Diploma in WASH

Assignment 2

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1. ***Why is hand washing an essential aspect in WASH interventions?***

Good personal hygiene is a very important intervention towards mitigating the spread of infectious diseases resulting from poor domestic or environmental hygiene such as fecal-oral diseases. Hand washing is considered to be one of the most effective ways of preventing spread of diarrheal diseases which during emergencies pose one of the most significant threats to people’s health and wellbeing. Effective hand washing with disinfecting substances such as soap or wood ash combined with clean water helps kill pathogens in hands. Hand washing is vital after defecation, cleaning children who have defecated and before eating or handling foods.

The simplicity, affordability and effectiveness of handwashing in curbing the spread of diarrheal diseases makes it a very essential aspect of WASH interventions. Programs geared towards fostering behavior change in communities or during emergencies should be designed to not only warn people of the risks they face due to unhygienic practices of not washing their hands, but to also provide the requisite facilities near places they are most required to encourage people to adopt the habit. If done properly, Hand washing on its own significantly reduces the spread of diarrheal diseases and therefore reducing loss of lives.

1. ***What are the main standards in WASH interventions in emergencies?***

The main standards in WASH standards are:

* Hygiene promotion standard- This is the conscious and deliberate combination of the affected community’s knowledge, practices and resources with the knowledge and resources of the intervening agency towards preventing risky hygiene behaviors. It is accomplished through honest sharing of information and knowledge; effective mobilization of the community to ensure they are involved in the assessment of their needs as well as in the planning and implementation of interventions. The ultimate goal is to ensure that WASH interventions address the actual needs of the target community and that they are involved at various capacities and stages of the intervention programs and finally in the management and maintenance of the facilities where feasible.
* Water Supply standard- This standard acknowledges that water is life and aims to ensure that in emergencies, the affected have a minimum supply of safe drinking water to prevent them from drinking from unsafe sources. Under this standard, are three standards covering firstly the minimum specifications for access and water quantity. Secondly covering the specifications for water quality. Finally, the standard addresses the provision of water use facilities and goods. The standard elaborates in an emergency setting the water needs of the population must be quickly assessed. Further, a water source should be selected considering the water need assessed, availability of adequate quantities of water at the source, requirement for treating, proximity to the target community and all socio-political factors involved in utilizing the source. The standard also amplifies the need to ensure ease of access to dissuade the affected people from using water from unsafe sources and ensuring equitable access to potable water especially to the most vulnerable. The quality specifications are such as to ensure the water poses no significant health risks to people and or animals by conducting tests to ensure the water is safe from the source as well as post-delivery. It highlights the need of promotion of safe water sources to encourage more people to use them. The standard for provision of water use facilities and goods sets specifications for ensuring that the affected population are adequately equipped to collect and safely store sufficient quantities of potable water and that they have bathing and washing facilities and goods to ensure their personal hygiene.
* Excreta disposal Standard- This standard firstly addresses the specifications for ensuring access to and provision of adequate toilet facilities during emergencies. It ensures the safe disposal of excreta to protect the environment from contamination by human waste through sanitation promotion and comprehensive community involvement as pertains to managing and maintaining defecation areas, public toilets and communal toilets. Secondly, the standard addresses the design, construction and use of toilets. The specifications require toilet facilities to be culturally acceptable, easy to use, and safe for women and girls, easily accessible, sufficiently private and dignified. Hand washing facilities are paramount for any toilet facility to be acceptable. The standard stipulates that the facilities be kept hygienic and be designed to prevent the contamination of water sources.
* Vector Control standard- This standard firstly addresses the minimum requirements to adequately protect individuals and families from vectors and vector borne diseases. It lays emphasis on the importance of empowering the affected community with information and means to protect themselves from vectors. Additionally, dignified shelter, thoughtful citing of emergency camps and spatial planning of camps are highlighted as methods of minimizing vector populations and spread. Moreover, personal and domestic hygiene promotion and facilitation are just as important in vector control and control of vector borne diseases. Secondly, the standard highlights various methods of reducing vector populations, reducing human-vector contact and reducing vector breeding sites through physical and environmental management techniques combined with chemical interventions where needed. Guidelines for the safe utilization of chemicals in vector control are specified, to ensure efficiency in use and safety of those handling the chemicals as well as the affected population and their environment are addressed as the third part of the standard.
* Solid Waste Management Standard- This standard covers safe collection and disposal protocols for proper solid waste management to ensure people are able to manage waste conveniently and effectively. This is vital because poor solid waste management has numerous associated risks that affect other facets of WASH intervention. Emphasis is placed on seeking a participatory approach in designing and implementing any solid waste management program. This ensures community ownership of the projects thus making it sustainable.
* Drainage Standard- Thus standard aims to ensure people have an environment that is not prone to the effects of water erosion, floodwaters, wastewater and storm water, which could affect sanitary infrastructure or pollute water sources or create breeding areas for vectors. The process of controlling drainage problems begins with choosing a strategic site with a proper layout. A proper design is one that limits the risk of pollution of water sources. Unique solutions for drainage of wastewater are best developed by working in close coordination with the affected community, which especially limit mixing of domestic wastewater with excreta thus minimizing treating costs.

