

Report on Integrated Mosquito and Vector Control Awareness Program at Rasulpur Village, Singur, Hooghly

Introduction

Vector-borne diseases remain a significant public health concern in India, particularly in rural areas where environmental conditions favour mosquito breeding. Community participation, environmental management and health education are key components of Integrated Vector Management (IVM) for sustainable prevention and control of vector-borne diseases. With this approach, the Department of Preventive & Social Medicine, Department of Health Promotion & Education, and Department of Epidemiology, All India Institute of Hygiene & Public Health (AIIPH&PH), Kolkata, in collaboration with the Rural Health Unit & Training Centre (RHU&TC), Singur, organized an Integrated Mosquito and Vector Control Awareness Program in Rosulpur village during June 2026.

Objectives

- To engage community stakeholders in planning and implementing vector control activities.
- To identify environmental factors favouring mosquito breeding.
- To understand community perceptions regarding vector-borne diseases and environmental sanitation.
- To promote community participation in source reduction activities.
- To improve awareness regarding the prevention of mosquito-borne diseases.

Program Area

The program was conducted in Rosulpur village under Singur Block, Hooghly district, West Bengal, the rural field practice area of the Rural Health Unit & Training Centre (RHU&TC), Singur. The program involved faculty members, postgraduate trainees, students of the Department of Health Promotion & Education, Panchayat representatives, ASHA workers, community volunteers and village residents.

Program Implementation

The Integrated Mosquito and Vector Control Awareness Program was conducted in Rosulpur village during June 2026 through a series of community-based activities focusing on stakeholder engagement, environmental assessment, community mobilization and awareness generation.

Week 1: Stakeholder Consultation and Community Engagement

The week focused on establishing coordination with local stakeholders and obtaining their support for implementation of the program.

Activities conducted:

- Meeting with the Gram Panchayat and other key stakeholders and introducing them to the program objectives and implementation plan.
- Discussion on local vector-related and environmental issues.
- Discussion on the role of stakeholders in supporting program activities.

Week 2: Transect Walk and Environmental Assessment

The week focused on assessing environmental conditions within the village and identifying areas requiring vector control interventions with the support of local community volunteers.

Activities conducted:

- Transect walk covering different parts of the village.
- Identification of potential mosquito breeding habitats, including open drains, stagnant water, uncovered water containers and discarded coconut shells.
- Identification of active mosquito breeding sites and elimination of breeding sources wherever feasible.
- Informal interaction with residents regarding mosquito-related problems and environmental sanitation.

Week 3: Community Mobilization and Partnership Building

The week focused on strengthening community participation and developing partnerships to support sustainable vector control and environmental sanitation activities.

Activities conducted:

- Source reduction activities and spraying of insecticides (Temephos) in identified areas.
- Focus Group Discussions (FGDs) with community members and local volunteers.

- Identification of major community concerns, including inadequate drainage, stagnant water, lack of community dustbins and overgrown bushes.
- Identification of suitable locations for community dustbins in consultation with community volunteers.
- Coordination with a local NGO to support regular cleanliness activities, including periodic cleanliness drives and maintenance of community dustbins.

Week 4: Community Awareness Program

The concluding awareness program was organized on 29th June, 2022 at Rosulpur Primary School with participation of villagers, Gram Panchayat representatives, ASHA workers, community volunteers, representatives of the collaborating NGO, faculty members, postgraduate trainees and students. The program focused on improving community awareness regarding vector-borne diseases and promoting sustainable vector control practices.

Activities conducted:

Health Education Session

. Junior residents conducted health education sessions covering the following topics:

- Malaria, dengue, symptoms, complications and their prevention.
- Source reduction, elimination of mosquito breeding sites and personal protective measures.
- Environmental sanitation and community participation for sustainable vector control.

Role Play

A role play on vector-borne diseases and their prevention was performed by students of the Department of Health Promotion & Education to promote community awareness through an interactive approach.

Interactive Discussion

An open discussion was held with villagers to understand their perceptions, concerns and challenges related to mosquito breeding and discuss practical measures for sustainable vector control.

Felicitation of Community Volunteers and Handover of Community Dustbins

Community volunteers were felicitated for their active contribution to the program. Community dustbins were handed over to encourage proper solid waste management and support sustainable vector control activities.

Facilitation of Stakeholder Coordination

Following the program, a meeting was facilitated between the representatives of the collaborating NGO and the Gram Panchayat Pradhan. It was agreed that a formal meeting would be held subsequently to discuss cleanliness activities, maintenance of community dustbins and other measures to improve environmental sanitation in the village.

Challenges Identified During Program Implementation

- Absence of a proper drainage system leading to water stagnation within household premises, creating favourable conditions for mosquito breeding.
- Community expectations regarding sanitation measures and distribution of community dustbins required careful communication and coordination.
- Limited community awareness regarding the importance of environmental sanitation as an essential component of vector control.
- Need for sustained community participation and intersectoral collaboration to ensure long-term environmental sanitation and vector control.

Conclusion

The Integrated Mosquito and Vector Control Awareness Program provided a platform for engaging the community, local stakeholders and partner organizations in activities promoting vector control and environmental sanitation. The program facilitated identification of local environmental challenges, encouraged community participation and strengthened collaboration among key stakeholders. Such community-based initiatives can support the principles of Integrated Vector Management and contribute to sustainable vector control in rural settings

SNAPSHOTS OF THE PROGRAM



Image 1: Meeting of the program co-ordinators with Gram Panchayat



Image 2: Team for Transect Walk for identifying mosquito breeding sites in the village



Image 3: Epicollect5 map showing geotagged potential mosquito breeding sites identified during the transect walk.



Image 4: Focus Group Discussion with community members on vector-borne



Image 5 & 6: Vector control measures undertaken



Image 7: Program inauguration by community members through ceremonial watering of a plant.



Image 8: Health education session conducted by junior residents



Image 9: Faculty member delivering a health talk while introducing the community dustbin as part of the awareness program



Image 10: Role play by students of Diploma in Health Promotion and Education



Image 11: Interactive session with the villagers



Image 12: Community volunteers encouraging community participation in vector control