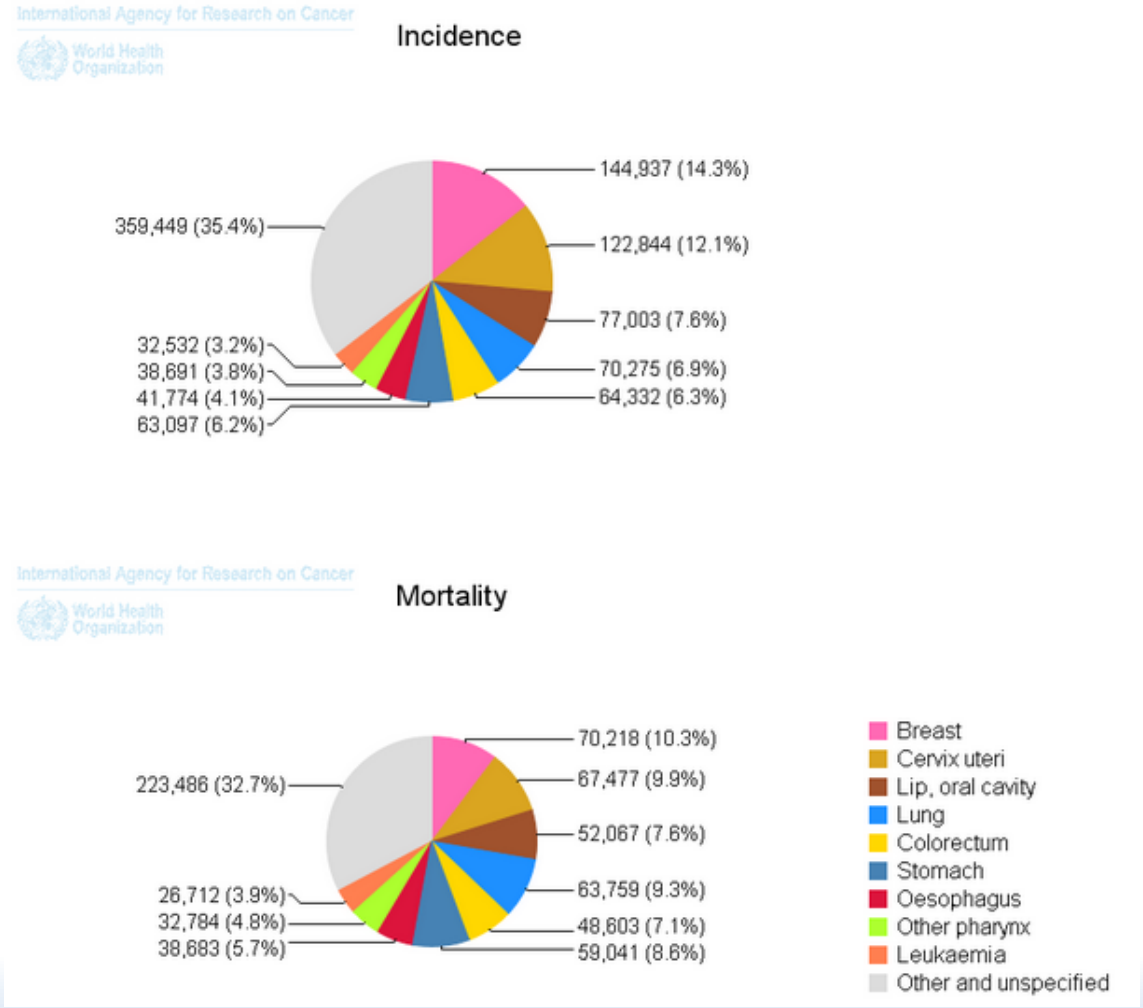
National Cancer Screening guidelines: Orientation to Operational Framework

Burden of Cancer in India

Estimated age-standardized incidence and mortality rates: both sexes



Cancer burden in India (2012, in both sexes):

New cases: 1 million

Deaths: 0.6 million

NCRP data:

Incident cases: **14 Lakhs**

Prevalent cases: **38 lakhs**

Deaths: **7 Lakhs**

Cancers of Breast, cervix and oral cavity together constitute 34% of all cancers.

Amenable to prevention/early detection.

http://globocan.iarc.fr/Pages/fact_sheets_population.aspx

Screening

- Use of simple tests across a healthy population in order to identify individuals who have disease, but do not yet have symptoms.

