STUDENT NAME : JOHN MARIAL CHOL GUDO

INSTITUTE : STRATEGIA NETHERLANDS

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ASSIGNMENT : MODULE ONE

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

**Public health** can be define in many ways but with the same meaning for example; public health is the way of controlling both infectious and non-infection disease, extending life of every humans being living in an area through collective involvement of community, organization public and individuals. While many public health practitioners defined it in the following ways; Public health is also defined as the art and science of preventing disease, prolonging life and promoting health through the organized efforts of society(*Donald Acheson, the Chief Medical Officer for England (1988))*. **Public health** is a branch of the social and health sciences, as well as a field of social and health endeavor, which aims at collective action for the prevention of disease and the promotion of health*(The U.S. Institute of Medicine defined public health)*. While other researchers defined public health as what we, as a society, do collectively to assure the conditions in which people can be healthy *(K. Gebbie, L. Rosenstock, and L. M. Hernandez 2003).* **Public health** refers to health care and health promotion that targets a population or particular group within the population *(Institute of Medicine, Division of Health Sciences Policy, 2001).* Other scholars working in health departments defined **Public health** as the science and art of preventing disease, prolonging life, and promoting health through the organized efforts and informed choices of society, organizations, public and private communities, and individuals. All the definitions aimed at promoting the health of both public and individual health. When all the efforts are made on public awareness, there will be no waste of money hence improves quality of life because money will be spend on consumption only when no sickness, another benefit is that a healthy public gets sick less frequently and spend less money on health care. It also helps children thrive because when they are healthy, they will attend school more often and perform better in their studies.

**Public health has got many key elements such as;**

1. Advocacy with governments to prioritize WASH investments.
2. Partnership with private sector on social marketing of soap and chlorine tablets; this ensured that the public as access to soap in order to practiced hand washing which is the best practice in prevention of most diarrheal diseases.
3. Research
4. Investment in water supply systems in communities and schools
5. Behavior change communication
6. Training and capacity building
7. **Explain the three population indicators that aid in decision making for public health practitioners**

These indicators include;

***Infant mortality rate*** is defined as the number of deaths of children under one year of age per 1000 live births. This indicator help the public healthpractitioners to know the reason why some children die at the age of 1 year and how their lives can improve and protected by carrying out effective health study and investigate the leading cause of death amongst infants in a given population through assessment for intervention. For example in USA, health workers carried out a research on the leading cause of infants death and they found out that birth defects, preterm birth, low birth weight, maternal pregnancy complications, sudden infant death syndrome and injuries like suffocation. This means that infant mortality rate is one of the most widely used demographic indicators in public health, because it has come to be recognized as the most sensitive indicator for overall health and quality of life of a population. On the other hand ***Crude death rate*** is another importance indicator which is also used by health officers to study and determine the most health risks/problems which might be responsible for the death of many people in a year per 1000 population in a given area in order to intervene and reduce the mortality and increase life expectancy of the of the people living with in the population **Population growth rates** help health workers to create more health facilities and health services to cop up with the growing population because without using this health indicate, it can be very difficult to determine or the study

1. **Explain any five functions of a Public Health Personnel in emergency situations**
2. Surveillance and assessment of the population’s health and well-being through health needs assessment, health determinants, health surveillance to dig out the major problem of concern in emergencies for quick intervention.
3. Promotion of the population’s health through early planning, monitoring and evaluating health promotion, prevention and screening programs.
4. Protection of population health by managing outbreaks, incidents in emergency situations and find solutions to them.
5. Developing quality and risk management within affected community by assessing the evidence of effectiveness of health interventions and manage risk to public’s health and well-being
6. Developing health programs and services and reducing inequalities in the affected population using good approach to facilitate the reduction of the inequalities.
7. **You have been appointed the head of Public Health in an emergency area with dilapidated** **sanitation facilities as well as the infrastructure has been destroyed. Explain some of the diseases as well as conditions that you are likely to encounter, and the therapeutic measures that you will put in place to ensure that people in that place lead a dignified life?**

Emergency area with dilapidated sanitation facilities experience a lot of health risks for example, people who lack where to dispose-off their human waste are forced to practice open defection. These human excreta are infected and contain several harmful pathogens which cause many diseases such as cholera, diarrhoea, typhoid and, and viral infections which can at time leads disabilities and even death can occur in severe cases. According to many researchers, trachoma which is a root cause of visual impairment in developing is also transmitted through flies that breed on human excreta with a tendency to spread through eye discharge of infected person. It is very common in areas where open defecation is largely practiced. People living in areas where sanitation and hygiene conditions are very poor/destroyed, also suffer from soil transmitted infections. Besides all the conditions met, they are often at high risk of experiencing violence and multiple health vulnerabilities for example, women with poor sanitation facilities are more susceptible to hookworm infestation resulting in maternal anemia, which in turn can directly affect them during pregnancy, in addition, women with limited or no access to toilet predominantly suffered from diarrheal diseases, which is a leading cause of under nutrition among women during their reproductive age. Lack of household toilet/latrine forces many women and young girls to travel long distances from their house to find privacy for open defecation, manage their menstrual necessities which makes them vulnerable and expose them to many forms of violence. These conditions compromise the dignity of women and girls, put them at risk of harassment, and expose people to life-threatening diseases like sexual transmitted infections among others etc. The diarrheal disease if not treated can trap young children into a vicious circle of malnutrition and diarrhoea leading to chronic malnutrition and potential death.

All the above conditions can’t allow the infected person to cultivate in their fields to produce more food to eat, taking their children to school and take care of themselves. Secondly infected person can’t go to his/her work place can lead to the loss of job.

