

प्रयास



सक्षम

**WORKSHOPS ON VECTOR BORNE DISEASES
FOR FIELD WORKERS**

The WHO estimates that Vector Borne Diseases (VBD) account for 7,00,000 deaths (over 17%) annually, amongst infectious diseases all over the globe. VBD are caused by viruses and bacteria and are transmitted by vectors like mosquitoes, ticks and flies.

Since 2014, major outbreaks of dengue, malaria, chikungunya, yellow fever and Zika have afflicted populations, claimed lives, and overwhelmed health systems in many countries. Furthermore, Dengue alone leads to 96 million symptomatic cases and 40,000 deaths every year. However, WHO also advises that many of these Dengue cases and deaths are preventable, through protective measures and community mobilisation.

Multipurpose Health Workers - Their work and challenges

Multipurpose health workers (MPW) are the grass root health functionaries responsible for the control of communicable diseases, including Malaria, TB, Leprosy, Water-borne Diseases, as well as Environmental Sanitation, detection of disease outbreaks and their control, health education etc. They are an important link between the community and the health department, and are therefore key players in maintaining public health and controlling outbreaks.

Their day-to-day activities are an exhaustive list, including house visits, disease identification, blood smear collections, disbursing medicines, breeding site surveillance, supervising spraying operations, generating community awareness on hygiene practices, regular chlorination of drinking water sources and maintaining records. Needless to say, the general well-being of a community, particularly in the rural areas, rests on their shoulders.



However, the Ministry of Health and Family Welfare (MoHFW) in its annual report of 2010, has acknowledged a considerable shortage of manpower in the multipurpose health worker category. Of the recommended strength of 16,059 workers for Maharashtra state, only 9,956 (i.e., 62%) hold this position. This is a serious drawback as effective implementation of several national health programs at field level, depends on them. Furthermore, according to 'An Assessment of the Maharashtra State Health System' published by the Asian Development Bank in 2022, the field health workers are given only a one-time training upon induction and no refresher training in the following years.

As a result, they are over-burdened and ill-equipped to handle the growing burden of diseases.

The Story of SAKSHAM

Data from the District Malaria Officer, Pune, show that in the past 10 years, Dengue incidence has risen manifold in Pune District. The Maharashtra State government officials of the Health Department are very proactive about combating the disease.

One of the shortcomings identified by them is in the space of capacity building. They see a clear need for refresher training sessions for the ground-level health soldiers - the Multi-purpose Health Workers.

Capacity Building in Public Health is one of PKC's key focus areas. So, when Dr. Suryakant Deokar, Assistant Medical Officer (AMO) Health, Pune Municipal Corporation (PMC) hinted at the need for a refresher training module for the MPWs, PKC responded by designing and developing a one-day workshop in Marathi for them. The vision was to enable and train the MPWs to prevent and control the spread of Vector - Borne Diseases more effectively in Pune city.



A pilot workshop was organised by PKC on 4th August 2023 at IUCAA Pune, in collaboration with Pune Municipal Corporation (PMC) and ICMR-National Institute of Virology, Pune. It was attended by 77 PMC MPWs who carry out the breeding site surveillance and disease surveillance.

The workshop comprised of interactive refresher lectures from senior scientists of ICMR-NIV (National Institute of Virology), Pune and the sessions focused on educating field workers with essential information regarding the different serotypes of dengue, vector biology and the different methods of vector surveillance. Here, the MPWs also got an opportunity to observe live mosquitoes and larvae samples which improved their knowledge in identification of the vectors on the field.

"It is the first time, that such kind of a refresher workshop has been organized for the field workers. They were extremely happy and would love to attend more such workshops!" Dr. Suryakant Deokar, said, after the event.

The pilot workshop was successful and drew the attention of Dr. Mahendra Jagtap, State Entomologist of Maharashtra, NVBDCP, who along with Pune's District Malaria Officer, Dr. Suresh Dhekale, aspired to scale it up to the district-level. This led to the birth of SAKSHAM series which PKC organised in collaboration with District Malaria Office (DMO) and National Centre for Vector Borne Disease Control (NCVBDC), to empower about 400 field workers of all the 13 talukas in Pune.



Workshop Overview

The SAKSHAM workshops are designed to be an informative and enjoyable experience for the MPWs, keeping in mind the serious and important nature of their daily duties. They are compact half-day refresher trainings, conducted in Marathi, and held at a taluka Primary Health Centre or Panchayat Samiti, with the organisational support of the local Taluka Health Officer. Interactive lectures on topics relevant for the MPWs are conducted by field experts and academics from reputed organisations.

