

## **COVID-19 Emergency Preparedness and Response WASH and Infection Prevention and Control Measures in Schools**

This guidance note is for UNICEF Regional and Country Office WASH staff to help them in their preparedness and response to the current COVID-19 global pandemic. It provides an overview of Infection Prevention and Control (IPC) and its intersection with water, sanitation and hygiene (WASH) and how UNICEF staff can help prevent infection and its spread in schools, through human to human and by touching surfaces contaminated with the virus. WASH services including waste management and environmental cleaning are all important for IPC.

The guidance note highlights key actions that UNICEF staff can undertake to prevent infection in schools where they are still open. It also applies to schools that have closed to teaching and learning activities but remain open to pupils/students to continue with their school feeding. While many countries around the world have closed schools, there are a few which have kept them open just to make sure that pupils and students can continue to access meals, where parents may not have planned or are unable to provide food at home during this time of the COVID-19 outbreak.

### **Understanding Infection Prevention and Control measures in Schools and learning settings:**

According to WHO, infection prevention and control (IPC) is a scientific approach and practical solution designed to prevent harm caused by infection to patients and health workers. It is grounded in infectious diseases, epidemiology, social science and health system strengthening. IPC occupies a unique position in the field of patient safety and quality universal health coverage since it is relevant to health workers and patients at every single health-care encounter.

In the context of schools and learning settings, we consider measures that can contribute to limit the exposure to the disease and reduce the probability of its transmission amongst pupils, students, teachers and non-teaching staff at school. We must bear in mind that prevention measures at school, alone, will not prevent the disease from setting into an area, but increased vigilance and hygiene can at least contribute to reduce its spread. It is also worth noting that during this COVID-19 outbreak, schools' lockdown will probably be the first measure taken by local authorities to protect students and their teachers. In such context, the measures described below apply to affected and non-affected areas where schools remain open and affected areas where schools are re-opening.

As a result of secondary effects of the COVID-19 response on WASH services in communities, schools can be affected if water and sanitation providers are stopped. This note also calls for measures that ensure service continuity, as long as schools are operating, to avoid pupil's and student's exposure to other infectious diseases and discomfort.

### Important resources to read:

- Joint UNICEF-WHO-IFRC Key messages and actions in Schools <https://www.unicef.org/reports/key-messages-actions-coronavirus-disease-prevention-control-schools>
- Joint WHO-UNICEF WASH technical brief: <https://www.who.int/publications-detail/water-sanitation-hygiene-and-waste-management-for-covid-19>
- WHO technical guidance pages on IPC <https://www.who.int/emergencies/diseases/novel-coronavirus-2019/technical-guidance/infection-prevention-and-control>  
<https://www.who.int/infection-prevention/publications/en/>
- UNICEF Lebanon, School cleaning and disinfection protocols: [HERE](#)

### What WASH can do to stop and reduce infections amongst children in schools

In all education settings, the COVID-19 emergency response requires a triangulated approach to inform (**WASH, C4D, HEALTH**), educate (**WASH, EDUCATION**), and provide the needed resources (**ALL**).

#### First steps include and key considerations:

- WASH and Education sections to participate in established coordination mechanisms for preparedness and response to COVID- 19; in coordination with education colleagues, the WASH sector can support both the Education and Water and Sanitation Ministries to prioritize schools with immediate needs.
- Identify existing WASH in School capacities and potential gaps, both at national and at subnational, regional and local level:
  - Who are the other actors on WASH in Schools in the country? What are their organization goals, what is their geographic area of operation and what are their strengths? in which areas can UNICEF partner with them?
  - Do government coordination mechanisms exist as regards to COVID-19 prevention in schools?
  - Do those mechanisms include the right WASH people/organizations at the right level?
- In affected areas where schools are still operating, review existing WHO/UNICEF JMP data, Education Management Information Systems (EMIS) and where needed and possible, undertake a quick assessment to determine schools without WASH services.

The WASH assessment will need to be done based on geographic priorities established by MoH (Education), as not all schools can be tackled at the same time.

- Prepare a plan for providing, improving or upgrading WASH services and supplies for IPC and O&M, in selected zones. Procure and distribute critical hygiene and prevention items like soap and handwashing stations or hand-sanitizer and commercial detergents, mop, buckets, basic personal protection equipment for use in schools by cleaning staff. In doing these, review current programming approaches such as the Three Star Approach for WASH in schools- especially Group Handwashing and adapt it to guidance on preventing transmission of COVID- 19 eg social distancing (meaning that pupils and students must maintain distance even during Group Handwashing). One of the recommendations according to CDC, and which would apply to Group Handwashing, is “maintaining distance of approximately 6 feet or 2 meters from others when possible.”.
- Develop a simple system to monitor and report functionality of WASH services in supported schools, for a simple checklist to use, refer to page 6 of the UNICEF-WHO-IFRC note on key messages and actions in schools.
- Inform and train pupils, students, teachers and non-teaching staff on simple IPC measures, in coordination with C4D and building on existing hygiene promotion programmes in schools, messages on adequate hygiene at school and at home must be communicated by developing, translating and disseminating simple and easily understood Information, Education and Communication (IEC) materials on COVID- 19, in local languages and for different age groups.

