



# Concept of Population Based Screening (PBS)

# Population Based Screening (PBS)

- ❖ **Population based screening:**
  - ❖ Diabetes mellitus
  - ❖ Hypertension
  - ❖ Three common cancers (Cervical, Breast & Oral)
- ❖ **Target beneficiaries:** all women and men aged 30 years and above
- ❖ It would be included in the set of services being offered as part of **comprehensive primary health care.**

# Rationale

- Low levels of health awareness
- Significant information asymmetry
- Screening for diseases with no obvious symptoms is perceived to be an unnecessary process
- Poverty restricts visit to health facility for screening
- Low levels of care seeking and limited access to health services among women
- To address the issue of equity
- It will serve the purpose of increasing awareness
- Ensure early detection and increase in survival rates

# Process of PBS

## 1. Population Enumeration

- List of eligible couple, women and children in need of maternal, newborn and child health services already exists
- Listing will be expanded to include all members over 30 years initial
- Enumeration would also list existing health issues/diseases/ disabilities and exposure to risk factors among individuals to estimate disease/risk burden

# Process of PBS

## 2. Individual and Family Registration

- Development of individual health cards
- Mitanin will undertake completion of health cards (ANM. where Mitanin not placed (Urban areas))
- Each HWC/Sub center would maintain these family folders
- Any person resident in the area, for more than six months, would qualify to be registered

# Process of PBS

## 3. Unique Health ID

- For identifying family members
- Individual ID- Can be AADHAR
- Family ID- Can be Family code used in National Population Register (NPR) or Socio-Economic Caste Census (SECC)
- Health cards issued to each family member would be used to document health events (screening/disease/treatment/complications, etc)

# Framework for PBS

## I. Completion of Community Based Assessment Checklist

- Mitnin will complete Community Based Assessment Checklist for more than 30 years of age. Checklist covers:
  - Age
  - Family history of any NCD
  - Waist circumference
  - Risky behaviors
  - Symptoms of cancers of cervix, COPD etc.
- Scores are allocated to above section. Scoring decides the risk. If less than 4, categorize as low risk.
- The scoring is not a point of elimination but a means to highlight risk factors.

**The information from the form should not be used for estimating population prevalence or for elimination of individuals from screening and early detection.**

## Cont..

- Checklist helps in identification and referral for diseases like cancers, COPD etc.
- This tool help the frontline workers to use it as a memory trigger and serve as a way of educating the community on these issues
- The form will also be used as a key training instrument. helps front line workers to emphasize certain aspects of causation, prevention, and prioritization.



# Cont..

## 2. Screening of High Risk cases

- Mitani will inform the benefits of screening to high risks and mobilize them to attend the screening day.
- On a fixed day in a week, ANM would screen for HTN, DM, and Oral Cancers, Cervical cancer (sub-centre or above) and Breast cancer.
- Hypertension, diabetes, oral and breast cancer screening can be offered in the outreach services.
- Cervical cancer screening requires speculum examination and visual inspection with Acetic Acid and can be done at facility level.

# Cont.

- ❑ Initially population based screening will be conducted in selected sub-centres and PHCs in during first year, and will be expanded progressively to cover all sub centres
- ❑ Concerned ANMs, LHVs, SNs, and mid-level providers would be trained in Oral Visual Examination (OVE) and Clinical Breast Examination (CBE) and Visual Inspection with Acetic Acid (VIA)
- ❑ Staff Nurses and Medical Officers would also be trained to serve as mentors and trainers to the next lower level.

## Cont..

- ❑ For cancers of the oral cavity and breast, the first level of referral is the CHC/ SDH/ DH and then to the DH for a biopsy for confirmation.
- ❑ For cervical cancer, the CHC could offer colposcopy. The biopsy cases would need to be referred to the DH, or to the nearest tertiary centre.

# Target population for screening

Phasing year	Level	DM, HT and oral cancer (men & women) 30-65 years	Cervical and breast cancer (all women) 30-65 years *
1 <sup>st</sup> year 50% coverage	Village	185	91
	Sub-Centre	925	455
2 <sup>nd</sup> year 65% coverage (1 <sup>st</sup> year+15%)	Village	240	118
	Sub-centre	1200	590
3 <sup>rd</sup> year 80% coverage (2 <sup>nd</sup> year+15%)	Village	296	146
	Sub-centre	1480	730

*Source: Operational Framework for Management of Common Cancers, GOI 2016*

Those found negative on screening in first year will be screened every 5 years, hence in second year only 15 % of eligible population will be screened so the amount of screening for oral cancers in second year would be 56 individuals (including 27-28 female for cervical and breast cancer)

# Post PBS follow up

Type of NCD	Frequency of screening	If positive on screening at Village/SC/PHC, then Role of medical officer
<b>Diabetes</b>	Once in a year	Confirmation of DM, CVD risk assessment#, treatment and management, in case of complications referral to CHC/DH, follow up & support.
<b>Hypertension</b>	Once in a year	Confirmation of HT, CVD risk assessment#, treatment and management, in case of complications referral to CHC/DH, follow up & support.
<b>Breast cancer</b>	Once in 5 year	Referred through PHC MO to the higher facility equipped for confirmation and management of Ca breast.
<b>Cervical cancer</b>	Once in 5 year	Referred through PHC MO to the higher facility equipped for confirmation and management of Ca cervix.
<b>Oral Cancer</b>	Once in 5 year	Referred through PHC MO to the higher facility equipped for confirmation and management of Oral Cancer.

# CVD risk assessment using the WHO/ IHS chart

\*the biopsy of specimen either to be sent to the nearest medical college or using the mechanism under free diagnostics initiatives under NHM, to the nearest NABL certified laboratory.



**THANK  
YOU**