***South Sudan***

***Lakes States –Rumbek***

***Mott McDonald (Water for Lakes project)***

***Kuctiel Samuel Madok Dhorjang***

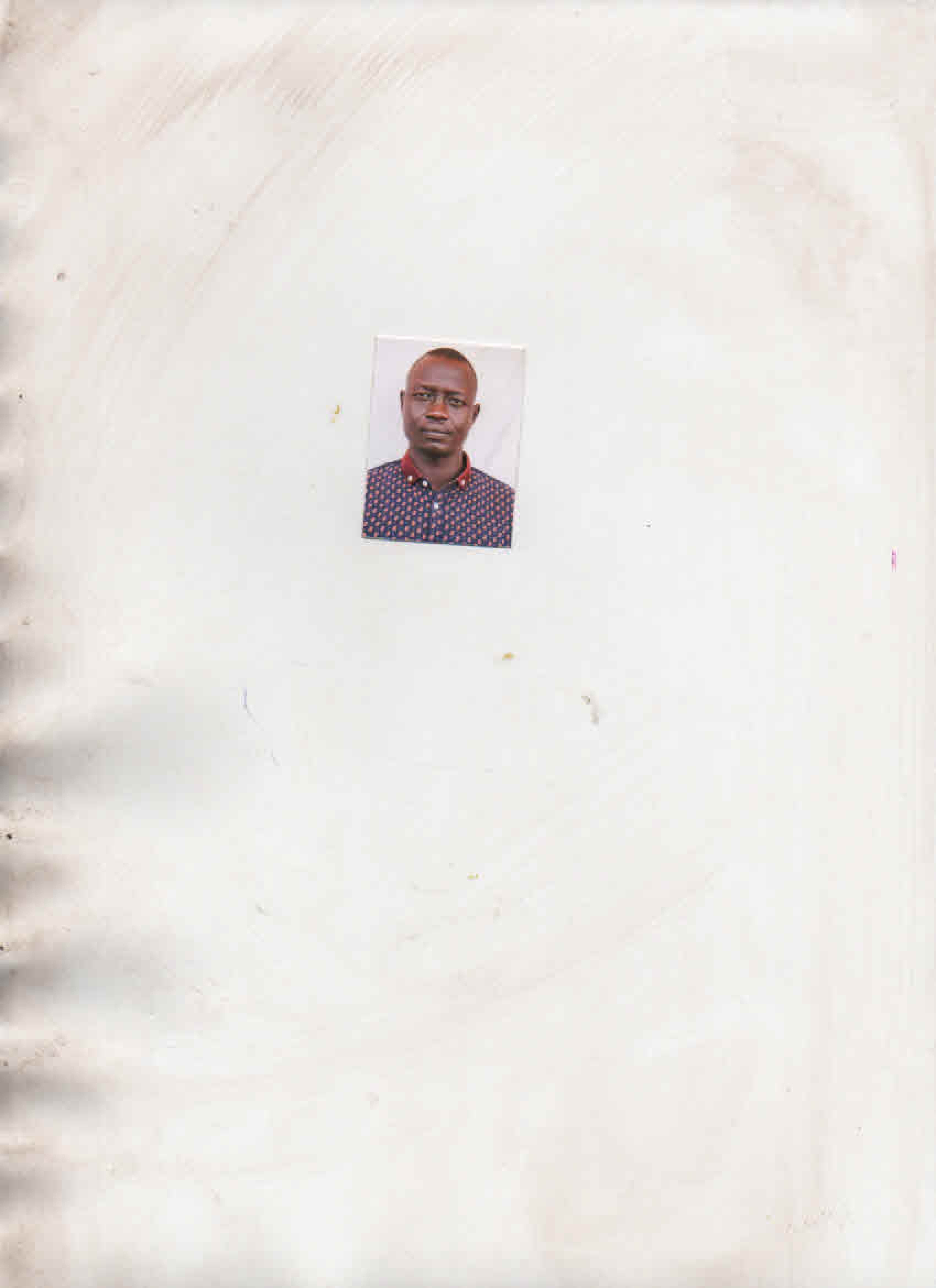
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***Post-graduate Diploma in WASH***



1. As Community Radio station worker, I will give an awareness to the community through radio as educative programmes weekly or make some giggling about WASH in community to give them background for WASH and it importance to the human life.
   1. How to address WASH issues regarding to my audience
   2. Regarding to WASH messages?
2. **Regarding to my Audience**

Public health is defined as the science of protecting the safety and improving the health of communities through education, policy making and research for disease and injury prevention.