Speakers	Affiliation
Dr. Mangesh Gokhale	Scientist D (Rtd.), Medical Entomologist, ICMR-NIV, Pune
Dr. Harshal Pandve	Professor & Head, Department of Community Medicine, YCMH-PGI, Pimpri, Pune
Dr. Aarti Bandgar	Scientist C, India Meteorological Department, Pune
Dr. Ritu Parchure	Senior Researcher Fellow, Prayas Health Group, Pune

The topics hover on - disease background, its detection & surveillance; vector bionomics (lifecycle, feeding, biting behavior, egg laying); vector surveillance and breeding site surveillance; climate change induced challenges; importance of disease data for analysis and for understanding disease spread and prediction; overview of current surveillance activities and format of data reporting to the government authorities, to name a few.

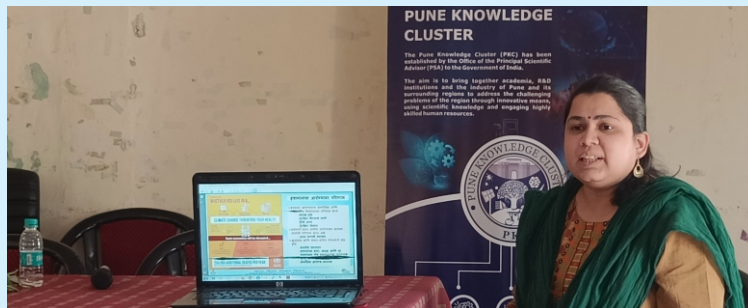
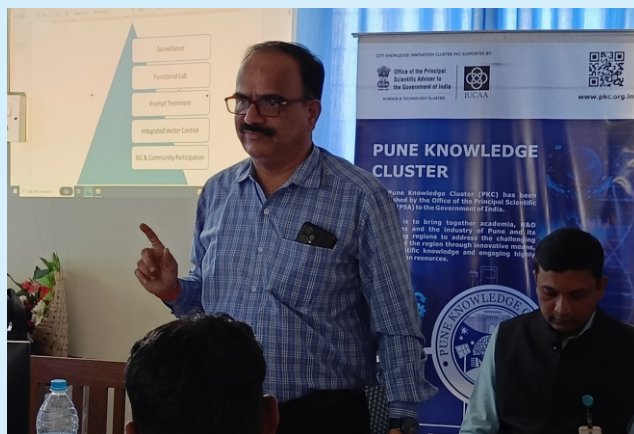
The workshop speakers ensure that the heavy nature of the content is enlivened, by peppering the lectures with tales of their interesting experiences. The theory sessions are interactive in nature, encouraging the participants to ask questions and share any on-field challenges that they might be facing. Theory sessions are followed by group activities where the participants get to test their knowledge via quizzes and other hands-on games. Winners are rewarded with small gifts as a token of appreciation. Following this, the DMO makes it a point to personally address the MPWs and informs them about the importance of their work and how it fits in into the larger picture of disease control in the district.

Talukas covered	MPWs trained
Haveli	33
Mawal & Mulshi	33
Bhor & Velhe	34
Baramati & Indapur	83
Ambegaon & Junnar	80
Khed	50
Purandar	33
Daund & Shirur	62



In order to help the workshop facilitators and organizing team assess the value of the imparted training, the participants are requested to fill in a feedback form, the results of which are used to fine tune content of future workshops which can align better with the needs and challenges of the MPWs.

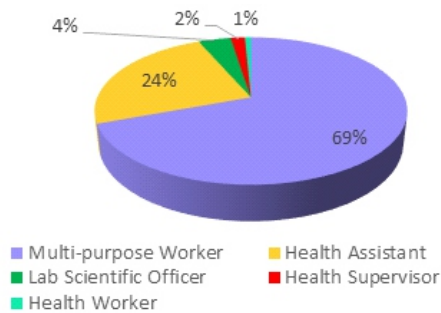
WORKSHOP SNIPPETS



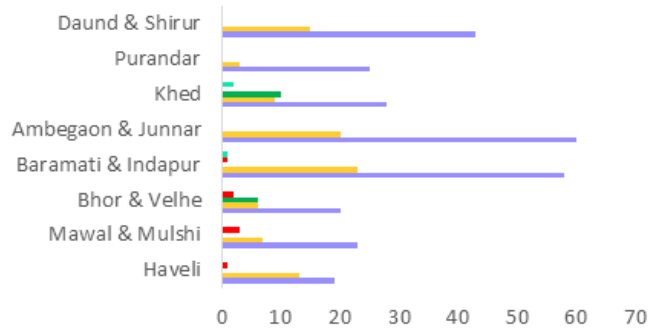
Impact

At every workshop, the participants have expressed deep gratitude and appreciation for bringing such an exciting learning experience to their door step. The following graphs give the reader, a peek into the numbers and distributions of the trained manpower as well as the feedback given by them.

