Key Messages and Actions for Zika Prevention and Control: Guide for Schools
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Preface

On 1 February 2016, the World Health Organization (WHO) determined that the clusters of microcephaly and other neurological disorders constitute a Public Health Emergency of International Concern (PHEIC). WHO has developed a Strategic Response Framework (SRF) and Joint Operations Plan in response to the Zika outbreak. This guide for schools, developed by UNICEF with the support of WHO and the Centers for Disease Control and Prevention (CDC), aims to provide guidance on Zika prevention and control in the school setting to complement the Strategic Response Framework.

The target audiences for this document includes Ministries of Education (national, provincial, and district level), school administrators, teachers and students, as well as program managers and policy makers from other organizations supporting education programs and systems. In addition, the guide contains information that can be adapted for students and their parents in the wider school community.

This document looks primarily at mobilizing school staff and students to control *Aedes aegypti* mosquito population in and around schools in an effort to prevent transmission of mosquito-borne viruses and outbreaks. Since the *Aedes aegypti* mosquito transmits multiple viruses, including Zika, dengue, chikungunya, and yellow fever, this document should, whenever possible, build on existing control programs and be used as a basis for control strategies and activities to support prevention of these diseases.

Since we are still learning about Zika virus, this document will be updated as the situation evolves and new information becomes available.
Introduction

As the Zika virus continues to spread, it is important that individuals and communities get involved with programmes and activities to control mosquito populations and protect themselves from bites. Schools can play an important role in the Zika response by getting staff and students involved in education and awareness campaigns and organising Zika awareness activities. This guide will provide background information on Zika and other mosquito borne diseases including signs, symptoms, and treatment. It will also outline key actions and messages for school staff, students, parents and their communities, as well as providing tools, resources and activity suggestions to be used to engage these groups and encourage them to take action. Please note that the initial sections of this guide are to be used by principals and teachers to educate themselves before they pass on any information to students, staff, parents, and the community. For programs and activities to be effective, principals and teachers must understand the background, issues and complications relating to the Zika virus. Some of the information provided is sensitive and is not intended to be disseminated directly to students, parents or the broader community.
1. ZIKA VIRUS

Although first discovered in 1947, only a handful of cases of Zika virus had ever been reported until 2007. Zika is a virus primarily spread through the bite of an infected Aedes mosquito. This variety of mosquito also carries dengue, yellow fever, and chikungunya viruses. It is important to learn about other mosquito borne diseases in the context of the Zika outbreak, and how vector control and personal protection can help to fight them all.

These viruses are not spread through daily person-to-person contact, although Zika can be sexually transmitted. If a mother is infected with Zika during pregnancy, the virus can affect the fetus. Zika virus infection may cause severe fetal brain defects, such as microcephaly – a birth defect with smaller than normal head size for age and sex. Zika virus infection has also been associated with Guillain-Barré Syndrome (GBS), an uncommon sickness of the nervous system in which a person’s own immune system damages the nerve cells, causing muscle weakness, and sometimes, paralysis. Symptoms of GBS can last a few weeks or several months. There is currently no vaccine or specific drug to prevent or treat Zika virus.

Zika, dengue, and chikungunya virus infections cause similar types of symptoms, beginning with fever, muscle or joint pain, and rash. Yellow fever symptoms include fever, muscle pain, backache, headache, loss of appetite and nausea or vomiting. If students in your school develop fever and other signs and symptoms of any of these viruses, notify local health officials and increase mosquito control activities. Laboratory testing may be required to determine which virus(es) is causing illness.

WHERE HAS ZIKA VIRUS BEEN FOUND?

In 2015-2016, Zika virus has spread to more than 66 countries in the Latin America, Asia, Africa, and Caribbean regions and globally (for the latest update on countries affected refer to the [WHO Zika website](http://www.who.int/mediacentre/news/stories/2016/zika-virus-factsheet/en/)).

ZIKA SIGNS AND SYMPTOMS

- Most people infected with Zika virus will not even know they have the disease because they may not have visible symptoms. Approximately only 1 in 4 people will develop visible symptoms.
- For those who get sick, illness is usually mild with symptoms lasting for several days to a week.
- The most common symptoms of Zika are fever, rash, joint pain, and conjunctivitis (red-eyes) lasting several days to a week.
- These symptoms are similar to other viruses spread through mosquito bites, like dengue and chikungunya.

