WASH Assigment –module two. DIPLOMA IN public health course

This book is deigned to focused on some few guidelines based on WASH intervention in emergencies, its covers how to promote health strategy of the community, ways of dealing with WASH activities for better health promotion of the entire population within the communities.

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**Foreword**

This book is designed as the work frame for some guidelines in dealing with WASH intervention in emergencies,

The book covers how poor sanitation practice contributes into vulnerability of children and how as the health officer will contribute in good health infrastructure of the community in leading a certain humanitarian organization.

1. Why is Hand washing an essential aspect in WASH intervention?

Hand washing refers to proper use of clean soap or ash thoroughly to guide personal hygiene and disease carrier, Hand washing is therefore applied in the following critical moments.

1. Before eating.

This means that, one a you had not touch any a single food, a person is directed to used clean water and soap or ash to be responsible for virus that might be responsible for disease transformation.

1. After Defecation,

It is also advisable to use soap and clean water after coming from the latrine, toilet or open Defecation(OD), this can prevent easy spread of diseases that can be easily spread through flies but when using soap and clean water flies which act as diseases carrier are kill through present of detergents in Soap.

1. Before Preparing Food or Feeding Baby

It is also very essential to wash your hands properly before preparing food (cooking) or taking a step in feeding a baby. This is very importance in health care of individual or to health of the population since the disease has been controlled at every house hold level.

Hand washing is very importance aspect in WASH intervention in our current situation in the following ways.

The following are the essential reasons for hands washing as essential aspect in WASH intervention

1. **How Germs Make People Sick**

People, especially children frequently touch their eyes, mouth and nose without realizing it. Germs can travel from the hand and get into the body, which can make us sick.  Feces from people and pets spread germs like Salmonella, E. coli and norovirus, which causes diarrhea and it can cause respiratory infections. According to the Centers for Disease Control and Prevention (CDC), proper hand washing can reduce the number of people who get sick with diarrhea by 31-percent. A single gram of human feces can contain one trillion germs. That’s about the weight of a paper clip

**2. Cross Contamination of Food Can Make You Sick**

Germs have no scrupulous. They don’t care whether you’ve handled raw chicken and then sliced some fresh cucumber. To prevent cross contamination in the kitchen, it’s vital to wash your hands frequently. When the juice of raw meat comes into contact with ready-to-eat foods or cooking utensils, cross contamination can occur. To prevent food poisoning, always keep raw meat separate and wash anything that comes into contact with the meat—including your hands. Germs can also multiply in some types of food if not stored properly, so ensure you follow kitchen guidelines

**3. When to Wash Your Hands**

Hand washing should become second nature—and don’t do it only after you’ve used the bathroom or prepared a meal in the kitchen. You should wash your hands frequently because you never know when you’ve come into contact with germs. Wash your hands after using a tissue, taking the garbage out, before eating, during food preparations, after changing a diaper, after playing with pets. Basically, wash your hands a lot.

Liquid soap is the best choice. Bar soap, especially if used by numerous people can itself become contaminated. The bar of soap tends to sit in a pool of water and germs can linger on the bar. Dried out bar soap can develop cracks that allow harmful germs and dirt to hide inside. Generally, people don’t like to use a bar of soap, so use liquid soap in your home to encourage hand washing.

**4. Germs Can Transfer to Other Objects**

There’s a reason why germs spread like wildfire through day care centers and schools. Germs are easily transferred to objects like toys, smart phones, laptops and handrails. That means that anyone who hasn’t washed their hands properly can potentially contaminate anything they touch.

Properly washing children’s hands is vital to stop the spread of germs, but you’ll also need to disinfect toys and surfaces regularly to prevent the spread of infection. That means disinfecting anything that comes into contact with little hands like door knobs, benches, handrails, toys and chairs. It may seem like a daunting task, but it will help keep everyone germ free

**5. When to Use Hand Sanitizer**

Washing with soap and water is the best method to combat germs, but sometimes you may find yourself in a sticky situation where you don’t have access to clean water and soap. That’s when hand sanitizers come in handy.

Studies have found that hand sanitizers with an alcohol concentration between 60- and 90-percent are more effective. Non-alcohol based hand sanitizers not work as well. They only reduce the growth of germs, rather than killing them. One thing to keep in mind is that if you’re hands are greasy, hand sanitizers with 60-percent alcohol may not be enough. To get rid of the grease and germs, good old fashion soap and water are the best choice

1. **What are the main standards in WASH intervention in emergencies**
2. **Hygiene Promotion**

The aim of any water and sanitation programme is to promote good personal and environmental hygiene in order to protect health. Hygiene promotion is defined here as the mix between the population’s knowledge, practice and resources and agency knowledge and resources, which together enable risky hygiene behaviors to be avoided. The three key factors are

1) A mutual sharing of information and knowledge,

2) The mobilization of communities

3) The provision of essential materials and facilities.

Effective hygiene promotion relies on an exchange of information between the agency and the affected community in order to identify key hygiene problems and to design implement and monitor a programme to promote hygiene practices that will ensure the optimal use of facilities and the greatest impact on public health. Community mobilization is especially pertinent during disasters as the emphasis must be on encouraging people to take action to protect their health and make good use of facilities and services provided, rather than on the dissemination of messages. It must be stressed that hygiene promotion should never be a substitute for good sanitation and water supplies, which are fundamental to good hygiene.

Hygiene promotion is integral to all the standards within this chapter. It is presented here as one overarching standard with related indicators. Further specific indicators are given within each standard for water supply, excreta disposal, vector control, solid waste management and drainage. Under this strategy, it involves

1. ***programme design and implementation***

All facilities and resources provided reflect the vulnerabilities, needs and preferences of the affected population. Users are involved in the management and maintenance of hygiene facilities where appropriate. The following are the key indicators.

1. **Assessing needs:** an assessment is needed to identify the key hygiene behaviours to be addressed and the likely success of promotional activity. The key risks are likely to centre on excreta disposal, the use and maintenance of toilets, the lack of hand washing with soap or an alternative, the unhygienic collection and storage of water, and unhygienic food storage and preparation. The assessment should look at resources available to the population as well as local behaviours, knowledge and practices so that messages are relevant and practical. It should pay special attention to the needs of vulnerable groups. If consultation with any group is not possible, this should be clearly stated in the assessment report and addressed as quickly as possible.
2. **Sharing responsibility:** the ultimate responsibility for hygiene practice lies with all members of the affected population. All actors responding to the disaster should work to enable hygienic practice by ensuring that both knowledge and facilities are accessible, and should be able to demonstrate that this has been achieved. As a part of this process, vulnerable groups from the affected population should participate in identifying risky practices and conditions and take responsibility to measurably reduce these risks. This can be achieved through promotional activities, training and facilitation of behavioral change, based on activities that are culturally acceptable and do not overburden the beneficiaries.
3. **Reaching all sections of the population:** hygiene promotion programmes need to be carried out with all groups of the population by facilitators who can access, and have the skills to work with, different groups (for example, in some cultures it is not acceptable for women to speak to unknown men). Materials should be designed so that messages reach members of the population who are illiterate. Participatory materials and methods that are culturally appropriate offer useful opportunities for groups to plan and monitor their own hygiene improvements. As a rough guide, in a camp scenario there should be two hygiene promoters/community mobilisers per 1,000 members of the target population. For information on hygiene items, see Non-food items standard.
4. **Targeting priority hygiene risks and behaviours**: the objectives of hygiene promotion and communication strategies should be clearly defined and prioritised. The understanding gained through assessing hygiene risks, tasks and responsibilities of different groups should be used to plan and prioritise assistance, so that misconceptions (for example, how HIV/AIDS is transmitted) are addressed and information flow between humanitarian actors.
5. **Managing facilities:** where possible, it is good practice to form water and/or sanitation committees, made up of representatives from the various user groups and half of whose members are women. The functions of these committees are to manage the communal facilities such as water points, public toilets and washing areas, be involved in hygiene promotion activities and also act as a mechanism for ensuring representation and promoting sustainability. The affected population is appropriate and targeted.
6. **Overburdening:** it is important to ensure that no one group is overburdened with the responsibility for hygiene promotional activities or management of facilities and that each group has equitable influence and benefits (such as training). Not all groups, women or men have the same needs and interests and it should be recognized that the participation of women should not lead to men, or other groups within the population, not taking responsibility.
7. **Water Supply**

