ASSIGNMENT 1

1. **Suppose you work with a community radio station, describe what your radio station would do to address water, sanitation and hygiene issues with regard to your i) audience, and ii) WASH messages?**
2. **To address WASH issues with regard to audience, the radio should:**

* Play a role in highlighting the issue of water, sanitation and hygiene;
* It should take the issue up as an issue of national concern and bring it into the limelight through dedicated programming and coverage Social and Behavior Change Communication (SBCC). This is an evidence -based, consultative process of addressing knowledge, attitudes, and practices through identifying, analyzing, and segmenting audiences and participants in programs and by providing them with relevant information and motivation through well-defined strategies, using an appropriate mix of interpersonal, group and mass media channels, including participatory methods;
* Produce public service announcements (PSAs), radio Soap based on Entertainment-Education (E-E). in the area, short radio spots to promote hand-washing with soap before eating or boiling drinking water to avoid illness;
* Engage and feature a source of information that is suggested or accepted by the affected communities;
* Train mentors to work with it to develop sustainable, compelling and memorable radio programmes that engage listeners in good hygiene practice;
* Develop and air radio spots focusing on promoting key water, sanitation and hygiene practices and the risks associated with not following them;
* Try innovative ideas and formats;
* Make the listener feel something after hearing the spot or programme , happy, confident that they can do something, but make them feel;
* Evoke pictures and create images in the listener’s mind;
* Be explicit about what the listeners can do to resolve their problem;
* Play a significant role in improving the status of water, sanitation and hygiene;
* Enjoy a high degree of credibility with the people and can be an effective partner for dissemination of information;
* Help in creating public visibility around the issue;
* Play a significant role in improving the status of water, sanitation and hygiene;
* Enjoy a high degree of credibility with the people and can be an effective partner for dissemination of information;
* The radio spots help in creating public visibility around the issue.

In order to sensitize and orient audience around the issue it would be important to have radio workshops, this would help in increasing informed coverage and reporting on the issue. Thus they would be an extremely important in advocacy related work.

1. **To address WASH issues with regard to messages, the radio should:**
2. Be interested in messages which promote good behaviors regarding WASH such as:
3. Water, (purifying drinking water, use chlorine or boil water, use clean and covered water containers for transportation and storage, etc.;
4. Sanitation, (no open defecation, use latrine and cover latrine hole after use, dispose children’s feaces in a latrine or dig a hole, bury and cover it and keep the surrounding clean,etc ;
5. Hygiene, (Wash hand with soap after defecation, before preparing foods, eating and feeding children, after preparing fish, after taking care of person suffering from diarrhea and vomiting, eat always warm and cooked food, cover food and drinks to avoid flies, wash fruits before eating, avoid eating raw vegetables, be cautious about street eating and drinks, etc.
6. Have positive spots, motivational feel aiming to address both knowledge gaps as well enhance self-efficacy among listeners in order to be able to try the recommended behaviors, and achieve positive outcomes in their lives by adopting safer water, sanitation and hygiene practices;
7. Have the soap which has an interactive component through phone-ins SMSs and panel discussions that would help people resolve queries that they have and also better engage with the programme. Also, community linkages would be created, through the formation of ‘Listeners groups’ which would facilitate community listening and mobilization. Further, embedding messages in existing popular shows on radio could be explored.
8. Train on Key facts about WASH, cholera prevention and control addressing myths, beliefs and practices, Signs and symptoms , mode of transmission, prevention and control measures (hand-washing with soap, latrine use, food hygiene, personal hygiene etc.), treatment centers, use of home based care and fluids, where to get information, Outbreaks alert / Early Warning.
9. Focus on water, sanitation and hygiene and help in bringing the issue in the public domain, generating awareness and action. It could be a series in which each episode or a cluster of episodes deals with water, sanitation and hygiene issues.
10. **In your own words, what is your understanding of public health and what are its key elements?**