## Provision of WASH services in schools

There are two scenarios to be considered:

### 1. Activities while schools continue to operate during the outbreak

In affected areas, UNICEF Education section would advocate for schools' closure. However, while schools are still open in affected areas there is need to consider the points below:

## Water

Availability of water remains crucial to support personal hygiene including hand washing with water and soap as a key preventive measure. Water should also be available for regular cleaning and disinfection purposes, laundry (when applicable) and other activities.

### Key actions:

- Ensure that water is available in schools in **adequate quantity** (safe water ideally, but quantity is of utmost importance to allow hygiene practices first) for the purpose of environmental cleaning and personal hygiene (MHM, hand washing, etc); consider additional storage and transport of water where needed.
- Water is available through on-site taps, or reservoir at the schools and containers filled regularly. Students, teachers and non- teaching staff are advised to use reusable drinking water bottles and avoid sharing cups or glasses. These should be cleaned and disinfected at the end of each day at household level by parents or guardians.
- Whenever possible, provide drinking water stations with pedal-operated taps and devices or water dispensers with sensors to minimize hand contact and reduce the risk of infection; in most cases though, where standard taps are in use, ensure taps are regularly cleaned together with regular handwashing or provide paper towels to use when opening and closing taps and facilities for disposing of towels safely.
- Students, teachers and non- teaching staff should be trained on the safe management of drinking water points to avoid potential water contamination.
- All water made available should have a residual concentration of free chlorine of  $\geq 0.5$  mg/l after at least 30 min contact time.
- Improve water safety with safe storage of treated water in regularly cleaned and covered containers in schools.

### Technical Annexes:

WHO brief on how to check free residual chlorine:

[https://www.who.int/water\\_sanitation\\_health/hygiene/envsan/chlorineresid.pdf](https://www.who.int/water_sanitation_health/hygiene/envsan/chlorineresid.pdf)

## Personal hygiene

Hand hygiene and positive behavior change, or adaptation are key IPC measures for preventing the transmission of COVID-19 at school.

### Key actions:

- Remind, brief or train students, teachers and non- teaching staff on why, when and how to wash hands frequently; students and teachers should wash their hands frequently, after touching surfaces, coming out of public transportation or building, touching door handles, elevator doors and buttons, entering and coming out of toilets and bathrooms; before and after eating; hands must be washed systematically after blowing your nose, coughing (where possible, toilet tissue is recommended for blowing nose as it can be discarded immediately after use, instead of handkerchiefs), or sneezing; the appropriate technique and time taken to clean hands is also important (scrub your hands for at least 20 seconds)
- Ensure the availability of hand washing stations with soap and water or hand sanitizers dispensers or water with chlorine solution (0,05%) in schools ; the quantity of handwashing per students may vary, with the ideal being one handwashing station per classroom, near

every door of toilet-bathroom, in dormitories, cafeteria-dining entrance, main school entrance and halls.

- Deliver messages on how to limit the risk of transmission: avoid touching eyes, nose, and mouth without proper handwashing, cover your cough or sneeze with a tissue, then throw the tissue in the trash. Covering the mouth with bare hands while sneezing is to be avoided. Refer to the Hygiene Programming Guidance Note [HERE](#).

### **Additional behaviors on food hygiene for schools that remain open to provide food to pupils/students:**

- Cooks/Chefs must wash their hands thoroughly with clean water and soap before cooking and serving food. In addition, they must wear a mask while cooking and when helping pupils/students to serve food during mealtime. Where possible, cooks/chefs should also wear gloves to serve pupils/students meals. It is always good to avoid bare-hand contact with ready to eat food to reduce the chances of contaminating it.
- Where possible, children should only collect meals from school rather than stay at school to eat. It is recommended that meals be served in reusable boxes where possible.
- Schools should review their menu to ensure that they serve only hot meals. The survival of COVID-19 at different temperatures is not thoroughly researched. However, reheating food at a temperature of 149°F (65°C) for at least 3 minutes is recommended.
- Where pupils/students stay at schools to eat:
  - They must wash their hands thoroughly with clean water and soap before and after eating food and after visiting a toilet/ latrine. Handwashing facilities must be kept clean and sanitized to reduce the risk of infection.
  - Space out tables and chairs in dining areas, so they are 2 meters apart.
  - Limit the number of children who can come into the dining area at a single time.
  - Where possible, children should be supplied with a one-time hygiene kit to be used all the time for hand hygiene before and after meals.
  - Utensils and cutlery must be kept clean and sanitized before use by cooks/chefs and pupils/students.
  - Avail cloth, soap and water for cleaning/ disinfecting kitchen surfaces or at points of cooking and waste bins/ bags.
  - Food stores must be regularly kept clean by disinfecting surfaces twice a day. Keep windows open to allow air flow when possible.