Water is essential for life, health and human dignity. In extreme situations, there may not be sufficient water available to meet basic needs, and in these cases supplying a survival level of safe drinking water is of critical importance. In most cases, the main health problems are caused by poor hygiene due to insufficient water and by the consumption of contaminated water.

*Water supply standard No1:* **access and water quantity**

All people have safe and equitable access to a sufficient quantity of water for drinking, cooking and personal and domestic hygiene. Public water points are sufficiently close to households to enable use of the minimum water requirement. The following are the key indicator for water supply.

1. **Needs**: the quantities of water needed for domestic use may vary according to the climate, the sanitation facilities available, people’s normal habits, their religious and cultural practices, the food they cook, the clothes they wear, and so on. Water consumption generally increases the nearer the water source is to the dwelling.

Simplified table of basic survival water needs

|  |  |  |
| --- | --- | --- |
| Survival needs: water intake (drinking and food) | 2.5- 3 litres per day | Depends on climate and individual physiology |
| Basic hygiene practices | 2-6 litres per day | Depends on Social and cultural Norms |
| Total basic water need | 3-6 litres per day | Depends on food type, social as well as cultural norms. |
|  | 7.5- 15 litres per day |  |

1. **Water source selection:** the factors that need to be taken into account are the availability and sustainability of a sufficient quantity of water; whether water treatment is required and, if so, the feasibility of this; the availability of the time, technology or funding required to develop a source; the proximity of the source to the affected population; and the existence of any social, political or legal factors concerning the source. Generally, groundwater sources are preferable as they require less treatment, especially gravity-flow supplies from springs, which require no pumping. Disasters often require a combination of approaches and sources in the initial phase. All sources need to be regularly monitored to avoid over-exploitation.
2. **Measurement**: measuring solely the volume of water pumped into the reticulation system or the time a hand pump is in operation will not give an accurate indication of individual consumption. Household surveys, observation and community discussion groups are a more effective method of collecting data on water use and consumption.
3. **Quality and quantity**: in many emergency situations, water-related disease transmission is due as much to insufficient water for personal and domestic hygiene as to contaminated water supplies. Until minimum standards for both quantity and quality are met, the priority should be to provide equitable access to an adequate quantity of water even if it is of intermediate quality, rather than to provide an inadequate quantity of water that meets the minimum quality standard. It should be taken into account that people living with HIV/AIDS need extra water for drinking and personal hygiene. Particular attention should be paid to ensuring that the water requirements of livestock and crops are met, especially in drought situations where lives and livelihoods are dependent.
4. **Coverage:** in the initial phase of a response the first priority is to meet the urgent survival needs of all the affected population. People affected by an emergency have a significantly increased vulnerability to disease and therefore the indicators should be reached even if they are higher than the norms of the affected or host population. In such situations it is recommended that agencies plan programmes to raise the levels of water and sanitation facilities of the host population also, to avoid provoking animosity.
5. **Maximum numbers of people per water source**: the number of people per source depends on the yield and availability of water at each source. For example, taps often function only at certain times of day and hand pumps and wells may not give constant water if there is a low recharge rate. The rough guidelines (for when water is constantly available) are:

|  |  |
| --- | --- |
| 250 people per tap | Based on a flow of 7.5 litres/minutes |
| 500 people per handpump | Based on a flow of 16.6L/M |
| 400 people per single –user well | Based on flow of 12.5 L/M |

These guidelines assume that the water point is accessible for approximately eight hours a day only; if access is greater than this, people can collect more than the 15 litres per day minimum requirement. These targets must be used with caution, as reaching them does not necessarily guarantee a minimum quantity of water or equitable access.

1. **Queuing time**: excessive queuing times are indicators of insufficient water availability (either due to an inadequate number of water points or inadequate yields of water points). The potential negative results of excessive queuing times are: 1) reduced per capita water consumption; 2) increased consumption from unprotected surface sources; and 3) reduced time for water collectors to tend to other essential survival tasks.
2. **Access and equity:** even if a sufficient quantity of water is available to meet minimum needs, additional measures may be needed to ensure that access is equitable for all groups. Water points should be located in areas that are accessible to all regardless of e.g. sex or ethnicity. Some hand pumps and water carrying containers may need to be designed or adapted for use by people living with HIV/AIDS, older and disabled people and children. In urban situations, it may be necessary to supply water into individual buildings to ensure that toilets continue to function. In situations where water is rationed or pumped at given times, this should be planned in consultation with the users. Times should be set which are convenient and safe for women and others who have responsibility for collecting water, and all users should be fully informed of when and where water is available.

*Water supply standard No2:* **water quality**

Water is essential for life, health and human dignity. In extreme situations, there may not be sufficient water available to meet basic needs, and in these cases supplying a survival level of safe drinking water is of critical importance. In most cases, the main health problems are caused by poor hygiene due to insufficient water and by the consumption of contaminated water. Water quality has the following key indicators as below