This lack of access to water and sanitation, and poor hygiene behaviour has major health impacts. The World Health Organization (WHO) estimates that 842,000 deaths from diarrheal diseases each year could be prevented by improved water, sanitation and hygiene (WASH)

WASH services in healthcare facilities are fundamental to the provision of quality, people-centred care. Benefits include increased trust in, and uptake of, healthcare; increased efficiency and decreased costs of healthcare services; and improved staff working conditions and morale. All major initiatives to improve global health depend on sustainable provision of basic WASH services in healthcare facilities.

**Message to Audience**

* To wash hands properly: use water, a little soap. Rub for 10 seconds, rinse & air-dry or dry with a clean cloth/paper, not on dirty clothes.
* Wash your hands properly before touching the T-zone on your face (eyes, nose and mouth) as this is where germs enter the body. Avoid touching the T-zone when you can.
* Wash your hands BEFORE preparing food, eating or giving food to babies, AFTER pee or poo or cleaning baby or helping someone who is ill.
* Keep your body and clothes fresh & clean. Keep your nails & toes, teeth & ears, face & hair CLEAN. Shoes/flip-flops protect against worms.
* Keep human & animal poo & pee away from flies that spread germs. Use latrines & afterwards, wash your hands.
* Keep your face fresh and clean. Wash well with a little clean water and soap morning and evening, plus if flies buzz near sticky eyes.
* Don’t touch clean, safe water with dirty hands or cups. Keep it safe & free from germs.
* Sunlight makes water safer. Filter it into a plastic bottles & leave for 6 hours until it’s safer to drink.
* When you can, use the sun to dry & destroy germs on plates & utensils after washing.
* Kill or reduce flies by keeping the home & community free from rubbish & dirt. Store rubbish safely until it’s collected, burned or buried.

1. **Regarding to WASH messages**

The lack of safe water, functional toilets and handwashing facilities in healthcare settings poses significant health risks to patients, healthcare workers and nearby communities. The on-going Ebola epidemic in West Africa and periodic outbreaks of cholera on multiple continents have highlighted the devastating consequences of the lack of WASH facilities as a first line of defense for healthcare workers in preventing patients in cholera treatment centres.

Antimicrobial resistance is a multi-sectorial problem that requires a comprehensive strategy to prevent emergence and transmission. Within healthcare settings, provision of adequate staff, supplies and services, as well as leadership and education of administrators, health workers, patients and visitors, are critical to create an institutional climate of safety. Information about standard precautions should be incorporated into patient information materials and provided upon admission to the facility.

Standard precautions are a set of evidence-based practices designed to protect both healthcare staff and patients. They represent the minimum infection prevention measures that apply to all patient care in any setting where healthcare is delivered and should be applied to every person every time to assure that transmission of disease does not occur. Standard precautions include:

* Hand hygiene;
* Use of personal protective equipment (e.g., gloves, gowns, facemasks) depending on the anticipated exposure;
* Respiratory hygiene and cough etiquette;
* Safe injection practices; and
* Safe handling of potentially contaminated equipment or surfaces in the patient environment. In addition to consistent use of standard precautions, additional precautions apply to contact with patients with symptoms of an active infection.

Hand hygiene (handwashing with either plain or antiseptic-containing soap and water or use of alcohol-based products) has been cited frequently as the single most important practice to reduce HAI and improved hand hygiene practices have been associated with a sustained decrease in the incidence of antimicrobial-resistant infections in healthcare settings.

However, the role of WASH in enabling standard precautions for infection prevention and antimicrobial resistance is much larger than just handwashing. Large volumes of water are required for daily cleaning of toilets, environmental surfaces and bedding; while a smaller amount of safe drinking water is required for daily consumption by patients, staff and visitors, and administration of oral medications to patients. Sanitation is also required for every person, multiple times per day, and lack of hygienic sanitation facilities will increase the risk of exposure to pathogens in human feces.

**Challenges and opportunities for WASH in healthcare settings**

To address the challenge of reducing diarrheal disease, USAID, UNICEF and other partners created a strategic approach to WASH programming with three mutually supporting elements for achieving sustainable water and sanitation services:

* Access to WASH infrastructure and products (e.g, water supply and storage, latrine slabs/toilets, soap and drinking water treatment products).
* Support for adoption of behaviour change in operating and maintaining WASH infrastructure and for adoption of key hygiene behaviors (e.g. training, mentoring, collecting and managing tariffs, social marketing, counselling, community demonstrations, school and community programmes).
* An effective enabling environment (e.g. supportive policies, technical and governance capacity, financing mechanisms and community mobilization).