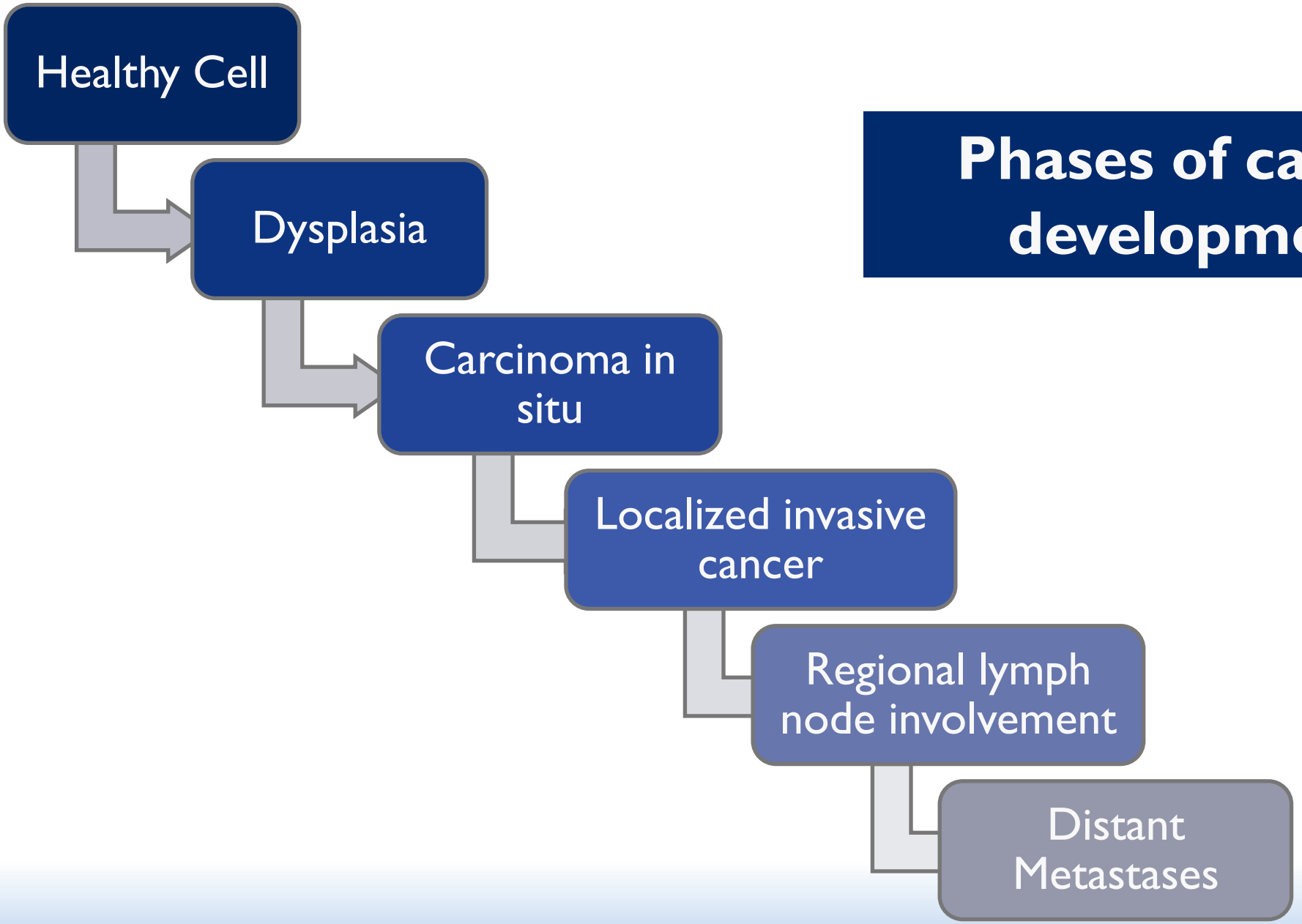
- Screening in context of cancers aims to detect precancerous changes, which, if not treated, may progress to cancer.

- A screening program is effective only if there is a well organized system for follow-up and management of screen detected lesions.

Rationale of screening for Breast, Cervical and Oral cancers

- Most prevalent cancers- public health priority
- High cost of treatment – mostly out of pocket expenditure
- Amenable to prevention (oral and cervix) or early detection (breast)
- Simple, sensitive and cost effective tools available for screening or early diagnosis.
- Standard protocols are in place for management of screen detected precancerous and cancerous lesions
- High cure rates if detected in early stages

