Role in Prevention & Control of Non Communicable Diseases (NCDs)
Reading Material for ASHA

Role in Prevention and Control of Non Communicable Diseases (NCDs)

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Ministry of Health and Family Welfare
Government of India

NATIONAL RURAL HEALTH MISSION
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FOREWORD

Issues related to health of child and maternal health, HIV/AIDS and other communicable diseases, Non-communicable diseases are posing a serious public health threat today. An increasing burden of Cardiovascular diseases (CVDs), Diabetes Mellitus, Cancer, Stroke and Chronic Lung Diseases, Fluorosis etc. due to changing life styles calls for an urgent action and focus on developing health promotion and prevention strategies.

The National Rural Health Mission (NRHM) was launched on 12th April 2005 to provide effective, efficient and affordable health care to rural population. One of the key components of the Mission is the female health volunteer of the village ‘Accredited Social Health Activist’ (ASHA). The framework of NRHM has also identified some of the major constraints towards preventive and promotive health. ASHA is a catalyst in delivering the health care service to the rural population. Empowering ASHA with knowledge and skills in preventing Non-Communicable Diseases will be vital in promoting healthy life style to keep Non-communicable Diseases at bay.

The focus of this manual is to promote healthy life style such as increase intake of fresh fruits and vegetables, reduce salt consumption, increasing physical activity, avoidance of tobacco and alcohol use. To sustain the interest of ASHA in health promoting messages the manual is written in simple language so that it can be easily adapted and translated by respective States/UTs as per their needs. I am confident that this publication would serve as an important guide and tool towards health promotion and control of Non-Communicable Diseases.

Dr. R.K. Srivastava
Director General of Health Services
Government of India
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The primary responsibility of ASHA is to act as an interface between the community and the public health system. Their role is very important in initiating community based interventions for behaviour change through IEC for prevention and control of various non communicable diseases, e.g. diabetes, cardio-vascular diseases, stroke, cancers, mental health, deafness etc.

**Role of ASHA in prevention and control of NCDs**

1. Educate women, men and adolescents regarding the determinants of NCD's and various associated risk factors like unhealthy diet, physical inactivity, intake of Tobacco and Alcohol and Stress, essentiality of Iodine etc.

2. Promoting a healthy life style during her regular interactions with the community.

3. Assist ANM/LHV in:
   - Organizing camps/village health days on NCD themes
   - Screening of people at high risk
   - Advising patients to consult appropriate levels of health care system for diagnosis and treatment

4. Arrange follow up visits.

Promote Healthy Life Style
Healthy Diet

1. Wash vegetables & fruits properly before cooking.
2. Develop the habit of taking meals at regular intervals.
3. Avoid overeating.
4. Use boiling, steaming, grilling etc. as methods of cooking.
5. Increase of locally available seasonal fruits and green leafy vegetables in the diet.
6. Avoid fried foods, restrict intake of ghee, oils.
7. Reduce salt and sugar intake.
8. Avoid intake of aerated drinks (cola), fast/processed food (Chips, burger, samosa etc.).
9. Increase intake of milk, butter milk, Lassi, coconut water etc.
Regular Exercise

- Make daily exercise a routine.
- Exercise for a minimum period of 30 min. daily, which can be split into intervals.
- Form a habit of using stairs.
- Include exercise in your routine work, develop a habit of walking e.g. to school, market, friend's house, workplace etc.

Examples of simple and comfortable exercises

- Walking
- Cycling
- Jogging
- Swimming
- Dancing
- Playing games/Sports
- Yogasanas
- Gardening and household chores-washing, mopping etc.

Where should I find the time for exercise

- At home, at work or during leisure.
- Combine shopping, gardening etc. with exercise.
- Take stairs instead of elevator (upto 3 floors).
- Walk to nearby shop rather than drive.
1. Tobacco kills 8-9 lakh people every year in India.
2. It is used in various forms in India which include cigarette, bidi, hukka, gutka, khaini, gudakhu, pan masala with tobacco, Pan with tobacco, gul, mawa, chutta etc.
3. Tobacco smoke contains over 4000 harmful and poisonous chemicals.
4. Use of tobacco products leads to diseases of the heart, lungs, cancer, blindness, etc.
5. Use of gutka, khaini and other chewing forms of tobacco leads to cancer of mouth, food pipe and stomach.
6. Use of tobacco by pregnant women leads to low birth weight of babies and still birth.
7. Tobacco use leads to impotence and low fertility.
8. Persons exposed to Second Hand Smoke (SHS Smoke from other person’s cigarette/bidis) suffer from cancer and diseases of lungs. Young children in the family of smokers are prone to develop respiratory diseases and diseases of ear.
9. Bidis are equally harmful as cigarettes.
10. Quitting is possible. Consult the doctor or nearest Health facility.