These interconnected components are all necessary to implement effective hygiene improvement strategies and programmes that achieve public health impact and are even more important to ensure functioning WASH services to prevent HAI and transmission of antimicrobial resistance.

Given the broad range of factors affecting handwashing, improvement requires an institutional commitment and a strategic approach to integrate infection control practices into the organization’s safety culture. Methods include educational and motivational programmes; role modeling; providing feedback on performance to individuals and groups; modifying and improving equipment, and administrative policies and sanctions.

**Improving healthcare through WASH**

Hygiene, sanitation and water supply continue to have health implications in both developed and developing world settings. The active involvement of health professionals in hygiene, sanitation, and water supply is crucial to accelerating and consolidating progress for health. Meanwhile, modern medical practice is at risk from the complex and serious issue of antimicrobial resistance, which requires action across all sectors of government and society.

Combating antimicrobial resistance requires a three-fold approach: first, improving infection prevention and control; second, conserving the effectiveness of existing and future antimicrobials; and third, engaging in research to optimize such approaches and to develop new antimicrobials, vaccines, treatment alternatives and rapid diagnostic tools.

WASH in healthcare facilities provides the basis for “do no harm” and plays a critical role in infection control. Leadership and commitment is needed from governments, international and local organizations, donors and civil society to implement the global action plan to achieve universal access to WASH in healthcare facilities in order to improve quality of care, reduce HAIs and decrease development and transmission of antimicrobial resistance.

1. ***In your own words, what is your understanding of public health and what are its key elements?***

**Understanding of public health**

Public health systems are commonly defined as “all public, private, and voluntary entities that contribute to the delivery of essential public health services within a jurisdiction.” This concept ensures that all entities’ contributions to the health and well-being of the community or state are recognized in assessing the provision of public health services.

Elements of Public Health Services activities that all communities should undertake:

* Monitor health status to identify and solve community health problems
* Diagnose and investigate health problems and health hazards in the community
* Inform, educate, and empower people about health issues
* Mobilize community partnerships and action to identify and solve health problems
* Develop policies and plans that support individual and community health efforts
* Enforce laws and regulations that protect health and ensure safety
* Link people to needed personal health services and assure the provision of health care when otherwise unavailable
* Assure competent public and personal health care workforce
* Evaluate effectiveness, accessibility, and quality of personal and population-based health services
* Research for new insights and innovative solutions to health problems

1. ***Public health is about partnership between the different players. Explain how the role of international non-profit/NGO in terms of***

* Recruitment
* Training
* Funding
* Monitoring

The Public Health system are the initiatives and strategies that improve one or more functions of the health system, leading to better health through improvements in the access, coverage, quality and safety thus the importance of strengthening of the public, private and community health systems has been emphasized in a variety of documents by various international, regional and national bodies concerned with the health care such as WHO, USAID, Global Fund etc. Thus NGOs, Non-profit organization has roles to play with community wellbeing in term of

1. **In term of Recruitments**

The International Non-profit/NGO Code of Conduct for Health Systems Strengthening by World Health Organization (2009) is a fairly well written guide to help selecting the appropriate and capable NGOs. It says:

* Hiring from within the community and providing staff members with ongoing educational, training and mentorship opportunities are also important ways that NGOs can build sustainable workforce capacity.
* NGOs will engage in hiring practices that ensure long-term health system sustainability.
* NGOs will enact employee compensation practices that strengthen the public sector.
* NGOs pledge to create and maintain human resources training and support systems that are good for the countries where they work.
* NGOs will minimize the NGO management burden for ministries.
* NGOs will support Ministries of Health as they engage with communities.
* NGOs will advocate for policies that promote and support the public sector.

1. **In term of training**

* Task-shifting programs that train Community Health Workers (CHWs) to perform specific tasks or procedures typically performed by doctors or nurses can also strengthen local capacity.
* Partners in Health collaborates with the MOH to ensure that its training programs focus on the skills and knowledge the government requires for CHWs.
* While financial incentives are only one component necessary for building HR capacity, NGOs can provide salary top-ups or cover funding gaps for government counterparts to help harmonize salaries between NGOs and public sector employees.
* Hiring from within the community and providing staff members with ongoing educational, training and mentorship opportunities are also important ways that NGOs can build sustainable workforce capacity.
* Governments should include engineers and technology professionals in their human resource plans, not just doctors and nurses, because their technical expertise is necessary for constructing IT networks, valuable buildings and maintaining medical equipment.
* Large infrastructure projects require strong partnerships between the government, NGOs, and civil society. NGOs should work to support the capacity of the MOH, and local communities must also be involved in decisions.
* NGOs should work with local health system officials to transfer the knowledge and skills necessary to provide the long term support necessary to maintain most infrastructure projects.
* Time for training staff members on should be accounted for early on in budgets and project plans.
* When budgeting and working with donors, NGOs should include funding for upkeep and upgrading of facilities, and strive to improve the public sector buildings where they work. One Health Alliance International Preventing Mother-to-child Transmission program in Mozambique was able to rehab entire health centers, not just antenatal care sections, by working with donors this way.
* Providing care in a resource-limited setting shouldn’t be an excuse for “small thinking.” Through partnerships, governments and NGOs should encourage each other to innovate and dream big.