1. ***Waste Management is becoming one problem in the emergencies. Why?***

Waste management is understandably a major concern in emergencies because poor management of waste has the ability to negatively impact on the gains of other WASH interventions because:

* Piled up organic waste quickly become breeding grounds for some disease carry vectors such as rats and flies. This negates any efforts to control vector populations bringing the need for more expensive or potentially harmful intervention through chemical control.
* Percolation of harmful wastes over time can pollute both surface and ground water leading to water borne disease outbreaks.
* Poor aesthetics resulting from accumulated solid waste affects negatively the perception and psychological wellbeing of the affected community in the aftermath of a disaster. This negates decent efforts in health and hygiene promotion as the people may become apathetic towards improving their behaviors as pertains to hygiene and sanitation.
* Solid waste blocks wastewater drains thus exposing the community to environmental health risks. Efforts to ensure proper drainage become exponentially expensive if solid waste management facilities do not exist, due to increased maintenance costs.
* Improper disposal of medical waste is a clear public health hazard.

1. ***Discuss how environmental health and sanitation affect the nutritional status of the vulnerable groups***

Endemic diarrhea is a consequence of a lack of hygiene. Diarrhea is one of the leading causes of child mortality among vulnerable groups. The spread of diarrheal diseases is directly attributable to inadequate water, sanitation and hygiene facilities. Communities where there are adequate measures to ensure adequate supply of water, safe excreta disposal facilities and improved water quality, realized significant reduction in morbidity for diarrheal diseases.

One of the biggest public health risk is contaminated food. Food risks contamination at various stages during handling, storage or consumption. Sources of contamination include dirty hands, unclean water or flies and other vectors. The vulnerable in society are most at risk because their primary sources of food are at the largest risk of contamination due to poor personal and domestic hygiene and sanitation. The vulnerable rely on:

* un-serviced markets where there are no organized organic waste solid waste collection and disposal systems , no source of clean water for cleaning fruits and vegetables and are infested with rodents and other disease carrying vectors.
* Eating-houses where there are rarely any public health inspections to ensure the food is stored, handled and prepared hygienically. They usually lack proper sanitation and hand washing facilities for their staff and clients. Lack of adequate clean water can also limit the cleanliness of the kitchen and the staff. There is a lack of realization among the vulnerable of the risks they face by not demanding better hygiene at eating-houses, which is mostly due to poverty and lack of options.
* Street food vendors who are very common among vulnerable communities yet they are unregulated. They pose a significant health risk despite their popularity. Some studies have pointed to most vendors lacking access to adequate water and sanitation facilities, implying they handle food with dirty hands. This makes them highly likely to transmit fecal diseases to consumers.

WASH interventions have become a significant part of initiatives to combat undernutrition and specifically through handwashing with soap and provision of safe excreta disposal facilities for the vulnerable. Only a coordinated multisector approach shall achieve lasting effects as was stressed in the second International Conference on Nutrition held in 2014. This has given credence to the significant role of environmental health and proper sanitation plays in improving the nutritional status of the vulnerable to ensure sustainable global development.

1. ***Assuming you have been appointed to head an organization dealing with health development in your area, describe the critical factors that you will consider in planning for health service in that area.***

The health and wellbeing of a community requires collaboration among the community, governmental and non-governmental entities. This ensures adoption of a comprehensive approach towards maintaining and improving the health and wellbeing of the community. The priority as the head of an organization such as one described above would require that I work closely with all stakeholders towards coming up with programs and interventions that best meet the actual needs of the community they serve. The following is a stepwise strategy I would follow towards developing holistic responses to avert risks to the health and wellbeing of the community and to empower them to be able to respond effectively during disasters.

* Assessment of needs- Any response envisaged must be against well-investigated needs and needs that the community in question prioritizes. It would be a priority for me to research and work closely with the community to assess their needs; the most urgent risks to their health and wellbeing as well as the knowledge and capability of the community to address the risks they face.
* Community participation and full stakeholder involvement- I would put in place strategies to ensure the community are involved in all stages of public health initiatives from analysis of needs and design of responses to implementation, operation and management of the initiatives. This shall be a continuous and ongoing process, and ensures that the community are less vulnerable to potential risks to their health and wellbeing, that they are empowered and equipped with facilities to prevent and or recover from emergencies and stimulates the community to organize itself more towards addressing health risks facing them. The commitment fostered by the participation of the community is key to the sustainability of any health initiatives. Participation is a key source of information while assessing the health risks facing any community and makes the community more aware of the risks they face.
* Nutrition Promotion- As previously discussed, the trend is to employ a multisector approach towards responding to the needs of the vulnerable in the community. A healthy and well-balanced diet is vital for normal growth and development. An important strategy for me would be to incorporate nutrition promotion activities with WASH interventions in the community to ensure people are not undernourished or malnourished to the point of being prone to infectious diseases.
* Health and Hygiene Promotion and education- Both health and hygiene promotion are concerned with improving the capacity of the community to improve their hygiene, sanitation and health and not only in transmission of information about the risks they face. Both are quite essential as they supplement the technical interventions of WASH and improve their success rate and sustainability. Communities tend to downplay the actual risks to the health and wellbeing while others may just be unable to respond to the risks due to poverty and vulnerability. It would be key for me to organize education programs to equip them with the knowledge they require as well as the facilities needed to ensure their hygiene and health. These initiatives are designed to be preemptive, continuous, long-term, inclusive, evidence based and educative. The entire process must be participatory, empowering and the messages should be problem-specific, aimed at fostering positive behavior change, non-alarmist and aimed at prevention and mitigation techniques. This is only effective with proper research and assessment of the risk factors faced by the community as discussed earlier. In addition, establish rapid and open communication channels, and treating community members with dignity is vital for the success of health and hygiene promotion and education programs.