of identifying a disease condition among apparently healthy individuals, who may be at increased risk of a disease or condition. Screening Programmes can be undertaken for a population at large or targeting high-risk groups. Screening serves a platform of increasing awareness in the community about common Non-Communicable Diseases, risk factors and the need for periodic screening. It also enables an understanding of better health and the need to avoid risk factors in the general community. Screening requires careful planning and implementation. An important thing to remember is that once you suspect that an individual has a disease condition, the individual should be motivated to go to the PHC or CHC and meet the concerned medical officer to confirm the diagnosis and start treatment. The health system should be ready to take care of those who are screened positive through diagnosis, treatment, and care. Otherwise people will lose confidence in the process of screening.

5) General considerations:

- ♦ Approx. 37% of the population is over 30 years
- ♦ In a normative village of 1000: Total case load: 370
- ♦ No. of men over 30 years = 51% of the total case load: 188
- ♦ No. of women over 30 years = 49% of the total case load: 182
- ♦ For Hypertension and Diabetes: 370- (annual screening)
- ♦ For Oral Cancer: 370—every five years.
- ♦ For Breast and Cervical Cancer: 182—every five years.

6) NCD Software: This software is used by districts and state for entering the data from facility level, Here, the data is entered in the form of line list and not in numbers. Some information from CBAC

forms (filled by ASHAs) are updated from facility level, every month and that can be seen at state.

- 7) HWC portal: This portal works under the scheme of Ayushman Bharat for NCDs, Data for NCD is in the form of only numbers and no added information is added hence is less time consuming and gives the data in compiled form for every month.
- 8) NCD report: Report which is formed at the state taking into consideration all the necessary indicators and their data from gained from districts.
- 9) NN – represents that this data source does not provide information regarding this indicator.

Study Design	Descriptive study
Study Area	7 zones of Rajasthan State-Ajmer, Bikaner, Bhilwara, Jaipur, Jodhpur, Kota, Udaipur.
Study Period	April 2019 to March 2020
Study Tool	NCD-Software, HWC-Software, NCD Report

Table:1

DATA COLLECTION:

State level secondary data of financial year April 2019-March 2020, collected from NCD-Software, HWC Software, NCD report provided by government authority stationed at Non-Communicable diseases department heading NCD Program.

RESULTS AND ANALYSIS:

The routine data collection and compilation pinned under the responsibility of Central Bureau of Health Intelligence. Integrated population-based surveys with existing disease and behaviour surveillance pushed forward by National Centre for Disease Control. The national NCD cell compiles all this information into a meaningful policy brief so that appropriate programmatic interventions can be identified. The launch of a national program to tackle the burden of NCDs is just the beginning, and the final success of the program will depend on how effectively we input the data in all three portals to conduct flawless monitoring and evaluation. The results from this study will assist in identifying the gaps and simultaneously appropriate suggestions can be stated as per the case concern.

INDICATOR	NCD SOFTWARE						
	AJMER	BIKANER	BHARATPUR	JAIPUR	JODHPUR	KOTA	UDAIPUR
Facilities started population enumeration	35	72	40	46	109	17	31
Facilities Started Hypertension Screening	35	72	40	46	109	17	31
Facilities started diabetes screening	35	72	40	46	109	17	31
Facilities started oral cancer screening	35	72	40	46	109	17	31
Facilities started breast cancer screening	35	72	40	46	109	17	31
Facilities started cervical cancer screening	0	0	0	0	0	0	0
[TR] Total MPW (F) Trained	NN	NN	NN	NN	NN	NN	NN
[TR] Total ASHA Trained	NN	NN	NN	NN	NN	NN	NN
[TR] Total MO Trained	NN	NN	NN	NN	NN	NN	NN
[TR] Total SN Trained	NN	NN	NN	NN	NN	NN	NN
[SDR] Total individuals enumerated	61597	391065	37126	26129	190129	19226	15326
[SDR] Total CBAC form filled	35763	389235	36683	24305	161995	18892	15218
[SDR] Total individuals screened for hypertension	18027	160281	726	5113	50186	8813	3443
[SDR] Total Diagnosed Positive for hypertension	477	4053	7	845	387	122	94
[SDR] Total Individuals on Treatment for hypertension	45	930	2	79	27	13	17
[SDR] Total individuals screened for diabetes	18027	160281	726	5113	50186	8813	3443
[SDR] Total Diagnosed Positive for diabetes	358	2508	4	791	446	48	42
[SDR] Total Individuals on Treatment for diabetes	28	454	1	26	24	5	19
[SDR] Total individuals screened for oral cancer	15338	135549	408	4079	30011	6170	3306
[SDR] Total Diagnosed Positive for oral cancer	0	0	0	0	0	0	0
[SDR] Total Individuals on Treatment for oral cancer	NN	NN	NN	NN	NN	NN	NN
[SDR] Total individuals screened for breast cancer	15338	135549	408	4079	30011	6170	3306
[SDR] Total Diagnosed Positive for breast cancer	0	0	0	0	0	0	0
[SDR] Total Individuals on Treatment for breast cancer	NN	NN	NN	NN	NN	NN	NN
[SDR] Total individuals screened for cervical cancer	15338	135549	408	4079	30011	6170	3306
[SDR] Total Diagnosed Positive for	0	0	0	0	0	0	0