1. **In term of Funding**

* NGOs besides offering financial benefits, represents a more attractive incentive which is the transfer of technical knowledge between partners.
* Priority setting, and knowledge translation to action.
* They have a key role in stewardship (promoting and advocating for relevant global health research), resource mobilization for research,
* Utilization and management of knowledge, and capacity development. Yet, typically, the involvement of NGOs in research is downstream from knowledge production and it usually takes the form of a partnership with universities or dedicated research agencies.

1. **In term of Monitoring**
2. "Complement and supplement service delivery (ensuring quality, improving utilization, and through innovation); advocacy to influence policy; and capacity building of human resource"
3. Structure: how many and how much resources are in command in the country;
4. Space: how much social, cultural, ethical and economic space do the NGOs enjoy;
5. Values: what kind of values are promoted by the NGOs;
6. Impact: what has been its impact in the past*"*
7. **In your capacity as the environmental health officer you have been tasked to lead the assessment of a disaster situation. Come up with two key questions under each of the following five headings in your assessment list , namely i) General overview of the situation ii)Water supply iii) Solid-waste disposal iv) Excreta disposal and v) Vector-borne diseases for purposes of assessing local conditions, health needs and identifying local resources in the disaster situation that you are addressing.**
8. ***General overviews of the situation***

Throughout history, natural disasters have exacted a heavy toll of death and suffering and increasing population density and in regions of high points to the probability of future catastrophic natural disasters with millions of casualties.

* Disasters affect a community in numerous ways. Roads, telephone lines, and other transportation and communication links are often destroyed,
* Public utilities and energy supplies may be disrupted
* Substantial numbers of victims may be rendered homeless
* Portions of the community’s industrial or economic base may be destroyed or damaged. Casualties may require medical care, and damage to food sources and utilities may create public health threats
* The more remote the area, the longer it takes for external assistance to arrive, and the more the community will have to rely on its own resources, at least for the first several hours, if not days

1. Water supply

**Q:** How can water-related diseases be prevented during emergencies situation?

A: The three top priorities concerning drinking water and sanitation during an emergency situation are:

* + 1. ensuring the provision of enough safe water for drinking and for personal hygiene to the people affected by the crisis;
    2. ensuring that all people affected by the crisis have access to hygienic sanitation facilities;
    3. Promoting good hygiene behaviours.
* The first priority is to provide a sufficient quantity of water, even if its safety cannot be guaranteed, and to protect water sources from contamination. A minimum of 15 litres per person per day should be provided as soon as possible. During emergencies, people may use untreated water for laundry or bathing. Water-quality improvements should be made over succeeding days or weeks as a matter of urgency.
* Inadequate disposal of human excreta is a major health risk in emergency situations. It is essential to organize sanitation facilities immediately, such as designated defecation fields or collective trench latrines. Emergency facilities need to be progressively improved or replaced with simple pit latrines, ventilated improved pit latrines, or poor-flush latrines as the situation develops. All types of latrines need to be properly cleaned, disinfected and maintained.
* The provision of drinking water and sanitation services in health facilities is a top priority. Safe drinking water, basic sanitation facilities and safe disposal of infectious wastes will prevent the spread of disease and improve health conditions.
* In all cases, good hygiene practices are key to preventing disease transmission. Water should be provided in sufficient quantities to enable proper hygiene. Hands should be washed immediately after defecation, after handling babies’ faeces, before preparing food and before eating

1. **Solid waste disposal**

**Q:** How can waste disposal be properly disposed during emergencies situation?

In this technical note, the term ‘solid waste’ is used to include all non-liquid wastes generated by human activity and a range of solid waste material resulting from the disaster, such as

* General domestic garbage such as food waste, ash and packaging materials;
* Human faces disposed of in garbage;
* Emergency waste such as plastic water bottles and packaging from other emergency supplies;
* Rubble resulting from the disaster;
* Mud and slurry deposited by the natural disaster; and fallen trees and rocks obstructing transport and communications.