1. **A sanitary survey:** is an assessment of conditions and practices that may constitute a public health risk. The assessment should cover possible sources of contamination to water at the source, in transport and in the home, as well as defecation practices, drainage and solid waste management. Community mapping is a particularly effective way of identifying where the public health risks are and thereby involving the community in finding ways to reduce these risks. Note that while animal excreta is not as harmful as human excreta, it can contain cryptosporidium, giardia, salmonella, campylobacter, calici viruses and some other common causes of human diarrhea and therefore does present a significant health risk.
2. **Microbiological water quality:** faucal coliform bacteria (>99% of which are E. coli) are an indicator of the level of human/animal waste contamination in water and the possibility of the presence of harmful pathogens. If any faecal coliforms are present the water should be treated. However, in the initial phase of a disaster, quantity is more important than quality
3. **Promotion of protected sources:** merely providing protected sources or treated water will have little impact unless people understand the health benefits of this water and therefore use it. People may prefer to use unprotected sources, e.g. rivers, lakes and unprotected wells, fo technicians, hygiene promoters and community mobilisers need to understand the rationale for these preferences so that consideration of them can be included in promotional messages and discussions reasons such as taste, proximity and social convenience. In such cases technicians, hygiene promoters and community mobilisers need to understand the rationale for these preferences so that consideration of them can be included in promotional messages and discussions.
4. **Post-delivery contamination:** water that is safe at the point of delivery can nevertheless present a significant health risk due to re-contamination during collection, storage and drawing. Steps that can be taken to minimize such risk include improved collection and storage practices, distributions of clean and appropriate collection and storage containers treatment with a residual disinfectant, or treatment at the point of use. Water should be routinely sampled at the point of use to monitor the extent of any post-delivery contamination.
5. **Water disinfection:** water should be treated with a residual disinfectant such as chlorine if there is a significant risk of water source or post-delivery contamination. This risk will be determined by conditions in the community, such as population density, excreta disposal arrangements, hygiene practices and the prevalence of diarrhoea disease. The risk assessment should also include qualitative community data regarding factors such as community perceptions of taste and palatability Piped water supply for any large or concentrated population should be treated with a residual disinfectant and, in the case of a threat or the existence of a diarrhoea epidemic, all drinking water supplies should be treated, either before distribution or in the home. In order for water to be disinfected properly, turbidity must be below 5 NTU.
6. **Chemical and radiological contamination:** where hydrogeological records or knowledge of industrial or military activity suggest that water supplies may carry chemical or radiological health risks, those risks should be assessed rapidly by carrying out chemical analysis. A decision that balances short-term public health risks and benefits should then be made. A decision about using possibly contaminated water for longer-term supplies should be made on the basis of a more thorough professional assessment and analysis of the health implications.
7. P**alatability**: although taste is not in itself a direct health problem (e.g. slightly saline water), if the safe water supply does not taste good, users may drink from unsafe sources and put their health at risk. This may also be a risk when chlorinated water is supplied, in which case promotional activities are needed to ensure that only safe supplies are used.
8. **Water quality for health centres**: all water for hospitals, health centres and feeding centres should be treated with chlorine or another residual disinfectant. In situations where water is likely to be rationed by an interruption of supply, sufficient water storage should be available at the centre to ensure an uninterrupted supply at normal levels of utilization

*Water supply standard No3****:* water use facilities and goods**

People have adequate facilities and supplies to collect, store and use sufficient quantities of water for drinking, cooking and personal hygiene, and to ensure that drinking water remains safe until it is consumed. Water use of facilities has the following indicators

1. **Water collection and storage:** people need vessels to collect water, to store it and to use it for washing, cooking and bathing. These vessels should be clean, hygienic and easy to carry and be appropriate to local needs and habits, in terms of size, shape and design. Children, disabled people, older people and PLWH/A may need smaller or specially designed water carrying containers. The amount of storage capacity required depends on the size of the household and the consistency of water availability e.g. approximately 4 liters per person would be appropriate for situations where there is a constant daily supply. Promotion and monitoring of safe collection, storage and drawing provide an opportunity to discuss water contamination issues with vulnerable groups, especially women and children.
2. **Communal washing and bathing facilities**: people may need a space where they can bathe in privacy and dignity. If this is not possible at the household level, central facilities may be needed. Where soap is not available or commonly used, alternatives can be provided such as ash, clean sand, soda or various plants suitable for washing and/or scrubbing. Washing clothes is an essential hygiene activity, particularly for children, and cooking and eating utensils also need washing. The numbers, location, design, safety, appropriateness and convenience of facilities should be decided in consultation with the users, particularly women, adolescent girls and any disabled people. The location of facilities in central, accessible and well-lit areas can contribute to ensuring the safety of users.
3. **Excreta Disposal**

Safe disposal of human excreta creates the first barrier to excreta related disease, helping to reduce transmission through direct and indirect routes. Safe excreta disposal is therefore a major priority, and in most disaster situations should be addressed with as much speed and effort as the provision of safe water supply. The provision of appropriate facilities for defecation is one of a number of emergency responses essential for people’s dignity, safety, health and well-being.

*Excreta disposal standard 1: access to, and numbers of, toilet*

People have adequate numbers of toilets, sufficiently close to their dwellings, to allow them rapid, safe and acceptable access at all times of the day and night. It has the a number of indicators namely;

1. **Safe excreta disposal:** the aim of a safe excreta disposal programme is to ensure that the environment is free from contamination by human faeces. The more all groups from the disaster-affected population are involved, the more likely the programme is to succeed. In situations where the population has not traditionally used toilets, it may be necessary to conduct a concerted education/promotion campaign to encourage their use and to create a demand for more toilets to be constructed. Disasters in urban areas where the sewerage system is damaged may require solutions such as isolating parts of the system that still work (and re-routing pipes), installing portable toilets and using septic tanks and containment tanks that can be regularly desludged.
2. **Defecation areas:** in the initial phase of a disaster, before any toilets can be constructed, it may be necessary to mark off an area to be used as a defecation field or for trench latrines. This will only work if the site is correctly managed and maintained.
3. **Public toilets:** in some initial disaster situations and in public places where it is necessary to construct toilets for general use, it is very important to establish systems for the proper regular cleaning and maintenance of these facilities. Disaggregated population data should be used to plan the ratio of women’s cubicles to men’s (of approximately 3:1). Where possible, urinals should be provided for men (see Appendix 3
4. **Communal toilets**: for a displaced population where there are no existing toilets, it is not always possible to provide one toilet per 20 people immediately. In such cases, a figure of 50 people per toilet can be used, decreasing to 20 as soon as possible, and changing the sharing arrangements accordingly. Any communal toilet must have a system in place, developed with the community, to ensure that it is maintained and kept clean. In some circumstances, space limitations make it impossible to meet this figure. In this case, while advocating strongly for extra space to be made available, it should be remembered that the primary aim is to provide and maintain an environment free from human faeces.
5. **Shared facilities:** where one toilet is shared by four or five families it is generally better kept, cleaner and therefore regularly used when the families have been consulted about its siting and design and have the

responsibility and the means to clean and maintain it. It is important to organise access to shared facilities by working with the intended users to decide who will have access to the toilet and how it will be cleaned and maintained. Efforts should be made to provide people living with HIV/AIDS with easy access to a toilet as they frequently suffer from chronic diarrhoea and reduced mobility.

1. **Children’s faeces:** particular attention should be given to the disposal of children’s faeces, which are commonly more dangerous than those of adults, as the level of excreta-related infection among children is frequently higher and children lack antibodies. Parents or care givers need to be involved, and facilities should be designed with children in mind. It may be necessary to provide parents or care givers with information about safe disposal of infant faeces and nappy (diaper) laundering practices.

*Excreta disposal standard 2:* design, construction and use of toilets.

Toilets are sited, designed, constructed and maintained in such a way as to be comfortable, hygienic and safe to use, the following are its indicators.

