

Health Education for Community Mobilization and Inter-sectoral Convergence

Involvement of household, community for *Aedes* mosquito control is of paramount importance as the problem revolves mainly around man and his environment. There should be a continuous dialogue between health personnel and the community so that people may accept *Aedes* control programmes as their own programme. Community should be involved in the task of elimination of *Aedes* breeding in and around their houses for keeping houses free of larval breeding and reduction/elimination of adult mosquitoes.

Towards these objectives, massive, repetitive, intense and persistent Behavior Change Communication (BCC) campaign is crucial. The community must be assured that this is a preventable disease and empowered with the knowledge about mode of transmission, vector control options, availability of services in addition to correct treatment, so that timely and appropriate action is taken. Special campaigns may be carried out through mass media including local vernacular newspapers/magazines, radio and TV, especially using local cable networks as well as outdoor publicity like hoardings, miking, drum beating, rallies, etc. Health education materials should be developed and widely disseminated in the form of posters, pamphlets, handbills, hoardings. Inter-personal communication through group meetings, traditional / folk media particularly must be optimally utilized.

At different levels, following action may be taken:

(i) At Household Level:

- a) *Aedes aegypti* mosquito bites during daytime. Adult mosquitoes should be killed by using of commercially available safe aerosols (Pyrethroid-based). Rooms including closets, bathrooms and kitchens should be sprayed (by removing/covering all food items properly) for a few minutes and closing the room for 15-20 minutes. The timing of the spray should coincide with the peak biting time of the *Aedes aegypti* mosquito, e.g., early morning or late afternoon.
- b) Taking personal protection measures like wearing protective clothing (full sleeved shirts & full pants during day time) and using mosquito nets, preferably insecticide treated ones, while sleeping, even during day time. Using commercially available repellents during day time.
- c) Using mosquito repellents or burning neem leaves, coconut shells and husk to kill or repel the mosquitoes.
- d) Using tight-fitting screens/wire mesh on doors and windows.

- e) Intensifying efforts to reduce actual or potential larval habitats in and around houses by:
- Covering all water containers in the house to prevent fresh egg laying by the vector.
 - Emptying, drying water tanks, containers, coolers, bird baths, pets' water bowls, plant pots, drip trays at least once each week.
 - Regularly checking for clogged gutters and flat roofs that may have poor drainage.
 - Introducing larvivorous fishes (e.g., Gambusia / Guppy) in ornamental water tanks/garden. These small fishes eat mosquito larvae.

(ii) At Community Level:

- a) People should form groups to supplement and reinforce efforts at household level. Such groups can identify commercial activities such as traders dealing in used tyres or small construction projects, etc, which may be creating larval habitats for the vector.
- b) The Groups should launch awareness campaigns on Zika Virus Disease and seek cooperation for prevention of mosquito breeding and protection from mosquito bites. Community activities against larvae and adult mosquitoes can include:
- o Cleaning and covering water storage containers.
 - o Keeping the surroundings clean and improving basic sanitation measures.
 - o Burning mosquito coils to kill or repel the mosquitoes/burning neem leaves, coconut shells and husk to repel mosquitoes and eliminating outdoor breeding sites.
 - o Aiding in screening houses.
 - o Making available hand aerosols for killing mosquitoes.
 - o Cleaning weeds and tall grass to reduce available outdoor resting places for adult mosquitoes near houses.
 - o Promoting use of mosquito nets to protect infants and small children from mosquito bites during day time and also insecticide treated nets and curtains to kill mosquitoes attempting to bite through the nets or resting on nets and curtains. Organizing camps for insecticide treatment of community owned mosquito nets/curtains.
 - o In case water containers cannot be emptied, applying Temephos (1 ppm) on weekly basis in coordination with the Health authorities.
 - o Mobilizing households to cooperate during spraying / fogging.

(iii) At Institutional Level (Hospitals, Schools, Colleges, Other Institutions, Offices, etc):

- a) Weekly checking for *Aedes* larval habitats especially overhead tanks, ground water storage tanks, air coolers, planters, flower pots, etc
- b) Ensuring source elimination by:
 - Covering all water tanks with mosquito proof lids.
 - Emptying, drying water containers, coolers, plant pots at least once each week.
 - Checking for clogged gutters and flat roofs that may have poor drainage.
 - Introducing larvivorous fishes (e.g., Gambusia / Guppy) in ornamental water tanks/garden.
- c) Carrying out Indoor Space spraying with Pyrethrum 2%. The timing of the spray should coincide with the biting time of the *Aedes aegypti* mosquito, e.g., early morning or late afternoon.
- d) Carrying out fogging or Ultra Low Volume (ULV) spray by using 95% or pure technical malathion.
- e) Promoting personal protection measures like wearing protective clothing (full sleeved shirts & full pants during day time), using commercially available repellents during day time as well as mosquito nets, preferably insecticide treated ones, while sleeping, particularly during day time.
- f) Putting tight-fitting screens/wire mesh on doors / windows.
- g) In addition, notification of fever cases (suspected/confirmed) to concerned Health authorities and appropriate case management.

In order to achieve sustainability of successful *Aedes* vector control programme, it is essential to focus on involvement of hospitals, non-health sector departments including schools/colleges, civil society organizations (NGOs, Faith Based Organizations and Community Based Organizations like Residents' Welfare Organizations, Self-Help Groups), Panchayati Raj Institutions/Municipal Bodies or such like local self-governments, local Religious Bodies, Nehru Yuva Kendras, NSS/NCC units in schools and colleges as well as professional associations like Indian Medical Association and corporate sector. These groups should be provided information on all aspects of Zika virus disease: what it is, how it spreads and the role of mosquitoes, where & how they breed/rest, and how they can be controlled.