# WASH GUIDELINES IN DESIGNATED EMERGENCY SHELTERS (DES) & URBAN DISPLACEMENT IN GAZA STRIP









### **ACKNOWLEDGMENT**

The authors and on behalf of Oxfam would like to acknowledge all organizations and individuals who participated in the development of the current Manual for WASH Guidelines in Designated Emergency Shelters and Urban Displacement in Gaza Strip by giving feedback or advices, or by participating in one of the meetings or interviews that oversaw the manual consultation process, mainly all WASH Cluster members in Gaza. The involvement of a diverse range of humanitarian field workers was particularly welcomed.

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This manual contains training materials and handouts collected from previously developed manuals and guidance written in annexes section. The contents were modified to set with Gaza Context in order to enable facilitators to rapidly prepare training for different levels of hygiene promoters, community mobilizers, and field workers. It can also serve as a resource for self-directed learning by others involved in supporting or managing WASH interventions during an emergency. This Project has been led by Oxfam on behalf of the Gaza WASH Cluster, with the support of the following: ACF, Islamic Relief, OCHA, GVC, NRC and UNICEF.











### **ABBREVIATIONS**

AIT Area Ignition team

APW Australian Parenting Website **ARC** 

Australian Red Cross

**BCC** Behaviour Change Communication

B0 Body Odour

CAP Consolidated Appeals Process CAT Comprehensive Assessment Tool CB0s Community based organizations

CDC Centers for Disease Control and Prevention CHAST Children's Hygiene and Sanitation Training

CHCs Community health clubs **CPWG** Child Protection Working Group CWC Communication with Communities DES Designated Emergency Shelters

DFID Department for International Development

**ECHO** European Civil Protection and Humanitarian Aid Operations FAO Food and Agriculture Organization of the United Nations

**GBC** Global Protection Cluster **GBV** Gender-Based Violence HIV Human Immunodeficiency Virus

HP Hygiene Promotion

**HPC** Humanitarian Programme Cycle **IACP** Inter Agency/Cluster Contingency Plan **IASC** Inter-Agency Standing Committee **IDPs** Internally Displaced Peoples Information Management

IOM International Organization for Migration

**IPC** Interpersonal Communication

**IRC** International Water and Sanitation Centre

MHM Menstrual Hygiene Management MSF Médecins Sans Frontières

NFI Non-Food Items

NG0s Non-governmental organizations NTU Nephelolometric Turbidity Units M80 Operation and Maintenance

Participatory hygiene and sanitation transformation **PHAST** 

**PPE** Personal Protective Equipment RAT Rapid Assessment Tool SoPs Shelter Operational Plans **SOPs** Standard Operating Procedures

**SRC** Swiss Red Cross TSS Toxic Shock Syndrome **UNCT UN Country Team** 

**UNICEF** United Nations Children's Emergency Fund

UNOCHA United Nations Office for the Coordination of Humanitarian Affairs

United States Agency for International Development

UTIs urinary tract infections

**USAID** 

**VCHP** Volunteer Community Health promoters

VIP Ventilated Improved Pit WASH Water, Sanitation and Hygiene WCC WASH Central Coordinator

**WEDC** Water, Engineering and Development Centre

WHO World Health Organisation

**WSP** Water Safety Plan

**WSR** Whole System in the Room WTT WASH Technical Team

### 1.INTRODUCTION:

### 1.1.Background:

The Designated Emergency Shelters DES are part of the Inter Agency/Cluster Contingency Plan (IACP) and aimed at upgrading the schools and shelters to protect displaced people due to natural disasters and/or armor/military conflicts; mainly internally displaced peoples (IDPs) in Gaza in case of such emergency. A DES would ensure that an appropriate environment is provided to the affected population where 2,000 IDP can be accommodated in accordance with SPHERE standards where ensuring basic WASH services is a top priority. DES partners have drafted DES WASH operational road map (framework) and shelter operational plans (SoPs) in January 2017 to ensure effective and timely response to the lifesaving humanitarian needs of IDPs to DESs in case of emergency. This manual aims at contributing towards the effective provision of emergency shelter assistance to the affected population through the timely and efficient coordination of shelter agencies within the Shelter Coordination Group in support to the DES partners (including ECHO partners) through several actions which focus on the soft components in order to ensure the effectiveness of WASH services in the DESs during and after onset emergency.

### 1.1.0bjectives of the manual:

THE WASH DES MANUAL AIMS TO PROVIDE PRACTICAL GUIDELINES AND WAYS OF WORKING FOR WASH ACTORS BY COVERING THE FOLLOWING ELEMENTS:

Hygiene promotion approach and guidelines for DESs.

Hygiene promotion approach and guidelines for communities' potential to displacement.

Hygiene kits modality and minimum standards.

Guidelines for communication with communities (CWC) that meet Gaza context.

Guidelines for effective feedback mechanism.

WASH need assessments guidelines and templates for IDPs at the DESs.

WASH 4 W's reporting requirements and design and development of relevant templates.

### 1.3. Scope of the manual:

The manual focuses on WASH guidelines for DESs during emergencies in Gaza Strip. It is limited to providing needed knowledge and procedures for field workers and officers handling WASH services for DESs within SPHERE standards.

### 1.4. Methodology:

THE COMING STEPS (FIGURE 1) WERE FOLLOWED FOR THE MANUAL PREPARATION:

### 1.4.1.Structured interviews:

Different interviews have been conducted with several pre-identified parties who have direct connection to humanitarian interventions in Gaza and known to be WASH major actors. The pre-structured interviews conducted with the following agencies: PWA, CMWU, ACF, OXFAM, ICRC, MAAN, PARC, NRC, IRPAL, UNICEF, and UNRWA.

### 1.4.2.Drafting & verification:

Once the pre-structured interviews are made, the manual was shaped and drafted. Therefore, drafting process (compiling, structuring, and sectioning) was conducted. At this stage, verification process took place where cross-checking with other related documents was made.

### 1.4.3. Final submission:

At this stage, the manual is finalized and presented in its final shape for final validation and regular use.







FIGURE 1: MANUAL METHODOLOGY CHART

### 1.4.4Users of the manual:

Projects officers designing and following up WASH interventions related to DESs.

Hygiene promoters, community mobelizers, or any other field workers handling DESs WASH services and supplies.

Shelter management teams/committees and volunteers

Decision and policy makers in the field of humanitarian aid and emergency interventions.

# **CHAPTER TWO**

# HYGIENE PROMOTION AND SANITATION WITHIN DESIGNATED SHELTERS

### A. BACKGROUND

Shelter is considered as one of the most important action for survival in the initial stages of a disaster. In addition to the vital role of the shelter in providing of security and personal safety, protection from the climate and enhanced resistance to ill health and disease for the displaced and affected populations. It is also important for human dignity and to sustain family and community life as far as possible in difficult circumstances. Shelter and associated settlement and non-food item responses should support communal coping strategies, incorporating as much selfsufficiency and self-management into the process as possible. Such responses should also minimise the long-term adverse impact on the environment, whilst maximising opportunities for the affected communities to maintain or establish livelihood support activities.

Secondary affected populations by the disaster (Indirect affected) must also be given interesting and consideration on their rights and needs, such as any hosting community. Any response should be formed by the steps taken by the affected households in the initial aftermath of the disaster, using their own skills and material resources to provide temporary shelter or to begin the construction of new, longer-term dwellings. Shelter responses should enable affected households to incrementally upgrade from emergency to durable shelter solutions within a reasonably short time and with regard to the constraints on acquiring the additional resources required.

The direct aid and urgent interventions intended to be implemented to meet the needs of affected populations by a disaster are defined by key factors such as:

Nature, type, time, and scale of the disaster

Resulting loss of housing (IDPs)

Climatic conditions

**Local environment** 

Political and security situation

Context (rural or urban

Community capability to cope (preparedness and vulnerability).

Consulting sensitive people such as women, elders, persons with disabilities and even children in shelter and settlement programmes can help ensure that they and all members of the population affected by the disaster have equitable and safe access to shelter and the needed aids such as; medication, hygienic practices and facilities, clothing, food and non-food items and other essential supplies. Those people should be involved and questioned about a range of issues such as their special needs, security and privacy, sources and means of obtaining their needs equitably. Particular attention will be needed to prevent and respond to gender based violence and sexual exploitation. It is therefore important to encourage those people's participation in the design and implementation of shelter and settlement programmes wherever possible.

The coming sections in this chapter involved many theoretical and practical topics regarding the health and environmental aspects in emergency time within the population potential to displacement and already the sheltered populations. It is an attempt to illustrate and explain many important issues related to the intervention and care providing activities during the emergency time with clear focusing on hygienic practices, sanitary components and other key factors that should be handled suitably in order to prevent or at least minimize the adverse impacts of the deserter to the lowest levels.

### **B.PROTECTION MAINSTREAMING**

### CONSIDERATIONS IN EMERGENCY TIME:





































Protection in the humanitarian context typically refers to the safeguarding of fundamental human rights. It means ensuring the safety, well-being and dignity of those affected by a crisis, and includes protection from specific risks that may arise in emergency situations. Following a natural disaster, for example, the affected population may be exposed to risks related to other environmental hazards, such as mudslides, floods, and aftershocks. Protection is also about preventing and responding to abuse, exploitation, and violence. To ensure protection, programmes need to take into account the potential risks that affected communities face, and provide appropriate support to prevent those risks being realized (CARE, 2016).

### **CHILDREN PROTECTION:**



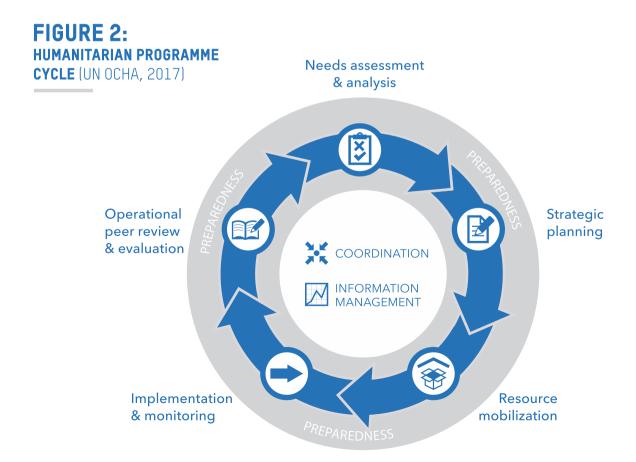
Child protection actors can play a central role in enhancing the safety and well-being of children and adolescents by integrating GBV prevention and mitigation measures into their programming, and by supporting childfriendly systems of care for survivors. Actions taken by the child protection sector to prevent and respond to GBV should be done in coordination with GBV specialists and actors working in other humanitarian sectors. Child protection actors should also coordinate with (where they exist) partners addressing gender, mental health and psychosocial support (MHPSS), HIV, age and environment (IASC, 2015).

Shelter and protection are intrinsically linked. Safe and adequate shelter can contribute to the restoration of dignity, including privacy, to those affected by disaster, and can help to keep them from harm. Shelter can be a critical protection against abuse, violence, exploitation, and environmental hazards, and is essential for physical and psychological wellbeing. Certain individuals or groups within an affected population may be more vulnerable to potential risks. Some of these risks may have been present before the disaster, or may be exacerbated by it. Other risks can develop as a consequence of the way in which humanitarian assistance has been delivered. Many of the protections issues that can arise in emergency situations will disproportionately affect women: protection and gender are intrinsically linked too (CARE, 2016).

# C.HUMANITARIAN PROGRAMME CYCLE (INTERVENTION IN DIFFERENT PHASES):

The humanitarian programme cycle (HPC) is a coordinated series of actions undertaken to help prepare for, manage and deliver humanitarian response. According to UN OCHA (2017), it consists of five elements coordinated in a seamless manner, with one step logically building on the previous and leading to the next as it shown in figure (2).