1. **Acceptable facilities:** successful excreta disposal programmes are based on an understanding of people’s varied needs as well as on the participation of the users. It may not be possible to make all toilets acceptable to all groups and special toilets may need to be constructed for children, older people and disabled people e.g. potties, or toilets with lower seats or hand rails. The type of toilet constructed should depend on the preferences and cultural habits of the intended users, the existing infrastructure, the ready availability of water (for flushing and water seals), ground conditions and the availability of construction materials.
2. **Safe facilities:** inappropriate siting of toilets may make women and girls more vulnerable to attack, especially during the night, and ways must be found to ensure that women feel, and are, safe using the toilets provided. Where possible, communal toilets should be provided with lighting or families provided with torches. The input of the community should be sought with regard to ways of enhancing the safety of users.
3. **Anal cleansing:** water should be provided for people who use it. For other people it may be necessary to provide toilet paper or other material for anal cleansing. Users should be consulted on the most culturally appropriate cleansing materials and on their safe disposal.
4. **Menstruation:** women and girls who menstruate should have access to suitable materials for the absorption and disposal of menstrual blood. Women should be consulted on what is culturally appropriate (see Nonfood items standard 2 on page 232).
5. **Distance of defecation systems from water sources**: the distances given above may be increased for fissured rocks and limestone, or decreased for fine soils. In disasters, groundwater pollution may not be an immediate concern if the groundwater is not consumed. In flooded or high water table environments, it may be necessary to build elevated toilets or septic tanks to contain excreta and prevent it contaminating the environment.
6. **Hand washing:** the importance of hand washing after defecation and before eating and preparing food, to prevent the spread of disease, cannot be over-estimated. Users should have the means to wash their hands after defecation with soap or an alternative (such as ash), and should be encouraged to do so. There should be a constant source of water near the toilet for this purpose.
7. **Hygienic toilets:** if toilets are not kept clean they may become a focus for disease transmission and people will prefer not to use them. They are more likely to be kept clean if users have a sense of ownership. This is encouraged by promotional activities, having toilets close to where people sleep and involving users in decisions about their design and construction, rules on proper operation, maintenance, monitoring and use. Flies and mosquitoes are discouraged by keeping the toilet clean, having a water seal, Ventilated Improved Pit (VIP) latrine design or simply by the correct use of a lid on a squat hole.
8. **Vector Control**

A vector is a disease-carrying agent and vector-borne diseases are a major cause of sickness and death in many disaster situations. Mosquitoes are the vector responsible for malaria transmission, which is one of the leading causes of morbidity and mortality. Mosquitoes also transmit other diseases, such as yellow fever and dengue hemorrhagic fever. On-biting or synanthropic flies, such as the house fly, the blow fly and the flesh fly, play an important role in the transmission of diarrhoea disease. Biting flies, bed bugs and fleas are a painful nuisance and in some cases transmit significant diseases such as murine typhus and plague. Ticks transmit relapsing fever and human body lice transmit typhus and relapsing fever. Rats and mice can transmit diseases such as leptospirosis and salmonellosis and can be hosts for other vectors e.g. fleas, which may transmit Lassa fever, plague and other infections. Vector-borne diseases can be controlled through a variety of initiatives, including appropriate site selection and shelter provision, appropriate water supply, excreta disposal, solid waste management and drainage, the provision of health services (including community mobilization and health promotion), the use of chemical controls, family and individual protection and the effective protection of food stores. Although the nature of vector-borne disease is often complex and addressing vector related problems may demand specialist attention, there is much that can be done to help prevent the spread of such diseases with simple and effective measures, once the disease, its vector and their interaction with the population have been identified.

***Vector control standard 1: individual and family protection***

All disaster-affected people have the knowledge and the means to protect themselves from disease and nuisance vectors that are likely to represent a significant risk to health or well-being. It is encountered by indicators namely.

* **Defining vector-borne disease risk:** decisions about vector control interventions should be based on an assessment of potential disease risk,

Minimum Standards in Water Supply, Sanitation and Hygiene Promotion as well as on clinical evidence of a vector-borne disease problem. Factors influencing this risk include:– immunity status of the population, including previous exposure, nutritional stress and other stresses. Movement of people (e.g. refugees, IDPs) from a non-endemic to an endemic area is a common cause of epidemics;

– Pathogen type and prevalence, in both vectors and humans;

– Vector species, behaviours and ecology;

– Vector numbers (season, breeding sites, etc.);

– Increased exposure to vectors: proximity, settlement pattern, shelter type, existing individual protection and avoidance measures.

* **Indicators for vector control programmes**: commonly used indicators for measuring the impact of vector control activities are vector-borne disease incidence rates (from epidemiological data, community-based data and proxy indicators, depending on the response) and parasite counts (using rapid diagnostic kits or microscopy).
* **Individual malaria protection measures:** if there is a significant risk of malaria, the systematic and timely provision of protection measures, such as insecticide-treated materials, i.e. tents, curtains and bed nets, is recommended. Impregnated bed nets have the added advantage of giving some protection against body and head lice, fleas, ticks, cockroaches and bedbugs. Long-sleeved clothing, household fumigants, coils, aerosol sprays and repellents are other protection methods that can be used against mosquitoes. It is vital to ensure that users understand the importance of protection and how to use the tools correctly so that the protection measures are effective. Where resources are scarce, they should be directed at individuals and groups most at risk, such as children under five years old, non-immunes and pregnant women.
* **Individual protection measures for other vectors:** good personal hygiene and regular washing of clothes and bedding is the most effective protection against body lice. Infestations can be controlled by personal treatment (powdering), mass laundering or delousing campaigns and by treatment protocols as newly displaced people arrive in a settlement. A

clean household environment, together with good waste disposal and good food storage, will deter rats and other rodents from entering houses or shelters.

* **Water-borne diseases:** people should be informed of health risks and should avoid entering water bodies where there is a known risk of contracting diseases such as schistosomiasis, Guinea worm or leptospirosis (transmitted by exposure to mammalian urine, especially that of rats: see Appendix 4). Agencies may need to work with the community to find alternative sources of water or ensure that water for all uses is appropriately treated.

***Vector control standard 2: physical, environmental and chemical protection*** The numbers of disease vectors that pose a risk to people’s health and nuisance vectors that pose a risk to people’s well-being are kept to an acceptable level

* **Site selection:** is important in minimizing the exposure of the population to the risk of vector-borne disease; this should be one of the key factors when considering possible sites. With regard to malaria control, for example, camps should be located 1-2km upwind from large breeding sites, such as swamps or lakes, whenever an additional clean water source can be provided (see Shelter and settlement standards 1-2 on pages 211-218).
* **Environmental and chemical vector control:** there are a number of basic environmental engineering measures that can be taken to reduce the opportunities for vector breeding. These include the proper disposal of human and animal excreta (see Excreta Disposal section), proper disposal of refuse to control flies and rodents (see Solid Waste Management section), and drainage of standing water to control mosquitoes (see Drainage section). Such priority environmental health measures will have some impact on the population density of some vectors. It may not be possible to have sufficient impact on all the breeding, feeding and resting sites within a settlement or near it, even in the longer term, and localised chemical control measures or individual protection measures may be needed. For example, space spraying may reduce the numbers of adult flies and prevent a diarrhoea epidemic, or may help to minimise the disease burden if employed during an epidemic.
* **Designing a response:** vector control programmes may have no impact on disease if they target the wrong vector, use ineffective methods, or target the right vector in the wrong place or at the wrong time. Control programmes should initially aim to address the following three objectives: 1) to reduce the vector population density; 2) to reduce the human-vector contact; and 3) to reduce the vector breeding sites. Poorly executed programmes can be counter-productive. Detailed study, and often expert advice, are needed and should be sought from national and international health organizations, while local advice should be sought on local disease patterns, breeding sites, seasonal variations in vector numbers and incidence of diseases, etc.
* **Environmental mosquito control:** environmental control aims primarily at eliminating mosquito breeding sites. The three main species of mosquitoes responsible for transmitting disease are Culex (filariasis),

Anopheles (malaria and filariasis) and Aedes (yellow fever and dengue). Culex mosquitoes breed in stagnant water loaded with organic matter such as latrines, Anopheles in relatively unpolluted surface water such as puddles, slow-flowing streams and wells, and Aedes in water receptacles such as bottles, buckets, tyres, etc. Examples of environmental mosquito control include good drainage, properly functioning VIP latrines, keeping lids on the squatting hole of pit latrines and on water containers, and keeping wells covered and/or treating them with a larvicide (e.g. for areas where dengue fever is endemic).