TREATMENT: ZIKA

- There is no specific medicine or vaccine for Zika virus.
- Treat the symptoms. Persons sick with Zika should:
  - Get plenty of rest.
  - Drink fluids to prevent dehydration.
  - Take medicine such as acetaminophen (Tylenol®) to reduce fever and pain.
  - Do not take aspirin or other non-steroidal anti-inflammatory drugs (NSAIDS) until dengue can be ruled out to reduce the risk of bleeding.
  - If a person is taking medicine for another medical condition, she or he should talk to their healthcare provider before taking additional medication.
If women in the community are pregnant and living in an area with Zika:

- Strictly follow steps to prevent mosquito bites
- If they have a male partner who lives in or has traveled to an area where Zika is spreading, they should use a condom every time they have sex or do not have sex during the pregnancy. To be effective, condoms must be used correctly from start to finish, every time they have sex. This includes vaginal, anal, and oral (mouth-to-penis) sex.
- If they think their male partner may have or had Zika, they should tell their healthcare provider
- Zika can be spread from a male to his partner/s
- If a man lives in or has travelled to an area where Zika is spreading, he should use a condom correctly every time he has sex or not have sex if his partner is pregnant.
2. OTHER DISEASES TRANSMITTED BY THE Aedes Mosquito

CHIKUNGUNYA VIRUS
Outbreaks have occurred in countries in Africa, Asia, Europe, and the Indian and Pacific Oceans. In late 2013, chikungunya virus was found for the first time on islands in the Caribbean; since then, it has spread throughout most countries in the Americas. Chikungunya disease does not often result in death, but the symptoms can be severe and disabling. Most patients feel better within a week. In some people, the joint pain may persist for months.

YELLOW FEVER VIRUS
Yellow fever is an acute viral haemorrhagic disease transmitted by infected mosquitoes. The “yellow” in the name refers to the jaundice that affects some patients. The virus is endemic in tropical areas of Africa and Central and South America. Large epidemics of yellow fever occur when infected people introduce the virus into heavily populated areas with high mosquito density and where most people have little or no immunity, due to lack of vaccination. In these conditions, infected mosquitoes transmit the virus from person to person. Yellow fever is prevented by an extremely effective vaccine, which is safe and affordable. A single dose of yellow fever vaccine is sufficient to confer sustained immunity and life-long protection against yellow fever disease and a booster dose of the vaccine is not needed. The vaccine provides effective immunity within 30 days for 99% of persons vaccinated. Good supportive treatment in hospitals improves survival rates. There is currently no specific anti-viral drug for yellow fever.

DENGUE VIRUS
Dengue infection is caused by one of four viruses: dengue virus 1, 2, 3, and 4. Because there are four different
viruses, it is possible for someone to get dengue up to 4 times in his/her lifetime. Forty percent of the world’s population lives in tropical and sub-tropical areas at risk for dengue. An estimated 390 million people are infected each year. Dengue is a leading cause of illness in the tropics and subtropics. Anyone who has traveled to or lives in an area with dengue is at risk for infection. Most people will recover from dengue after about a week. However, up to 5% of people with dengue will not recover and will develop signs and symptoms of severe dengue.

**SEVERE DENGUE IS AN EMERGENCY: LEARN THE WARNING SIGNS**
Early recognition and medical treatment can help to prevent death.
Watch for signs and symptoms of severe dengue to develop when the initial fever is going away or in the 24–48 hours after the initial fever is gone.
If an infected person develops any of the following symptoms, she or he should immediately go to a local clinic or emergency room:

- Severe abdominal pain
- Persistent vomiting (at least 3 vomiting episodes within 24 hours)
- Bleeding from the nose or gums
- Vomiting blood, or blood in the stool
- Drowsiness or irritability
- Pale, cold, or clammy skin
- Difficulty breathing

**SYMPTOMS AND TREATMENT: CHIKUNGUNYA, YELLOW FEVER, DENGUE**
Many of the same symptoms and treatments for Zika virus also apply for chikungunya, yellow fever and dengue. For more information specific to each virus, please visit WHO’s website.
Protect yourself and school community members from mosquito bites at school and home

Cover up!

- Wear long-sleeved shirts and pants.
- Use insect repellent recommended by the Ministry of Health or local health authorities. Insect repellents may include those with one of the following active ingredients: DEET, Icaridin, or IR3535. Don’t forget to reapply. Always use the insect repellent as instructed.
- The Aedes mosquito bites mainly during the day, but it is important to protect yourself and your family from vector borne diseases both day and night.