cervical cancer							
[SDR] Total Individuals on Treatment for cervical cancer	NN	NN	NN	NN	NN	NN	NN

Table:2 -The above table showing NCD software entries under NCD indicators among 7 districts of Rajasthan for financial year (April 2019-March2020)

INDICATOR	HWC PORTAL						
	AJMER	BIKANER	BHARATPUR	JAIPUR	JODHPUR	KOTA	UDAIPUR
Facilities started population enumeration	74	82	66	108	78	29	92
Facilities Started Hypertension Screening	115	82	61	112	78	30	93
Facilities started diabetes screening	115	82	60	112	78	30	93
Facilities started oral cancer screening	87	79	61	111	65	30	55
Facilities started breast cancer screening	86	79	60	111	55	30	55
Facilities started cervical cancer screening	3	21	49	1	9	30	30
[TR] Total MPW (F) Trained	96	78	31	143	276	48	102
[TR] Total ASHA Trained	585	356	350	596	806	198	290
[TR] Total MO Trained	55	24	57	130	64	32	82
[TR] Total SN Trained	66	40	59	177	99	41	121
[SDR] Total individuals enumerated	13,671	39,259	0	33,666	0	3,287	0
[SDR] Total CBAC form filled	66,985	53,949	360	23,239	0	3,287	0
[SDR] Total individuals screened for hypertension	62,495	77,857	970	50,864	0	8,007	0
[SDR] Total Diagnosed Positive for hypertension	2,438	7,329	120	2,695	0	544	0
[SDR] Total Individuals on Treatment for hypertension	2,459	8,241	64	5,182	0	1,731	0
[SDR] Total individuals screened for diabetes	62,433	67,081	899	31,424	0	4,945	0
[SDR] Total Diagnosed Positive for diabetes	1,965	3,751	80	1,500	0	149	0
[SDR] Total Individuals on Treatment for diabetes	1,982	4,061	12	2,380	0	332	0
[SDR] Total individuals screened for oral cancer	57,863	33,550	543	11,043	0	3,025	0
[SDR] Total Diagnosed Positive for oral cancer	120	9	0	3	0	1	0
[SDR] Total Individuals on Treatment for oral cancer	120	8	0	10	0	0	0
[SDR] Total individuals screened for breast cancer	30,955	13,829	266	4010	0	1581	0
[SDR] Total Diagnosed Positive for breast cancer	1	13	0	0	0	1	0
[SDR] Total Individuals on Treatment for breast cancer	1	20	0	0	0	0	0
[SDR] Total individuals screened for cervical cancer	266	10,231	262	1,104	0	1581	0
[SDR] Total Diagnosed Positive for cervical cancer	0	7	87	1	0	0	0
[SDR] Total Individuals on Treatment for cervical cancer	0	2	0	1	0	0	0

Table:3-The above table showing HWC portal entries under NCD indicator among 7 districts of Rajasthan for financial year (April 2019-March2020)