Phases of cancer development



Warning Signals for cancers

C - Change in bowel or bladder habits

A - A wound that does not heal

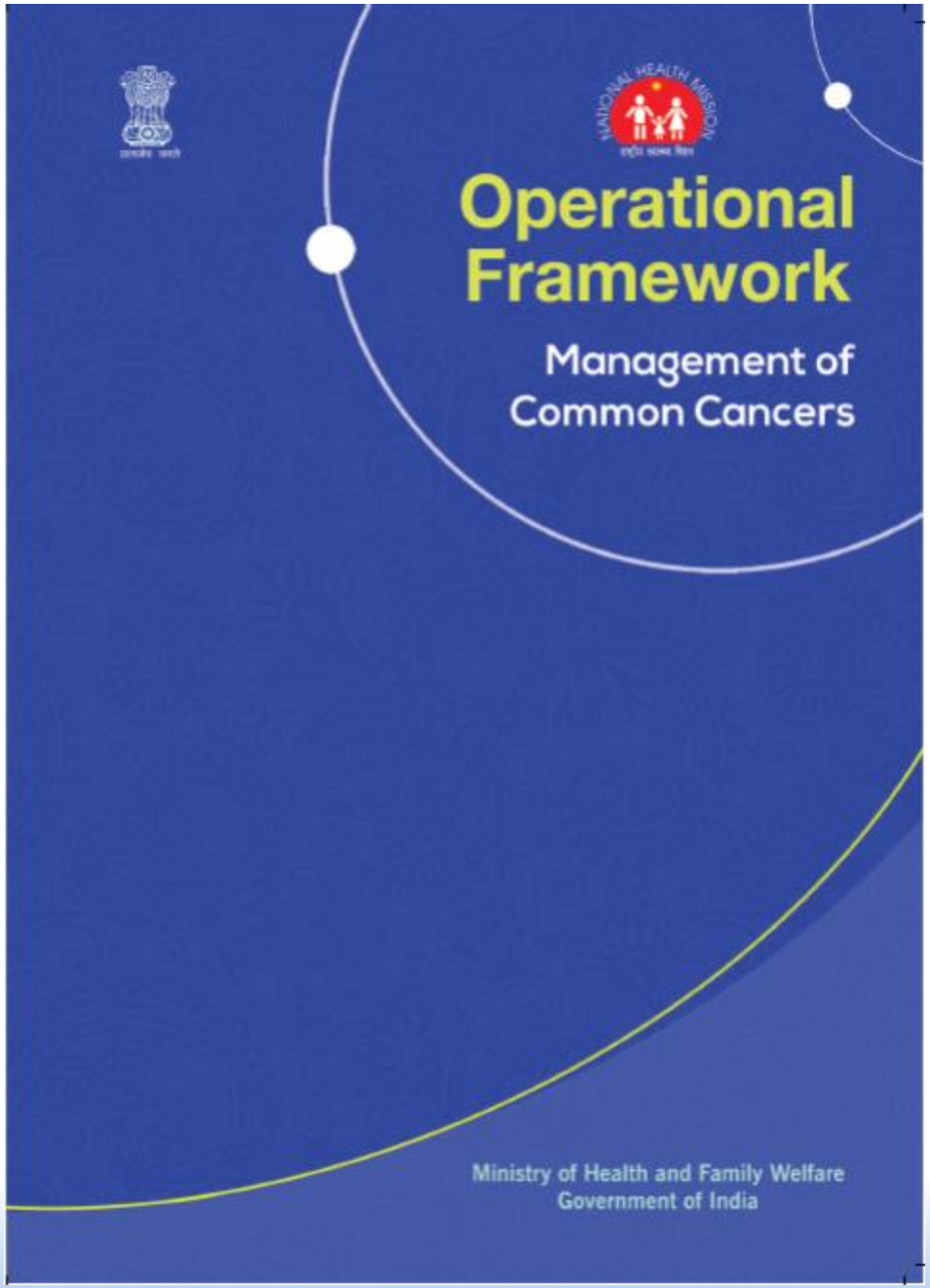
U - Unusual bleeding or discharge

T - Thickening or lump in the breast or elsewhere

I - Indigestion or difficulty in swallowing

O - Obvious change in a wart or mole

N - Nagging cough or hoarseness of voice


NATIONAL HEALTH MISSION
Operational Framework
Management of Common Cancers
Ministry of Health and Family Welfare
Government of India

'Operational Framework for Screening and Management of Common Cancers' has been developed after series of meeting with experts and lays out broad programmatic guidelines for screening and management algorithms for three most common cancers i.e. breast, cervix and oral, which constitute a public health priority in our country.

Objective:

- To provide guidance to the states on screening at the level of sub-centre / PHC and management of the three common cancers in rural and urban areas.

- The states may adapt this guidance to their contexts.

Key components of Operational Framework

I. Service organization for screening, referral and treatment

Main motto of the operational framework is to bring screening programmes as close to the community as possible; hence the **paradigm shift from opportunistic screening** (currently being undertaken in the ongoing NPCDCS) **to population based screening**.

Requisites:

- Organize weekly screening days at village/Sub Centre(SC) or Primary Health Centre (PHC) level by trained and skilled providers
- Ensure timely referral and follow-up of those with positive results
- Support treatment of confirmed cases at cancer treatment services

Preparedness: before the roll out

- ✓ Developing IEC strategy
- ✓ Working out details of HR recruitment
- ✓ Procuring equipments and consumables
- ✓ Planning implementation details specific to the state, including phasing and coverage
- ✓ Establish linkages to the referral sites for further evaluation and treatment of screen detected cases.

Step by step systematic approach

Population enumeration and identification of eligible age categories

At the level of the Sub Centre

- Every family is to be registered using a Family Health Folder

- Listing will be expanded to include all those over 30 years

Comprehensive assessment form to be administered by Mitanin

Annexure 1: History Taking/Risk Assessment Form for Non- Communicable Diseases

General Information	
Name of ASHA	Village
Name of ANM	Sub Centre
PHC	Date
Personal Details	
Name	Any Identifier (Aadhar Card, UID, Voter ID)
Age	RSBY beneficiary: (Y/ N) _____
Sex	Telephone No.
Address	