I understood Public health as "the science and art of preventing disease, prolonging life and promoting human [health](https://en.wikipedia.org/wiki/Health) through organized efforts and informed choices of society, organizations, public and private, communities and individuals" which aims to improve the quality of life through prevention and treatment of [disease](https://en.wikipedia.org/wiki/Disease), including mental health. This is done through the [surveillance](https://en.wikipedia.org/wiki/Disease_surveillance) of cases and [health indicators](https://en.wikipedia.org/wiki/Health_indicators), and through the promotion of healthy behaviors. Common public health initiatives include promotion of [handwashing](https://en.wikipedia.org/wiki/Hand_washing) and [breastfeeding](https://en.wikipedia.org/wiki/Breastfeeding), delivery of [vaccinations](https://en.wikipedia.org/wiki/Vaccination), [suicide prevention](https://en.wikipedia.org/wiki/Suicide_prevention), and distribution of [condoms](https://en.wikipedia.org/wiki/Condom) to control the spread of [sexually transmitted diseases](https://en.wikipedia.org/wiki/Sexually_transmitted_disease). It promotes and protects the health of people and the communities where they live, learn, work and play. Public health is an [interdisciplinary](https://en.wikipedia.org/wiki/Interdisciplinarity) field. For example  [epidemiology](https://en.wikipedia.org/wiki/Epidemiology" \o "Epidemiology), [biostatistics](https://en.wikipedia.org/wiki/Biostatistics) and [management](https://en.wikipedia.org/wiki/Management) of [health services](https://en.wikipedia.org/wiki/Health_services) are all relevant. Other important subfields include [environmental health](https://en.wikipedia.org/wiki/Environmental_health), [community health](https://en.wikipedia.org/wiki/Community_health), [behavioral health](https://en.wikipedia.org/wiki/Behavioral_health), [health economics](https://en.wikipedia.org/wiki/Health_economics), [public policy](https://en.wikipedia.org/wiki/Public_policy), [mental health](https://en.wikipedia.org/wiki/Mental_health), [occupational safety](https://en.wikipedia.org/wiki/Occupational_safety_and_health), gender issues in health, and [sexual and reproductive health](https://en.wikipedia.org/wiki/Sexual_and_reproductive_health).

While a doctor treats people who are sick, those of us working in public health try to

prevent people from getting sick or injured in the first place. It also promote wellness by

encouraging healthy behaviors.

Public health works to track disease outbreaks, prevent injuries.

The many facets of public health include speaking out for laws that promote smoke-free indoor air and seatbelts, spreading the word about ways to stay healthy and giving science-based solutions to problems. Public health saves money, improves our quality of life, helps children thrive and reduces human suffering.

The examples of Key elements are:

1. Monitor health status to identify community health problems;
2. Diagnose and investigate health problems and health hazards in the community;
3. Inform, educate, and empower people about health issues;
4. Mobilize community partnerships to identify and solve health problems;
5. Develop policies and plans that support individual and community health efforts;
6. Enforce laws and regulations that protect health and ensure safety;
7. Link People to needed personal health services and assure the provision of health care when otherwise unavailable;
8. Assure a competent workforce for public health and personal health care;
9. Evaluate effectiveness, accessibility and quality of personal and population based services;
10. Research for new insights and innovative solutions to health problems.
11. **Public health is about partnership between the different players. Explain how the role of international non-profit/NGO in terms of i) recruitment ii) training iii) funding and iv) monitoring for public health projects contribute to the success or failure of those projects in the developing countries.**
12. **Recruitment**

The recruitment message should be inviting and encourage people to become involved with the organization. It may have multiple recruitment messages tailored to the different volunteers the organization requires, such as students, professionals, neighborhood residents, or the family members of clients. Each message should identify the specific needs of the clients or the organization, the ways in which a volunteer can address the needs, and the benefits to the volunteer. The personnel of the INGO come from the best qualified candidates recruited. They also have volunteers. While the ability to use volunteers to perform certain functions is an advantage that nonprofits have over for-profit businesses, volunteers raise their own set of HR concerns. For instance, organizations must ensure that volunteers do not receive compensation and have no expectation of receiving it. Otherwise, they may be legally considered employees and thus entitled to the rights that attend that designation. It is also important for organizations to manage the performance of volunteers, just as they would with employees. A permanent personnel and the volunteer who is a poor performer or is not committed to advancing the organization’s mission may harm workforce morale and create more problems than they solve. Therefore, nonprofits should implement a screening process designed to recruit volunteers who have the ability and genuine desire to make a positive contribution to the organization. Other aspects of performance management, such as training, feedback, and clear communication of expectations, are important for volunteers and employees alike.

In evaluating the recruitment message, one must ask himself these questions:

1. Does the message honor the volunteer?
2. Is the message tailored to a target audience?
3. Does my invitation describe the needs of our clients or organization?
4. Who in the organization can best deliver this message?