INDICATOR	NCD REPORT						
	AJMER	BIKANER	BHARATPUR	JAIPUR	JODHPUR	KOTA	UDAIPUR
Facilities started population enumeration	61	28	41	89	90	30	100
Facilities Started Hypertension Screening	61	28	41	27	90	26	78
Facilities started diabetes screening	61	28	41	27	90	26	78
Facilities started oral cancer screening	61	28	41	27	90	26	78
Facilities started breast cancer screening	61	28	41	27	90	26	78
Facilities started cervical cancer screening	0	0	0	0	0	0	0
[TR] Total MPW (F) Trained	155	118	95	65	196	5	44
[TR] Total ASHA Trained	158	185	95	66	117	25	189
[TR] Total MO Trained	63	53	68	60	81	20	23
[TR] Total SN Trained	0	0	0	0	0	0	0
[SDR] Total individuals enumerated	0	0	0	0	0	0	0
[SDR] Total CBAC form filled	48415	192000	4269	36869	27635	19809	18975
[SDR] Total individuals screened for hypertension	42474	137160	747	21058	25343	6514	14526
[SDR] Total Diagnosed Positive for hypertension	3813	27363	28	1489	1485	615	338
[SDR] Total Individuals on Treatment for hypertension	3813	27363	28	1489	1485	604	338
[SDR] Total individuals screened for diabetes	42474	137160	747	21058	25343	6514	14526
[SDR] Total Diagnosed Positive for diabetes	3029	6779	8285	977	1255	529	247
[SDR] Total Individuals on Treatment for diabetes	3029	6779	8285	977	1255	526	247
[SDR] Total individuals screened for oral cancer	42474	137160	747	21058	25343	6514	14526
[SDR] Total Diagnosed Positive for oral cancer	5	0	0	0	0	0	1
[SDR] Total Individuals on Treatment for oral cancer	5	0	0	0	0	0	1
[SDR] Total individuals screened for breast cancer	19113	61722	336	9476	11404	2931	6537
[SDR] Total Diagnosed Positive for breast cancer	3	0	0	0	0	0	0
[SDR] Total Individuals on Treatment for breast cancer	3	0	0	0	0	0	0
[SDR] Total individuals screened for cervical cancer	19113	61722	336	9476	11404	2931	6537
[SDR] Total Diagnosed Positive for cervical cancer	0	0	0	0	0	0	NN
[SDR] Total Individuals on Treatment for cervical cancer	0	0	0	0	0	0	0

Table:4-The above table showing NCD report entries under NCD indicator 7 districts among Rajasthan for financial year (April 2019-March2020)

- Graph 1 representing data discrepancy input among NCD software, HWC portals and NCD report for ‘Indicator-1- Facilities started population enumeration’ in seven districts of Rajasthan.