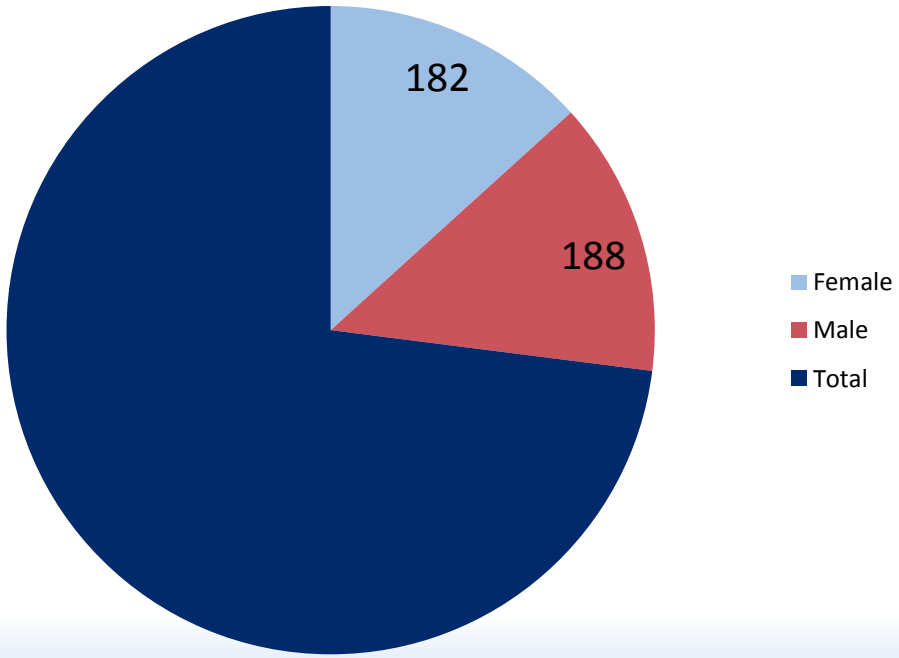
Part A: Risk Assessment

Question	Range		Circle any	Write score
1. What is your age? (in complete years)	30-39 years		0	
	40-49 years		1	
	≥ 50 years		2	
2. Do you smoke or consume smokeless products such as Gutka; or Khaini ?	Never		0	
	Used to consume in the past / Sometimes now		1	
	Daily		2	
3. Do you consume Alcohol daily?	No		0	
	Yes		1	
4.Measurement of waist (in cm)	Female	Male		
	<80 cm	<90 cm	0	
	80-90 cm	90-100 cm	1	
	>90 cm	>100 cm	2	

Eligible age group for screening in a 1000 population of village

Oral cancer: all men and women 30-65 years

Cervical and Breast Cancers: all women 30-65 years



Target population for screening year-wise, level-wise and type of cancer

Phasing Yearwise	Level	Oral cancer (men and women) 30-65 years	Cervical and breast cancer (all women) 30 -65 year
1st year 25% coverage	Village	93	46
	Sub Centre x 5	465	230
2nd year 25% coverage	Village	93	46
	Sub Centre	465	230
3rd year 30% coverage	Village	111	55
	Sub Centre	555	275
Total coverage (80%)	Village	**297**	**147**
	Sub Centre	**1485**	**735**

**A village with a normative population of1000 and a Sub Center with 5000 population*

Implementation

- Implementation of the program would be through regular health system, supported by the District NCD cell.

  The states can roll out the program in a phased manner depending upon their preparedness and available resources.

- The first level of screening is to be undertaken by ANMs/ Mid level provider at the subcentre/ health and wellness centre and by staff nurses at PHCs.

- The ANMs and Staff Nurses would be trained in OVE, CBE & VIA

- On a fixed day in a week Sub Centre or a PHC, the ANM, assisted by the ASHA, would screen for oral, breast and cervical cancers

Key tasks on the screening day

- Community awareness and active mobilization
- Organizing the venue
- Management of patient flow
- History taking
- Recording
- Feedback to patients
- Monitoring of already diagnosed cases
- Referral advice

Screening Strategy

Type of Cancer	Age of beneficiary	Method of Screening	Frequency of screening
Oral	30 -65 years	Oral Visual Examination **(OVE)**	Once in 5years
Cervical	30-65 years	Visual Inspection with Acetic acid **(VIA)**	Once in 5years
Breast	30-65 years	Clinical Breast Examination **(CBE)**	Once in 5years