**TIPS TO QUIT TOBACCO**

- Decide a DATE to QUIT
- Be confident and Strong
- REMOVE all Tobacco products around you (home, office etc.)
- Drink lot of water
- ALL TOBACCO PRODUCTS are equally HARMFUL!
- Take HELP from a doctor or a Tobacco Cessation Clinic

Stop Using Tobacco And Enjoy A Cancer Free Life
Under the law

1. Smoking is banned in all public places.

2. All public places should have signages in place saying “No Smoking Area-Smoking here is an offence”.

3. Sale of tobacco products to those less than 18 years is banned.

4. Sale of tobacco products within 100 yards of all schools/educational institutes is banned.

5. All kinds of direct and indirect advertisement and promotion of tobacco products is prohibited.

6. Mandatory pictorial warning on all forms of tobacco products.

Choose Life Not Tobacco
1. Alcohol use is associated with diseases of heart, liver, kidney, brain, cancers etc.

2. Alcohol has socio economic effects also, leading to problems in the family, compromising of essential goods/items.

3. Alcohol is not accepted in general by family members whose needs are compromised, e.g. children, wife, parents.

4. Predisposes to fights, accidents, depression.

**Excess alcohol consumption increases risk of:**

- Road accidents
- Depression
- Cancer
- Damage to the brain
- Birth defects
- Diabetes
- Cirrhosis of Liver
Prevention and Control of High Blood Pressure (B.P.)

1. Get B.P. checked at regular intervals
2. If suffering from high B.P. or any symptoms such as headache, chest discomfort or pain, take advise of doctors for regular treatment.
3. Don’t stop or change medicines on your own or advice of friends.
4. Avoid use of tobacco, alcohol, fried foods.
5. Reduce high intake of salt and oily food.
7. Increase intake of seasonal fruits and vegetables.
8. Avoid stress, practice meditation, yoga, spend quality time with children.
9. Control weight.

Ways to reduce stress
- Spend time with the person you like
- Think positive
- Sleep well
- Remember the things that are good in life

Tips for reducing salt
- Take the salt shaker off the table
- Avoid adding extra salt to food
- Avoid high salt content food e.g. Snacks, Pickles, etc.

How to reduce weight?
- Limit serving size
- Regularize eating habits
- Take food at regular intervals of time
- Eat only when you are feeling hungry
- Do not skip meals

Get Your Blood Pressure Checked Regularly
Prevention and control of Diabetes (sugar)

1. Exercise regularly and control weight.
2. Avoid excess sugar, sweets, ice cream, chocolate, candies, fried foods e.g. poori, paranthra, potatoes, sweet potatoes, fruits with high sugar e.g. grapes, mangoes, banana etc.
3. Avoid tobacco use, alcohol, junk food e.g. aerated drinks, pizzas, burgers, and other kinds of fast foods.
4. Cook food in minimum oil.
5. Increase intake of seasonal green leafy vegetables.
6. Get Blood Sugar checked regularly and if high consult doctor and follow advise.
7. Don’t stop or change medication on your own or advice of friends.
8. Take advice of doctor for regular tests e.g. kidney function, eye check up etc.

Foods you should eat more often
- Take a balanced diet
- All green and leafy vegetables like Bittergourd, Lettuce leaves, Brinjals, Ladies finger, Cabbage, Cauliflower, Carrot, Soya beans, Drumstick are good
- Cook the vegetables with minimum oil

Remember...
It is not only important what you eat, but also how much you eat

Healthy Habits, Healthy Life
Stroke (Lakwa)

- Stroke is a brain attack.
- It is an Emergency.
- It is due to disruption of blood supply to an area of brain.
- Blood supply may be stopped due to a blood clot/break in blood vessel.

