

PROJECT INFORMATION SHEET

Information for participants in MY SCHOOL project

Research Study Title: School and community-based student-driven dengue vector control and monitoring in Myanmar: A cluster randomized controlled trial – MY SCHOOL

Data collection period: June xxxx – May xxxx.

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Funding Organization: Research Council of Norway

Partners in Myanmar: Dengue Unit, Ministry of Health and Sports; School Health Unit, Ministry of Health and Sports, Malaria Consortium, University of Community Health, Magway, Myanmar

This document describes the MY SCHOOL research project that you have agreed to participate in, either as a student, parent, teacher, householder, or school principal. You may keep this information sheet for reference purposes.

Dengue

Dengue is a serious public health problem in Myanmar. There are more than 10,000 cases and around 60 deaths every year in the country. Dengue is caused by a virus transmitted by mosquitoes. There are no cures or effective vaccines against dengue. Disease prevention is done by mosquito control. School children are particularly at risk for dengue which can spread easily in schools. Schools play an important role in improving knowledge about dengue and mosquitoes and can trigger community action through knowledge transfer from students to communities.

MY SCHOOL project

This project will try to find better and more sustainable ways to control the mosquitoes that transmit dengue. We want to see if combining mosquito control and education can reduce dengue transmission in schools and communities. To control mosquitoes we will encourage schools and communities to use traps to catch adult mosquitoes, guppy fish that eat mosquito larvae, container covers that stop mosquitoes laying eggs, and cleaning up solid waste and garbage where mosquitoes lay eggs or hide away. We will strengthen school education about the disease, and mosquito biology, surveillance and control. We want to encourage students to bring the knowledge they learn in school back home to their parents and communities. We will also improve teaching methods and provide new tools for teachers. We believe students can become leaders in sustainable community dengue surveillance and control.

We will select 46 schools in Shwephyithar and South Dagon townships. We are inviting 6th grade students to participate in this research, because we think they have the perfect age to learn about dengue and mosquitoes, be active to control the disease, and transfer the knowledge to their parents and communities. Data collections for the project will start in June, when the school year starts, then continue until May the following year. Sixth grade students will be followed for one year. We will also follow these students' households.

The word “intervention” means all the things we do in this project to fight dengue. Only 20 of the 40 schools will get interventions and the other 20 schools will be control schools. Control schools will not receive any interventions by the project, but may receive governmental dengue control interventions from time to time. Belonging to a control school, you will continue with your normal activities and will not notice so much about the project. Having a control in a research project is very important, because it will tell us if the selected interventions were effective compared to the control. We will select intervention and control schools by a lottery, so that each school has an equal chance to be in either category. In the intervention schools, we will teach students to set up adult mosquito traps, rear and distribute guppy fish, cover water containers and organize solid waste collection to avoid mosquito breeding. We will help students distribute this knowledge

and control methods to their parent's homes and the communities. We will also develop training for teachers and help them strengthen the curriculum on dengue. If we find that these interventions are effective in controlling dengue, we will propose that also the control schools and other schools in Myanmar will use the same strategy. A household of a student belonging to an intervention school will be part of the intervention. The household of a student from a control school will be part of the control.

What does the study mean for you as a participant?

The participants in this project are students, parents, households, community members, school principals, school teachers and other school staff. As a participant you will be involved in the following activities:

1. **Daily fever surveillance in project schools.** Students, teachers, and school staff feeling unwell during school time will be asked to measure their axillary temperature (under the armpit) to confirm whether they have a fever or not ($>37.5^{\circ}\text{C}$ axillary temperature).
2. **Blood sample for seroprevalence in schools.** We will ask all selected students, teachers and staff in each of the selected schools to give a blood sample at the start of the project and 4 and 8 months thereafter. This requires a finger prick to draw a very small blood sample of 10 μL (less than one drop). A rapid diagnosis test (RDT) kit will be used to detect the presence of dengue antibodies (IgG and IgM). From each person who agrees to give this blood sample, we will also put two additional blood drops on a filter paper so that we can test whether this person has been bitten by *Aedes* mosquitoes.
3. **Blood sample for seroprevalence in households.** We will ask household members in 200 students' households to give a blood sample at the start of the project and 4 and 8 months thereafter. In each household, one randomly selected person (>1 years old) will be tested. The test procedure will be the same as described in point 2 above.
4. **Blood sample for dengue detection from fever cases in schools.** This is different from the two previous points. We will only ask for a blood sample from students, teachers, and staff who develop a fever during the project. This will only be done during school hours. Fever cases with dengue-like illness using clinical symptoms (fever, severe joint and muscle pain, intense headache, rash, etc.) will be referred to nearby hospital, clinics, or school health medical office and RDTs performed using an RDT test similar to the one mentioned in point 2 and 3. This test requires a finger prick to draw ca. 110 μL (ca. 3 drops) of whole blood. The test takes about 20 minutes and you will know whether you are infected with dengue virus or not. In addition, a few questions will be asked from each person with a fever, such as age, travel history; previous dengue infection history will be collected in addition.
5. **Blood sample for dengue detection in households.** We will request any household participant with a fever during the project period to go to the nearest health center or hospital and provide a blood sample to test if they have dengue or not. The test procedure is the same as described in point 4.
6. **Learning about dengue.** If you are in one of the intervention schools, you will learn a lot about dengue and mosquitoes. Together with your teachers and fellow students, you will use this knowledge to control mosquitoes in your schools and surroundings, at home, in your neighbors' houses and in your community.
7. **Mosquito collections in schools and households.** We will collect mosquitoes, both immatures and adults, in and around your school during the study period. We will also collect mosquitoes in a selection of households. If you are not home at the time of these collections, we will return at another time. In addition, students will help collect mosquitoes as well. We will teach students how to build their own mosquito traps.
8. **Household information.** We will collect some general information about you and your household. This will only be done one time during the project. We will record house type, construction material, number of household members, facilities, vector control tools, etc. This questionnaire will not take more than 1 hour of your time.
9. **Questionnaires on KAP for students, teachers and householders.** At least twice during the study period, we will ask you a set of questions about your knowledge, attitudes and practices relating to dengue. This questionnaire will not take more than 1 hour of your time.

Voluntary participation

Participation in this project is voluntary. It will not cost you anything and you will not receive any money for participating. You can withdraw from the project at any time. This will not have any consequences for you.

Advantages

One advantage of participating in this study is that if you have a fever you will receive a dengue RDT free of charge. This means you will know quickly whether you have dengue or not, and can seek medical advice quickly. In addition, you will contribute to a research project that attempts to find better ways to control mosquitoes and reduce dengue. This will be good for your community and for the country. It is expected that the combination of school and village activities will have a wider community impact in reducing mosquitoes and contributing to disease reduction.

Disadvantages - risks

There are no risks associated with participating in this project. If any project participant gets a fever during the study, blood will be taken by pricking the fingertip with a needle. This may hurt a little, but is otherwise not dangerous. Questionnaires, household observations and mosquito collections will take some of your time. The proposed interventions have been tested widely and no adverse consequences have been reported. Students will be engaged in collecting mosquito larvae and adults that do not represent any risk of dengue transmission. Handling mosquito-eating fish represents no risks.

Confidentiality and sharing of the results

The information that we collect this project will be kept confidential. Blood samples (RDT cassettes) will be stored in a freezer at the Vector Borne Disease Control Laboratory in Yangon. Personal information will be stored on a locked computer or on paper in a locked safe at Malaria Consortium Office, Yangon. All data and samples will be analyzed without name, ID card number or other directly recognizable type of information. A code number links you to your data and samples through a list of names. Only authorized project personnel will have access to the list of names and be able to identify you. This identifying information will be deleted seven years after data collections have ended. It will not be possible to identify you in the results of the study when these are published. The biological material can only be used by approval of the Institutional Review Board, University of Public Health, Yangon, Ministry of Health and Sports, Republic of the Union of Myanmar. Your blood samples will not be released to other parties. The responsible institution for processing these data is the Ministry of Health and Sports. Results from this study will be shared with you before it is made widely available to the public.

Who to contact. If you have any question you may ask them now or later, even after the study has started. If you wish to ask questions later, you may contact any of the following:

1. Dr. Myo Win Tin, Address: No. 531/B, Flora Malarmyaing Condominium Roon 3B, Marlarmyaing Avenue Street, Kamaryut Township, Yangon. Telephone number: 09250356522.
E-mail: m.wintin@malariaconsortium.org.
2. Dr Nay Yi Yi Linn, National Dengue Program Manager. Address: Disease Control Office, Ministry of Health and Sports, Nay Pyi Taw. telephone number: 0673-422565.
E-mail: nayyiyilinn@mohs.gov.mm.

This project has been reviewed and approved by the Institutional Review Board, University of Public Health, Yangon, Ministry of Health and Sports, Republic of the Union of Myanmar. This is a committee whose task is to make sure that research participants are protected from harm. *If you wish to find out more about the Committee, contact the secretary of the committee at University of Public Health, Yangon, No 246, MyomaKyaung Street, Latha Township, Yangon, 11131. Office Phone +95 1395213, +951395214 ext: 23/26.*