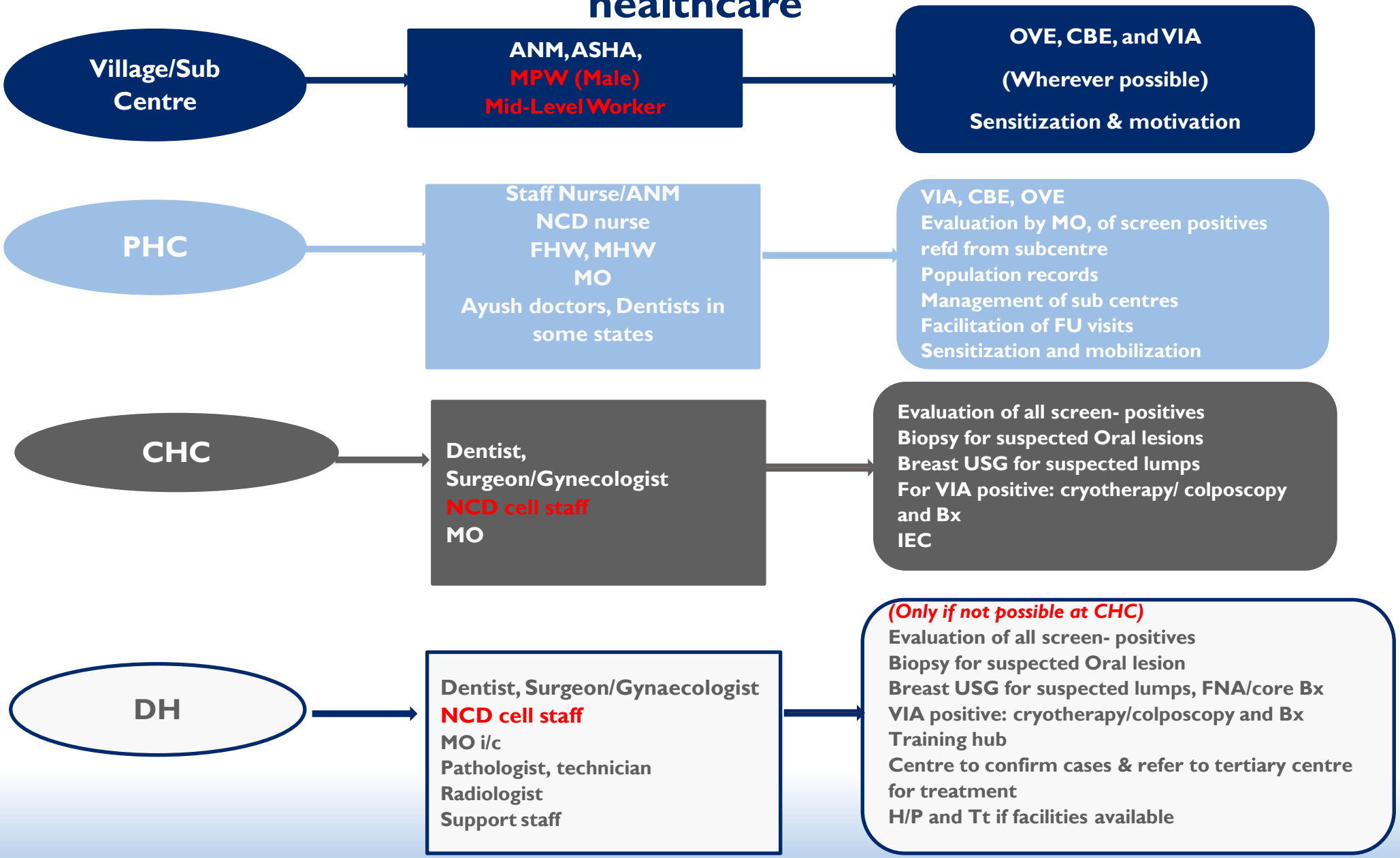
Referral/Management

- DH and CHC in the district would be equipped for confirmation and first line of management and follow up.
- DH would be strengthened as ‘First referral point’ form CHC/PHC/SC and would also serve as training hub for staff of SC and PHC.
- Every DH would be linked to nearest tertiary center/ medical college for referral and FU

Referral of screen positive cases

Type of Cancer	Method of Screening	If positive
Oral	Oral Visual Examination (OVE)	Referred to Surgeon/Dentist/ENT specialist/Medical officer at CHC/DH for confirmation and biopsy.
Cervical	Visual Inspection with Acetic acid (VIA)	Referred to the CHC/DH for further evaluation and management of pre-cancerous conditions where trained gynecologist is available.
Breast	Clinical Breast Examination (CBE)	Referred to Surgeon at CHC/DH for confirmation using a Breast ultra sound probe and biopsy.

Roles and Responsibilities for cancer screening at different levels of healthcare



II. Human resource requirement

Level	HR in place	Required
Village/Sub Centre	ANM and five ASHA; several states have two ANMs or one ANM and One MPW (Male)	One Mid level provider; (when Health and Wellness Centers are established
PHC	Medical Officer/Staff Nurse/ANM	One additional staff nurse to support the sub center teams until the mid level provider is in place
CHC	Surgeon/Gynecologist/ Dentist/Nurse	NCD cell staff could be redeployed within the facility to manage the increased workload.
DH	Surgeon/Gynecologist/ENT specialist/Pathologist/Dentist/Nurse	Nodal officer for NCD, NCD cell staff could be redeployed within the facility to manage the increased workload

Role of Medical officer in Cancer Prevention and Control

Prevention of cancers

- Create awareness about the ills of tobacco and advocate avoidance
- Encourage and assist habitual tobacco users to quit the habit
- Promote healthy dietary practices and physical activity

A. Early detection of cancers

- Create awareness about the early warning signs of cancer
- Encourage breast awareness
- Encourage oral self-examination
- Create awareness about symptoms of cervical cancer
- Examine, as a routine, the oral cavity of patients with history of tobacco use
- Offer clinical breast examination to any woman over 30 years presenting to the health centre
- Offer screening for cervical cancer to any women over 30 years presenting to the health facility
- Promptly refer any person with a suspicious lesion for accurate diagnosis and appropriate treatment

B. Treatment of cancers

- Ensure that every patient complies with therapy advised
- If follow up care is required, make sure that detailed instructions are provided by the treating institution.