Successful implementation of the humanitarian programme cycle is dependent on effective emergency preparedness, effective coordination with national/local authorities and humanitarian actors, and information management. Details and deep description about every phase mentioned in the cycle are presented in the documents developed by UN OCHA, (2017).



THE ACTIONS IN THE CYCLE, DESCRIBED BELOW, ARE INTER-RELATED AND SHOULD BE MANAGED IN A SEAMLESS MANNER USING A COHERENT APPROACH AND A COMMON SET OF TOOLS:

Emergency preparedness is a distinct element of, and underpins, the entire cycle.

Timely, coordinated assessments and analysis identify the needs of affected people and provide the evidence base for planning the response.

Coordinated planning allows for the formulation of strategic objectives, what needs to be done to meet them, and how much it will cost.

Funding and other resources are mobilized for the system based on and in support of the strategic response plan.

Monitoring of agreed output and outcome indicators and the tracking of financial information demonstrates results and informs decision-making about the plan.

Despite that implementation of the cycle should be flexible and adaptable to different country situations; addressing the above mentioned elements is a must. Whenever possible, it should support national and local partners, including NGOs, civil society and communities, and complement or build on existing frameworks; it should contribute to a response that builds resilience to future disasters.

### 2.HYGIENE PROMOTION:

### 2.1.DEFINITION OF HYGIENE:

The World Health Organisation (WHO) defines hygiene as 'the conditions and practices that help to maintain health and prevent the spread of diseases' (WHO, 2011). In Water Aid's Sanitation framework, hygiene is defined as 'personal and household practices such as handwashing, bathing, and management of stored water in the home, all aimed at preserving cleanliness and health (Water Aid, 2012). There are various categories of hygiene behaviour that have a significant impact on the transmission of water- and sanitation-related diseases. They are:

Safe disposal of human excreta (including that of children and infants).

Water source protection and use, safe water chain (from the water source to transportation, storage and 'point of use').

Personal hygiene (washing of hands with soap at critical times, as well as body, face and clothes).

Food hygiene (cooking, washing, storing, preventing cross contamination).

Domestic and environmental hygiene (disposal of solid waste and animal excreta, control of wastewater and rainwater, cleanliness of the house and its surroundings) (Water Aid, 1999).

### 2.2. WHAT IS HYGIENE PROMOTION?

Hygiene Promotion is the planned, systematic approach to enabling people to take action to prevent or mitigate water, sanitation, and hygiene related diseases. At its best it can facilitate community participation and accountability in WASH interventions. While WASH interventions focus mainly on the prevention or reduction of diarrhoea, malaria may also be a cause of significant mortality, and hygiene promotion is equally relevant in helping to address this issue. Where the key priorities are being well managed, it may be more appropriate to focus on an environmental clean up to further reduce the risks of transmission of disease.

# 2.3.HYGIENE PROMOTION VS. HYGIENE EDUCATION:

The water and sanitation sector is gradually moving away from the term 'hygiene education'. Hygiene education is about enhancing people's knowledge by raising awareness of the links between good hygiene practices and health. It is premised upon the belief that teaching people about how disease spreads will result in them changing their behaviour for the better (Water Aid, 2012).

However, motivations for changing behaviour are not necessarily directly related to health benefits. They may be more closely related to 'nurture (the need to protect children), affiliation (the need to fit in with family or group, a voiding disputes), comfort (convenience, time, weather, privacy), attracting others (pride, cleanliness, gaining more votes, attracting brides/bridegrooms), disgust with earlier behaviour (open defecation), dignity and responsibility, economics (saves money, makes money), and existing cultural beliefs' (IRC, 2011).

Hygiene education programmes (whether participatory or didactic) do not always build on and connect effectively to existing beliefs and practices, hence the critique that 'there is little proof that such educational approaches are effective, either in developing or developed countries' (Curtis, 2011).

Hygiene promotion is a much broader concept than hygiene education. It refers to 'systematic approaches to encourage the widespread adoption of safe hygiene practices in order to reduce diarrhoeal and other water and sanitation related diseases' (WELL, 2005). It builds upon what people know, do and want, and therefore focuses on identifying motivations for behaviour change based on existing practices and beliefs. By identifying drivers of change and finding ways to trigger them, effective hygiene promotion reduces the main risky hygiene behaviours and practices among key target groups (Appleton and Sijbesma, 2005).

# 2.4.GOOD HYGIENE PREVENTS DISEASE SPREADING

Effective hygiene promotion is widely accepted as one of the most sufficient tools to reduce the burden of diarrhoeal diseases after a disaster. Hygiene promotion is, nevertheless, given significantly less emphasis than other water supply and sanitation initiatives. Hygiene promotion is a general term used to cover a range of strategies aimed to improve people's hygiene behaviour and so prevent the spread of disease (WHO, 2013). This note focuses on behaviour related to water supply and sanitation. By creating a series of barriers to infection, hygiene behaviour has a critical influence on the transmission of water- and sanitation-related diseases as shown in figure (3).

# PATHWAYS OF CONTAMINATION:

A child with diarrhoea can pass the infection to other members of the family through several ways. When the child defecates in the open, the protozoa, bacteria and viruses present in the faeces will contaminate the soil directly, or drinking water and food through flies. When other members of the family consume the contaminated water, they will also get sick. In addition, rain water may wash the faeces to farms, where low lying vegetables may be contaminated, or other children who play with soil contaminate their hands. People who clean children may also get infected through their hands where hand washing with soap is not practiced.

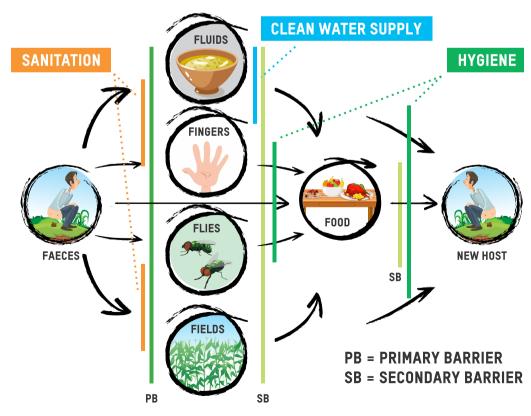


FIGURE 3: THE F-DIAGRAM OF DISEASE TRANSMISSION (SRC, 2014)

Even without the disruption of an emergency, diarrhoea kills over 30,000 children per week worldwide. During protracted war and conflict in particular, simple diarrhoeal diseases can often kill more people than the fighting itself (Oxfam, 2009). Water and sanitation interventions contribute to preventing disease transmission in various ways. For example, safe disposal of faeces is a primary barrier to prevent faeces from contaminating the environment. Pit latrines, used by both adults and children, can reduce diarrhoea by 36% or more 38%. Furthermore, improved water quality and quantity can be associated with up to a 20% reduction in diarrhea (Almedom et al., 1997). However, even though the provision of improved water supply and sanitation facilities make it easier to practice good hygiene, on their own they are not sufficient to significantly decrease morbidity and mortality rates. As demonstrated by the figures below, good hygiene practices are of critical importance as they have a greater impact on health and ensure hygienic use and maintenance of facilities (Cairncross et al., 2005].

Handwashing with soap at critical times, especially before eating and after contact with excreta, can reduce diarrhoeal disease by up to 47% (Curtis and Cairncross, 2003), the prevalence of eye infections like trachoma and conjunctivitis by approximately 45%, and respiratory infections by about 20% (Fung and Cairncross, 2009).

Water and sanitation related diseases contribute significantly to number of deaths and incidence of sickness in emergencies. During protracted conflict, diarrhoeal diseases can kill more people than the fighting itself. The overarching aim of any WASH intervention in a humanitarian emergency is to reduce these levels of avoidable mortality and morbidity.

# THE MOST IMPORTANT PRACTICES TO TARGET ARE:

Appropriate use and maintenance of sanitation facilities;
Safe disposal of faeces;
Handwashing after defecation and before food preparation;
Use and proper storage of safe drinking-water and
Control of flies, mosquitoes and other disease vectors.

Good hygiene practices can also reduce the prevalence of respiratory infections, skin infections, blinding trachoma, endo-parasites like roundworm and hookworm, and ecto-parasites such as scabies and fleas (Curtis, 2011). Hygiene practices during delivery and postpartum (the period just after delivery), particularly handwashing with soap or equivalent, have been reported to reduce neonatal mortality (Bartram and Cairncross, 2010).

Face and body washing reduce the risk of trachoma and skin infections (although this is less well researched).

Lack of food hygiene (particularly of weaning food) 'has been suggested as a major contributor to diarrhoea in low-income settings' (Curtis et al., 2011 and Touré et al., 2011).

Preventing children from coming into contact with animal faeces and keeping household surfaces clean, as well as fly control, will also lessen the risk of disease.

AS IT SHOWN IN FIGURE (4), FEWTRELL ET AL., (2005) STUDIED THE EFFECT OF GOOD WATER, SANITATION, AND HYGIENE INTERVENTIONS ON REDUCTION OF DIARRHOEA WITHIN LESS DEVELOPED COUNTRIES, DATA LEADS TO SOME CONTROVERSY, PARTLY DUE TO THE DIFFICULTY OF SPLITTING IMPACTS OF INTERVENTIONS. FOR EXAMPLE:

Hand-washing is not possible without a water supply, so 'hand-washing' is in fact 'water supply and hand-washing'

Water quality at household will also have involved some hygiene promotion when setting up the household water treatment processes

Despite how good the provision of water and sanitation infrastructure is, without interventions to ensure that people use the facilities in the best possible way, high levels of mortality and morbidity will persist. The importance of hand washing is well documented (as highlighted in figure 4), but is just one area of hygiene promotion that also includes involving people in designing suitable facilities and maintaining them (Global WASH Cluster, 2009).

# 2.5.WASH ACCORDING TO HUMAN RIGHTS 8 INTERNATIONAL LAW:

The minimum standards for water supply, sanitation and hygiene promotion (WASH) are a practical expression of the shared beliefs and commitments of humanitarian agencies and the common principles, rights and duties governing humanitarian action that are set out in the Humanitarian Charter. Founded on the principle of humanity, and reflected in international law, these principles include the right to life and dignity, the right to protection and security and the right to receive humanitarian assistance on the basis of need (UN, 2002).

Everyone has the right to water and sanitation. This right is recognised in international legal instruments and provides for sufficient, safe, acceptable, physically accessible and affordable water for personal and domestic uses and accessible sanitation facilities. An adequate amount of safe water is necessary to prevent death from dehydration, to reduce the risk of waterrelated disease and to provide for consumption, cooking and personal and domestic hygienic requirements. The right to water and sanitation is inextricably related to other human rights, including the right to health, the right to housing and the right to adequate food.

As such, it is part of the guarantees essential for human survival. States and nonstate actors have responsibilities in fulfilling the right to water and sanitation. In times of armed conflict, for example, it is prohibited to attack, destroy, remove or render useless drinking water installations or irrigation works. The importance of WASH in disasters water and sanitation are critical determinants for survival in the initial stages of a disaster. People affected by disasters are generally much more susceptible to illness and death from disease, which to a large extent are related to inadequate sanitation, inadequate water supplies and inability to maintain good hygiene. The most significant of these diseases are diarrhoeal and infectious diseases transmitted by the faeco-oral route. Other water- and sanitation-related diseases include those carried by vectors associated with solid waste and water, as it will be illustrated later within the coming sections in this manual. The term 'sanitation', throughout the Sphere Handbook, refers to excreta disposal, vector control, solid waste disposal and drainage (Sphere Project, 2011).