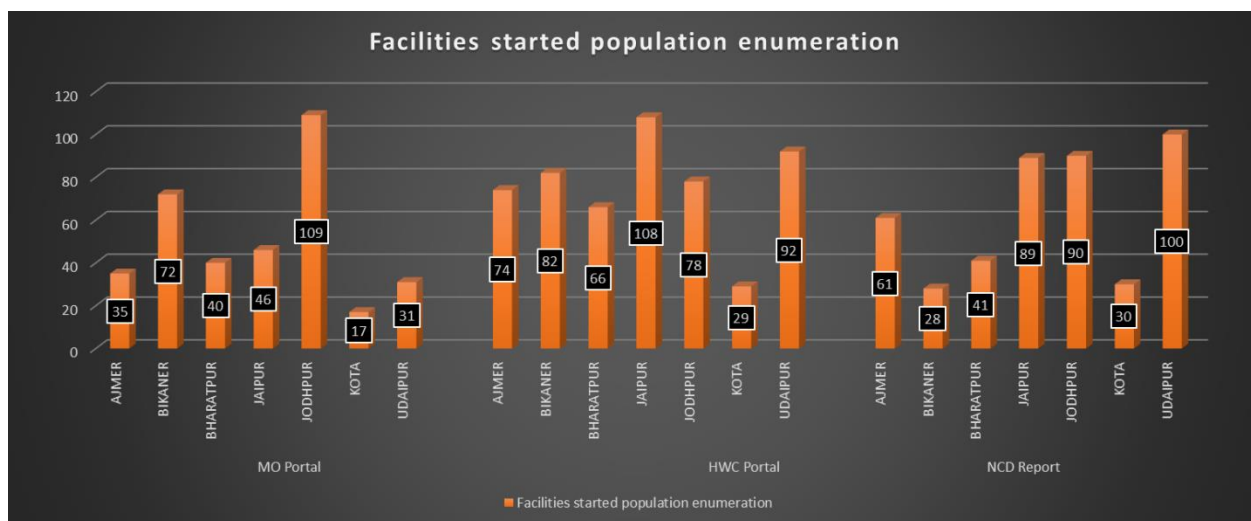


Figure:7

- As per the data input, in the HWC portal ‘Indicator -11- Total individuals enumerated’ are less than the total CBAC forms filled, which shows dilution of reporting pattern and the level of awareness among the individuals working at different districts.
- In all graphs, entries with “0” under any indicator represent lack of data which is due to unawareness or misreporting and difficulty in interpreting peculiarities of portals.