C. Palliative care

- Ensure that the patient is free from pain as far as possible. Learn and practice the WHO step-ladder
- Approach of pain management; refer to appropriate centre for oral morphine.
- Achieve control of unwanted symptoms to the extent possible
- Provide psychological support to the patient to accept the diagnosis and treatment
- Involve the family in diagnosis, treatment and care as far as possible

III. Training Strategy

Cascade approach: 3 cadres of trainers

- **National trainers**: from Medical college/ Research Institutes – Gynecologists, surgeon, Dentists. Through a 2 day prog they would be oriented to the OGs and trained to standardize their skills and build capacity for their counterparts at state levels. *Nodal agencies: DGHS, NICPR, NIHFW & NHSRC*
- **State trainers**: Gynecologists,, surgeons, pathologists, dentists, staff nurses from tertiary centres/ state and district medical colleges. They would be required to undertake training of district and sub-district teams.
  - 4 trainers per 3 districts to be identified
  - 10 days training
  - For Lady Medical Officers, selected to undertake cryotherapy, a 6 day hands-on training under a Gynecologist in a TCC
- ***For State and district level officials and stakeholders*** :
  - One day orientation workshop on oral, breast and cervical cancer diagnostic and management modalities and linkages to screening programmes.
  - Participants: Health and Medical Education Directorate officials, State RCH/ RMNCH officials, civil surgeons, Dy civil surgeons, facility in-charges, District Prog Managers.

IV. Behavior change communication

- Communication strategy for those suspected of cancer would be included to make them aware of the treatment options, levels of care, social protection schemes, support networks and existing programmes to address habits such as tobacco and alcohol and likely complications of their conditions.

- Effective interpersonal communication would be part of training programme for all providers.

- IEC material at screening centres, person-person and group health education would be imparted for awareness and behavioral change

V. Programme monitoring

- Key indicators to measure progress of the programme would be adapted from monitoring framework for NPCDCS.

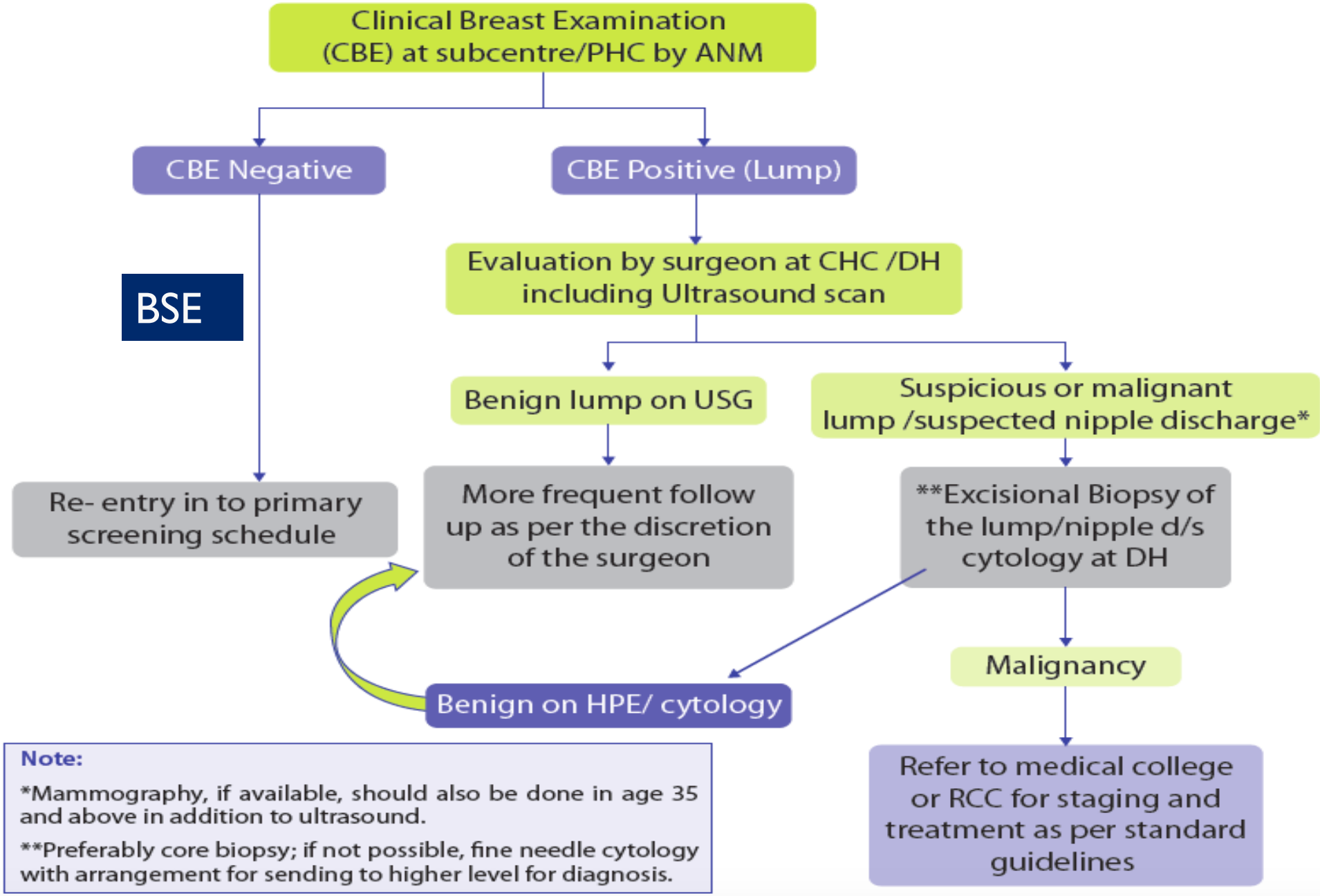
- Periodic surveys e.g. National Family Health Survey, National Sample Survey Organization etc would be used to assess the effectiveness of the programme through indicators such as cancer incidence, cancer mortality, access to screening, changes in tobacco and alcohol consumption practices etc.