* **Malaria treatment:** malaria control strategies that aim to reduce the mosquito population density by eliminating breeding sites, reducing the mosquito daily survival rate and restricting the human biting habit should be carried out simultaneously with early diagnosis and treatment with effective anti-malarial. Campaigns to encourage early diagnosis and treatment should be initiated and sustained. In the context of an integrated approach, active case finding by trained outreach workers and treatment with effective anti-malarial is more likely to reduce the malaria burden than passive case finding through centralised health services (see Control of communicable diseases standardly assures.

***Vector control standard 3:chemical control safety***

Chemical vector control measures are carried out in a manner that ensures that staff, the people affected by the disaster and the local environment are adequately protected, and avoids creating resistance to the substances used.

* **National and international protocols:** there are clear international protocols and norms, published by WHO, for both the choice and the application of chemicals in vector control, which should be adhered to at all times. Vector control measures should address two principal concerns: efficacy and safety. If national norms with regard to the choice of chemicals fall short of international standards, resulting in little or no impact or endangering health and safety, then the agency should consult and lobby the relevant national authority for permission to adhere to the international standards.

1. **Solid Waste Management**

If organic solid waste is not disposed of, major risks are incurred of fly and rat breeding (see Vector Control section) and surface water pollution. Uncollected and accumulating solid waste and the debris left after a natural disaster or conflict may also create a depressing and ugly environment, discouraging efforts to improve other aspects of environmental health. Solid waste often blocks drainage channels and leads to environmental health problems associated with stagnant and polluted surface water.

1. **Burial of waste:** if waste is to be buried on-site in either household or communal pits, it should be covered at least weekly with a thin layer of soil to prevent it attracting vectors such as flies and rodents and becoming their breeding ground. If children’s faeces/nappies are being disposed of they should be covered with earth directly afterwards. Disposal sites should be fenced off to prevent accidents and access by children and animals; care should be taken to prevent any leachate contaminating the ground water.
2. **Refuse type and quantity:** refuse in settlements varies widely in composition and quantity, according to the amount and type of economic activity, the staple foods consumed and local practices of recycling and/or waste disposal. The extent to which solid waste has an impact on people’s health should be assessed and appropriate action taken if necessary. Recycling of solid waste within the community should be encouraged, provided it presents no significant health risk. Distribution of commodities that produce a large amount of solid waste from packaging or processing on-site should be avoided medical waste: poor management of health-care waste exposes the community, health-care workers and waste handlers to infections, toxic effects and injuries. In a disaster situation the most hazardous types of waste are likely to be infectious sharps and non-sharps (wound dressings, blood-stained cloth and organic matter such as placentas, etc.). The different types of waste should be separated at source. Non-infectious waste (paper, plastic wrappings, food waste, etc.) can be disposed of as solid waste. Contaminated sharps, especially used needles and syringes, should be placed in a safety box directly after use. Safety boxes and other infectious waste can be disposed of on-site by burial, incineration or other safe methods.
3. **Market waste:** most market waste can be treated in the same way as domestic refuse. Slaughterhouse waste may need special treatment and special facilities to deal with the liquid wastes produced, and to ensure that slaughtering is carried out in hygienic conditions and in compliance with local laws. Slaughter waste can often be disposed of in a large pit with a hole cover next to the abattoir. Blood, etc. can be run from the abattoir into the pit through a slab-covered channel (reducing fly access to the pit). Water should be made available for cleaning purposes.
4. **Controlled tipping/sanitary landfill:** large-scale disposal of waste should be carried out off-site through either controlled tipping or sanitary landfill. This method is dependent upon sufficient space and access to mechanical equipment. Ideally waste that is tipped should be covered with soil at the end of each day to prevent scavenging and vector breeding.
5. **Staff welfare:** all solid waste management staff who collect, transport or dispose of waste should be provided with protective clothing, at minimum gloves and ideally overalls, boots and protective masks. Water and soap should be available for hand and face washing. Staffs that come into contact with medical waste should be informed of the correct methods of storage, transport and disposal and the risks associated with improper management of the waste.
6. **Drainage**

Surface water in or near emergency settlements may come from household and water point wastewater, leaking toilets and sewers, rainwater or rising floodwater. The main health risks associated with surface water are contamination of water supplies and the living environment, damage to toilets and dwellings, vector breeding and drowning. Rainwater and rising floodwaters can worsen the drainage situation in a settlement and further increase the risk of contamination. A proper drainage plan, addressing storm water drainage through site planning and wastewater disposal using small-scale, on-site drainage, should be implemented to reduce potential health risks to the population. This section addresses small-scale drainage problems and activities. Large-scale drainage is generally determined by site selection and development (see Shelter, Settlement and Non-Food Item.

1. **Site selection and planning:** the most effective way to control drainage problems is in the choice of site and the layout of the settlement (see Shelter and settlement standards 1-4 on pages 211-224). 2. Wastewater: sullage or domestic wastewater is classified as sewage when mixed with human excreta. Unless the settlement is sited where there is an existing sewerage system, domestic wastewater should not be allowed to mix with human waste. Sewage is difficult and more expensive to treat than domestic wastewater. At water points and washing and bathing areas, the creation of small gardens to utilise wastewater should be encouraged. Special attention needs to be paid to prevent wastewater from washing and bathing areas contaminating water sources.
2. **Drainage and excreta disposal**: special care is needed to protect toilets and sewers from flooding in order to avoid structural damage and leakage.
3. **Promotion:** it is essential to involve the affected population in providing small-scale drainage works as they often have good knowledge of the natural flow of drainage water and of where channels should be. Also, if they understand the health and physical risks involved and have assisted in the construction of the drainage system, they are more likely to maintain it (see Vector Control section). Technical support and tools may then be needed
4. **On-site disposal:** where possible, and if favorable soil conditions exist, drainage from water points and washing areas should be on-site rather than via open channels, which are difficult to maintain and often clog. Simple and cheap techniques such as soak pits can be used for on-site
5. Waste management is becoming one problem in the emergencies. Why?

Already used plastic bag, broken glass, obsolete cell phone, or used battery cells, they are all used products that require appropriate disposal to limit their [harm to the environment](https://www.conserve-energy-future.com/stunning-ways-save-environment-from-destruction.php). Waste disposal is therefore a systematic action for managing waste from its origin to its final disposal. It includes incineration/burning, burial at landfill sites or discharge at sea/lake/river, and [recycling](https://www.conserve-energy-future.com/ways-you-can-put-waste-good-use-by-recycling.php).