### 2.6.COMPONENTS OF HYGIENE PROMOTION

Oxfam in (2009) was developed a number of important components of hygiene promotion in emergency situation illustrated obviously in figure 5, in addition to examples of the specific activities related to each component are then provided (Oxfam, 2009).

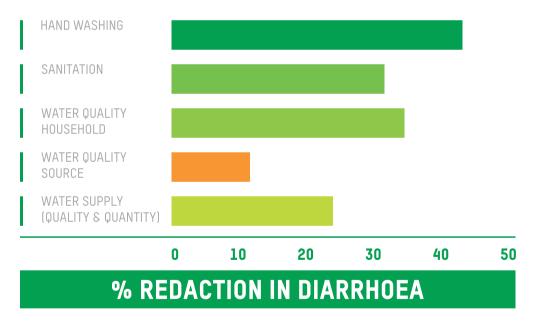


FIGURE 4: WASH INTERVENTIONS TO REDUCE DIARRHOEA IN LESS DEVELOPED COUNTRIES:

A systematic review and meta-analysis, (Fewtrell et al., 2005)



FIGURE 5: COMPONENTS OF HYGIENE PROMOTION

### COMMUNITY AND INDIVIDUAL ACTION E.G.:

Apply principles of Behaviour Change Communication and Social Mobilisation

Train outreach system of hygiene promoters to conduct needed awareness sessions in shelters and home visits in population potential to be affected.

Organise community dramas and group activities with adults and children

Use available mass media e.g. radio to provide information on hygiene

### COMMUNICATION WITH WASH STAKEHOLDERS E.G.:

Collaborate with and/or orientate government workers

Train women's groups/co-operatives and national NGOs

### SELECTION AND DISTRIBUTION OF HYGIENE ITEMS E.G.:

Decide on content and acceptability of items for hygiene kits

Ensure the optimal use of hygiene items (including insecticide-treated bed netswhere used)

### **COMMUNITY PARTICIPATION E.G.:**

Consult with affected men, women, and children on design of facilities, hygiene kits, and outreach system

Identify and respond to vulnerability e.g. the elderly or those with disabilities

Support and collaborate with existing community organisations, organisers, and communicators

### MONITORING: COLLECT, ANALYZE AND USE DATA ON:

Appropriate use of hygiene items

Optimal use of facilities

Community satisfaction with facilities

### **USE AND MAINTENANCE OF FACILITIES E.G.:**

Establish a voluntary system of cleaning and maintenance

Encourage a sense of ownership and responsibility

Lay the foundations for longer term maintenance by identification, organisation and training of water and sanitation committees

### 2.7. HYGIENE IMPROVEMENT FRAMEWORK:

In addition to tackling WASH related diseases, HP ensures optimal use of water, sanitation, and hygiene facilities. Previous experience indicates that without HP, these facilities are often designed and used in an ineffective and unsustainable manner

Access to hardware, combined with an enabling environment and Hygiene Promotion, will result in improved hygiene. This is represented in figure 6, by the Hygiene Improvement Framework for Emergencies which was developed by USAID.



## WASH

**DISEASE PREVENTION** 

### HYGIENE PROMOTION IN EMERGENCIES











ACCESS TO HARDWARF

FIGURE 6: HYGIENE IMPROVEMENT FRAMEWORK FOR EMERGENCIES (GLOBAL WASH CLUSTER, 2009)

### 2.8.EQUITY & INCLUSION IN HYGIENE PROMOTION BEFORE & DURING EMERGENCY:

Hygiene promotion programmes take on different forms depending on their context. However, it is important that any programme is inclusive, relevant and accessible to all members of society before emergency time and within emergency shelter. In the following pages there are examples of particular groups or circumstances for which hygiene is especially important. This is not meant to be a comprehensive overview but rather a way to highlight some of the most vulnerable or at-risk groups (Water Aid, 2012).

Whatever the focus of Hygiene Promotion, the emphasis must be on enabling and mobilizing women, men, and children to take ACTION to mitigate health risks (by adhering to safe hygiene practices), rather than simply raising awareness about the causes of ill health.

### 2.8.1.SCHOOL-AGED CHILDREN

Schools can serve as hubs for the transmission of faecaloral diseases, which have damaging impacts on children's physical and cognitive development. According to WHO, pre-school and school age children are particularly vulnerable to infections of round worm and whip worm, which, along with other water- and sanitation-related diseases, including diarrhoea, can result in significant absences from school (WHO, 2012).

However, schools can also play an important role in hygiene promotion. Hygiene messages in school curricula, community outreach activities and school health clubs can play a pivotal role in promoting good hygiene practices, together with the provision of safe sanitation and drinking-water. When children are included in programmes as active participants, they can become powerful agents of change in their own households and in their communities by passing on messages about good hygiene practices. As future generations of adults, children are also critical to ensuring the sustainability of behaviour change (UNICEF, 1999).

Considering the Best Interests of the Child

In all actions concerning children and adolescents, the best interests of the child shall be a primary consideration. This principle should quide the design, monitoring and adjustment of all humanitarian programmes and interventions. Where humanitarians take decisions regarding individual children, agreed procedural safequards should be implemented to ensure this principle is upheld. Children are people under 18 years of age. This category includes infants (up to 1 year old) and most adolescents (10-19 years). Adolescents are normally referred to as people between the ages of 10 and 19 (CPWG, 2012).

Child to child and child to community hygiene promotion approaches recognise the responsibility that children often have in developing countries for looking after younger siblings, and therefore the role they can play to influence their siblings and other family members to adopt safer hygiene practices. Even in shelters and during emergency times, children can play an important role in circulating the hygiene messages and implementing effective hygiene promotion campaigns.

# 2.8.2.WOMEN AND GIRLS HYGIENE MANAGEMENT

Women in general have specific concerns and special needs in term of self-hygiene. Research on menstrual hygiene management indicates that inadequate facilities for cleaning and disposing of menstrual hygiene materials can have significant health implications for women and girls, and affect school attendance rates (Sommer, 2010). Hygiene promotion programmes should therefore include a focus on the 'production of easy and affordable access to sanitary napkins and related products, and their safe and dignified disposal after use' as well as adjustments to latrine construction and design that help girls and women to manage their hygiene better and in sufficient privacy during menstruation (WaterAid et al., 2010). It is important that these are defined in context to ensure cultural appropriateness and incorporation of beliefs and attitudes around menstruation (Sommer, 2010).

# SCHOOL ENVIRONMENTS THAT ARE NOT 'GIRLFRIENDLY' ARE CHARACTERISED BY:

Lack of latrines, or a reliance on latrines that are inadequate in terms of quality, design, safety, privacy or number.

Lack of a clean water supply inside the latrines to wash hands and cloths.

Lack of proper disposal mechanisms.

Lack of an adequate and safe washing area.

These environments, whether in schools or other public and private places, particularly within the emergency shelters, can significantly hinder the ability of women and girls to practice appropriate hygiene during their menstrual cycle or even in the regular daily activities. Moreover, the taboos surrounding menstruation need to be challenged so that it becomes a subject that can be openly discussed by all, and taught about in school.

### 2.8.3. HYGIENE PROMOTION FOR ADULT:

Hygiene is often considered to be in the domain of women and girls. However, men, women, girls and boys have different needs with regards to hygiene and have different roles to play in relation to promoting behaviour change within their families and communities during the regular times and emergency. As men are often decision-makers and control household finances following the cultural and religious traditions, their involvement is essential in supporting their partners and children to change behaviours. However, programmes often only require results based on impacts on women and children, and there is a general lack of awareness about tools to target men. Issues such as identifying what motivates men, how and where they can be targeted, how inclusion of men in hygiene promotion programmes can be resourced, and what support can be provided to health and sanitation facilitators (HSFs) are all important (Water Aid, 2012)

### 2.8.4.PERSONS WITH DISABILITY & ELDERS:

Hygiene facilities and behaviours are critically important for people living with disabilities and older people. Poor hygiene can cause disabilities (eg. trachoma from poor face washing), and these people are often more susceptible to infections. They may also not be able to access hygiene promotion materials or be excluded from community activities because of stigma, ether in the community during the regular times or inside the shelters during emergency. Therefore, hygiene promotion programmes need to be attentive to and inclusive of the needs and preferences of people living with disabilities and older people, and they should recognise the marginalisation often faced by these groups in order to ensure that all can practice safe hygiene and access and use facilities hygienically (Water Aid, 2012). Hygiene promotion activities should be accessible to all and include messages about stigma as well as the way in which hygiene can contribute to the prevention of disabilities.

### 2.8.5.0THER AT-RISK GROUPS

Other groups may be particularly at risk depending on the context, and other specific situations may exist. Hygiene promotion programme design will need to account for those people. Examples of at-risk groups include transient populations (such as embassies staffs and international visitors groups), mothers, children under five, those with different religious or ethnic backgrounds, and non-school attending children. The most effective communication channels to engage with these groups will vary, and could include, for example, hygiene promotion at clinics and other public spaces.

Furthermore, the design of hygiene promotion programmes is likely to differ depending on whether they are carried out in an urban, rural, small town, per-urban or other context. Communication channels and tools will vary to address population density and size, but also in relation to levels of awareness, accessibility to hygiene-related materials (eg menstrual pads, cloths or soap), settlement patterns, risky practices and disease patterns (Water Aid, 2012).

### 2.9. HYGIENE PROMOTION IN EMERGENCY SETTINGS:

In emergency settings, water, sanitation and good hygiene behaviour are often disrupted for short or long periods of time. Following natural disasters (slow-onset disasters such as droughts or rapid-onset disasters such as flooding, cyclones or earthquakes) or man-made disasters (eg. political unrest or wars), the people affected are generally much more vulnerable to illness and death from disease (most significantly from diarrhoeal diseases). This is often related to inadequate sanitation, unsafe water and poor hygiene. As an integral part of emergency water supply and sanitation programmes, hygiene promotion is particularly important in such situations in order to reduce the spread of diseases. The issues and topics related to WASH in emergency and shelters will be addressed in details during the coming sections within this manual.

### 2.9.1. HYGIENE PROMOTION AS PROJECT:

Consider HP at all stages of the project cycle or intervention and emergency plan, and continuously assess and review, as it shown in table (2) and figure (7). This will ensure that approaches to HP, communication strategies, and training programmes are adjusted to facilitate safer hygiene practices as rapidly as possible.

# TABLE 2: HP AT ALL STAGES OF THE PROJECT CYCLE (LSHTM/WEDC, 1998)

PROJECT CYCLE STAGE	STEPS	KEY ISSUES/ACTIVITIES
NITIAL ASSESSMENT	STEP 1 Rapid assessment to identify the incidence and severity of risk practices, and get an initial idea of what the community knows, does, and understands about WASH.  STEP 2	Which specific practices allow diarrhoeal microbes/other diseases to be transmitted? Which practices are the most harmful?
INITIAL /	Consult men, women, and children on their different hygiene needs and the contents of hygiene kits, e.g. sanitary towels, razors, potties, etc.	What specific hygiene needs do men, women, and children have e.g. sanitary towels, razors, potties?
PLANNING	STEP 3  Select the highest or most widespread risk practices for intervention (with objectives and indicators). Identify hardware and resource requirements.	Which risk practices are most widespread?
		Which will have the biggest impact on public health? Which risk practices are alterable? What can be done to enable
	STEP 4 Define the target groups (may be whole community, with special focus on those caring for young children). Identify stakeholders: those that can influence the target groups, e.g. elders, teachers, traditional birth attendants.	change of risky practice?  Who employs these practices?  Who influences the people who employ these practices? E.g. teachers, community leaders, Traditional Birth Attendants etc.

Define the strategy for intervention and communication channels and initial messages for all groups. Determine advocacy and training needs.