VI. Financing

- Support from existing NPCDCS programme
- Additional funds to be provided to States to roll out this prog.
- States are being encouraged to leverage existing schemes under NHM and state level health protection schemes

Algorithms for screening of breast, cervical and oral cancers

Breast Cancer

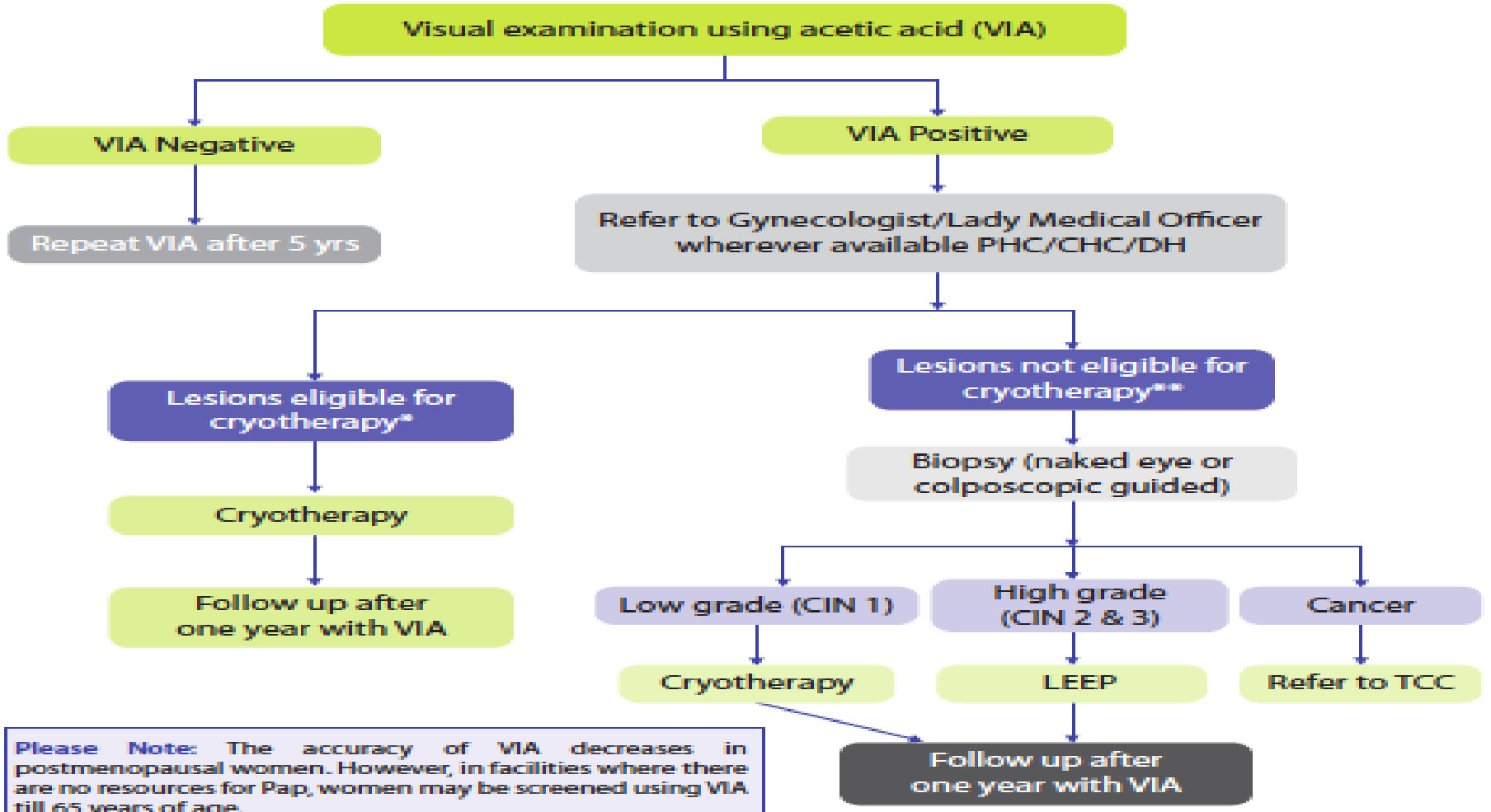


Note:

*Mammography, if available, should also be done in age 35 and above in addition to ultrasound.

**Preferably core biopsy; if not possible, fine needle cytology with arrangement for sending to higher level for diagnosis.

Cervical Cancer



Please Note: The accuracy of VIA decreases in postmenopausal women. However, in facilities where there are no resources for Pap, women may be screened using VIA till 65 years of age.