Word Web defines waste disposal as a “*unit for getting rid of and destroying or storing used, damaged or other unwanted industrial, agricultural or domestic products and substances.*” It also entails proper discard or discharge of the material waste in accordance with the local environmental regulatory framework. Because [waste disposal](https://www.conserve-energy-future.com/waste-management-and-waste-disposal-methods.php) involves a myriad of processes such as collection, transportation, dumping, recycling, or sewage treatment among other waste product monitoring and regulation measures, there are lots of problems associated with waste disposal. Here are is the photo of waste disposal in south Sudan Capital.



[](https://www.conserve-energy-future.com/wp-content/uploads/2017/06/garbage-truck-landfill-waste.jpg)

Various Waste Disposal Problems

1. **Production of too much waste**

One of the major [waste disposal problems](https://www.conserve-energy-future.com/waste-management-and-waste-disposal-methods.php) is attributed to the generation of too much waste. America alone is responsible for the producing of about 220 million tons of waste annually. In 2007 for instance, it’s recorded that Americans generated nearly 260 million tons of municipal solid waste. This is about 2.1 kg per person each day. The point is; if these are only figures in America, let’s try to imagine the amount of waste produced by the rest of the population across the globe.

According to the World Bank report, the average global municipal solid waste (MSW) generation per person on daily basis is about 1.2 kg and the figure is expected to rise up to 1.5 kg by 2025. It therefore means that every state and local authority suffer the problem of effective waste disposal due to the generation of too much waste. The problem is that the present era is driven by a throw-away consumerism with companies and producers striving to maximize profits by producing one-time use products without prioritizing on reuse, recycling or the use of [environmentally friendly](https://www.conserve-energy-future.com/innovative-ways-to-build-environmentally-friendly-home.php) materials.

1. **Most of the waste is toxic**

The majority of the state and local authority legislations are generally lax on regulating the ever-expanding manufacturing industries. On a daily basis, these industries produce toxic products that end up getting thrown away after use. Most of the products contain hazardous and health-threatening chemicals.

A report by the U.S. EPA indicates that more than 60,000 untested chemicals are present in the consumer products in our homes. There are even products known to contain toxic chemicals, such as Biphenyl-A (BPA) – often present in plastic toys, but they are still poorly regulated. Packaging is also one of the biggest and rapidly enlarging categories of solid waste which accounts for 30% of MSW and approximately 40% of the waste is plastic which is never biodegradable. It’s this level of toxicity together with the lax regulatory laws that exacerbates the problem of dealing with waste disposal.

1. **Landfills are a problem as well**

Most landfills lack proper on-site waste management thereby contributing to additional [threats to the environment](https://www.conserve-energy-future.com/causes-and-effects-of-environmental-degradation.php). In the long-term, landfills leak and pollute ground water and other neighboring environmental habitats making waste management very difficult. They also give off potentially unsafe gases.

Also, the laws and regulation guiding the operations of landfills are often lax at monitoring and regulating the different types of wastes namely [medical waste](https://www.conserve-energy-future.com/medical-waste-disposal.php), municipal waste, special waste or [hazardous waste](https://www.conserve-energy-future.com/hazardous-waste-disposal-and-companies.php). With this kind of laxity of the laws in landfill [waste management](https://www.conserve-energy-future.com/sustainable-practices-waste-management.php), the landfills toxicity and hazardous nature significantly increases to a point where the landfill waste problems often lasts for up to 30 years.

1. **Regulations are based on vested interests**

Since [waste disposal and management](https://www.conserve-energy-future.com/sources-effects-methods-of-solid-waste-management.php) has become a profit making venture, those who advocate for safe, quality and proper management of waste disposal are outmatched by industries in the business. Large enterprises in the waste disposal business dictate all aspects of the market from operating landfills, sewer systems and incinerators to recycling facilities. The corporations simply aim at making profits regardless of the waste reduction requirements or the resultant destructive [environment impacts](https://www.conserve-energy-future.com/causes-and-effects-of-environmental-degradation.php).

As such, they collaborate with vested interest regulators thereby creating a big problem in the effective regulation of waste disposal, which has worsened the devotions to waste reduction and recycling programs. To make matters worse, even some state officials work together with such industry officials to expand landfills, increase waste tonnage, and develop new waste disposal or recycling or treatment facilities to augment profits.

1. **Reliance of dying technologies to reduce and recycle waste**

Waste disposal and management facilities as well as state resources have continued to rely on myopic and quickie solutions instead of developing effective recycling and waste reduction programs. Consequently, it has created continued reliance on the use of outdated technologies to deal with waste disposal. The problem is that most states are reluctant and less creative towards advancing novel technologies for reducing the toxicity and volume of waste or enhancing [recycling](https://www.conserve-energy-future.com/importance-recycling-ink-and-toner-cartridges.php), especially solid waste.

1. **Some of the technologies marked as “green” are not true in actual sense**

Recycling technologies such as plasma arc, gasification, and pyrolysis are often marked as “green” but the truth of the matter is that they are not 100% green. These recycling technologies burn up waste with little or no oxygen and for this reason; it doesn’t differentiate them from the traditional incinerators which produce energy from burning waste.

As much as burning waste to produce energy is considered green because it does not involve the use fossil fuel, it still releases [toxic materials into the environment](https://www.conserve-energy-future.com/top-10-worst-toxic-pollution-problems.php). Also like the traditional waste incineration systems, these technologies emit toxic ash into the atmosphere that can potentially harm people’s health and the environment. Therefore, the technologies simply divert concentration from the development of cleaner recycling and waste reduction technologies.

1. **Limitation of illiteracy among some communities**: it will be upon the communities to undermine themselves about how waste materials are harmful causing pollution to the environment, it contributed as limited capacity by community stakeholders to fully oversee good waste disposal procedures to stop harmful pollution.

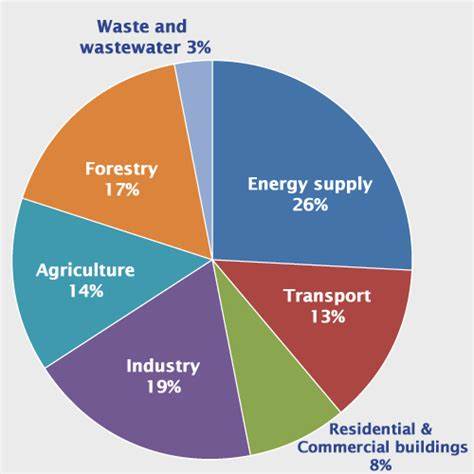
[](https://www.conserve-energy-future.com/wp-content/uploads/2016/12/landfill-waste-management-waste.jpg)

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

In real sense, poor environment leads into poor feeding since an infection of various diseases id obvious.

This major is an ideal choice for trained environmental scientists who would like to apply their expertise to human health. In addition to our physical condition, our health is determined by extrinsic factors, such as the food we eat, the water we drink, and the air we breathe. Pollutants or microbes taken up from the biotic or abiotic environment can cause illness in otherwise healthy individuals. Without understanding health in its environmental context we will not be able to solve some of the most pressing public health problems we face today - for example, obesity, the antibiotic resistance crisis, or the threat posed by newly emerging infectious diseases.