To address the above challenges as head of public health in emergency situation, emergency hygiene and community Led total sanitation campaign training need to be introduced to the affected community on how to dig personal latrine and how to use them using appropriate approve to motivate them to construct their sanitation facilities. Secondly, conducting workshops with stakeholders living in that area to help their community to construct public toilets and also motivating anyone who make to construct his/her own latrine. Thirdly conducting inclusive workshop to both men and women about gender inequalities to understand all sexes are equal in the role which they play.

1. **What are the negative impacts of open defecation and as a Public Health officer how will you curb the habit from a society that is deep rooted in the same**?

**Open defection** is the process of empting of bowels in an open area without the use of properly designed structures built to for handling human waste such as toilet or latrines. People defecates in open areas because of the following reasons; poverty that makes difficult to construct latrine, cultural issuers related with sharing of toilets among family members, another issue is that in some cultures, man are not supposed to share the same toilet with his daughter in law. Some people prefer open air defecation due to the freedom it gives them as opposed to using small dark structure or displeasure in using toilets that are not clean. \

According World Health Organization, India accounts for 59 percent of the 1.1 billion people in the world who practice open defection leading to some serious negative effects on both human health and the environment which are discussed below

1. **Effects on human health**

Open defecation leads to the spread of water borne disease which includes diarrhea, cholera and other complications associated with the ingesting and exposure to human waste. This exposure is because most of the open defecation takes place in water ways and rivers, but in urban areas, this happens in the drainage system that are usually meant to traffic rain water away from urban areas into natural water ways. These areas are preferred because open defecators have a belief that the water washes away their waste. Therefore, the results of open defecation near water ways is that it is carried into water system without treatment leading the contaminated water to end up in the main water sources and when people who live within the surroundings areas use this water for drinking and cooking since the water is not boiled most of the time because of poverty and lack of education, it results in water borne diseases such as cholera, typhoid, diarrhea and trachoma. These diseases affect children under the age of 5 years the most since they are very susceptible to diseases.

Apart from water borne diseases, when the human waste accumulates, it attracts vectors like flies and other insects. These flies then travel around the surrounding areas, carrying feces and disease causing microbes where they then land on the food and drink that people take unknowingly. In such cases, the flies become the direct transmitters of the diseases such as cholera.

Open defecation also compounds the problem of disease exposure, the common disease caused by this unsanitary act includes, diarrhea, regularly stomach upsets and overall poor health. This means that people can’t make their way to distant places to the urgency of their calls of nature, so the pass their waste closed to where they have their bowel attacks. It simply ends up creating more of the same problems that started the disease in the first place and in turn leads to more people catching the disease and less people using the facility which can expose them to getting the disease.

Malnutrition especially in children is also associated with open defecation. Once a child is a victim of the diseases passed on due to lack of proper sanitation and hygiene practice, they begin to lose a lot of fluids and lack of appetite for food. As results, it gives rise to many cases of malnutrition in children. Intestinal worms which are passed on through human waste also leads to stunted growth and weakened the immune system that makes the child more susceptible to other diseases such as pneumonia and tuberculosis.

1. **Effects of open defecation on the environment**

Contamination by microbes, the environment suffers from open defecation because it introduces toxins and bacteria in the ecosystem in amounts that it can’t maintained or break down at a time which leads to build up of filth.

The load of microbes in the environment can become so great that in the end, they end up in aquatic system causing harm to aquatic life which at the same time can contribute to the formation of algal blooms that form disgusting scum on the surface of the water ways which disturb aquatic life underneath the water by preventing oxygen and light diffusion into the water.

**Open defecation can be controlled in the following ways;**

1. **Provision of toilet**

There is a need to provide enough toilets to people since they are poor by the government and local organizations such as Community Based organization and Non-government Organization to help fix the problem. Construction of pit latrines and options such as compost toilets is necessary to help deal with the problem of lacking sewer systems.

Government should also try to establish incentives for people to build their own toilets by providing subsidies and putting up public toilets in strategic locations

1. **Corrective civil education**

Addressing the negative cultural association that people have with toilets, this means that people should be informed and given civic education to enable break away from their cultural beliefs on issues such as the fact that toilet are not supposed to be shared. In other words, cultural norms and beliefs most be changed over time through education and creation of awareness. With time people can become informed and drop the beliefs or at least adjust and make concession about the ones that are most destructive.

1. **Incentive public hygiene**

By creating government programs that encourage sanitation and personal hygiene, individuals must involve and focused to take up the responsibilities of enhancing their hygiene as well as overall health. Through such programs, people can get to learn the importance of their environment and work towards ensuring that they don’t harm themselves by partaking in open defecation. This reduces healthcare burden on the government and lessens the number of those who practice open defecation as it will be seen as bad activity.

1. **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**

NGOs greatly contributes to the success and failure of public health projects in developing countries in many ways for example, when a NGO **recruited** under qualified or lazy staffs to implement public health projects, they will lack skills and knowledge to tackle some of the health problems which is affecting the community which they are to operate. Secondly lazy staffs won’t do the work hence not reaching out to the target communities which at the end leads to the failure of the projects. And when it comes to **training,** NGOs which spend many resources on capacity building of their staffs are likely to implement the public health projects successfully but projects which don’t do capacity building to their employees fail to achieve their goals because the employees will not be able to deliver the right information due to the lack of technical skills in implementing the project. In terms of **funding**, project with low funds from the donors at times don’t reach their goal; this is because the project might have planned to reach ten communities which needs public health awareness in one year time and without good funding from the donor to meet the target population in planned period will surely fail the project. When it comes to **monitoring** of public health projects, it needs very active and qualified personnel’s who have experience in monitoring to carry out the monitoring program in order to know if there is progress made by the project by putting the exact thing which are happening in the ground can lead to the success of the project.