**Risk factors for stroke are:**

Smoking, Alcohol, obesity, High blood pressure, Diabetes, Heart diseases, High cholesterol

**Life style changes may prevent stroke**

- STOP SMOKING
- HEALTHY DIET
- EXERCISE
- MONITOR BLOOD PRESSURE
- CONTROL DIABETES
- CHECK STRESS
Common Cancers

**Males:** Oral cavity, lungs, oesophagus and stomach cancers.

**Females:** Cervix, breast, oral cavity cancers.

Early Warning Signals of Cancer

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<td>C - change in bowel or bladder habits</td>
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<td>A - wound that does not heal</td>
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<tr>
<td>U - unusual bleeding or discharge</td>
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<tr>
<td>T - thickening or lump in the breast or elsewhere</td>
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<td>I - indigestion or difficulty in swallowing</td>
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<td>O - obvious change in a wart or mole</td>
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<td>N - nagging cough or hoarseness of voice</td>
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Cervix Cancer

**COMMON SYMPTOMS OF CERVIX CANCER**

- Post-menopausal bleeding
- Post-coital bleeding
- Intermenstural bleeding
- Blood stained discharge per vaginum
- Excessive seropurulent discharge
- Backache
- Lower abdominal pain

Breast Cancer

**COMMON SYMPTOMS OF BREAST CANCER**

- A change in size of the breasts
- A nipple that is pulled in or changed in position or shape
- A rash on or around the nipple
- Discharge from one or both nipples
- Puckering or dimpling of skin of the breasts
- Lump or thickening in the breast
- Constant pain in the breast or armpit
Breast Self-Exam (BSE)

Best time to do:
- Once a month.
- 10 days after your menstrual period.
- If not menstruating, pick a certain day—such as the first day of each month.
- If taking hormones then do it 1-2 days after withdrawal bleeding.

Five Steps of Breast Self-Exam (BSE):

Step 1:
- Stand in front of the mirror with your shoulders straight and your arms on your hips and look at your breasts (Breast awareness) and look:
  - at their usual size, shape, and colour
  - that they are evenly shaped without visible distortion or swelling
Consult doctor if there is:
- Dimpling, puckering, or bulging of the skin
- changed position or an inverted nipple (pushed inward instead of sticking out)
- redness, rash, or swelling of the breasts.

Step 2:
- Now, raise your arms and look for the same changes.
- Look for any dimpling of Skin or in-drawing nipple.

Step 3:
- While you’re at the mirror, gently squeeze each nipple between your finger and thumb
- Consult doctor if nipple discharge is milky or yellow fluid or blood.
Step 4:

- Lie down and use your right hand to feel your left breast and then your left hand to feel your right breast.
- Use a firm, smooth touch with the first few fingers of your hand, keeping the fingers flat and together.
- Cover the entire breast from top to bottom, side to side—from your collarbone to the top of your abdomen, and from your armpit to your cleavage.
- Be sure to feel all the breast tissue:
  - Follow a pattern to be sure that you cover the whole breast. Begin at the nipple, moving in larger and larger circles until you reach the outer edge of the breast. Also move your fingers up and down vertically, in rows.

Begin examining each area just beneath your skin with a very soft touch, and then increase pressure so that you can feel the deeper tissue, down to your ribcage using fingers only.

Step 5:

- Feel your breasts while you are standing or sitting.
- It is easier to feel the breasts when their skin is wet and slippery (like while taking bath).
- Cover your entire breast, using the same hand movements described in Step 4.

Do Monthly Breast Self Examination
Oral Cancer

**COMMON SYMPTOMS OF ORAL CANCER:**
- A white/red patch in the oral cavity
- Ulceration/roughened areas in the oral cavity, especially those that does not heal for more than a month
- Blanching of the oral mucosa
- Difficulty in tolerating spicy foods
- Difficulty in opening the mouth
- Difficulty in protruding the tongue
- Change in voice (nasal voice)
- Excessive salivation
- Difficulty in chewing/swallowing/speaking

- Self Examination of oral cavity can detect oral lesions at an early stage.

**When to do Oral Self-Eamination (OSE)**
- All habitual tobacco users should do it once a month.

**How to do it:**
- Rinse the mouth with water and stand before a mirror in adequate light.
- Look in the mirror for any abnormal white or red patch, ulcer or roughened area, granular area or swelling in the mouth.
- If any such area is seen, the suspicious area should be felt with the fingers.
- Normal oral mucosal is soft and pink.
- Consult a doctor if any abnormal area is found.
Mental Health

1. Depression, anxiety, etc. are common mental disorders and should not be neglected.

2. If someone is suffering from any mental illness, medical help should be sought rather than seeking help from ojhas/tantriks and non conventional healers.

3. The mental illnesses are treatable. Mentally ill and their families should not be discriminated.

4. Regular treatment under the supervision of doctor/health professional is essential.

5. If some wandering mentally ill person is located, inform local police to take the patient to a health facility.

6. Drugs are available at Primary Health Centres for treatment of mental illness. Contact doctor at PHC for help.

7. Parents of school children suffering from exam stress should seek help from a doctor and provide all possible support to the child.
Deafness

1. All new borns (within two months of birth) should be examined for congenital deafness, by simple tests e.g. making noise (with metallic spoon and bowl or shaking a matchbox/rattle) and watching for baby to turn head towards the source.

