Formation of Community Committees to Develop and Implement Dengue Fever Prevention and Control Activities in Vanuatu

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Abstract

Using experiences from an urban settlement near Port Vila, this paper illustrates how community mobilization to prevent and control dengue fever was achieved in Vanuatu and how unexpected innovations can occur when national programmes consult with community groups.

Keywords: Dengue prevention and control, community participation, social mobilization, Vanuatu.

Country setting and background

The Republic of Vanuatu comprises a chain of 83 Pacific islands with 68 of them being permanently inhabited. Vanuatu’s population is over 187,000 with a growth rate of approximately 2.4%. Dengue epidemics have been reported in Vanuatu since 1971. In 1984, the Health Department reported over 3,300 cases affecting 2% of the population. Dengue haemorrhagic fever (DHF) developed in 54 of these cases resulting in 12 deaths. This epidemic had a major impact on the economy of the country. Several work and school days were lost and the government had to redirect resources from other sectors to combat the epidemic.[1]

Until recently, the Department of Public Health ran a vertical programme largely funded by the World Health Organization (WHO) that responded to all vector borne disease outbreaks including dengue fever[2]. The programme was managed by a small team who concentrated their efforts on malaria control. Malaria control officers were responsible for applying temephos granules to all water containers in Port Vila during dengue epidemics. Often, the epidemic had already reached its peak and was in natural decline before this control measure was implemented. In the absence of a national dengue programme, there was

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no laboratory surveillance, minimal health education or community participation. Additionally, there was minimal partnership between the Public Health Department, the corporate sector, nongovernmental organizations and urban communities.

The majority of Vanuatu’s population (79%) still lives in rural areas, but there is a trend towards urbanization, leading to the growth of illegal urban settlements without piped water and electricity services. With a population of more than 1,500, Manples is one such settlement on the outskirts of Port Vila (the national capital). In the absence of piped water, people collect water in large containers varying from 44-gallon drums to open 10,000-gallon concrete tanks. These containers provide the perfect breeding habitat for Aedes mosquitoes.

This paper considers innovations in social mobilization and communication for dengue prevention and control in Vanuatu that took place during the Pacific Regional Vector Borne Diseases Project (1997-2001) funded by the Government of Australia’s Agency for International Development (AusAID). The experiences of community action in Manples are used to highlight key points.

Planning innovation for dengue prevention and control

The goal of the Pacific Regional Vector Borne Diseases Project was to strengthen the capacity in Vanuatu and several other Pacific nations to monitor and control mosquito-borne diseases such as malaria, dengue and filariasis. The five-year project was managed by the Secretariat of the Pacific Community. In Vanuatu the project worked with the National Malaria Control Programme to develop a national dengue surveillance and control programme as well as other activities related to malaria and filariasis. It was agreed early on that because potential Aedes breeding habitats are often in and around where people live and work, campaigning against the disease would only be effective through active community participation and partnerships with other agencies. A number of partners were identified to assist in advocacy and information dissemination while others assisted in mobilizing community groups. A well-known theatre company in the region, Wan Smol Bag, was involved in developing TV and radio spots for dengue fever. They also developed a dengue fever video, together with school handbooks on how dengue is spread and the control measures needed to interrupt transmission. All messages were based on initial community-based formative research and pre-tested with samples of intended audiences.

Implementing the new programme

A central part of the initiative in Manples was the formation of community committees. Each of the provincial and island groupings within the settlement had a chief representative who came together with youth and women’s representatives to form a joint committee known as the ‘Manples Community Project’. Assistance was sought from the National Malaria and Vector Borne Diseases Programme and the Pacific Regional Vector Borne Disease Project to provide direction on how the community could participate in the prevention and control of dengue fever.
At the start of the Manples Community Project in early 1998, a series of meetings and a workshop were organized for the community on dengue fever, its prevention and control. Vector Control staff facilitated the workshop while Wan Smol Bag performed plays during the workshop and in the evenings after many residents returned from work. The plays were also performed in local schools. The plays involved the audience walking around the village or school compound to identify and destroy breeding habitats, either by complete removal or by application of temephos. Information leaflets with key messages from the plays were supplied to schools, churches, provincial councils, health institutions and other NGOs to disseminate.

After the awareness in Manples was raised, the committee started to mobilize the whole community. Each house donated Vatu 100 (equivalent to 30 US cents in 2000) to the committee to purchase 25-litre plastic bags to collect small, discarded water containers that were potential breeding habitats for dengue vectors. Householders with old car tyres in their yards either placed them for disposal or were shown by volunteers to correctly fill them with soil so as not to retain water. National programme-community committee consultations also led to a team of young people being trained to use hand-held battery-operated drills to make water drainage holes in tyres that could not be removed. Community committees negotiated with business houses and municipalities in Port Vila and Luganville (Vanuatu’s two main towns) to loan their lorries for the collection of discarded containers and unwanted tyres for disposal at municipal dumps.

The National Vector Control Unit also worked with volunteers within the community to apply temephos to larger water storage containers to kill mosquito larvae. It was found that the community was not receptive to temephos being applied to very large concrete water storage tanks (approximately 5,000 gallons in volume). A local water container manufacturer cooperated and started to manufacture mosquito waterproof storage containers.

**Monitoring and evaluating the new approach**

Social mobilization in Vanuatu was aimed at involving wider community participation in the destruction of dengue mosquito breeding sites. Continual larval surveys measuring household and Breteau indices were conducted by the vector control team at selected sites to reinforce community mobilization. Due to time limitations, it was not possible to formally conduct an evaluation of behaviour change of the community.

A small outbreak of dengue was detected in Port Vila in 1998. This was the first test of the capacity of the new national surveillance and control programme. All sectors of the surveillance and the mobilization of the community were engaged to combat the outbreak, which subsided and disappeared. About 100 cases were recorded with no mortality. Continued surveillance occurred with ongoing control measures implemented. Many activities within Manples and other urban settlements were sustained by the national programme after the project ended in June 2001. A recent circulation of dengue in the Pacific did not emerge in Vanuatu.
Lessons learned

This paper shows that vertical programmes run by the health sector without community participation will struggle to be successful. Instead, programmes that develop horizontal partnerships, for example, with community committees, will encourage community action and lead to more successful and sustainable outcomes. Unexpected but valuable innovations such as equipping and training youth groups with hand-held drills to improve the management of non-disposable, used tyres can result when the community is consulted on how they believe local problems should be tackled. Developing partnerships with other agencies and NGOs will further improve results.

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References
