A large-scale behavior change intervention to prevent Nipah transmission in Bangladesh : components and costs

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Author(s) Nahar, Nazmun; Asaduzzaman, Mohammad; Sultana, Rebeca; Garcia, Fernando; Paul, Repon C.; Abedin, Jaynal; Sazzad, Hossain M. S.; Rahman, Mahmudur; Gurley, Emily S.; Luby, Stephen P.
Author(s) at UniBasel Nahar, Nazmun ;
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Nipah virus infection (NiV) is a bat-borne zoonosis transmitted to humans through consumption of NiV-contaminated raw date palm sap in Bangladesh. The objective of this analysis was to measure the cost of an NiV prevention intervention and estimate the cost of scaling it up to districts where spillover had been identified.; We implemented a behavior change communication intervention in two districts, testing different approaches to reduce the risk of NiV transmission using community mobilization, interpersonal communication, posters and TV public service announcements on local television during the 2012-2014 sap harvesting seasons. In one district, we implemented a ”no raw sap” approach recommending to stop drinking raw date palm sap. In another district, we implemented an ”only safe sap” approach, recommending to stop drinking raw date palm sap but offering the option of drinking safe sap. This is sap covered with a barrier, locally called bana, to interrupt bats' access during collection. We conducted surveys among randomly selected respondents two months after the intervention to measure the proportion of people reached. We used an activity-based costing method to calculate the cost of the intervention.; The implementation cost of the ”no raw sap” intervention was $30,000 and the ”only safe sap” intervention was $55,000. The highest cost was conducting meetings and interpersonal communication efforts. The lowest cost was broadcasting the public service announcements on local TV channels. To scale up a similar intervention in 30 districts where NiV spillover has occurred, would cost between $2.6 and $3.5 million for one season. Placing the posters would cost $96,000 and only broadcasting the public service announcement through local channels in 30 districts would cost $26,000.; Broadcasting a TV public service announcement is a potential low cost option to advance NiV prevention. It could be supplemented with posters and targeted interpersonal communication, in districts with a high risk of NiV spillover.
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