### STEP 6

Set up outreach system and recruit & train fieldworkers

### STEP 7

Begin implementation and continue assessing situation.

### STEP 5

What mass media methods are available? E.g. 60% of people have radios but they are often used only by

-What methods do the target audiences trust? E.g. traditional healer, discussions at women's group meetings

Where/how can men and women be accessed? E.g. distribution queue, waterpoint

What capacity (systems, skills, and approaches) already exists in government/national NGOs?

Distribute hygiene kits Emphasis initially on providing information and use of mass media e.g. radio spots, campaigns, and home visits by volunteers Organise group meetings/interviews and discussions with key informants and stakeholders to initiate a more interactive approach.

### STEP 8

Gather quantitative and qualitative data (through participatory techniques) and establish baselines. Further investigate motivational factors for safe hygiene practices, and refine key messages accordingly.

- -Obtain quantitative data where feasible.
- -Carry out systematic collection of qualitative data using participatory methods (co-ordinate with others and be careful not to overwhelm communities with over questioning) -What motivates those who
- currently use safe practices? What are the advantages of the safe practices?

### STEP 9

Establish whether hygiene kits and sanitation facilities are being used, and whether people are satisfied with them. Monitor hand washing practices and household water quality standards.

### **STEP 10**

Increase interactive approaches and identify and implement training for longer-term community groups. Refine implement at ion and communication plans in relation to monitoring outcomes. Continue monitoring and training.

Are hygiene kits being used/are people satisfied with them?

Are toilets being used/are people satisfied with them?

Do men and women feel safe when accessing facilities?

Are people washing their hands?

Is drinking water in the home free from contamination?

Emphasis more on interactive methods e.g. group discussions using mapping, three pile sorting etc.

Identify and train (with engineers) longer term structures e.g. committees

IN ADDITION TO WHAT MENTIONED IN TABLE (2), THE MAIN STEPS IN DEVELOPING A HYGIENE PROMOTION CAMPAIGN WITHIN A SHELTER BASED ENVIRONMENT ARE THE FOLLOWING:

Set a goal. The goal will usually be to improve the quality of life (or to reduce the loss of life) in relation to living condition of the shelter

Identify hygiene problems associated with crowding/varied level of awareness. These should have been identified by your initial assessment.

Identify key behaviours linked to the problems. These could relate to activities such as handwashing or excreta disposal but could equally be related to a poor understanding of technology, or wrong attitudes to gender issues or the environment.

Determine the cause of the problems. The more accurately the causes can be identified the easier it will be to target the campaign.

Prioritize actions. Decide which problems to target first. This will depend on balancing the priorities for improving health with available resources.

Develop a strategy. Decide which methods and tools you intend to use.

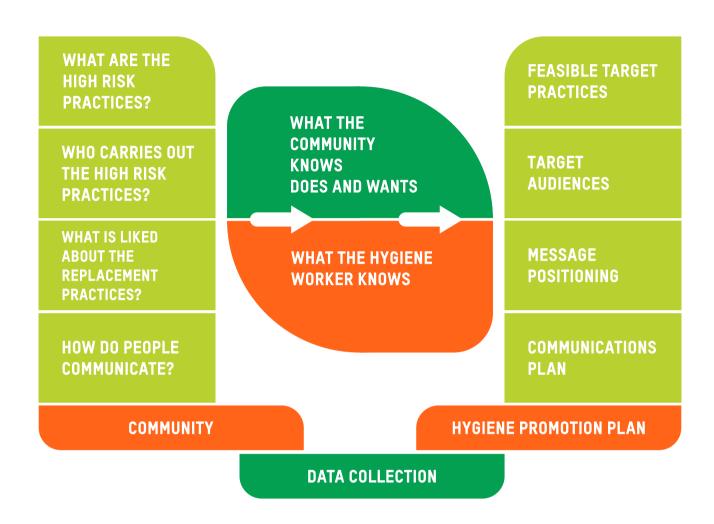


FIGURE 7:THE PROCESS OF HYGIENE PROMOTION (DFID, 1998)

# 2.9.2.FACILITATORS AND PROMOTERS

Sphere suggests that there should be one hygiene promotion facilitator for every 1000 affected people. This number should be doubled during the early stages of an emergency response. There will not be sufficient time to recruit and train dedicated facilitators for the immediate phase of an emergency, but much can be done with volunteers identified through pre-existing organizations such as faith-based groups, health care workers or extension workers. If possible, use facilitators from within the affected community as they will better understand the local difficulties and be accepted by the community (WHO, 2013). The promoter's duties and tasks are conducted according the objective of the intervention ether in the community during the regular times or in the shelter during emergency, as it is illustrated in the following:

Essential skills and knowledge required by facilitators

Knowledge of health problems related to sanitation in emergency situations and appropriate prevention strategies.

Understanding of traditional beliefs and practices.

Knowledge of hygiene promotion methods targeted at adults and children.

Understanding of basic health messages and their limitations. Knowledge of the appropriate use of songs, drama, puppet shows.

Understanding of gender issues.

Knowledge of how to target various groups and especially vulnerable groups within the affected area.

Communication skills.

Monitoring and evaluation skills.

### **A.PUBLIC HEALTH PROMOTERS**

To enable the community to find solutions to water and sanitation related problems through the use of discussion groups and visits to individual homes

To mobilise people to dig family latrines and clean and maintain them

To plan and implement other communication activities when appropriate e.g. campaigns or drama

To ensure that prompt information on the progress of the water and sanitation project is provided to community members

To liaise with community leaders and other agencies working locally in order to promote the project

To provide information for assessment, monitoring and evaluation purposes in the form of verbal feedback or written documentation

### **B. CAMPAIGN WORKERS**

To provide information to the population on ways of preventing the most significant water and sanitation diseases

To be deployed as necessary in a public place e.g. registration point, market, distribution areas

To visit families at home to discuss the importance of using and constructing latrines, disposing of children's faeces and hand washing and any other issues as determined by the project coordinator

To provide feedback from information sessions through regular meetings with other team members and project coordinator

### **C.CHILDREN'S HEALTH PROMOTERS**

To identify groups of children in the community or shelter to work with

To implement interactive education activities with children focusing on key hygiene behaviours

To provide regular verbal or written reports on work undertaken

To meet regularly with the other hygiene facilitators to discuss their work and to plan future activities

To monitor and evaluate project activities as required

### **D.WATER POINT ATTENDANTS**

To ensure that water points are kept clean and free from contamination

To prevent people from washing in or too close to the water source

To prevent children and adults from defecating near to the water point

To provide information to people on the problems associated with contaminated water

### **E.LATRINE ATTENDANTS**

To ensure that public latrines are kept clean following use (cleaning must be done frequently during the day)

To encourage people to use the facilities provided to wash their hands following use of the latrine

To provide information to latrine users on the importance of disposing of all excreta in the camp in the latrine (including that of young children and babies), and on the necessity to dig family latrines

To maintain a simple monitoring form on the condition and use of the latrines

### **ELATRINE ATTENDANTS**

To ensure that public latrines are kept clean following use (cleaning must be done frequently during the day)

To encourage people to use the facilities provided to wash their hands following use of the latrine

To provide information to latrine users on the importance of disposing of all excreta in the camp in the latrine (including that of young children and babies), and on the necessity to dig family latrines

To maintain a simple monitoring form on the condition and use of the latrines

### 2.9.3.PROMOTION TOOLS & COMMUNICATION METHODS:

Tools and communication approaches used to conduct an effective, comprehensive and efficient promotion campaign are selected according to many important limiting factors and issues such as: available resources, targeted people (level of knowledge, age, gender and number), type of messages, period of time and the situation (emergency or stable), below are some of the important tools (WHO, 2013):

### Solution:

Hygiene promotion uses repeated, coherent, and simple messages. These are disseminated through a mix of communication channels designed to reach target audiences for the greatest effect and the least cost.

Radio broadcasts. An effective method of reaching a large number of people quickly. They should be brief, informative and entertaining with a memorable slogan or tune (jingle). Use a mix of voices in the form of a drama or interview.

Public address systems. These can be used instead of radio broadcasts if the area to be covered is small or radios are unavailable. Use loudspeakers in key locations or a mobile system attached to a slow-moving vehicle.

Posters. Posters can be quickly and easily prepared, preferably in collaboration with the community. The main message should be displayed in the pictures, backed up by a few simple words in the local language. Test posters by showing them to members of the targeted community, checking whether they understand the message.

Drama and street theatre. Drama is a powerful way of getting messages across. A simple story with exaggerated characters and plenty of audience participation is ideal.

Home visits. These are the most time-consuming options for hygiene promotion, but can also be very rewarding and generate a great deal of valuable information. A skilled health visitor or educator can target her/his advice and guidance very directly towards each family and their circumstances. It is also possible to discuss individual concerns and more personal questions, including ones that would not be mentioned in public meetings (WEDC, 2014).

One-to-one discussions. This is a time consuming option but very effective where skilled facilitators are used. They can work with individual families to develop specific practices to suit individual needs.

Other practical actions. There is little point in persuading people to change their hygiene behaviour without the required tools and materials. Water supply, basic sanitation, handwashing facilities with soap, and food storage containers are all necessary before new hygiene practices can be adopted.

Puppet shows and games. Puppet shows and games are an excellent form of communication when the target group is children. Highly interactive entertainment is likely to be most effective.

Slide, film and video presentations. If appropriate visual materials and facilities to show them are readily available they can reach a large audience in a short time especially if the targeted people are those inside shelters. Their impact can be enhanced by subsequent group discussions highlighting key points conveyed.

Focus group discussions. A guided group discussion can improve understanding of current behaviour patterns and the reasons behind them.

### 2.10.HYGIENE PROMOTION IMPORTANT ISSUES:

The WASH DES manual aims to provide practical guidelines and ways of working for WASH actors by covering the following elements:

### 2.10.1.COMMUNITY MOBILIZATION:

THE COMMUNITY MAY BE REACHED THROUGH (GLOBAL WASH CLUSTER, 2007A):

The community may be reached through (Global WASH Cluster, 2007a):

Peer educators, e.g. teenagers or young mothers.

Hygiene Clubs established in each affected area.

Building on local skills and capacity, identified in the initial WASH assessments.

Voluntary workers

Where risks to health are high and intensive outreach work is necessary, volunteer workers are unlikely to want to work long hours for little or no reward. Payment in kind, e.g. bicycle, tee shirts, hygiene items, etc. may be an option, but some agencies, e.g. government, local NGOs may not have the resources to provide any incentives. The WASH aid provider will need to agree a universal approach that does not disadvantage local actors or create unsustainable expectations at community level for the future, e.g. payment for water and sanitation committees (Global WASH Cluster, 2009).

### 2.10.2.HP STAFF, VOLUNTEERS, & TRAINING

Groups and committees, such as water and sanitation user groups, may be required to perform hygiene-related tasks, and it may be difficult to involve all members of the community in these groups. Women, for example, may not be able to serve on water and sanitation committees, yet fulfilling their needs are of paramount importance to the work of the committees. In some cases, hygiene promotion staff may be able to encourage the representation of women on committees, but it may be more appropriate to have separate committees for women. When these are established, however, there must be a link to the overall community committee responsible for managing the water and sanitation facilities, so that women's opinions influence management. The women may require special training to develop their confidence and communication skills and to effectively represent women's interests on committees (WHO, 2002).

The WCC can facilitate a consistent and coordinated approach to HP through encouraging the adaptation of generic Job Descriptions and the organization of training for field Hygiene Promoters and Community Mobilisers at subnational level.