Keep mosquitoes out

- Install window and door screens in your school and ensure they are well maintained. Mosquitoes can get through the tiniest tear in a screen or through a gap if screens are not well fitted.
- Stay inside air-conditioned rooms when possible.
- Napping children should sleep under a mosquito bed net if air conditioned or screened rooms are not available or if sleeping outdoors.

Keep mosquitoes out of the school yard and your garden

- Once a week, empty and scrub, turn over, cover, or throw out items that hold water, such as tires, buckets, planters, toys, pools, birdbaths, flowerpots, or trash containers.
- For standing water that cannot be covered or emptied, treat with a larvicide.

If you or a member of the school community are sick with Zika, dengue, yellow fever, or chikungunya

- During the first week of infection, these viruses can be found in a person’s blood. The virus can be passed from an infected person to a mosquito through mosquito bites. An infected mosquito can then spread the virus to other people.
Protect yourself and school community members from mosquito bites

Cover up!
Wear long-sleeved shirts and long pants.
Use insect repellent

Keep mosquitoes outside
Install window and door screens in your school.
Napping children should sleep under a mosquito bed net.

Keep mosquitoes out of the school yard and your garden
Empty and scrub, turn over, cover, or throw out items that hold water.
Treat with a larvicides standing water that cannot be covered or emptied.
The following basic principles can help keep students, teachers, and staff safe at school, help stop the spread of mosquito-borne virus cases or outbreaks and support the response in affected areas. Recommendations for healthy school environments are based on a few main principles:

1. All students and staff in the school environment should know how mosquitoes transmit viruses. Knowledge is key!

2. The best way to protect yourself is to prevent mosquito bites.

3. The mosquitoes that spread Zika, dengue, chikungunya, and yellow fever viruses primarily bite during the day, but they can also bite at night.

4. Removing areas where mosquitoes can lay eggs reduces the number of mosquitoes that can transmit Zika, dengue, chikungunya, or yellow fever virus. Encourage environmental clean-up in schools and surrounding areas, including playgrounds and sports fields by removing containers that hold water where mosquitoes lay eggs.
   - **Once a week**, empty and scrub, turn over, cover, or throw out items that hold water, such as buckets, planters, toys, flowerpots, or trash containers. Scrubbing inner container surfaces is critical, as eggs are sticky and glue themselves to the inside of containers. They can even survive in dry conditions.
   - Protecting children and staff from mosquito bites will prevent the spread of the disease and protect people from getting sick: schools should encourage methods to protect against mosquito bites, for example wearing long sleeved shirts and long pants to cover exposed skin, light-coloured clothing, using insect repellents recommended by health authorities (to be applied at home, or in consultation with caretakers), and covering windows and doors with screens.

5. During the first week of infection, dengue, chikungunya, Zika and yellow fever viruses can be found in the blood and passed from an infected person to another mosquito through mosquito bites. An infected mosquito can then spread the virus to other people through bites. Sick students, teachers and staff need time to rest and recover and therefore should not come to school. If a child or school staff becomes sick at school, he or she should be evaluated by the school nurse (if available) in accordance with existing school protocols and guidelines.
   - People sick with these viruses should get plenty of rest, drink enough fluids, and treat pain and fever with common medicines (avoiding aspirin or non-steroidal anti-inflammatory medications).
   - If symptoms worsen, seek immediate medical care and advice should be sought.

6. Engage children through training, communication activities and messaging in schools as well as designing and conducting school environmental control programs.

7. School administrators should follow national and local safe school environmental guidance issued by the Ministry of Health and Ministry of Education or by the relevant education authorities as in some countries with decentralized systems this decision may be made at local level.
3. KEY ACTIONS FOR SCHOOL ADMINISTRATORS, TEACHERS, AND STAFF

School principals/administrators and teachers can help keep schools safe for everybody.

Here are the key steps:

- All school staff, teachers and volunteers should be educated and sensitized on Zika and other vector borne diseases, as well as the complications involved, before taking part in educational activities or programs. Workshops, meetings and Q&A sessions are just some of the methods for educating helpers before starting any activities. Make sure that all people involved have access to the key information and messages in this document, so that they can answer any questions which arise.
- Identify individuals who already have experience in preventing of vector borne diseases and use their expertise to further your activities and programs.
- Schools should appoint a mosquito-control lead and reinforce or establish vector control committees, engaging teachers, staff and students. The lead and/or committee will be responsible for:
  - developing a communication and education strategy;
  - implementing mosquito-borne disease education and mosquito control in and around schools activities (soccer fields, swimming pools, and other sports and recreational areas);
  - directing environmental clean-up actions on site (indoors and outdoors) and implementing minimum sanitary measures during the school year. This could include organizing surveillance teams to inspect facilities each week for sources of stagnant water; and
  - containers which can hold water should be properly disposed of or recycled, and plants which collect water should be removed. Gutters should also be cleaned regularly.
- Students and staff should follow national safety guidelines while conducting activities:
  - only adults should engage in treating water storage containers with larvicide (not children); and
  - children and school staff should always wear protective clothing and insect repellent when conducting environmental clean up to remove standing water where mosquitoes lay eggs.
- Schools should contact the Ministry of Education (MoE) for the latest guidelines and standards on mosquito control in the school setting. The Ministry of Health (MoH) works closely with the MoE to share technical standards and guidelines.
- Jointly with staff, principals and with student participation should develop a work plan to raise awareness of mosquito-borne diseases and how to prevent them, and to establish an ongoing control program and protocols with teachers, administrative personnel and students.
- If there are broken or leaky pipes at the school, or other possible sources of stagnant water, staff should report them immediately to authorities to arrange for repair or removal and prevent mosquitoes breeding.
- Schools should speak to and support local/public authorities to treat the indoors/outdoors and surrounding areas of your school with insecticide to kill adult mosquitoes. This should be done outside of school hours (e.g. early morning or late afternoon) to avoid children being exposed to aerosolized insecticides.
- Water in large storage containers should be treated with larvicides to kill larvae and eggs, in accordance with local guidance.
- Steps should be taken to reduce contact with mosquitoes, such as installing mosquito screening on windows and doors, and using mosquito nets while younger students are napping during the day.
- Discussions should be conducted with staff and school cleaning personnel to raise awareness about the importance of eliminating standing water where mosquitoes lay eggs. Principals or their designees should ensure that national protocols are being followed and adhered to and that they are providing a safe school environment as free of adult mosquitoes as possible.
- All educators in the country must regularly reinforce prevention messages with their students and encourage them to act as prevention champions in their homes and communities.
- Post key messages on school boards or in other relevant communication resources and materials (e.g. school newspaper; internal radio systems) using the messages and images provided by the MoH and MoE, or those provided in this document.
• Ensure students follow prevention measures to avoid mosquito bites using guidelines provided by the school administrators (these will be provided by the MoH and MoE). See below for a guide to engage students.

• Within the school curriculum, including where health information or environmental science and ecology is taught, ensure a focus on mosquito control and more specifically on Zika, dengue, chikungunya, and yellow fever virus education. Integrate child-friendly mosquito-borne disease specific and prevention activities into school subjects (e.g. science and math classes) or as class projects, including art and creative projects. See below for suggested activities.

• Follow the school protocols if you, a student, or fellow staff member feel sick.

• Contact the local health authorities to provide basic information for families. Key messages should include information on the following topics:
  - How viruses are spread by mosquitoes (Zika, dengue, chikungunya, yellow fever)
  - Recognition of signs and symptoms of disease, including severe disease
  - Treatment and when to seek medical care
  - Prevention (personal protection, environmental clean-up, community or government actions to control mosquito-borne outbreaks).

School principals should ensure children are not on school grounds while fogging or other activities are taking place. Chemical control (fogging or chemicals in the water), biological control (using fish or live organisms to eat eggs and larvae), and genetic control (sterile insect techniques and genetically modified mosquitoes) are activities which will be managed by the Ministry of Health if applied in the school setting.
Key actions for school administrators, teachers and staff

School principals/administrators and teachers can help keep schools safe for everybody. Here are the key steps:

Get the latest information, know the disease

All school staff, teachers and volunteers should be educated and sensitized on Zika and other mosquito-borne diseases.

Staff and principals should be able to recognize signs and symptoms of each disease, including severe disease.

Schools should contact the Ministry of Education (MoE) for the latest guidelines and standards on mosquito control in the school setting.

Get ready, start planning

Staff, principals and students should develop a work plan to raise awareness of mosquito-borne diseases and how to prevent them.

Get moving, take action

Discussions should be conducted with staff and school cleaning personnel to raise awareness about the importance of eliminating standing water where mosquitoes lay eggs.

Post key messages on school boards.

Steps should be taken to reduce contact with mosquitoes.

Follow the school protocols if a student or staff member feels sick.