The safe disposal of solid waste is critical for public health, and is especially true during an emergency. Not only will existing collection and disposal systems be disrupted, but there will be extra waste caused by the emergency itself. Initially, for camps of displaced people or refugees and similar new sites, there will be no arrangements in place at all. If solid waste is not dealt with quickly, serious health risks will develop which will further demoralize the community already traumatized by the emergency. This technical note highlights the key issues to consider in managing solid waste during and shortly after a disaster

* Work with the community People affected by major disasters are badly traumatized. Giving them a task to perform can help them overcome the trauma.
* Employ neighborhood groups to clean up their areas. This will bring money into the communities and strengthen their links with their areas.
* Introduce a rotation system so that all families in the community can benefit.
* Protect the workforce the workforce should be protected from physical injury by the provision of masks, overalls, gloves and boots and they should be vaccinated against common diseases such as tetanus.

1. **Excreta disposal**

A: Why is it important to properly dispose off excreta?

The inadequate and insanitary disposal of infected human faeces leads to the contamination of the ground and of water supply sources. It often attracts certain species of flies to lay their eggs, to breed, to feed on the exposed material, and to carry infection. It also attracts domestic animals and rodents and other vermin which spread the faeces; and it sometimes creates intolerable nuisances.

Poor excrete disposal is often associated with the lack of adequate water supplies and of other sanitation facilities and with a low economic status or the rural population. These conditions, all affect the health and well-being of the people in a community.

When proper disposal systems exist, it is known that the incidence of a large group of diseases is reduced. This group of diseases includes cholera, typhoid and paratyphoid fevers, the dysenteries, infant diarrhoeas, hookworm disease, ascariasis, bilharziasis, and other similar intestinal infections and parasitic infestations. These diseases lay a heavy hand on infants, whose immunity is low and whose vigor is often not great enough to cope with an infection after it becomes established.

B: What is safe excreta disposal in the community of affected area?

Safe disposal of excreta, so that it does not contaminate the environment, water, food or hands, is essential for ensuring a healthy environment and for protecting personal health. This can be accomplished in many ways, some requiring water, others requiring little or none. Regardless of method, the safe disposal of human faeces is one of the principal ways of breaking the faecal–oral disease transmission cycle. Sanitation is therefore a critical barrier to disease transmission.

Plans for locating sanitation facilities, and for treating and removing waste, must consider cultural issues, particularly as sanitation is usually focused on the household. Excreta disposal may be a difficult subject for a community to discuss: it may be taboo, or people may not like to discuss issues they regard as personal and unclean. In some cases, people may feel that sanitation facilities are not appropriate for children, or that children’s faeces are not harmful. In others, separate facilities may be required for men and women, and it may be necessary to locate the facilities so that no one can be seen entering the latrine building. If the disposal facilities smell and are a breeding ground for flies, people may not use them.

Health improvement comes from the proper use of sanitation facilities, not simply their physical presence, and they may be abandoned if the level of service does not meet the social and cultural needs of community members at an affordable cost, Within a community, several different sanitation options may be required, with varying levels of convenience and cost (sometimes called a sanitation ladder). The advantage of this approach is that it allows households to progressively upgrade sanitation

1. **Vector-borne diseases**

Vectors are living organisms that can transmit infectious diseases between humans or from animals to humans. Many of these vectors are bloodsucking insects, which ingest disease-producing microorganisms during a blood meal from an infected host (human or animal) and later inject it into a new host during their subsequent blood meal.

Mosquitoes are the best known disease vector. Others include ticks, flies, sandflies, fleas, triatomine bugs and some freshwater aquatic snails.

**How do you avoid vector-borne diseases**?

* Wear light-coloured, long-sleeved shirts and long trousers, tucked into socks or boots, and use insect repellent on exposed skin and clothing to protect yourself from being bitten by mosquitoes, sandflies or ticks. Temperature, humidity and the time of day affect the likelihood of being bitten, so know when you need extra protective clothing and insect repellent.
* Check your body regularly for ticks if you find one, remove it with tweezers and apply a skin disinfectant in tick-infested areas, examine your clothing, luggage and other belongings thoroughly before entering the place where you are staying.
* Avoid contact with blood, secretions, organs or other bodily fluids of infected people or animals. 8. Make sure you keep strict hygiene control of food, and avoid unpasteurized dairy products in areas where tick-borne encephalitis can be transmitted.
* You are bitten and receive care abroad, remember to complete your course of treatment at home.

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