### **Technical Annexes:**

CDC guidance of handwashing:

<https://www.cdc.gov/handwashing/when-how-handwashing.html>

CDC poster on how to make 0,05% chlorine solution for handwashing:

<https://www.cdc.gov/vhf/ebola/pdf/chlorine-solution-liquid-mild.pdf>

## Environmental cleaning

Environmental cleaning is a key IPC measure for preventing the transmission of COVID-19. Existing recommended cleaning and disinfection procedures in schools should be followed consistently and correctly. Surfaces and laundry (when applicable) in all environments where students, teachers and non-teaching staff spend time (classroom, dining, playrooms, staff rooms, dormitories, laboratories) should be disinfected. There are many disinfectants that are active against COVID-19. For schools, we recommend the use of commercial detergent with water, to remove dirt, followed by commercial chlorine-based disinfectants, ensuring a concentration equivalent to 0,5% of active chlorine for surfaces and 70% of ethyl alcohol for disinfection of objects.

### Key actions:

- Cleaning and disinfection schedule should be established for each school.
- Clean and disinfect frequently touched objects such as bells, playing materials, learning and teaching aids, using wet rag and a regular household cleaning spray with disinfectant.
- Wipe down often-touched surfaces such as door handles, window nobs, elevator buttons, lunch table, railings with wet rag or a household cleaning spray with disinfectant.
- Mop up classroom and bathroom-toilets with commercial detergent and disinfectant.
- Cleaning staff must be equipped with basic PPEs (boots, gloves, masks) and trained on safe toilets disinfection practices.

**Note:** commercial liquid disinfectant is preferred to HTH to avoid storage issue and exposure risk for children.

### Technical Annexes:

CDC Guidance for cleaning and disinfection in schools

<https://www.cdc.gov/coronavirus/2019-ncov/community/organizations/cleaning-disinfection.html>

UNICEF Annex on 0.5% chlorine solution preparation and soapy water to clean and disinfect surfaces: [HERE](#)

## Waste management

Proper collection, storage, transfer or elimination of waste in schools located in affected areas is important, particularly collecting and elimination tissues utilized for cough and sneezing, menstrual hygiene materials, used cleaning materials.

### Key actions:

- Whenever possible, pedal-operated waste collection bins with liners should be available at point of use in schools.

- In the absence of pedal-operated waste bins, otherwise, open waste containers are better than those which require physical opening/covering by hands as this will expose students, teachers and non-teaching staff to infection.
- MHM waste and tissue used for cough/sneeze should be properly disposed off in bins located in girls, boys and teachers' toilets, collected and eliminated safely on-site or transported in adequate landfill.
- In bigger schools, storage location to cater for large volumes can be arranged, together with transport mechanism in trucks and final disposal arrangements.
- Pit burning with the aid of fuel drops such as kerosene can be opted in the absence of incinerators, providing all safety measures for students are taken.

## Sanitation

Human faeces is the most common source of microbial pathogens (one gram of human faeces has over 1,000,000,000 pathogens). Sanitation systems help prevent the spread of many diseases, provide clean and healthier surroundings for students, teachers and non-teaching staff.

While COVID-19 is mostly transmitted through the respiratory route, ensuring the availability of safely managed sanitation systems such as improved latrines or toilets connected to a septic tank or sewer lines can contribute to further limit the risk of transmission by adequate contaminated body fluids elimination.

Indeed, Sanitation, in this context, in addition to safe excreta disposal, also refers to the collection and elimination of wastewater from washing hands, cleaning, laundry and bathing.

### Key actions:

- In targeted schools, students and teachers must have access to an adequate number of toilets (for girls and boys), maintained clean at all times, ensuring frequent, at least daily, disinfection of floors and door handles. Disabled students and school personal should have access to sanitation facilities equally.
- Sanitation staff must be equipped with basic PPEs (boots, gloves, masks) and trained on safe toilets disinfection practices.
- Ensure availability of cleaning and disinfection supplies (chlorine, detergents, mop, buckets).
- Ensure the safe on-site elimination of faecal materials and wastewater in schools or the adequate collection, transport, treatment and final disposal of faecal materials and wastewater in schools.
- School sanitation staff should be briefed on safety protocols for desludging toilets pits (where applicable): desludging services should be made available where septic tanks and pits must be emptied.

## 2. Activities when children return to school after closure due to COVID-19

### Key activities:

- Continue to observe IPC measures – environmental cleaning, disinfection and hand and personal hygiene.
- Practice respiratory hygiene by coughing or sneezing into a bent elbow or tissue and then immediately disposing of the tissue.
- Strengthen school committees and ensure continued availability, functionality and maintenance of WASH services.
- Together with Health, continue education and training of students and teachers integrating diseases prevention in lessons and activities.
- Prioritize WASH activities in School Improvement Plans