Ensure students follow measures to prevent mosquito bites.
MOSQUITOES BREED!
Wherever Water Collects

LIFE CYCLE OF A MOSQUITO

1. EGGS
2. LARVAE
3. PUPAE
ADULTS

IT TAKE ABOUT ONE WEEK FOR A MOSQUITO TO GROW FROM EGG TO ADULT

DON’T GIVE MOSQUITOES A CHANCE!!

MOSQUITOES COULD BREED AND GROW

IN OLD BOTTLES AND CANS
IN FLOWER POT DISHES
IN RAIN BARRELS
IN USED TIRES

IN TREE HOLES
IN WATER FROM LEAKY FAUCETS
IN BIRD BATHS
IN OVERGROWN PONDS
IN LEAF-CLOGGED GUTTERS

MOSQUITOES NEED WATER TO BREED AND GROW. IT DOESN’T TAKE MUCH WATER AND IT DOESN’T TAKE MUCH TIME. SO, ALMOST ANYTHING THAT WILL HOLD WATER FOR ONE WEEK OR MORE CAN PRODUCE THESE PESTS. MANY PLACES AROUND YOUR HOME MAY BE CAUSING MOSQUITO PROBLEMS
4. KEY ACTIONS FOR PARENTS AND COMMUNITY MEMBERS

- Encourage your child to learn about mosquito-borne diseases and how to prevent and control them.
- According to national guidelines and advice from your local authorities, teach your child how to prevent mosquito bites so mosquito-borne diseases like Zika, dengue, chikungunya, and yellow fever will not spread.
- Encourage your child to become engaged in the school mosquito control program, and to talk about it with them at home.
- If your child is sick, keep him/her home for time to rest and get better. Follow recommendations from your health provider to care for your child.
- Tell your child to inform teachers if s/he feels sick.
- At home, follow recommendations from health authorities to protect children against mosquito bites and to clean up standing water and garbage or containers holding water in and around the home (see information in Key messages above).
- Ask local authorities and reach out to neighbors to engage community members in the vicinity of the school to participate in protecting the children in their community. Household vector control near schools is a key element in the control and the spread of mosquito-borne diseases like Zika, dengue, chikungunya, and yellow fever within the school vicinity.

ENGAGEMENT OF STAFF AND CHILDREN

- Effective reduction of mosquitoes, especially for Aedes, requires regular and repeated cleaning or treatment of containers for everyday use and thus relies extensively on school community collaboration. School education campaigns to help staff and students identify and eliminate small water containers from the school and surroundings are key mosquito control interventions in areas where Aedes are the main vector.
- Another approach is to support school-based programmes using paid specialists (technicians) who can be directly involved in surveillance, education and vector control strategy and who interact with and train the school staff and students. Such an approach would be at the discretion of the government.
- Invite families and community members to participate in the planned activities.
- Engage children to teach and influence their parents and families to identify and eliminate standing water in and around their homes and communities.
- Teach children how to identify the symptoms of Zika, dengue, chikungunya, and yellow fever and how to adopt healthy habits (including modeling of relevant behaviors such as applying insect repellent) according to MoH messages and protocols.
5. AGE SPECIFIC HEALTH EDUCATION – ZIKA

In emergency responses such as the current Zika virus response, children often play a key role in mobilising the community to take action. Children can become advocates for mosquito-borne disease prevention and control at home, in school, and in their community by talking to others about how to prevent the spread of viruses like Zika, dengue, chikungunya, and yellow fever. Below are some suggestions about how to engage children of different ages to discuss important topics related to the Zika response.

5–11 YEARS OF AGE

Examples of some activities for children include:

- Engaging children with child friendly and age appropriate materials (such as pictures, cartoons, etc.) about areas or containers where mosquitoes lay eggs in order to identify and eliminate, together with adults, standing water in and around their homes.
- Making plays, puppets, dance, contests to discuss facts about mosquito-borne diseases and the importance of prevention.
- Promoting competitions, games, and recreational activities to sensitize the school population about mosquito-borne viruses and disease prevention measures and directly link to clean up activities.
- Making mosquito maps to hang in the classroom outlining common breeding sites.
- Conducting a ‘mosquito hunt’ where potential breeding sites are set up around a particular area and children working individually or in teams find each site. This has been used in affected areas to motivate children to take action and educate their families. (Make sure all containers are emptied after the event).