*Eligibility for cryotherapy:

- The lesion should not be spread over more than 2 quadrant of cervix
- The entire lesion is located in the ectocervix without extension to the vagina and/or endocervix
- The lesion is visible in its entire extent
- The lesion can be adequately covered by the largest available cryotherapy probe
- There is no suspicion of invasive cancer

**Cryotherapy not recommended If:

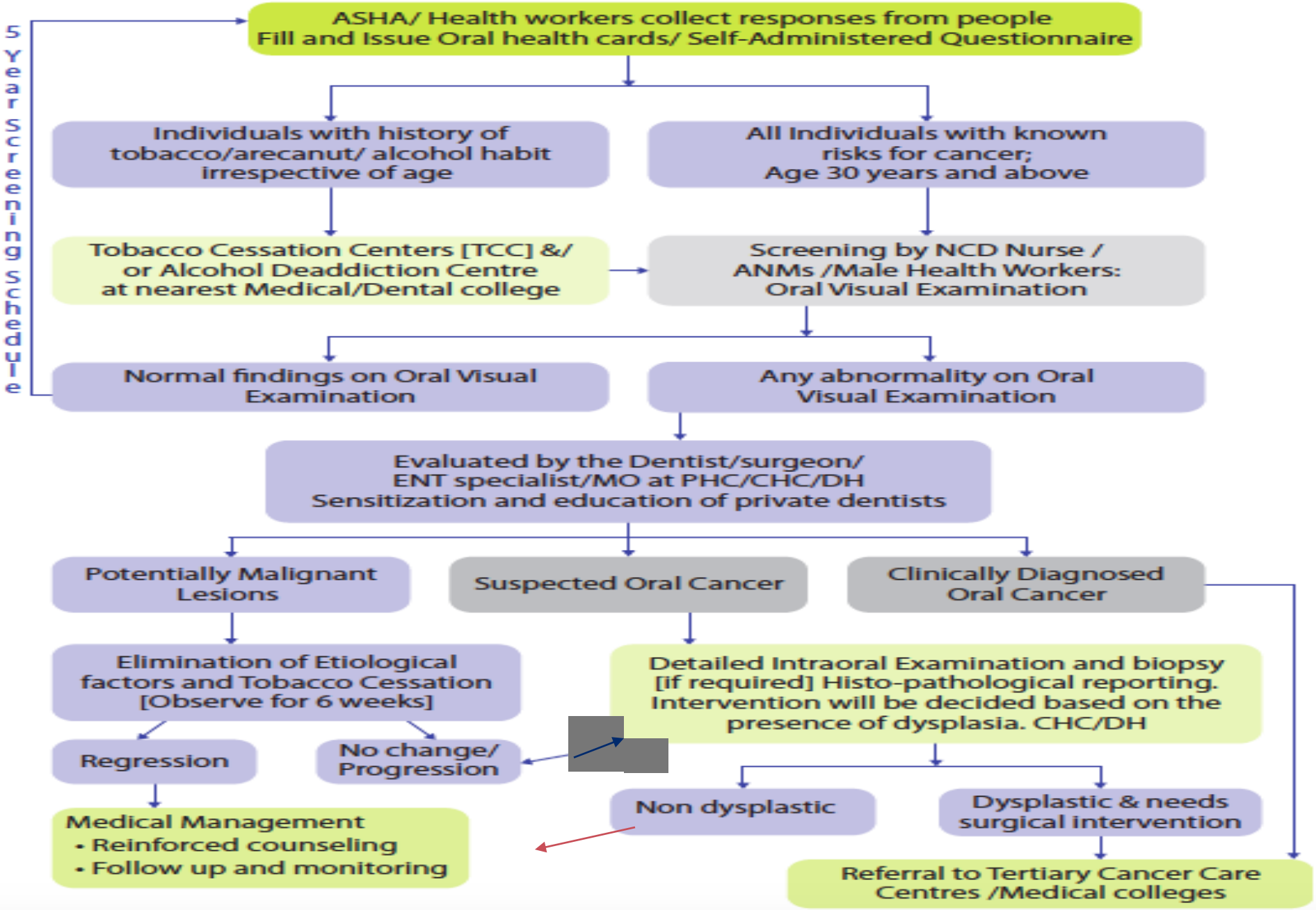
Symptoms:

1. Postcoital bleeding
2. Postmenopausal bleeding

Examination:

3. Overt cervical growth
4. Irregular surface
5. Bleeds on touch

Oral Cancer


5 Year Screening Schedule
ASHA/ Health workers collect responses from people
Fill and Issue Oral health cards/ Self-Administered Questionnaire
Individuals with history of tobacco/arecanut/ alcohol habit irrespective of age
All Individuals with known risks for cancer; Age 30 years and above
Tobacco Cessation Centers [TCC] &/ or Alcohol Deaddiction Centre at nearest Medical/Dental college
Screening by NCD Nurse / ANMs /Male Health Workers: Oral Visual Examination
Normal findings on Oral Visual Examination
Any abnormality on Oral Visual Examination
Evaluated by the Dentist/surgeon/ ENT specialist/MO at PHC/CHC/DH
Sensitization and education of private dentists
Potentially Malignant Lesions
Suspected Oral Cancer
Clinically Diagnosed Oral Cancer
Elimination of Etiological factors and Tobacco Cessation [Observe for 6 weeks]
Detailed Intraoral Examination and biopsy [if required] Histo-pathological reporting. Intervention will be decided based on the presence of dysplasia. CHC/DH
Regression
No change/ Progression
Non dysplastic
Dysplastic & needs surgical intervention
Medical Management
• Reinforced counseling
• Follow up and monitoring
Referral to Tertiary Cancer Care Centres /Medical colleges

- **The operational framework is just the beginning. Successful implementation of this framework rests with the state governments. The states can roll out the programme initially in selected districts (well performing NPCDCS districts) and then expand in a phased manner.**
- **States need to fill in the framework with local adaptions, create referral networks, and build partnerships with community and community based organizations for achieving optimal results.**

THANK YOU