### 2.10.3.0BJECTIVES OF THE MANUAL:

Simply providing sufficient water and sanitation facilities will not, on its own, ensure their optimal use or impact on public health. In order to achieve the maximum benefit from a response, it is imperative that disaster-affected people have the necessary information, knowledge and understanding to enhance their hygiene practices and prevent water and sanitation-related diseases and to mobilise their involvement in the design and maintenance of those facilities (Sphere Project, 2011).

All of the available mass media (e.g. community radio, leaflets, posters) and other more interactive methods are recommended for effective HP. Even in an acute emergency try to hold some initial discussions with individuals and community groups to better understand motivational factors for changing behaviour, and explore appropriate communications to encourage safer practice. As the emergency evolves, more widespread use of methods that foster discussion should be encouraged. In developing communication materials, remember that health benefits are not always the main motivating factor for changes in behaviour. The need for privacy and safety, convenience, social status, and esteem may sometimes be stronger driving forces than health arguments (Global WASH Cluster, 2009).

### 2.10.4.PARTICIPATORY METHODS:

Among the most useful participatory methods are 'community mapping' exercises, focus group discussions, exercises using visual aids to stimulate discussion and mobilisation (such as three pile sorting, chain of contamination, and pocket chart voting). An assessment of existing local resources is important, as this will help to ensure that culturally appropriate methods and tools are employed. Even if tools are not available for HP, similar tools or approaches used in public health education may be readily adapted for HP (Global WASH Cluster, 2007b).

### 2.10.5.COMMUNITY PREPAREDNESS DISASTER RESPONSE:

Better disaster response in public health is achieved through better preparedness. Such preparedness is the result of capacities, relationships and knowledge developed by governments, humanitarian agencies, local civil society organisations, communities and individuals to anticipate and respond effectively to the impact of likely, imminent hazards. It is based on an analysis of risks and is well linked to early warning systems. Preparedness includes contingency planning, stockpiling of equipment and supplies, emergency services and stand-by arrangements, personnel training and community-level planning training and drills (Sphere Project, 2011).

Key questions for a rapid hygiene assessment: What are the most widespread risk behaviours in the community?

How many in the community show these risk behaviours and who are they?

Which risk behaviours can be altered?

Who uses safe practices and what motivates and influences their use?

What communication channels are available and which are reliable for promoting hygiene? What facilities or materials do people need in order to engage in safe practices?

How much time, money or effort are people willing to contribute to have access to those facilities/materials?

Where will those facilities/materials be available?

How will the availability of these facilities/materials be communicated to people?

### **BUILDING COMMUNITY CAPACITY:**

To promote hygiene within a community it is not enough simply to provide messages about hygiene; the capacity of the community to analyze situations and initiate changes must also be improved. In this sense, hygiene promotion is comparable to community development activities. Building community capacity may involve (WHO, 2002):

- Operating and maintaining water and sanitation facilities.
- Organizing and supporting community groups and committees.
- Helping communities to analyze their current hygiene and sanitation.
- Negotiating agreements and settlements between development partners.
- Encouraging the private sector to develop water, sanitation and hygiene products.

## 2.11.APPROACHES AND STRATEGIES OF HYGIENE PROMOTION:

There are different ways to develop and implement a hygiene promotion programme. It is now understood that 'educating' people to practice good hygiene because it has health benefits will usually not result in sustained behaviour change. Knowledge about the hygiene-health links is in many cases not sufficient to change people's behaviour. Therefore, hygiene promotion activities need to build on the key drivers for behaviour change, whatever those may be in a particular community or region (eg status, nurture or privacy). Generally, hygiene promotion approaches are divided into two groups:

Participatory, community-based 'total hygiene' approaches (including safe disposal of faeces through appropriate sanitation).

Marketing approaches.

There is overlap between these two groups, as different elements from each can be combined to suit specific contexts.

#### 2.11.1.PARTICIPATORY COMMUNITY-BASED APPROACHES:

Participatory community-based approaches to hygiene promotion were developed following the limited success of top-down didactic approaches to development interventions. Participatory approaches instead draw from the disciplines of anthropology, sociology and psychology, and allow development organisations and governments to 'work with communities to arrive at sustainable and acceptable solutions to development problems' (Harvey, 2002). Participatory approaches are meant to 'build self-esteem and a sense of responsibility for one's decisions', while making the process of decision-making easy at the community level WHO (1998). These methodologies are not unique to the WASH sector and are often used in many other development fields

Types of people participation: (Almedom et al., 1997)
'Participation' can mean several different things.
Almedom et al identify three types of participation: extractive, consultative and interactive.

Extractive refers to a process where people participate by answering questions posed by researchers/programme staff, although they do not have the opportunity to influence proceedings.

Consultative processes ensure that people participate by being consulted, but external researchers/programme staff identifies problems and solutions, and these may be modified in light of people's responses. People do not have a share in decision-making and professionals are not required to adopt people's views.

Interactive participation means that people participate in joint analysis, leading to action plans and the formation of new local institutions or strengthening of existing ones. This type of participation involves seeking multiple perspectives and uses systematic and structured learning processes. People have control over local decisions and therefore have a stake in maintaining structures or practices.

#### 2.11.2.SARAR

The majority of approaches that are popular today are based on a set of key principles developed as part of a methodology called SARAR. The aim of SARAR is to encourage participants to think through problems, and support them to develop their creative capacities in problem-solving, planning and evaluation. SARAR stands for the following principles, which are considered to be the minimum attributes necessary for successful participation (Harvey, 2002):

- Self-esteem: built through active participation; a sense of self-worth as an individual as well as awareness of their importance for the development of the world around them.
  - Associative strength: ability to work towards a common vision through mutual respect, collaborative effort and trust, resulting in better decision-making.
  - Resourcefulness: local people are resourceful in taking initiative and finding solutions that affect their lives.
  - Action planning: local people think critically and are creative in taking action; they are not passive recipients and each person plays an important role.
- Responsibility: taking responsibility for the outcomes that local people identify and commit to.

## 2.11.3.PARTICIPATORY HYGIENE AND SANITATION TRANSFORMATION (PHAST)

Participatory hygiene and sanitation transformation (PHAST) is based on the SARAR principles and is a participatory methodology developed specifically for the WASH sector. It is based on the idea that as communities gain awareness of their water, sanitation and hygiene situation through participatory activities, they are empowered to develop and carry out their own plans to improve their situation. This way, communities gain confidence in their own projects and have a say in what they do or do not want. This ensures that services respond to needs and that appropriate monitoring and evaluation activities can subsequently be carried out (Water Aid, 2012).

In order to be a completely interactive participatory process, PHAST requires skilled and experienced facilitators. It also requires in-depth training of community workers in participatory techniques, and therefore requires an intensive management structure. However, with proper guidance and management, trained community workers can become lasting assets to a programme and the community. The approach can be quite time-intensive due to participatory exercises, and it is therefore important it is properly discussed

with the community before being implemented. Although PHAST has been the main methodology used for hygiene promotion in many organisations, it is not the only approach. Elements of PHAST have also been used to develop other approaches to ensure a programme is best suited to its context (Lienert, 2017).

#### 2.11.4.CHAST METHODOLOGY:

The Children's Hygiene and Sanitation Training (CHAST) methodology was conceived from the felt need to have a participatory approach for hygiene behaviour change among children just like the PHAST methodology which addresses behaviour change among adults. The approach reckons that children are change agents in the community and inculcating good habits in them will not only be beneficial presently but also for the posterity.

Caritas developed the CHAST methodology based on the participatory principles of the PHAST methodology.

CHAST is based on the proven fact that hygiene practices are mainly acquired during childhood. It recognizes the fact that children are different from adults in that they are limited in abstract thinking, have less experience in life and their understanding of issues is also limited. The principal target groups for this methodology are children below 12 years who are mostly inquisitive and eager to learn. It involves the use of posters, games, role plays, songs and puppet shows to pass on hygiene messages in a fascinating and memorable way.

Since its introduction in Somaliland in 2003, CHAST has been widely used in formal and non-formal schools to bring about the desired behaviour change among children. Due to its flexibility, its use has been extended to other countries in the world one of them being Cambodia. Currently, Caritas is also adapting it for use in the Eastern Equatoria State of Southern Sudan. Plans to develop the same for certain regions in Ethiopia and to review the current methodology as it is being used in Somaliland are also underway.

THE METHODOLOGY CONSISTS OF FIVE STEPS IN WHICH VARIOUS ACTIVITIES AND TOOLS ARE EMPLOYED TO REINFORCE HYGIENE MESSAGES. THE STEPS ARE:

Introduction
Problem identification
Problem analysis
Practising good behaviour
Measuring change

Most of the activities in each step are participatory and involve the use of visualization tools such as posters, memory cards and puppets. Three characters bearing local names have been created to encourage the children to discuss specific hygiene and sanitation topics. These characters have been carefully designed and return in every session, so that children can identify with them and their attitudes and actions. Two evaluation activities are conducted at the beginning and the end of the training to determine if change has occurred due to the use of the methodology. This is done through the use of a pocket chart, observation checklist and interviews.

#### 2.11.5.COMMUNITY HEALTH CLUBS (CHC):

Community health clubs (CHCs) are voluntary and free community-based membership organisations whose aim is to improve the community's health. Health outcomes are fundamental to the approach, as the CHCs aim to address the underlying causes of lack of safe sanitation and hygiene. The approach is based on regular meetings, facilitated by health extension workers who have been trained in participatory health promotion activities. It is open to anyone and encourages members to practice what they have learned at home through homework assignments and home visits for monitoring.

Key reasons for the success of CHCs are that they are sociable, competitive and involve increasing respect for others. The approach has also proven to increase learning, raise social status and create opportunities for income-generating activities due to improved health. Furthermore, it does not require literacy and has the potential to strengthen the position of women within the family and the community. It has resulted in a reduced workload for health extension workers and provides an important institutional link between members and government (Water Aid, 2011).

#### 2.11.6.CHILD TO CHILD (C TO C):

Child to child (C to C) is described as a 'rights-based approach to children's participation in health promotion and development'. It is an approach to hygiene promotion based on the belief that children can be agents of change and promote the health not only of themselves but also of others, in their schools or in their community. Children are often responsible for caring for younger siblings and animals, as well as for collecting water and cleaning tasks. Therefore, the potential for children to raise awareness about hygiene with their family, at school or in their community is vast (WSSCC, 2010).

The C to C approach involves children in a way that is challenging, fun and interesting, while ensuring that key hygiene messages and associated practices are picked up. It facilitates children's understanding of development issues and healthy behaviour, and allows them to identify health/development priorities relevant to themselves and their communities. The approach is anchored on the UN Convention of the Rights of the Child, which emphasises inclusion, non-discrimination and the best interests of the child (WSSCC, 2010).

C to C approaches are often integrated into broader health and/or WASH programmes, and they have had particular impact as part of health education and promotion in schools, and with children in communities affected by disaster, in difficult circumstances and in early childhood development. Despite its noted success, there has been some concern that the approach could lead to exploitation of children instead of encouraging their empowerment, and that the teachinglearning method is teacher-centred. Therefore, training needs to be carried out effectively. The matrix in figure (8) gives a visual representation of how children can participate in and contribute to improving their own health and that of those around them.

One child or A group of children

- Spreading knowledge to
- Teaching skills to
- Demonstrating by example to
- Working together with

- a younger child/children
- a same-aged child/children
- a family/families
- the community

FIGURE 8: CHILD TO CHILD MATRIX (WSSCC, 2010)

## 2.11.7.SOCIAL MARKETING APPROACH TO HYGIENE PROMOTION AND SANITATION PROMOTION:

It is considered as one of the most used approaches in hygiene promotion activities in Gaza strip, especially by Oxfam. Social marketing uses marketing approaches to match available resources with social needs. Social marketing may be applied to service provision and use, the development and acceptance of products, or the adoption of new behaviour. It can be product- or behaviour-focused. Social marketing is used to promote the adoption of behaviours that can lead to improved health and well-being, not only for the individual concerned but also for the wider community (WEDC, 2014). This approach differs from classic hygiene and sanitation programmes because it places the consumer at the heart of the programme. Instead of beginning in an office, programme design begins in the community. Consultation actively involves the many different groups in society and develops a shared agenda for action. The process starts with data collection, to find out what target communities need, want, and do. Appropriate interventions are then negotiated with the health or engineering specialists and developed into a strategic programme (DFID, 1998).

