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
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
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

1. Completion of Community Based Assessment Checklist

- Mitanin 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.
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.
2. Screening of High Risk cases

- Mitanin 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.
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, LHV's, 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.
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

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


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

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

# 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