**ii) Training**

To have highly effective personnel, the organization needs an orientation and training program. Initial orientation and training prepare volunteers and permanent staff to perform their duties efficiently and effectively. Your policies and procedures form the basis of the orientation, and your position descriptions form the basis of the training. The success of early interventions depends on the skills and knowledge of the first responders in affected communities. First responders need basic training, including first aid and public hygiene for the population at risk, as well as appropriate level of contextual knowledge to communicate with local people to facilitate response operations. In recognition of first responders, INGOs have provided response training to community leaders and public health staff, as first responders of their own communities, helping them make informed decisions at the ground level, as well as facilitating adaptive implementation of international approaches in local context. Response training enables those staff to detect and respond to a crisis in the first place from early on. INGOs’ health education operations also serve a critical preventive function for further damage in the community. Education programs, including campaigns and advocacy, focus on providing information about risk, as well as specific guidelines for prevention and early detection of risk. These programs help local residents to understand risk factors and preventive actions. Such efforts raise communities’ awareness of the diseases and guide actions regarding prevention and treatment strategies. INGOs’ health education programs targeting dissemination of disease information may help affected community by encouraging people to change dangerous behaviors.

Training gives organization staffs the direction and skills they need to carry out their assigned tasks.

Typically, training is provided by the staff in the area of the organization in which the volunteer or permanent staff is assigned. In general, training should be:

1. Specific to the requirements of the volunteer position
2. Geared to the skill level of the volunteer
3. Ongoing
4. Specific to the needs identified by both the volunteer and supervisor
5. Periodically evaluated to determine if it is on track.

**iii) Funding**

The most common healthcare funding method should be global budgets, where a fixed payment amount is allocated to a provider (such as a health authority or a hospital) to cover operating expenses for a period of time, usually one year.

Since nonprofits largely sustain themselves on grants, donations, and government funding, they contend with more stringent budgetary constraints than for-profit businesses. Nonprofits can overcome the challenge of limited budgets by devising alternative ways to appeal to employees.

In some countries, private entrepreneurs are expected to provide rural water and sanitation services, but often suitably experienced organizations or companies are not available to carry out this work or it is too expensive for communities to pay for. Governments will need to provide adequate technical and financial support.

A common barrier to accessing a sufficient quantity of safe water and sanitation is the cost involved, in terms of both money and time, leading many to seek cheaper, if less safe, alternatives. The cost of obtaining water and sanitation often reduces the ability of individuals and communities to pay for other essential goods including food, housing, education and health.

1. **monitoring for public health projects**

It is essential for public health organizations to monitor and evaluate the health status of populations in order to identify trends and to target health resources.

Monitoring is also important to ensure that activities are implemented as planned. This helps the implementors to measure how well they are achieving their targets. This is based on the understanding that the process through which a project is implemented has a lot of effect on its use, operation and maintenance. First of all, Monitoring and Evaluation (M&E) are important to assess that project is achieving set targets. For instance, by monitoring the development of the project one will easily understand whether strategic changes need to be made and act accordingly. Second, M&E are relevant to donors who need to assess whether the NGO is a reliable partner. By reviewing milestones and final outcomes of the projects, donors will decide on the accountability of the NGO, upon which further collaborations could be established. As such, developing a strong M&E plan is of vital importance.

Monitoring of SBCC programs involve routine data collection, both quantitative and qualitative measurements, and analysis to check process and outputs to provide timely answers like: Are the communication activities being implemented as planned? is the quality of implementation good? Are the materials, channel and equipment used to communicate messages culturally acceptable and effective?

Whether the SBCC intervention has achieved its objective of adoption of desired behaviors and or outcome indicators identified in the program?

Monitoring Question

* Was the radio spot aired?
* Frequency of radio spot aired?
* At what time?
* In how many communities?

When monitoring, the evaluation question is

Did women become more aware of the benefits of family planning?

When monitoring there is three types of indicators (the process indicator, output indicator and evaluation or outcome indicator).

In the process indicator, the radio spot aired, messages were recalled by the target audiences, and messages were clear and understood by the intended audiences. In the output indicator, the number of community members/ target audiences heard the radio spot. In the evaluation or outcome indicator, the increase in the percentage of women aware of benefits of family planning as compared to baseline or the difference in awareness between those who heard and those who did not hear the radio spots.

A good indicator must follow the SMART criteria

* Specific: clearly written to avoid differing interpretations
* Measurable: to allow for monitoring and evaluating progress toward achieving the result
* Appropriate: to the scope of your program or work activities, so that you can influence or make changes
* Realistic: achievable within the time allowed
* Time bound: with a specific time period.

4**. 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.**

1. **General overview of the situation;**

A disaster is a sudden, calamitous event that seriously disrupts the functioning of a community or society and causes human, material, and economic or environmental losses that exceed the community's or society's ability to cope using its own resources. Though often caused by nature, disasters can have human origins. An example of disaster in my country is the devastation by a long-running conflict around the Lake Chad. Assaults on the town of Bosso from 3 to 5 June led to the mass movement of an estimated 75,000 people, including virtually the entire populations of Bosso and the nearby towns of Toumour and Yebi.