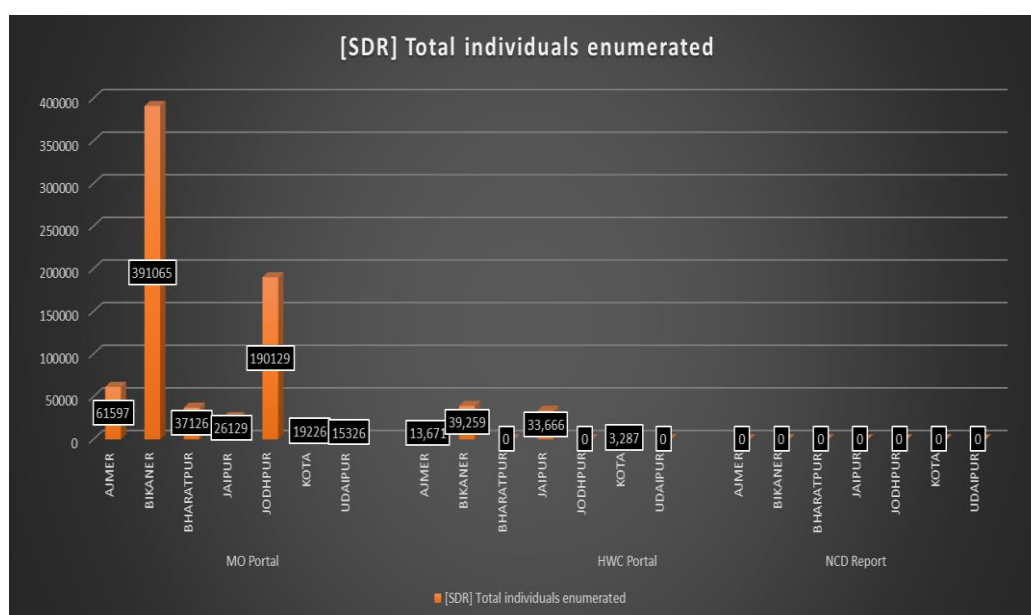


Figure:8

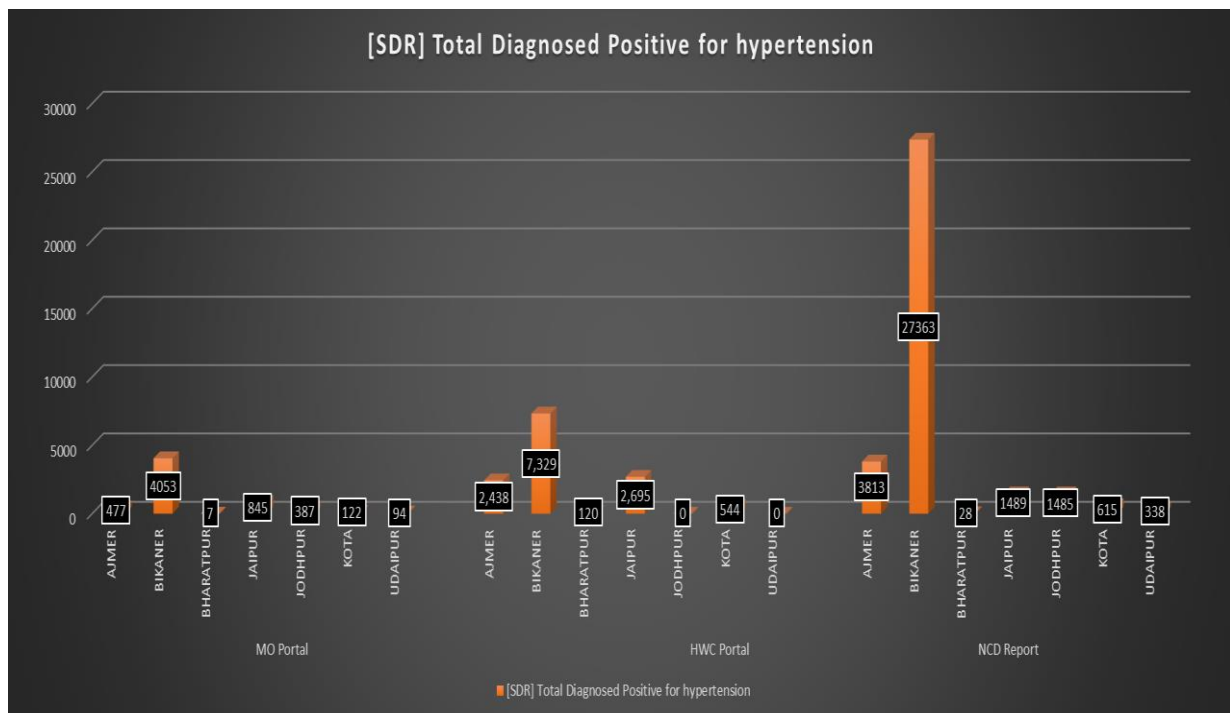


Figure:9

- According to the data pulled from portals for hypertension, diabetes, and cancer treatment (Indicator-15, 18, 21, 24, 27) shows that all the individuals diagnosed with the disease mentioned are availing treatment with regular follow-ups, again presenting gap in the reporting.
- HWC and NCD trainings are given separately resulting in breach among the entries under “Indicator -7- Total MPW(F) Trained”.

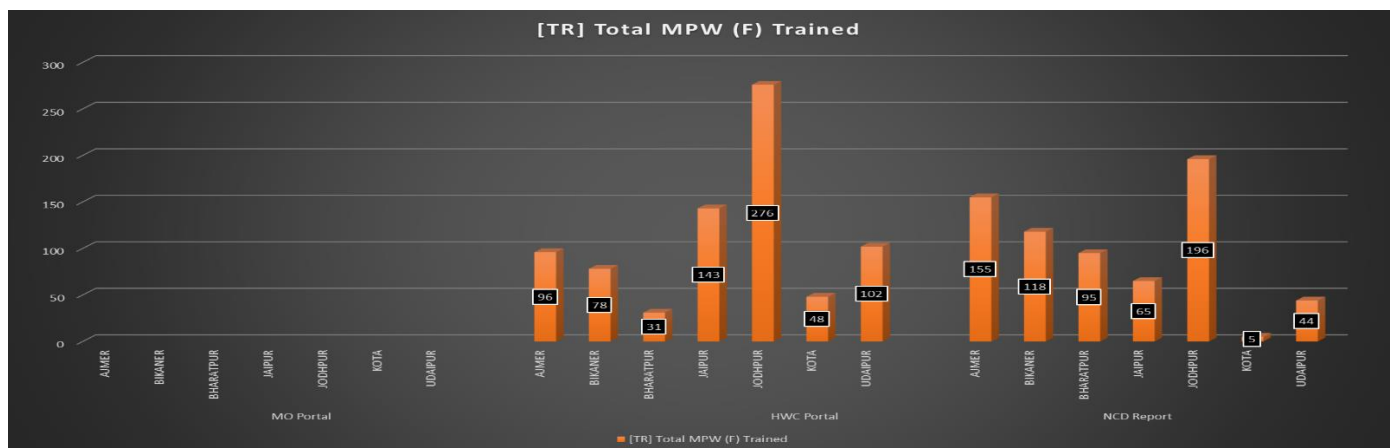


Figure:10

- As a result of hierarchical unawareness, the data input under “Indicator -8-Total number of ASHA’s trained” is more in HWC than in NCD report.



Figure:11

- Poor orientation and training are remarked for the same indicators are handled by distinct supporting teams which stipulates a great contrast in data of almost every indicator, express less coordination between the teams under one roof.
- Due to lack of peripheries screening and constant observing the under emphasis of “Indicator -18 to 27- Facilities providing Screening, diagnosis, and treatment for all the three types of cancers” are subsequently overlooked.
- Reliability of source is put under question as the diagnostic service is not functional at facility level showing “0” data input in NCD software and NCD report but few entries can be viewed in HWC portal for “Indicator-26- Total diagnosed positive for cervical cancer”.