The approach works well in a participatory, village-by-village manner. It is, however, most useful and cost-effective on a large scale, where the intervention is first developed in a small-scale, participatory manner, and then applied across regions or urban centres. The promotional approach is not without contradictions. It is centered on the users' perspective, but it has a firm agenda. It uses participatory methods but it is not wholly participatory. And there are other contradictions to be addressed:

Faecal contamination of the environment may be the main cause of preventable disease. This does not mean it will be the community's highest priority for change.

Though improved health is the programme's main objective, the target communities are more likely to be interested in latrines and hygiene for reasons of dignity and aesthetics.

Messages about potential health benefits are not effective at motivating people to change their behaviour. Attractive, positive, messages which appeal to people's sense of dignity are often more effective.

It is important to consider the implications of these and other contradictions. The agendas and priorities of development workers often differ from those of the communities with whom they work. This problem is not specific to the promotional approach but is inherent in much development work. The promotional approach aims to make scant public health resources work effectively and sustainably over large areas, and for large numbers of people (DFID, 1998).

It is important to consider the implications of these and other contradictions. The agendas and priorities of development workers often differ from those of the communities with whom they work. This problem is not specific to the promotional approach but is inherent in much development work. The promotional approach aims to make scant public health resources work effectively and sustainably over large areas, and for large numbers of people (DFID, 1998).

Systematic data collection and analysis to develop appropriate strategies;

Making products, services, or behaviours fit the felt needs of the consumers/users;

Strategic approach to promoting the products, services, or behaviours;

Methods for effective distribution so that when demand is created, consumers know where and how to get the products, services, or behaviours;

Improving the adoption of products, services, or behaviours and increasing the willingness of consumers/users to contribute something in exchange; and

Pricing so that the product or service is affordable.

## APPLIED EXAMPLE ABOUT WHAT HAPPENS BY USING SOCIAL MARKETING APPROACH IN GAZA:

- 1. A sample of affected or potential to be affected people are consulted and questioned about their needs, wants, and aspirations. They collaborate in the development of feasible, attractive solutions. This is Data collection and is crucial to orienting the promotional activities (see closed box).
- 2. Achievable overall marketing (or promotion) objectives are developed.
- 3. These data are analysed and used to develop an overall marketing plan in collaboration with key stakeholders.
- 4. The targeted people are segmented into discrete units with common characteristics. This is based on an analysis of the initial data.
- 5. Products and messages are developed based on consumer preferences and characteristics for the relevant segments. These are tested among representative samples of target populations. How much are people willing to pay for this product? How far are people willing to travel for this service? How feasible is the new behaviour? Products, messages, and price are modified, refined, and retested until they are acceptable. Key stakeholders are consulted throughout this process.
- 6. The product is launched or service introduced.
- 7. The performance of the product or service is monitored and evaluated in the market and the strategy revised accordingly. This may involve revising the marketing plan or improving the productor service.

## DATA TO COLLECT FOR A LATRINE PROGRAMME:

How many people haven't adequate, suitable and comfortable access to the hygiene and sanitation facilities? And Why?

.What do people perceive as "good" and "bad" sanitation?

What do people see as the advantages of latrines?

What type of system do women prefer?

What type of system do men prefer?

What are the characteristics they prefer?

.What is the alternative or the other options upon their point of view?

How much do people pay and how much are they willing to pay?

## SOME FACTORS THAT INFLUENCE THE CORRECT AND CONSISTENT PRACTICE OF BEHAVIORS

#### 1: EXTERNAL FACTORS

- those forces outside the individual that affect his or her performance of a behavior.

Skills: the set of abilities necessary to perform a particular behavior. Key skills for latrine construction or hand washing device preparation include the siting, sizing, digging, safety measures, control of smell, in the case of latrine construction, and making water saving device out of locally available materials for hand washing.

Access: encompasses the existence of services and products, such as the availability of safe water supply services, space and materials for latrine construction, soap for hand washing, etc., their availability to an audience and an audience's comfort in accessing desired types of products or using a service.

Policy: laws and regulations that affect behaviors and access to products and services. Policies affecting various health themes include policies regulating distribution of products or delivery of services to minors without parental permission; hospital policies on breastfeeding (rooming in;

set feeding 'times'); international tariffs on bed nets.

Culture: the set of history, customs, lifestyles, values, and practices within a self-defined group.

Actual Consequences: what actually happens after performing a particular behavior or not performing that particular behavior. What are the health consequences of not washing hands at four critical moments or washing hands at four critical moments? What are the health, comfort, dignity advantages of using latrines or not using latrines?

#### 2: INTERNAL FACTORS

The forces inside an individual's head that affect how he or she thinks or feels about a behavior. Perceived Social Norms: perception that people important to an individual think that s/he should do the behavior; norms have two parts: who matters most to the person on a particular issue, and what s/he perceives those people think s/he should do. e.g., what you think your mother-in-law wants you to feed your 3-month old son; what your priest and your mother think about you contracepting as a childless wife.

Perceived Consequences: what a person thinks will happen, either positive or negative, as a result of performing a behavior. See actual consequences for examples.

Knowledge: basic information/ facts (some people consider skills a kind of knowledge, as well) expected such as health, economic, social and other benefits of using latrine by all the family members; the importance of keeping and using safe water and hand washing at critical times; feces can't always be 'seen' on your hands but may be present; clear looking water can still carry microbes (make you sick); etc.

Attitudes: a wide-ranging category for what an individual thinks or feels about a variety of issues. This over-arching category would include self-efficacy, perceived risk, and other attitudinal factors.

Self-efficacy: an individual's belief that he or she can do a particular behavior, e.g., building a latrine; using wastes generated in the household as a useful product; etc.

Perceived Risk: a person's perception of how vulnerable they feel (to getting diarrhea from drinking river water; to getting malaria from mosquitoes; to catching avian flu).

Intentions: what an individual plans or projects s/he will do in the future; commitment to a future act. Future intention to perform a behavior is highly associated with actually performing that behavior.



#### 2.11.8.COMMUNITY-LED TOTAL BEHAVIOR CHANGE STRATEGY:

THIS APPROACH IS WILDLY USED IN GAZA STRIP IN THE RECENT DECADE, AND IT HAS PROVEN ITS EFFECTIVENESS IN THE PROMOTION CAMPAIGNS, INDEED, OXFAM AND ITS LOCAL PARTNERS WERE USED IT MANY TIMES RECENTLY IN MANY MARGINALIZED AREAS IN GAZA STRIP THE COMING POINTS ARE TO SHOW THE MAIN STRATEGIC COMPONENTS RELATED TO THE APPROACH AND WHAT IS THE EFFICIENT PATHWAY SHOULD BE FOLLOWED:

#### A.KEY BEHAVIORS FOR TOTAL BEHAVIOR CHANGE

Hand washing with soap or cleaning agent

Safe handling and treatment of household drinking water

#### **B.STRATEGIC COMPONENTS OF THE BEHAVIOR CHANGE STRATEGY**

Forge common ground and consensus to attend to the problem of H&S with officials, CBOs, etc.

#### STRATEGIC COMPONENT 2: STRENGTHENING HOUSEHOLD OUTREACH

Strengthen home visit

Introduce the art of negotiation -MIKIKIR (see annexes).

Promote behavior change through small doable actions (see annexes).

## STRATEGIC COMPONENT 3: IGNITING COMMUNITY-BASED APPROACHES TO CHANGE

Mobilize community commitment to total behavior change

Create an action agenda for the community

Promote behavior change through community level activities like coffee clubs, children's patrols, and peer pressure

## STRATEGIC COMPONENT 4: MEDIA AND COMMUNICATION SUPPORT

Disseminate reliable information through multi-level communication program.

Reinforce HEW effort through the radio messages, radio dramas, news prints (pamphlets), etc.

## STRATEGIC COMPONENT 5: INCREASING AVAILABILITY AND AFFORDABILITY OF HYGIENE AND SANITATION PRODUCTS THROUGH PRIVATE SECTOR INITIATIVE

Encourage industries to open outlets in rural communities

Support small artisans to locally produce 'enabling technologies" like sanitation platforms

Encourage private sector to be interested to bring products such as jerry cans, potties, soap, chlorine, etc.

## STRATEGIC COMPONENT 6: SCHOOL HYGIENE AND SANITATION RECOGNIZE THAT CHILDREN ARE:

Future generations and changing the behavior of children is changing a generation

Inherently open to learn new things

Can be used as change agents in their own households and communities at large

## STRATEGIC COMPONENT 7: DEMONSTRATION LATRINES, HAND WASHING STATIONS, AND OTHER HYGIENE-RELATED PRODUCTS

Demonstrate how local skill and materials can be used to construct an approved traditional latrine

Introduce hand washing station made from local materials

Introduce local detergents.

## PATHWAY TO COMMUNITY-LED TOTAL BEHAVIOR CHANGE IN HYGIENE AND SANITATION (USAID, 2007):

#### A STEP-BY-STEP DESCRIPTION AS IT SHOWN IN FIGURE (9):

## 1. PRE-PLANNING AND ORGANIZATION:

For an effective Community-Led Total Behavior Change in Hygiene and Sanitation program the first and most important aspect is to reach consensus at affected population level (people potential to displacement or shelter) with all political leaders and stakeholders that the problem exists and all agree to mitigate it. Once consensus is established the second most important undertaking is to organize the targeted small area (village or shelter) in such a way that there is a responsible body in place to follow through all plans and strategies to make total behavior change a reality. One such viable organization is the establishment of 'WASH Technical Team (WTT)'.

#### 4. ORGANIZE AND HOST THE WHOLE SYSTEM IN THE ROOM/ MULTI-STAKEHOLDER MEETING/ ADVOCACY AND CONSENSUS BUILDING:

Conduct a multi-stakeholder meeting known as the whole system in the room (WSR) at the targeted area level so that stakeholders such as the political leaders, CBO, FBOs, associations, NGOs the private sector and others will be informed, a common ground formed and a joint action agenda designed for each area.

#### 2. CAPACITY BUILDING/TRAINING:

Dentify the human resources in the targeted area that are essentially WASH actors and who would be supporting the Health Extension Workers and train them in innovative and effective skills in facilitating H&S behavior change, in appropriate latrine technology, behavior change approaches and familiarize them with the behavior tools that need to be effectively used at community level.

## 3. CONDUCT THE BASELINE ASSESSMENT/SITUATIONAL ANALYSIS:

Conduct a rapid situational analysis/baseline on WASH in the affected area to be used for advocacy purposes and to serve as baseline for future monitoring. In addition the data will be used for evidence based advocacy and action planning on WASH in the area.

## 5. PLANNING AND BUDGETING: AVAILABILITY OF WASH BUDGET IS CRUCIAL FOR SUCCESS. THE BUDGET IS NEEDED FOR:

Situational analysis (paper, pen, ink)	
Travelallowance	
Construct Water Supply Systems	
Construct and maintain suitable latrines	
Construct and maintain hand washing facilities	
Construct and maintain water facilities	

#### 6/7. INTERNAL AND EXTERNAL IGNITION AND ACTION:

Effective targeted area (internal)-wide Community-Led Total Behavior Change in Hygiene and Sanitation is possible if the program is actively promoted in all other areas in the area (external). This is also possible if the targeted area is organized and establishes a responsible body that would follow program and strategies at small area level the Area Ignition team (AIT) and train volunteers at larger level (external) "the Volunteer Community Health promoters (VCHP)". The trainees and the newly organized targeted small level team involve the communities to identify the existing problems of clean and safe water, sanitation and hygiene, identify doable actions to improve their hygiene and sanitation situation, and engage the community and the households through the establishment of community based organizations such as "Coffee for Health club" and "Community Conversation" programs to try and work through for a hygienic and sanitary living and working environment.