Answer students’ questions about viruses spread by mosquitoes and mosquito bite prevention if you know the answers following national protocols. Ask health officials if you do not know the answers.
12–16 YEARS OF AGE

All of the activities and information in the previous section can be adapted to suit older groups of students. However, when it comes to older students, it is necessary to tailor the activities to ensure they remain engaged. Activities and programs for older students can be incorporated into classes to which Zika is relevant (e.g. science, health, biology). They can also discuss topics which are slightly more sensitive, such as health education and culturally appropriate sex education. Below are some ideas about activities and programs which could be used for older students:

- Sexual education classes could include lessons around sexual transmission of Zika and protective behaviours.
- Education should also be provided about Zika and babies with microcephaly.
- Question and answer sessions could be held to encourage students to engage with the topic of Zika and take action.
- Vector control champions (‘Junior Zika inspectors’) could be appointed to monitor class behaviours and inspect classrooms.
- Competitions could be held in other classes such as a poster competition in art/design class or creating Zika jingles in music class.
- Students could learn about the life cycle of the mosquitoes (using microscopes and samples if possible) to encourage interest in the topic of mosquito control.
- Students should participate in the elaboration of a raising awareness plan and education campaigns.
Recommendations for parents and community members

Encourage your child to learn about mosquito-borne diseases and how to prevent and control them.

Learn about and participate in the school mosquito control program.

Teach your child how to prevent mosquito bites to reduce or prevent the spread of mosquito-borne diseases.

If your child is sick, keep him/her home for time to rest and get better.

At home, follow recommendations from health authorities to protect children against mosquito bites and to clean up standing water and garbage or containers holding water.

Ask local authorities and reach out to neighbors to engage community members in the vicinity of the school to participate in protecting the children in their community.
Follow your teachers’ instructions on staying healthy for a safe and healthy school.

Become a mosquito detective – learn to identify possible mosquito breeding sites and with the help of teachers or family members, empty or cover them.

Participate in cleaning campaigns and invite your parents to take part.

Share what you learn about preventing Zika, dengue, chikungunya, and yellow fever with your family and friends, especially with younger children.

Tell your parents, family, or caregiver if you feel sick, and ask to stay home if you are sick.

Ask your teachers if you have questions.

Do not tease anyone about Zika, dengue, yellow fever or chikungunya.
6. ADDITIONAL RESOURCES/TOOLS

Zika virus

- Zika Comunication Network website
- World Health Organization (WHO) Zika website
- Pan American Health Organization (PAHO) Zika website
- Centers for Disease Control and Prevention (CDC) Zika website

Chikungunya virus

- World Health Organization (WHO) Chikungunya website
- Pan American Health Organization (PAHO) Chikungunya website
- Centers for Disease Control and Prevention (CDC) Chikungunya website
- Guidelines for Preparedness and Response for Chikungunya Virus Introduction in the Americas(from the Pan American Health Organization and CDC) English

Dengue virus

- World Health Organization (WHO) Dengue website
- Pan American Health Organization (PAHO) Dengue website
- Centers for Disease Control and Prevention (CDC) Dengue website

Yellow fever

- World Health Organization (WHO) Yellow Fever website
- Pan American Health Organization (PAHO) Yellow Fever website
- Centers for Disease Control and Prevention (CDC) Yellow Fever website

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ANNEX 1

Examples of activities for environmental management in schools to be carried out for each type of container (places where mosquitoes lay eggs may vary by country and school environment, this table should be reviewed and adapted accordingly).

<table>
<thead>
<tr>
<th>Larval habitat</th>
<th>Empty clean and scrub weekly</th>
<th>Mosquito-proof cover</th>
<th>Store under roof</th>
<th>Modify designs, and/or repair and clean</th>
<th>Use expanded polystyrene beads</th>
<th>Fill (with sand, soil or concrete)</th>
<th>Collect, recycle &amp; dispose of</th>
<th>Puncture or drain</th>
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</thead>
<tbody>
<tr>
<td>Water-storage tank or cistern</td>
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<td>Drums (150–200 litres)</td>
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<td>Potted plants with saucers</td>
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<td>Roof gutter</td>
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<td>Animal water container</td>
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<td>Discarded food and drink containers</td>
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<td>Hollow fence posts</td>
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<td>Used tyres</td>
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<td>Discarded buckets (&lt;20 litres)</td>
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<td>Tree holes</td>
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<td>Rock holes</td>
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CONTACTS

Ruth Custode
(rcustode@unicef.org)
Regional Education Specialist
UNICEF LACRO

Heather Papowitz
(hpapowitz@unicef.org)
Senior Advisor, Health-Emergencies
UNICEF New York