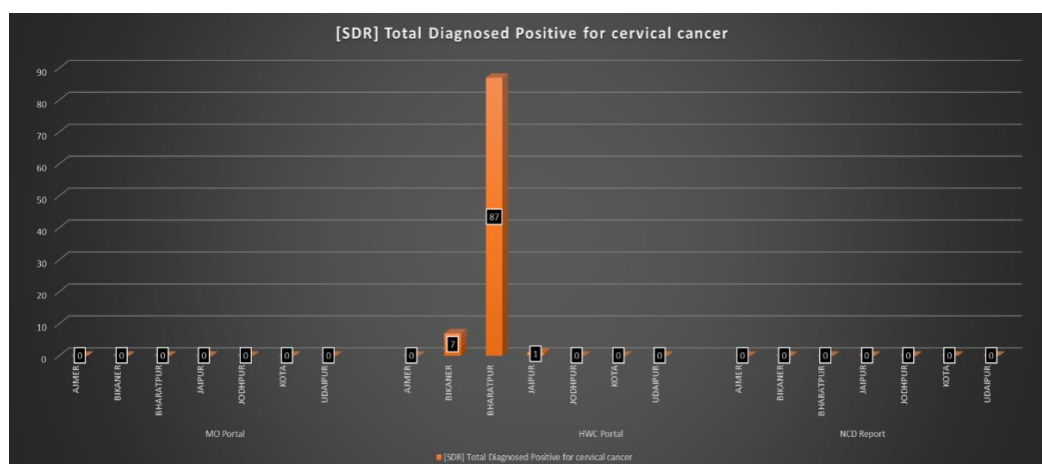


Figure:12

- State NCD cell being misguided by districts as the data input is lacking with regards to training in NCD software.
- As per population-Based Screening guidelines given by the state, disease wise treatment and follow-up should be observable on NCD software but is not the add -on feature hence showing dilution of thoughts.

RECOMMENDATIONS:

GAP IDENTIFIED	RECOMMENDATIONS
1. Discrepancy in data inputs.	1. Use of third-party verification systems They can do this by independent logging page load events via their own tracking pixels, provided with additional verification metrics in their respective dashboards and reporting systems.
2. Some indicators are overlooked	2. Identifying a process owner and to provide employees with training that covers all the aspects of data entry practices.

3. Difficulty in interpretation due to unawareness and multiple proficiency level among data entry operators	3. Standardized, consistent, nationally acceptable outcomes of training through skill enhancement program.
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Table:5

- Reporting of MO portal in form of line list is done at the facility level and reporting of HWC portal in compiled form is done at the district level, so in the view of this concern a single point of contact should be authorized to reduce perplexity and misreporting pattern.
- Homogenized portals should be designed keeping it systemized and separate sub headers for MO at facility level and HWC at district level.
- Data Quality management practices are required to maintain a high-quality information that can be measured from five main criteria namely: Accuracy, relevancy, completeness, timeliness, and consistency. The standard for good data quality can differ depending upon the requirement and nature of data its selves.
- Disciplined data governance should be performed through rigorous management of incoming data and thorough regression testing for change management and careful design of data pipelines, resulting in much easier and less costly to prevent the data issue from happening in the first place rather than relying on defending systems.

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Annexure:

Field Visit:



CANCER CARE PROGRAMME CLINIC AT SATELLITE HOSPITAL AJMER



NCD COUNSELLING AND DATA ENTRY ROOM



SOMALPUR SUBCENTER (AJMER)

फैमिली फोल्डर

आशा का नाम:..... टोला/पुरवा का नाम:.....