The Major in Human Health, Nutrition and Environment focuses on the effects of diet, pollutants and infectious diseases on human health. It combines training in epidemiology, public health and biomedical foundations with relevant areas of food and environmental sciences as well as ecology. The molecular biology that dominates biomedical subjects is integrated with quantitative and population biological approaches. For this reason, a broad basic education in mathematics and natural sciences is required. This major will prepare students for a career in the public sector, in industry or in academia.

The major involves three institutes at two departments: the Institute of Food, Nutrition and Health at the Department of Health Sciences and Technology, the Institute of Biogeochemistry and Pollutants Dynamics, and the Institute of Integrative Biology - both at the Department of Environmental Systems Science. These institutes are leading in their respective research areas nationally and internationally.

The pie chart below shows an interaction of environment and nutrition status of vulnerable people

From the above, forestry and agriculture play very importance l roles in the nutrition status , since the fertility of the land resulted in good agriculture practice that contributed into growing of balance diet crops and vegetable.

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

The structure of health services in the south Sudan after the Second World War reflected disparate origins and artificial divisions between different elements, which had persisted for many years.  The three main strands, state owned (nationalized) hospitals, a national network of general practitioners and community and domiciliary health services, were financed centrally but managed separately. Throughout the history of the NHS, this initial division of functions between separate statutory organizations created problems in the provision of comprehensive and co-ordinated services. As appointed at the officer in any organization leading health sector, I will definitely begin with

* 1. **Situation analysis;**

As a well-informed, well trained public health officer, there are major steps taken in health situation analysis**.**

* + 1. **Problem Definition:** as a well public health officer wishing to promote the health of the community working in leading a certain organization, it is advisable to conduct problem statement through surveillance in the particular area that you would like to settle a case. Do the following practical procedures.
  1. **Identify the Health Issue**

For many health programs or strategies, the health issue is identified at the outset, such as when a funder releases a request for proposals for a child health project or when a government ministry requests specific technical assistance for HIV prevention programs.

At other times, it may be necessary for an organization itself to identify the broad health issue that needs to be addressed in a particular geographic area. To do so, review existing health and demographic data, survey results, study findings and any other available data to identify the priority health issue. Throughout the review, pay attention to the following types of information:

* Geographic areas where high levels of [mortality](https://www.thecompassforsbc.org/how-to-guides/how-conduct-situation-analysis#mortality) and [morbidity](https://www.thecompassforsbc.org/how-to-guides/how-conduct-situation-analysis#morbidity) exist because of a health issue.
* The [prevalence](https://www.thecompassforsbc.org/how-to-guides/how-conduct-situation-analysis#prevalence) or [incidence](https://www.thecompassforsbc.org/how-to-guides/how-conduct-situation-analysis#incidence) of that health issue.
* Population segments that are most heavily impacted by the health issue.
* The existing priorities of the government.
* The donor landscape.
* Health trends from one point in time to another.
  1. Develop a Problem Statement

1. Successful SBCC strategies focus on one specific issue at a time. Addressing too many issues or too general an issue, such as overall reproductive health, can be confusing. To help focus the situation analysis, develop a focused problem statement, such as:
2. https://www.thecompassforsbc.org/sites/default/files/Situation_Analysis_Example_1.png
3. This problem statement names the health issue (family planning) and indicates who is affected (newly married couples), where (Zed district) and, if known, the extent of the problem (a high amount). A well-written problem statement has the added benefit of providing specific search terms to use in collecting documents for the desk review (see Step 4).
4. To develop a problem statement, it may be helpful to first have all of the team members state the problem in their own words. Then, as a group, write a clear one- to two-sentence problem statement that reflects the team’s common understanding and that can guide the data collection and analysis on that specific health issue.

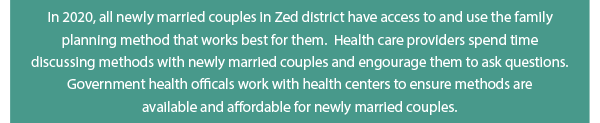
### Draft a Shared Vision

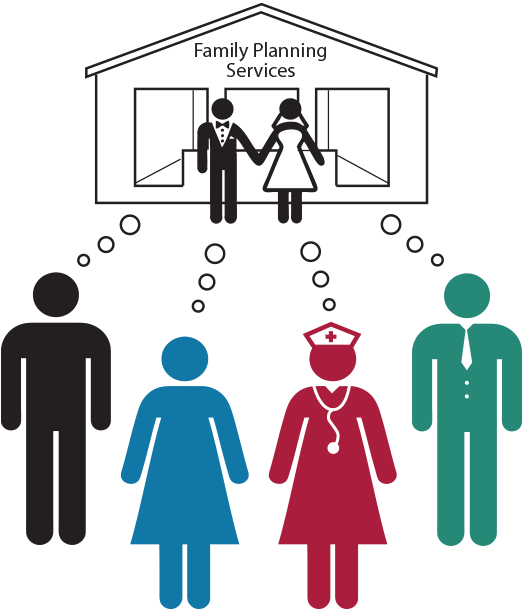
A vision provides a picture of what the situation will look like when the SBCC effort is completely successful and will anchor the SBCC intervention by stating what the program hopes to influence. A good vision statement provides direction, communicates enthusiasm and fosters commitment and dedication. A good vision should:

* Be Ambitious - go beyond what is thought likely in the near term.
* Be Inspiring and Motivating - call to mind a powerful image that triggers emotion and excitement, creates enthusiasm and poses a challenge.
* Look at the big picture - give everyone a larger sense of purpose.

To guide the team during the initial data collection and analysis, draft a provisional vision statement, which will later be shared with stakeholders to create a shared vision for the SBCC effort. One approach to developing the vision follows: each team member individually imagines the future she wants to see and draws that image on a paper. Team members share the pictures with each other and discuss similarities and differences. The team agrees on the elements that inspire them, adding new elements that arise from the discussion, and draws a new picture that represents the vision of the entire team. The team then translates the picture into words to create a vision statement.

The vision should be written in the present tense and then tested to make sure it meets the criteria of a good vision listed above.



[](https://www.thecompassforsbc.org/sites/default/files/Situation_Analysis_Image_1_LARGE.png)

Once the team has conducted an initial situation analysis, the provisional vision will be shared with stakeholders involved in the SBCC strategy design process and agreed upon. This can be done through a **stakeholder workshop** or informal meetings where stakeholders provide feedback and suggest changes to the provisional vision statement. The resulting shared vision statement should clarify what is important for all stakeholders and guide the strategy design and development process.

* 1. **Implement the health issue identified**

**1: Reflect and Strategize:**

Community health improvement is an ongoing process. Before beginning a new assessment cycle, reflect on your previous community health assessment (CHA) to identify what elements worked well, areas for process improvement and whether your implementation strategies had their desired impact. A thorough review of how data were collected and used in previous CHAs can include the following considerations:

* **Quantitative data:** What sources were used in previous years? Did these sources provide new insights or confirm previous findings? Did the resources address/reflect the needs of specific communities or broader regional areas? Are there new or different data sources available?
* **Qualitative data:** What stakeholders were engaged in data collection? During which steps of the process were they engaged? Did these stakeholders provide new information or confirm previous findings? Were any groups inadvertently excluded? Were participants representative of the community served?
* **Data analysis:** How were trends, comparisons and other methods used to identify significant health needs and their possible causes? What trends or changes can you detect in the data as a result of the previous CHA process?