2. If the parents complaint of some difficulty in hearing in their child, advice to seek help from PHC doctor.

3. All cases of discharge from the ear should be referred to PHC doctor.

4. Avoid exposure to loud noises e.g. crackers, loud speakers etc.

5. Avoid playing loud music or un-necessary blowing of horn etc.

6. Don’t slap or hit children on ears.

7. Don’t put sharp objects into the ears to scratch or clean. Use soft cotton swabs gently for cleaning the ears.

8. Elderly persons with decreased hearing should consult doctor for advice regarding hearing aid. Wearing hearing aid should not amount to stigma, as wearing spectacles for low vision is not a stigma.

Avoid exposure to loud noises

Don’t put sharp objects into the ears

Ear Discharge

Use of Sharp Objects Into The Ears May Cause Deafness
Iodine Deficiency Disorders (IDD)

Iodine

- Is a natural element essential for normal growth, development and functioning of both the brain and body.

- Its deficiency can cause various disorders like:
  - Swelling of the neck (goiter) which is most common,
  - Mental retardation,
  - Poor school Performance,
  - Deaf-mute,
  - Squint,
  - Difficulties in standing or walking normally,
  - Stunting of limbs.
  - Pregnant women may suffer from abortions and still births.

- Regularly use of iodized salt can prevent above disorders.

Use only Iodized Salt

- Sale of non-iodized salt is banned throughout India.

- Use salt testing kits to test the salt at household level for presence of iodine in adequate amount.

Precautions while storing the salt

- The salt should be protected from direct sunlight, high temperature and moisture.

- Store the salt in an airtight container made of plastic, wood, glass or clay with a well-fitting lid.

- Don’t store the salt for more than 6 months as it reduces the quantity of iodine, so buy only that much salt which you can consume quickly.
Fluorosis

- Is caused due to the entry of fluoride into the body through drinking water and food, and to a certain extent through industrial emission, drugs and dental products.

- Consumption of water and food with high fluoride level by a pregnant woman can result in abortions, still births and deformed babies. Breast feeding by such mothers can also pass on fluoride to infants.

Symptoms of Fluorosis

- Nausea, loss of appetite, pain in stomach, bloated feeling, constipation with intermittent diarrhea. Eczema, dermatitis, muscle weakness, excessive thirst, frequent urination, fatigue, nervousness, depression, tingling sensation in fingers and toes,
- Dental and Skeletal changes are mostly irreversible.
- Yellowish brown discoloration of permanent of teeth usually after 8 year of age.
- Limitation of joint movements, crippling deformities and muscle wasting.

Do’s in Fluorosis

- Get the source of your drinking water tested for fluoride level. If the levels are high then look for alternative safe source.
- Rain water harvesting.
- Dilution of Fluoridated water with rain water.
- Iron rich foods: Banana, Guava, Spinach, Brinjal.
- Calcium: Milk, Yoghurt, Cheese, Jaggery, Green leafy vegetables, Cumin seeds, Arby, Drumsticks and Kamal Kakdi.
- Vitamin C: Amla, Guava, Lemon, Oranges, Tomato.
- Vitamin E: Vegetable oils, Nuts, Whole Gram Cereals, Green vegetables.
- Anti-oxidants: Garlic, Ginger, Onion, Carrot, Papaya, Sweet Potato.

Don’ts in Fluorosis

- Black Tea, Supari, Black Rock salt (Kala Namak) and Tobacco Chewing.
- Avoid use of Fluoride toothpastes, mouth rinses etc.

If you find anyone with symptoms of Fluorosis refer him/her to the hospital.
References

(i) Annual Report 2007-08.

(ii) National Cancer Control Programme, www.mohfw.nic.in

(iii) www.cancer.gov

(iv) National Programme on Prevention and Control of Diabetes, CVD & Stroke, www.mohfw.nic.in

(v) National Mental Health Programme, www.mohfw.nic.in

(vi) National Mental Health Programme, National Health Programme Series, NIHFW.

(vii) National Programme and Control of Deafness, www.mohfw.nic.in

(viii) National Iodine Deficiency Disorders Control Programme, www.mohfw.nic.in

(ix) National Programme for prevention & Control of Fluorosis, www.mohfw.nic.in

(x) National Tobacco Control Programme, www.mohfw.nic.in