गांव का नाम:..... प्राथमिकस्वास्थ्य केन्द्र का नाम:

परिवारसंबंधी जानकारीयां:-									
पनबर/आईडी:-									
पप घर के प्रमुख का नाम:-									
पप परिवार की सुविधाओं की जानकारीयां:- (सुविधा/जानकारीपर✓ का निशान लगावें, ✓ का निशान एक से अधिक सुविधाओं पर मीलगाया जा सकता है)								कृपया स्पष्ट लिखें	
क) घर का प्रकार:									
(कच्चा ☐ कंक्रीट का मिट्टी से बना हुआ पक्का ईंट व कंक्रीट ☐ से बना हुआ कोई अन्य प्रकार स्पष्ट करें ☐)									
ख) शौचालय की स्थिति:									
(शौचालय बहते पानी की सुविधा के साथ ☐ शौचालय बिना पानी के सुविधा के साथ सोखा ☐ माला शौचालय बहते पानी की सुविधा के साथ बिना पानी के सुविधा के ☐ कोई अन्य प्रकार स्पष्ट करें ☐)									
ग) पीने की पानी की व्यवस्था:									
(नल का पानी ☐ के अंदर है पंप घर ☐ बाहर है पंप कुँआ टैंक नदी ☐ पानी ताल ☐ कोई अन्य ☐ टकरें ☐)									
घ) बिजली की व्यवस्था:									
(बिजली की व्यवस्था जेनरेटर ☐ मोलर पॉवर केरे ☐ लैंप कोई अन्य स्प ☐ रें ☐)									
ड.) मोटर गाड़ी:									
मोटर बाइक कार ☐ र कोई अन ☐ म्प्ट करें ☐)									
च) खाना बनाने के लिए उपयोग किए जाने वाले ईंधन का प्रकार:									
(जलाने वाली लकड़ी फसल ☐ अवशेष गोबर के उपलेव ☐ मिट्टी का तेल ☐ पी.जी. ☐ ईअन्य ☐)									
छ) संपर्क सूचना- (घर के प्रमुख का टेलीफोन नम्बर):									
क्र. सं.	व्यक्ति का नाम	आधार आईडी (अगर आधार कार्ड उपलब्ध नहीं हो तो कृपया वोटर आईडी या राशन कार्ड या भामाशाह आईडी की जानकारी दे)	व्यक्तिगत स्वास्थ्य आईडी (एसएचसी/एन.एन.एम द्वारा जारी किया गया)	लिंग	जन्म तिथि ; वृद्ध/डबल्लू	उम्र	वैवाहिक स्थिति	स्वास्थ्य बीमा स्कीम के लाभार्थी की जानकारी (हाँ/ना)	निवास स्थान (अपने घर पर रह रहे हैं/काम की वजह से अस्थायी रूप से प्रवासी)
1									
2									
3									
4									
5									

नोट:- निम्न सूचना परिवार के समस्त सदस्यों की भरी जानी है:- दिनांक:..... आशा का हस्ताक्षर

Annexure-3

परिवार के 30 से 65 वर्षके प्रत्येकव्यक्ति के लिए अलग से भराजावें।

संशोधित प्रपत्र

सलग्नक 2				
समुदाय आधारितमूल्यांकन प्रपत्र (ब्लॉक)				
गैर-संचारीरोग के प्रारम्भिकजांचहेतु प्रपत्र				
सामान्य सूचनाएं				
आशा का नाम:		ग्राम:		
एएनएम का नाम:		उपकेन्द्र:		
पीएचसी का नाम:		दिनांक:-		
व्यक्तिगतसूचनाएं:				
नाम:		पहचानपत्र (आधारकार्ड, यूआईडी, वोटर आईडी)		
उम्र:		राज्य की स्वास्थ्य बीमा योजना: (हां अथवा नहीं)		
मिंग:		सम्पर्क (टेलिफोन) नम्बर:		
पोर्ट-एन्जोखिम का मूल्यांकन				
	प्रश्न	रेंज (श्रेणी)	सहीपरगोलाबनाएं	स्कोर
1	आपकीआयुकितनीहैं? (पूर्ण वर्षों में)	30-39 वर्ष	0	
		40-49 वर्ष	1	
		50 वर्ष याउससेअधिक	2	
2	क्याआप धूम्रपानअथवातम्बाकू	कभीनहीं	0	
	युक्तपदार्थजैसेगुटखा या खैनी का	पूर्वमेंलेतेथेअबकभी-कभीसेवनकरतेहैं	1	
	सेवनकरतेहैं?	प्रतिदिन	2	
3	क्याआपप्रतिदिन शराब का	नहीं	0	
	सेवनकरतेहैं?	हां	1	
4	कमर की माप (सेमी. में)	महिला	पुरुष	
		80 याउससे कम	90 याउससे कम	0
		81-90	91-100	1
		90 से ज्यादा	100 से ज्यादा	2
5	क्याआपप्रतिसप्ताह कम से कम 150	शारीरिकव्यायाम 150 मिनट या अधिक	0	
	मिनट शारीरिकव्यायामकरतेहैं?	शारीरिकव्यायाम 150 मिनट से कम	1	
6	क्याआपकेपरिवारमेंकोईसदस्य,	नहीं	0	
	(आपका माता-पिता या भाई-बहनमें से कोई सदस्य) कोउच्चरक्तचाप, मधुमेह			