1. **Identify and Engage Stakeholders**

Establishing robust, trusting relationships with community stakeholders fosters a welcoming and inclusive environment, creating a stronger sense of joint ownership of the community health assessment (CHA) process. While this is a discrete step, stakeholders should be engaged throughout the CHA process. Refer to the[Community Engagement](http://www.healthycommunities.org/Education/toolkit/files/community-engagement.shtml) section for more information. ***Map assets that support community health improvement***  
The process of mapping community assets emphasizes individuals and resources in the community that can act as change agents to affect hospitals’ decisions about services. This process can illuminate unexpected stakeholders or partners to engage in the CHA process.1

Types of assets identified include

* **Human resources:** An organization’s staff, board of directors, programs, membership and target population, including individual expertise, talent, training and skills
* **Physical resources**: A geographic location that is accessible to the target population and provides public space and meeting rooms
* **Informational resources**: Formal and informal networks of communication and participation in formal and informal associations
* **Political resources:** Constituencies of elected officials and public and private institutions that advocate for resources and policy changes
* **Existing intervention resources:** Initiatives that are already occurring in the community

1. **Define the Community**

Specifying the geographic focus and population characteristics determines the scope of your assessment and any implementation strategies. This includes having access to data by ZIP code, census tract or neighborhood as well as connecting with community members to truly understand their concept of community. ***Describe the geographic community***  
The geographic focus can include counties, cities or towns, neighborhoods, school or other governmental districts, or a collection of ZIP codes. Consider the hospital’s service area as a starting point to describe the community. In some cases, it can be beneficial to go beyond primary and secondary service areas, to areas with greater unmet health needs. Organizations that have completed a CHA can look back to see how the community was defined in earlier assessments and determine if the definition needs to change.

***Identify population groups***  
Though the geographic focus can be broad and inclusive (e.g., all people in a defined region), hospitals can dig deeper into specific population groups relevant to the assessment’s purpose. Examples of population characteristics that can be targeted include:

* Age (e.g., children and youth, adults, seniors)
* Race and ethnicity
* Income level
* Education level
* Insurance status
* Language preference
* Disability status
* Veteran status
* Sexual orientation
* Gender

1. **Prioritize Community Health Issues**

* Hospitals and community stakeholders go through a process to distinguish the most pressing community health needs based on the data collected. The identified priority health needs will be addressed through the implementation strategies. Magnitude of the problem
* Severity of the problem
* Need among vulnerable populations
* Community’s capacity and willingness to act on the issue
* Ability to have a measurable impact on the issue
* Availability of hospital and community resources
* Existing interventions focused on the issue
* Whether the issue is a root cause of other problems
* Trending health concerns in the community

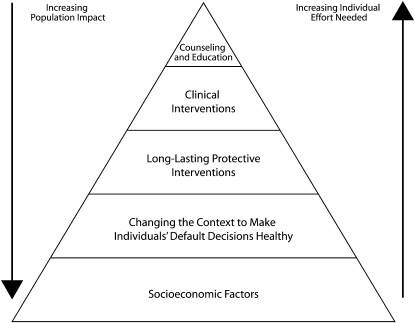
1. **Evaluate Progress**

Evaluation should be planned throughout the community health assessment (CHA) process to assess the impact of your strategies and progress toward your goals. This step suggests a modified version of [CDC’s evaluation guidelines](http://www.cdc.gov/eval/framework/), and may be used as a starting point to tailor an evaluation for a particular community health improvement effort, at a particular point in time. ***Find your baseline***   
Determine your baseline to understand the impact of your strategies. This can include measuring a number of things such as knowledge and attitudes; community norms; biometric measures such as BMI or HbA1c levels; health behaviors like tobacco use, physical activity and eating healthy foods; or health-promoting policy and system changes. The evaluation should focus on the CHA priority areas being addressed and their associated goals, objectives and strategies. Refer to your driver diagram (see below) to review how you are addressing the primary and secondary drivers that can positively impact the health priority being addressed.

***Engage stakeholders***  
Include stakeholders from your hospital and community, including those involved in program operations, those involved in previous CHA steps, those served or affected by the program and primary users of the evaluation. View the [Community Engagement](http://www.healthycommunities.org/Education/toolkit/files/community-engagement.shtml) section to see different ways that stakeholders can be involved in the process.

***Focus the evaluation design***   
The evaluation should be designed to assess the issues identified as priorities in your CHA. If you developed Population Health Driver Diagrams for the [priorities identified in your CHA](http://www.healthycommunities.org/Education/toolkit/files/step5-select-priority.shtml),once interventions associated with secondary drivers have been selected for action, your implementation team(s) can establish metrics (i.e., measures and targets) for each of the interventions. These metrics can be used for determining progress and evaluating the impact of your strategies. Consider the purpose, users, uses, questions and methods. Key questions include:

* What will be evaluated?
* What framework will be used?
* What criteria/metrics will be used? How will you ensure that those are the metrics that matter?
* What metrics will indicate success?
* What process metrics or indicators will suggest progress toward the goal?
* What conclusions will you be able to make based on the criteria/metrics being measured?



**References**

Hanleybrown, F., Kania, J., and Kramer, M. (2012). Channeling change: Making collective impact work. Retrieved from <http://jcisd.org/cms/lib/MI01928326/Centricity/Domain/218/Making%20Collective%20Impact%20Work%20Stanford%202012.pdf>

2. Frieden, T. R. (2010). A framework for public health action: the health impact pyramid. *American Journal of Public Health*, *100*(4), 590-595. Retrieved from <http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2836340/>

3. Hester, J., Auerbach, J., Seeff, L., Wheaton, J., Brusuelas, K., and Singleton, C. (2016). *CDC’s 6|18 Initiative: Accelerating evidence into action*. Retrieved from <https://nam.edu/wp-content/uploads/2016/05/CDCs-618-Initiative-Accelerating-Evidence-into-Action.pdf>

4. National Research Council (U.S.). Committee on Health Impact Assessment. (2011). *Improving health in the United States: The role of health impact assessment*. Washington, DC: The National Academies Press, p. 5. Retrieved from <http://www.nap.edu/read/13229/chapter/1>

5. Centers for Disease Control and Prevention. (2011). Develop SMART Objectives. Retrieved from <http://www.cdc.gov/phcommunities/resourcekit/evaluate/smart_objectives.html>

6Elements of an Effective Vision Statement by Erica Olsen from [Strategic Planning Kit For Dummies](http://www.dummies.com/how-to/content/strategic-planning-kit-for-dummies-cheat-sheet.html), 2nd Edition.

* 1. UN Women. Virtual Knowledge Centre to End Violence against Women and Girls: [Situation Analysis](http://www.endvawnow.org/en/articles/212-situation-analysis-.html).
  2. O’Sullivan, G.A., Yonkler, J.A., Morgan, W., and Merritt, A.P. [A Field Guide to Designing a Health Communication Strategy](http://www.thehealthcompass.org/sbcc-tools/field-guide-designing-health-communication-strategy), Baltimore, MD: Johns Hopkins Bloomberg School of Public Health/Center for Communication Programs, March 2003.
  3. World Health Organization. National Health Policies, Strategies & Plans: [Situation Analysis and Priority Setting](http://www.who.int/nationalpolicies/processes/priorities/en/).