## 8. CONSTRUCTION OF WATER AND SANITATION FACILITIES AND ENSURE AFFORDABILITY AND AVAILABILITY OF HYGIENE AND SANITATION OPTIONS:

Build up and maintain water and sanitation facilities in the targeted area with participation of the local community members so that simplicity of technology is comprehended and artisans from the targeted area are also trained to assist motivated households in the construction of their latrines. If possible, work with local artisans to assure the affordability and availability of sanitation and hand washing products and services, such as economical sanitation platforms made from local materials or local molds; hand washing stations, etc.

## 9. INSTITUTIONAL WASH/ENGAGE SCHOOL CHILDREN AND TEACHERS AS CHANGE AGENTS:

Establish new WASH club or strengthen or streamline existing school clubs and develop a capacity development program where school children are trained in hygiene and sanitation and enhance their involvement as change agents in their respective households and communities.

### 10. MULTIPLY THE MESSAGE THROUGH MEDIA AND COMMUNICATION/USE COMPETITION:

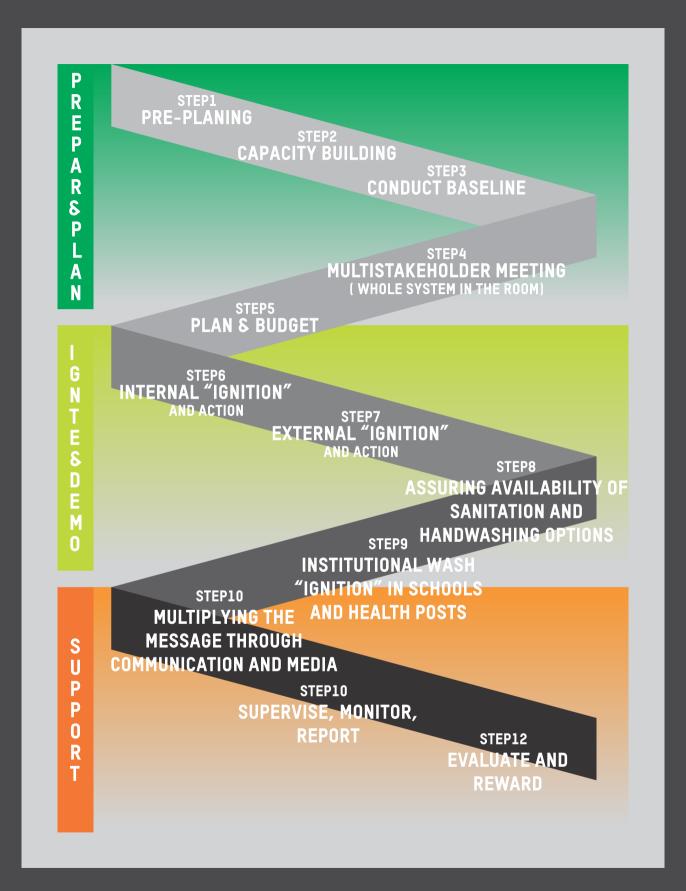
Make a communication strategy that supports the goal of total behavior change in hygiene and sanitation. This means that community members should receive supportive 'messages' everywhere they go. Banners announce community commitment. School children do theater, dance and song on market day. Preacher (Emam) speaks of it at mosque. Local radios announce progress towards reaching total behavior change goals, and play a radio drama about convincing the father to build a latrine. The local food store advertises soap for hand washing, and hands out instructions on how to make a tippy tap. Create competition between households, schools, areas and villages and give appropriate and functional prizes including certificate or diploma or electronics and other appropriate prizes for fulfillment of standard hygiene and sanitation requirements.

#### 11. SUPERVISE, MONITOR AND REPORT:

Incorporate WASH indicators into established system of supervision, monitoring and reporting. Make it part of everyone's job to support total behavior change. Teach 'supportive supervision' techniques to guide improved practice.

#### 12. EVALUATE AND VALUE:

Share successes throughout the community. Again, use healthy competition with other areas to increase community commitment to total behavior change. Make banners in public places for all to see.



## 2.11.9.VULNERABILITIES & CAPACITIES OF DISASTER-AFFECTED POPULATIONS

It is important to understand that to be young or old, a woman or an individual with a disability or HIV does not, of itself, make a person vulnerable or at increased risk. Rather, it is the interplay of factors that does so: for example, someone who is over 70 years of age, lives alone and has poor health is likely to be more vulnerable than someone of a similar age and health status living within an extended family and with sufficient income. Similarly, a 3-year-old girl is much more vulnerable if she is unaccompanied than if she were living in the care of responsible parents.

As WASH standards and key actions are implemented, a vulnerability and capacity analysis helps to ensure that a disaster response effort supports those who have a right to assistance in a non-discriminatory manner and who need it most. This requires a thorough understanding of the local context and of how a particular crisis impacts on particular groups of people in different ways due to their pre-existing vulnerabilities (e.g. being very poor or discriminated against), their exposure to various protection threats (e.g. gender-based violence including sexual exploitation), disease incidence or prevalence (e.g. HIV or tuberculosis) and possibilities of epidemics (e.g. measles or cholera). Disasters can make preexisting inequalities worse. However, support for people's coping strategies, resilience and recovery capacities is essential. Their knowledge, skills and strategies need to be supported and their access to social, legal, financial and psychosocial support advocated for. The various physical, cultural, economic and social barriers they may face in accessing these services in an equitable manner also need to be addressed

## PERSONAL HYGIENE KEY MESSAGES

Germs are tiny living things that can cause diseases. These germs can be passed from one person to another.

Practicing good hygiene can help us protect against these germs and diseases.

A good rule to follow is to wash our hands before preparing food, before eating, and before breast-feeding. We also need to wash our hands after going to the toilet and after changing diapers or otherwise having contact with feces.

## THE FOLLOWING HIGHLIGHT SOME OF THE KEY AREAS THAT WILL ENSURE THAT THE RIGHTS AND CAPACITIES OF ALL VULNERABLE PEOPLE ARE CONSIDERED:

- Optimize people's participation, ensuring that all representative groups are included, especially those who are less visible (e.g. individuals who have communication or mobility difficulties, those living in institutions, stigmatized youth and other under- or unrepresented groups).
- Disaggregate data by sex and age (0-80+ years) during assessment this is an important element in ensuring that the WASH sector adequately considers the diversity of populations.
- Ensure that the right to information on entitlements is communicated in a way that is inclusive and accessible to all members of the community.

#### 2.12.MAIN IMPORTANT HYGIENIC PRACTICES:

MANAGING YOUR PERSONAL HYGIENE IS IMPORTANT NOT ONLY TO LOOK AND SMELL YOUR BEST ON A DAILY BASIS, BUT ALSO TO PREVENT THE ONSET AND SPREAD OF INFECTIOUS DISEASES. TAKING THE PROPER PRECAUTIONS CAN HELP YOU AVOID GETTING SICK AND PASSING ILLNESSES ON TO THOSE AROUND YOU. THE FOLLOWING ARE THE MOST IMPORTANT HYGIENIC PRACTICES MUST BE PREFORMED REGULARLY IN AN EFFECTIVE AND EFFICIENT WAY, HAVE BEEN RANKED ACCORDING THE DEGREE OF THE IMPORTANCE:

#### 2.12.1.HAND HYGIENE

#### WHY HAND WASHING?

Thousands of people die every day around the world from infections acquired while receiving health care. Hands are the main pathways of germ transmission during health care. Hand hygiene is therefore the most important measure to avoid the transmission of harmful germs and prevent health care-associated infections. This brochure explains how and when to practice hand hygiene.

#### **HEALTH & WELLDEING**



Handwashing With Soap



Safe Excreta Disposal



water Treatment and Storage



Wash in Schools

Poor personal hygiene, such as neglecting to wash hands after using toilets in addition to some of other bad practices in term of sanitation, are often the cause of communicable diseases being spread through the faecal-oral route and the reason of deteriorated health (figure 10). In addition to water, a detergent such as soap is also necessary. Personal body and clothes hygiene should be possible if there are sufficient quantities of water combined with adequate sanitation methods. In emergencies, a large-scale distribution of soap should be planned early on with a minimum target of 250 to 500 grams of soap per person per month (MSF, 1997)

## PRACTICAL APPLICATION OF HOW TO WASH YOUR HANDS:

First wet your hands with water and lather with a bar of soap.

Next rub your hands together vigorously and scrub all surfaces up to your wrists.

Clean under your fingernails to help control germs and keep them trimmed and short.

Continue for at least 30 seconds or about the length of a little tune (for example:

the "Happy Birthday" song). It is the soap combined with the scrubbing action that helps dislodge and remove germs

Rinse your hands well with running water (pour from a jog or tap)

Dry them in the air to avoid recontamination on a dirty towel.

#### **CARE OF THE NAILS:**

Nails should always be kept clean and neatly trimmed or filed. Dirt and bacteria can get trapped in nails that aren't clean. As with the hands, nails are a way for bacteria to be passed from person to person. Preventing the spread of bacteria prevents the spread of illness and infection. Nails that are excessively long can, by virtue of their length, hold more dirt than shorter nails. Those with longer nails, then, need to be more diligent about keeping their nails clean.

Special attention needs to be paid to germs that may be trapped under nails and in crevices. The arrows in the pictures below (figure 11) show the direction of movement of the hands (WHO, 2013).





**WET HANDS WITH** WATER



**APPLY SOAP TO COVER ALL SURFACES** OF THE HANDS



**RUB HANDS PALM TO PALM** 



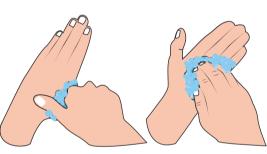
**RUB EACH PALM OVER THE BACK OF** THE OTHER HAND



**RUB PALM TO PALM WITH** FINGERS INTERLACED



**RUB BACKS OF FINGERS** TO OPPOSING PALMS WITH FINGERS INTERLOCKED



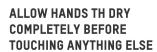
**RUB EACH THUMB CLASPED IN OPPOSING PALM** 



**CLASP FINGERS AND CIRCULAR RUB OPPOSINGPALM** 



**RINSE WELL WITH** WATER





## WHEN SHOULD YOU WASH YOUR HANDS WITH SOAP AND WATER?

#### ADULTS AND CHILDREN SHOULD WASH THEIR HANDS (WHO, 2005):

When hands are visibly dirty
After going to the toilet
Before you eat
Before you prepare food items
After changing infant or adult nappies
After blowing your nose or sneezing

#### 2.12.2.BODY CARE/SHOWER USAGE:

Use a loofah, sponge, or hand towel to gently scrub your entire body, removing dead skin cells and dirt. Remember to replace these items regularly as they can easily harbor bacteria.

Use warm and clean water and suitable healthy soap.

If you don't want to wash your hair every day, then invest in a shower cap and wash your body with soap and water.

Hit your pits, butt and groin, which are the areas that produce strong-smelling secretions. The rest of your body doesn't need much soaping.

If you don't have time to shower, then use a hand towel to rinse your face and underarms at the end of the day.

The amount of water and time needed to apply suitable bathing using shower are depend on the level of the dirty and the strength of water rinse, generally, 10-15 minutes is enough by using 55 to 65 liter if clean water.