या दिल की बीमारी से कभी प्रभावित हुए हैं?	हां	1	
कुलस्कोर			
यदि किसी व्यक्ति का कुलस्कोर 4 से अधिक है तो उसे गैर-संचारी रोग होने का जोखिम है और उसे साप्ताहिक गैर-संचारी रोग दिवस में आने के लिए प्राथमिकता देनी चाहिए।			

पार्ट बी: समय पर बीमारी का पता लगना : नीचे दिए हुए लक्षणों के बारे में व्यक्ति से पूछें			
बी 1 : महिला व पुरुष	हां / नहीं		हां / नहीं
सांस लेने में तकलीफ (सांस फूलना)		दौरे आना	
दो हफ्तों से ज्यादा खांसी होना		मुंह खोलने में परेशानी	
बलगम में खून आना		झाले / चकत्ते / मुंह में वृद्धि होना जो दो सप्ताह में ठीक नहीं हुआ हो	
बुखार होना (दो सप्ताह से ज्यादा)		आवाज में कुछ अंतर आना	
वजन का कम होना		त्वचा पर कोई चकत्ता अथवा त्वचा का रंग उड़ना या फिका पड़ना	
रात्रि में पसीना आना		उंगलियों से वस्तु को पकड़ने में परेशानी होना	
क्या आप वर्तमान में टी.बी. की दवाई ले रहे हैं?		हथेली अथवा तलुवों पर ठण्डा / गर्म महसूस नहीं होना	
क्या वर्तमान में परिवार का कोई भी सदस्य टी.बी. से ग्रसित है?			
क्या पूर्व में परिवार के किसी भी सदस्य ने टी.बी. का इलाज लिया है?			

बी 2 : केवल महिला	हां / नहीं		हां / नहीं
स्तन में गांठ का होना		रजोनिवृत्ति के बाद रक्त स्त्राव होना	
निप्पल में से खून के साथ रिसाव होना		सम्भोग के दौरान रक्त स्त्राव होना	
स्तन के आकार व नाप में अंतर आना		बदबूदार योनि स्त्राव होना	
माहवारी के बीच रक्त स्त्राव होना			

यदि किसी व्यक्ति में उपर दिए गए लक्षणों में से कोई एक भी लक्षण है तो उस स्थिति में व्यक्ति को तुरंत निकटतम के स्वास्थ्य केन्द्र भेजें (जहां मेडिकल ऑफिसर उपस्थित हो)
यदि उत्तर हां है तो सुझावित कार्यवाही :- बलगम का नमूना संग्रहित करें एवं नजदीकी टी.बी. सेन्टर पर भेजें
यदि उत्तर हां है तो सुझावित कार्यवाही :- परिवार के सभी सदस्यों की एनएम द्वारा जांच करवाना

पार्ट सी: जोसही हो उस पर गोला करें:	
खाना पकाने के लिए उपयोग किए जाने वाले ईंधन का प्रकार— 1. जलाने वाली लकड़ी, 2. फसल के अवशेष, 3. गोबर के उपले, 4. कोयला, 5. मिट्टी का तेल (केरोसिन), 6. एलपीजी, 7. कोई अन्य	कोड अंकित करें
व्यावसायिक प्रदूषण के जोखिम— 1. फसल के बचे हुए अवशेष को जलाना, 2. कूड़ा करकट जलाना—पत्तियां, 3. धुएं वाले कारखानों में काम करना, 4. गैस एवं धुएं के प्रदूषण वाले उद्योगों जैसे— ईट भट्टा और कांच वाले उद्योग में काम करना आदि।	कोड अंकित करें