Category of Health Workers

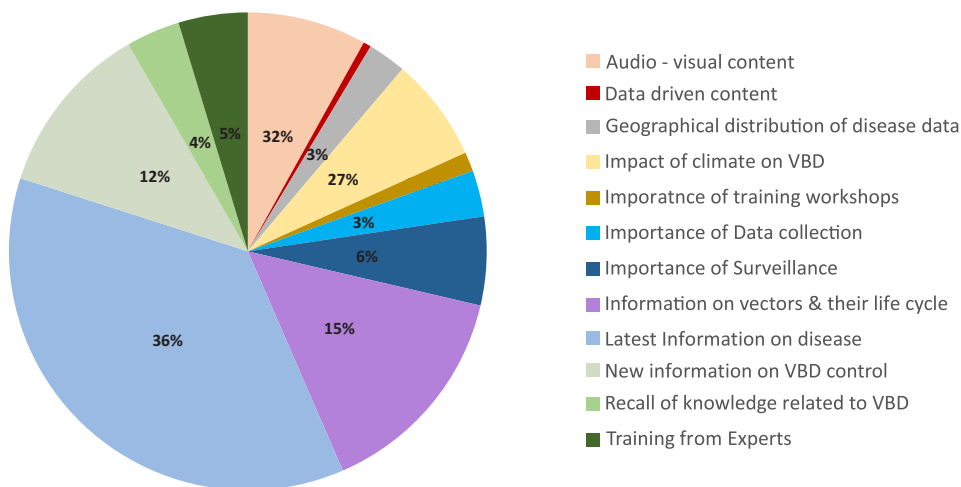


Taluka-wise breakdown



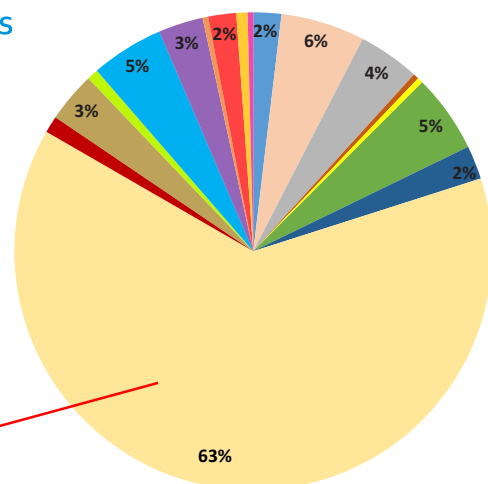
Feedback from workers

WHAT WAS THE MOST VALUABLE LESSON FROM THIS WORKSHOP?



SUGGESTIONS FOR FUTURE SAKSHAM WORKSHOPS

- 1-2 days workshop
- Increase audio visual content
- Conduct similar such workshops for Grampanchayat officials, medical workers & asha workers
- Expand the disease scope of the workshop
- Expand to all Maharashtra state
- More emphasis on vector control & collection
- Reduce complexity of content
- Session on solving field-level difficulties
- Share content over mobile
- Share latest research on VBD and other diseases
- Workshop on Data entry
- Plan workshop before onset of disease season
- Provide reading material and printouts of the study material
- Others
- Include more interactive content
- IDSP training
- Increase frequency of such workshops



The Pune Knowledge Cluster (PKC) is one of the seven Science and Technology Clusters established by the O/o PSA under The City Knowledge and Innovation Cluster Initiative (CKIC).

PKC aims to bring together Academic Institutions, R&D organizations, Industries, Industry Associations, NGOs, Civic Bodies, and Local and State governments to collectively work for the betterment of the region by leveraging its partner organisations' science and technology capabilities.

PKC has enabled a consortium of over 10 organizations to carry out clinical and environmental surveillance of infectious diseases like COVID-19 and vector borne diseases like Dengue over the past three years. This has resulted in gathering of several insights about how diseases are detected, tracked and managed at the city level.

Credits and Acknowledgments

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Key contributors to this work from PKC are Ms. Priyanki Shah, Ms. Poornima Sangewar and Dr. Chaitra Narayan.

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PUNE KNOWLEDGE CLUSTER

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