

Rapid Assessment of Effectiveness of Communication Efforts

for Prevention of Dengue

Study done by SHRC, Chhattisgarh - Report-1st September 2018

Introduction: A Rapid study was conducted by SHRC on instructions of MD, NHM Chhattisgarh. Health department and local urban authorities have tried a variety of communication activities to spread awareness and achieve behavioral change amongst communities. The study was aimed to assess the effectiveness of efforts made. The study was conducted from 30th August in urban slums of Bhilai and Charoda town.

Objectives of the Study:

- To what extent IEC were accessed by people and from which sources
- What was the level of their awareness on how dengue spreads, its symptoms and how to seek treatment
- What was the behavior change
- What was the effectiveness in terms of reducing mosquito

Methodology: 10 slum clusters were selected randomly out of the affected areas of Bhilai. A total of 100 sample households were selected, with around 10 households per selected slum. The mohallas surveyed were Dabra Para Milan Chowk, Minimata Nagar, Shanti Chowk Dabra Para Uttar, Sharma Ashram, Nutan Chowk Gatwapara, Kabir Mandir Para, Store Para.

A team of trained consultants from SHRC head-office interviewed the sample households on their knowledge regarding dengue, source of information and mosquito population. Part of the team had earlier got trained when they accompanied technical expert Dr Yogesh Jain of Jan Swasthya Sahayog for a field visit in Bhilai in mid August. The team had learnt how to identify stagnant water and larvae. The surveyors also inspected the sample households during their visit, to look for stagnant water and larvae in households.

Results:

Knowledge on how Dengue spreads:

92% of respondents knew that dengue spreads through mosquito bites. They also knew that stagnant water was the main source. There was however a general perception that dirt and grass were also helping mosquitoes to breed.

Most of families had removed their coolers and kept them empty inside. There was a feeling of fear amongst the families regarding dengue. Majority of the families were emptying most of their water-storage vessels daily and filling them again next day.

Knowledge on Symptoms of Dengue:

Symptom-wise, proportion of respondents giving the response is given below

Symptom	% of households naming it as a symptom
Fever	99%
Joint pains	84%
Nausea/vomiting	65%
Bleeding from nose/mouth	29%
Red spots on skin	26%
Pain behind eyes	21%

Thus, awareness on common symptoms was good. But symptoms of severe dengue were not recalled by three-fourth people.



Knowledge on seeking healthcare:

89% responded that if they have fever, they will go to a health facility for check-up. Another 9% said they will contact their mitanin.

97% said that if Dengue comes positive in test, they will go to hospital.

Sources of Information:

The following responses were given to the question on how they got information on Dengue:

Source of Information	% of households naming it as source
Mitanin and/or Mahila Arogaya Samiti	96%
Film shown by Mitanin	61%
Hospital staff/nurses/other teams	22%
Newspaper	18%
TV	47%
Vehicle with mike of Nagar Nigam	36%
Other	16%

While Mitanin was the main source of learning about dengue, TV was another important source of information.

Quality of visit by Mitanin:

Activity done by Mitanin	% of households responses
Mitanin checked entire house for stagnant water	93%
Households where Mitanin found stagnant water and got it emptied	89%

Most of the families reported that Mitanins not only told them about stagnant water being the site of mosquito-breeding but also checked their house for such sites. The responses were that among the various teams approaching them, Mitanin was the only one that entered their houses and looked for multiple spots of standing water.

Physical verification of stagnant water and larvae during study visit:

46% of houses surveyed were found to be having stagnant water on 30th August when consultants inspected the sample houses. 9% of houses surveyed had mosquito larvae.



Presence of Larvae: 3% of houses had larvae in their coolers. But the most persistent source of stagnant water and larvae still present in the houses (6%) was open water tank made of cement. Families store water in such tanks to use in toilets. They were not able to fully empty the cemented tank because of its weight and some water remained before they refilled daily.



Perception on households regarding mosquitoes being around currently:

86% of households responded that they still have mosquitoes around. Most of these houses did not have any larvae inside the house but still had mosquitoes coming from outside. The households replied that there were multiple and large sources of mosquito breeding in the area. The most common perception was that the septic tanks constructed under the sanitation programme in recent years have led to increase in mosquito breeding. They even suggested tying a piece of net on the mouth of the septic-tank gas pipe for stopping mosquitoes.

In one area Gatwapara, houses was near farms where water was stagnant. Drains (*naali*) were clean in some localities but some were found to be clogged. There was stagnant water around the houses due to new construction of houses blocking the flow. During the visit, the surveyors could also feel large number of mosquitoes around evening time.

Another finding was that people were also getting bitten by mosquitoes at places outside their houses, mainly in worksites and schools. Persons working in factories reported persistent mosquito problem.

Summary of Findings:

- Knowledge levels about dengue and how it spreads, were good in the households.
- Mitanins, TV and films shown by Mitanins were main sources of information covering a large proportion of households.
- Quality of Mitanins' visits was good and they were able to identify stagnant water during visits.
- Effectiveness of communication efforts in reducing stagnant water was moderate with 54% being found free from stagnant water. Cemented water-storage (for use in toilets) was difficult to be emptied fully for people.
- There was feeling of scare amongst the residents.
- Effectiveness in terms of larvae control was good as 91% houses were free from larvae.
- However, all of the above effort is not adequate to save people from mosquitoes. 86% of households said they still had mosquitoes around. It was beyond the scope of study to find out whether the mosquitoes found were dengue-carrying aedes. But it was found that mosquito control outside households were not easy. Septic tanks constructed under sanitation programme were perceived to be a major source along with construction sites, vacant plots, open drains, ditches etc.

Recommendations:

The current methods of communicating with communities through Community Health Workers and TV are effective in controlling larvae breeding inside houses.

But, Household level behavioral change, even when it happens, is not enough in prevention of dengue. Even though only 9% of households had larvae, 86% continued to face mosquito bites. Stagnant water sources outside houses are abundant in urban conditions of Chhattisgarh.

In order to control mosquito breeding outside the houses, wider integrated planning and inter-sector action is needed. Recommendations emerging are: a) sanitation programme must include planning to mitigate effect of stagnant water in septic tanks and storage of water in cemented tanks for use in toilets. b) construction and housing, building roads etc. need to provide for adequate drainage of rain and household water c) sewerage system should be underground as open drains are a big source of breeding, especially when they are clogged