Violence in the Bosso area has been rising in recent weeks, contributing to the estimated 240,000 people displaced in Diffa Region, according to the UN Refugee Agency (UNHCR). “Before the latest attack on Bosso, one in every three inhabitants of the Diffa Region was forcibly displaced,” the agency said in [that time report](http://reliefweb.int/report/niger/thousands-flee-boko-haram-attack-niger-town). The humanitarian crisis in Niger which is worsening since 2018 and a scale-up of humanitarian aid is urgently required.

Boko Haram fighters have increased attacks on civilians with suicide bombing, kidnapping and burning entire villages. The initial assessment should include the following questions;

1. What is the estimated population and what is the population density?

2. What is the crude mortality rate (number of deaths per 10,000 people per day) and what are the main causes of mortality and morbidity?

3. What are the current beliefs and traditions concerning excreta disposal especially regarding women and children’s excreta? (Do men and women or all family members share latrines, can women be seen walking to a latrine, do children use potties, is children’s excreta thought to be safe?)

4. What material/water is used for anal cleansing? Is it available?

5. Is soap available?

6. Are there any existing facilities? If so are they used, are they sufficient and are they operating successfully? Can they be extended or adapted? Do all groups have equal access to these facilities?

7. Are the current defecation practices a threat to health? If so, how?

8. What is the current level of awareness of public health risks?

9. Are there any public health promotion activities taking place? Who is involved in these activities? (Community health workers, voluntary groups, home visitors).

10. What health promotion media are available/accessible to the affected population?

13. What is the level of the groundwater table?

14. Are there any people familiar with the construction of latrines?

15. How do women deal with menstruation? Are there materials or facilities they need for this?

16. Whose role is it normally to construct, pay for, maintain and clean a latrine (men, women or both)?

Boko Haram fighters have recently increased attacks on civilians with suicide bombings, kidnappings and burning entire villages.

1. **Water supply;**

Safe water is essential to life and health. In emergencies it is often not available in adequate quantity or quality, thus creating a major health hazard. People can survive longer without food than without water.

Water availability will generally be the determining factor in organizing the supply of sufficient quantities of safe water. Measures will be required to protect the water from contamination and in some circumstances treatment will be needed to make it safe to drink. The safety of the water must be assured right through to consumption at home. Water quality is always difficult to assess. Always assume that all water available during an emergency is contaminated, especially if available sources are surface water bodies (lakes, ponds, rivers, etc.). Immediate action must be taken to stop further pollution and to reduce contamination. If it is evident that available sources are inadequate (in terms of quality or quantity), arrangements must be made to find alternative sources and, if necessary, to import water to the site (by truck, barge, pipelines or any other relevant means). Where even the most basic needs for water cannot safely be met by the existing resources at the site or its surroundings, and when time is needed for further exploration and development of new sources, refugees should be moved to a more suitable location. WASH interventions in refugee camps aim to meet basic needs and improve safe access to water of sufficient quality and quantity; sanitation; hygiene practices; and WASH in hospitals, health and nutrition centers, schools and other institutions.   
A WASH intervention helps to improve hygiene and health status and reduces morbidity and mortality in a refugee population. At the start, it focuses on identifying WASH infrastructural gaps and needs, the need for software components, and monitoring the WASH situation in camps. The WASH sector works closely with public health and nutrition to address potential causes of waterborne disease and malnutrition, and reduce the (public) health risks associated with poor water, and poor sanitation and hygiene services and practices. At the start of emergencies WASH should also link with physical and site planning when sites are selected and allocated.

To ensure a supply of safe water, the key elements are: sound design and construction practices; sanitary inspections; disinfection with chlorine; clean water storage containers; and hygiene promotion of the safe water chain. It is important to ensure that all water supplies in refugee camps are fit for human consumption. All water supplies must be free of faecal coliforms at the point of storage, delivery and consumption. All partners must possess and use the minimum water quality testing equipment (pool-tester, Potatest or DelAgua) and partners must have trained staff able to test water supplies for common biological and chemical contaminants based on an analysis of hydrogeological conditions, and local industrial, agricultural, and human activity.

1. **Solid-waste disposal**

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.

Other special wastes, such as medical waste from hospitals and toxic waste from industry, will also need to be dealt with urgently.

The safe disposal of solid waste is critical for public health, and is especially true during an emergency. 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.

Garbage washed by rain can contaminate water supplies. Indiscriminate dumping of waste can block water courses causing flooding. Waste is unsightly and lowers the morale of communities.

Waste is produced every day and if left unattended, it can pose public health risks to the affected population and can have a detrimental impact on the environment such as breeding of the flies and rodents, polluting the surface and ground water sources, increase risk of flooding and favor the infectious disease transmission. Moreover, the improper waste management can have long-term adverse effects on the environment and can cause air-borne, water-borne and vector-borne diseases. When assessing, some questions such as the followings should be asked.

Are the current waste disposal systems coping with the volume of waste?

Are there any hazardous wastes that require special attention (such as medical waste)?

Can the organizations responsible for waste collection cope with the demand?

Are steps being taken to deal with the wastes produced by the disaster? Are these sufficient?

Are there suitable disposal facilities for all wastes being produced?

1. **Excreta disposal**

Inadequate and unsafe disposal of human faeces can lead to the transmission of faeco-oral disease, can result in the contamination of the ground and water sources, and can provide breeding sites for flies and mosquitoes which may carry infection. In addition, faeces may attract domestic animals and vermin which spread the potential for disease. It can also create an unpleasant environment in terms of odor and sight. While the provision of safe drinking water is also essential for the protection of public health, the importance of excreta disposal cannot be overestimated. The introduction of safe excreta disposal can reduce the incidence of intestinal infections and helminth infestations. When assessing, there are some questions to be asked?

Are men, women and children prepared to use defecation fields, communal latrines or family latrines? Consult with the disabled and elderly also? Is there sufficient space for defecation fields, pit latrines etc?

**v) Vector-borne diseases for purposes of assessing local conditions, health needs and identifying local resources in the disaster situation that you are addressing.**

Vector-borne diseases may be exacerbated in refugee populations for a number of reasons. Falciparum malaria has been a serious cause of mortality in refugee camps on the. It is particularly dangerous when refugees who have not been exposed to the disease before, and therefore have a low level of immunity, are forced to flee into a malarious area. Other vector-borne diseases that affect refugee populations occur as a result of crowded and unhygienic conditions. There are several reasons why vector-borne diseases may represent serious threats to the health of refugee populations:

1. Refugees may lack immunity to a disease or the particular strain of the disease in the settlement area (e.g. malaria);
2. Refugees may have fled through an area infested with certain insect vectors;
3. Refugees may have settled on land uninhabited by the local population because of insect vectors;
4. Refugees may have lost their live-stock;
5. Refugees may live in unhygienic and crowded camps where certain vector populations may dramatically increase. Shortages of water may exacerbate this (e.g. body lice, the vectors of louse-borne typhus and relapsing fever and filth flies which transmit diarrheal diseases and trachoma).
6. Stress resulting from flight, fear and loss may exacerbate disease morbidity (e.g. malaria) and may be part of a nutrition-infection-malnutrition cycle. Refugees may have suffered minor or major trauma resulting in blood loss, or be infected with intestinal parasites. The resulting anemia may make malaria infection life threatening.
7. Such problems may be compounded by the breakdown of national vector control programmes in the areas from which the refugees have fled and in the host country. Vector control and public health measures Prevention of vector-borne diseases through public health measures in a refugee setting may be more effective in reducing overall morbidity and mortality than curative care. However, all vector control programmes must be seen in the broader context of curative care, immunization, and diagnostic facilities. Organizations interested in refugee health care should be aware of the risks of vector-borne epidemics, and prepare appropriate control strategies.

Disease prevention through vector control available, and about the wider implications of vector-borne disease control in relation to the host community. Some of the factors to be considered are outlined below. Diagnosis and epidemiological data. Information about the most likely causes of 'fever of unknown origin' (including vector-borne disease) should be sought from epidemiological data and clinical symptoms. Data should be collected on:

* Who is infected? (Adults, children, males, females, new arrivals, old residents). This information may show whether or not transmission is occurring inside the camp.
* Where do the infected people live or work? If the disease is localized, the control programme can be localized too, so that the control effort has the maximum effect.

Once the vector has been identified, it should be carefully monitored. Pests are easy to monitor, as their nuisance value is directly proportional to their numbers. Vector species may produce considerable levels of disease even when in relatively low numbers. Monitoring of vector populations by catching the insects when they come to bite people, or when they are resting, or by using some form of trap, will provide essential data on the locality of transmission: for example, are people being bitten while they sleep? Provision should be made for purchasing monitoring equipment. The population levels of certain vector species are closely associated with local climatic changes: rainfall, temperature, and humidity. Rainfall data in particular can be useful inpredicting increases in vector populations.