## CHOOSE A DAILY FACE CLEANSER:

Remember that the skin on your face is more sensitive than on other parts of your body. You can either use your face cleanser in the shower or wash your face separately at the sink.

Take your skin type into account when choosing a face cleaner. If you have very dry skin, avoid products that has high alcohol content, as this will further dry out your skin. If you have very sensitive skin, opt for hypoallergenic products that contain less harsh chemicals.

If you wear a lot of makeup, find a cleanser that also specializes in removing makeup. Otherwise, buy a separate makeup remover and remove all makeup before washing yourface at the end of the day.

People require spaces where they can bathe in privacy and with dignity. If this is not possible at the household level, separate central facilities for men and women will be needed especially in public shelter during emergency time. The number, location, design, safety, appropriateness and convenience of facilities should be decided in consultation with the users, particularly women, adolescent girls and persons with disabilities. The location of facilities in central, accessible and well-lit areas with good visibility of the surrounding area can contribute to ensuring the safety of users.

#### **GOOD GROOMING:**

Having well washed neat hair, combing the hair neatly, clipping nails, clean face and hands, wearing neat clothes, wearing proper and clean socks and shoes,

· Care of the feet: Keeping the nails trim, keeping feet dry, wearing clean socks preferably made of cotton, wearing comfortable shoes,. These measures will help keep the feet clean, safe from fungal and other infections and prevent worm infestation too.

Taking a bath or shower means washing your body —including the back of the neck, underarms, feet—with soap and washing your hair with shampoo. Remember to wash your body all over, including the private parts. How often you take a bath or shower will depend on your activities. If you take part in activities that get you dirty or make you sweaty, then you will need to get clean more often than someone who does not take part in such activities. A good rule to follow is to take at least three baths or showers each week no matter what and then if you get dirty and smelly while playing, you will need to get clean after your activities. The "brand" of soap is NOT important. As long as it performs the function of cleaning up the skin without harming it in any fashion, it is fine to be used.

#### **2.12.3.HAIR CARE**

Trim your hair every 4-8 weeks. Whether you're trying to grow your hair out or prefer to keep it short, trimming it will keep hair healthy, get rid of split ends, and give an overall cleaner, healthier appearance.

#### **2.12.4.TEETH CARE**

Brush your teeth every morning and evening. Regular tooth-brushing helps prevent gum disease, which has been linked to other illnesses elsewhere in the body like heart disease, stroke, and diabetes. It is especially important to brush teeth after eating sweets or acidic foods that cause tooth erosion.

Woman should change her tampon/pad regularly: Women who use tampons should change them at least once every 4-6 hours to reduce the likelihood of getting toxic shock syndrome (TSS). Women who use pads should change them every 4-8 hours. If you plan on sleeping more than eight hours, then wear an overnight pad instead of a tampon while you sleep.

Don't share razors, towels, or makeup with other people. Sharing personal items like these with other people increases the likelihood of spreading Staph infections. If you do share towels or clothing, be sure to wash them both before and after lending them to others (Mayo Clinic, 2017).

To keep your gums extra strong, carry around a travel-sized toothbrush and toothpaste and brush your teeth in between meals.

Floss your teeth every night to prevent the gum disease gingivitis.

Good dental and mouth hygiene is as important now as it was when your child was little, and you'll need to keep making regular dental appointments for him. Brushing twice a day, flossing and going to the dentist regularly are vital if your child wants to avoid bad breath, gum problems and tooth decay.

### 2.12.5.WASH YOUR CLOTHES AFTER WEARING THEM:

In general, shirts should be washed after every use, while pants and shorts can be worn a few times before they require washing. Use your best judgment to determine how often to wash your clothes.

Remove any stains from your clothing before wearing them.

Iron out wrinkles, and use a lint-remover to remove unwanted lint and hair from clothing.

## 2.12.6.HELPING TEENAGERS & CHILDREN TO BUILD PERSONAL HYGIENE HABITS (MESSAGES)

When your teenage child was younger, you taught her the basics of good hygiene washing her hands, covering her mouth when she coughed, and having regular baths or showers. You had to help her with things like cleaning and flossing teeth, at least to start with.

Adolescence is a time to build on these basics. It's a time when your child's changing body means that his personal hygiene will need to change too. And just like when he was younger, you might need to help him at the start. Good hygiene habits in childhood are a great foundation for good hygiene in the teenage years. And if you've got open, honest communication with your child, it'll make it easier to talk about the personal hygiene issues that come up in adolescence.

New knowledge does not equal new practice

Promotion must be to practical effect, encouraging changes that are possible and are wanted, not merely relating lists of good hygiene practices that, for the time being at least, have little chance of being implemented.

It is not feasible to expect people to change a whole variety of hygiene practices.

Long 'wish lists' confuse consumers and dilute the promotional effort.

Attention must be focused on a few practices that present the greatest risk in the target community.

#### WHY GOOD PERSONAL HYGIENE MATTERS FOR CHILDREN

Keeping children clean is an important part of staying healthy. For example, the simple act of washing hands before eating and after using the toilet is a proven and effective tool for fighting off germs and avoiding sickness. Being clean and well-presented is also an important part of confidence for teenagers. If your child's body and breath smell OK, her clothes are clean, and she's on top of her basic personal hygiene, it can help her fit in with other people.

#### **HELPING CHILD WITH THE BASICS OF PERSONAL HYGIENE:**

Parents and shelter organizers got an important role to play in making sure the children know about how their bodies and hygiene needs are going to change, and in getting them ready to manage the changes. The earlier parents can start having these conversations, the better – ideally, before your child hits puberty. You can be a role model for your child by demonstrating good personal hygiene habits. If your child sees you showering, cleaning your teeth and washing your hands regularly, childe will learn that these habits are important.

You can explain to your child that keeping his body clean – especially his hands – is part of staying healthy. As an example of what germs can do, you could remind him of the last time about of 'gastro' or flu went through home or school.

#### BODY ODOUR (BO):

When children reach puberty, a sweat gland in their armpit and genital area develops. Skin bacteria feed on the sweat this gland produces, which is why teenagers (and adults) sometimes smell 'sweaty'. Bacteria feed on sweat in other parts of the body too, which can lead to BO. If your child washes her body and changes her clothes regularly, especially after physical activity, it'll help to reduce the build-up of bacteria and avoid BO. Changing underwear and other clothes worn next to the skin is especially important. These clothes collect stuff that bacteria love to eat, including dead skin cells, sweat and body fluids. That's why they get smelly. The onset of puberty is also a good time for your child to start using antiperspirant deodorant. You can encourage your child to do this by letting him choose his own.

## **DEFINITION:**SMALL DOABLE ACTIONS

A small doable action is a behavior that, when practiced consistently and correctly, will lead to household and public health improvement. It is considered feasible by the householder, from his/her point of view, considering the current practice, the available resources, and the particular social context. Although the behavior may not be an "ideal practice," a broader number of households will likely adopt it because it is considered "feasible" within the local context. This approach also has the potential to lead to further improvements in the behavior, when/if resources become available (USAID, 2015).

#### **SMELLY FEET:**

Smelly feet and shoes can also be a problem for your child, whether she's sporty or not. She can avoid this by giving her feet extra attention in the shower, and making sure they're completely dry before putting her shoes on. It's a good idea to encourage her to alternate her shoes and to wear cotton socks instead of that made of synthetic fibers.

#### **PERSONAL HYGIENE FOR BOYS:**

Boys will need advice about shaving (how to do it and when to start), looking after their genitals, and about bodily fluids. For example, you might talk to your son about wet dreams and how to clean up hygienically afterwards. Teenagers do need extra time in the bathroom! While they're learning to shave or to handle their periods, these hygiene activities might take a bit longer. You can help by being patient and giving your child a bit more privacy.

#### PERSONAL HYGIENE FOR GIRLS:

Although all teenagers have the same basic hygiene issues, girls will need help to manage their periods. For example, you might need to talk with your daughter about how often to change her pad or tampon, and how to dispose of it hygienically.

## PERSONAL HYGIENE FOR CHILDREN WITH DISABILITY:

Young people with disability are likely to need extra support with their personal hygiene. When you're thinking about how to discuss hygiene with your child with disability, his learning ability and style might be a factor. For example, does he prefer to learn by listening, seeing or doing? You could consider breaking hygiene tasks (like showering, shaving, using deodorant and cleaning teeth) into small steps. This way they might be easier for your child to learn. If your child is in the habit of doing things at the same time each day, hygiene can be a normal and predictable part of a routine. A written schedule might also help your child remember what to do when.

If you're finding it difficult to talk with your child about puberty and periods, you could make an appointment with your GP. Start early (before puberty) if you keep reinforcing messages about personal hygiene, most children will get there in the end. Giving your child lots of praise and encouragement for carrying out hygiene activities will help (APW, 2017).

## 2.12.7.SPECIFIC WOMEN AND GIRL'S PROTECTION ISSUES AND HYGIENE MESSAGES IN SHELTERS:

The use of communal water and sanitation facilities, for example in shelters or displaced situations, can increase women's and girls' vulnerability to sexual and other forms of gender-based violence. In order to minimise these risks, and to provide a better quality of response, it is important to ensure women's participation in water supply and sanitation programmes. An equitable participation of women and men in planning, decision-making and local management will help to ensure that the entire affected population has safe and easy access to water supply and sanitation services, and that services are appropriate (Sphere Project, 2011).

## THERE ARE FOUR GUIDING PRINCIPLES THAT UNDERPIN EFFECTIVE GENDER INTEGRATION IN SHELTER PROGRAMMING:

## Rights-based approach: Adequate housing is a human right. All shelter interventions should aim to overcome the barriers that prevent women, girls, boys, and men fulfilling this right.

Needs responsiveness: Conflicts and natural disasters affect women, girls, boys, and men in different ways. Shelter interventions must respond to their specific needs and vulnerabilities, and must not put anyone at greaterrisk.

Participation: All shelter interventions should ensure equitable participation among women, girls, boys, and men throughout the project cycle.

Resilience building: Vulnerability to hazards and crisis should be reduced through shelter activities. Shelter interventions should aim to build the resilience of individual women, girls, boys, and men and their communities in facing future emergencies.

## INDISPENSABLE ITEMS TO MEET THE NEEDS OF WOMEN AND GIRLS:

A lack of sanitary supplies can severely affect the ability of women and adolescent girls to manage their menstrual hygiene.

Know the number of girls and women between 13-49 years of age for the purpose of sanitary and hygiene kit distribution, and find out which products they typically use and need.

Make sure underwear is provided with sanitary products and that they are suitably packaged.

Women who have recently given birth will also require additional underwear and hygiene items such as sanitary napkins, incontinence pads, and maternity pads

#### 2.12.8.EMERGENCY AND GENDER-BASED VIOLENCE (GBV):

Humanitarian conditions particularly increase the frequency and level of GBV for women, girls and other at-risk groups, who often face greater obstacles in claiming their rights. The weakening of social and legal protections promotes a culture of impunity for perpetrators and increases the likelihood that survivors will not seek care and support (IASC, 2015).

## DISPLACEMENT (WHETHER TO URBAN SETTINGS, INFORMAL SETTLEMENTS, HOST COMMUNITIES OR CAMPS) ALSO PRESENTS NEW RISKS, WHICH MAY IN TURN CONTRIBUTE TO THE RISK OF GBV:

Women and girls usually collect water, cook the family's food, do the laundry, bathe small children and dispose of faeces. As a result they are disproportionately affected by a lack of WASH, and have a significant opportunity to influence their respective family's WASH-related behaviours and practices.

WASH facilities (especially in shelters) must be sited to minimise the potential for GBV and include security measures such as lighting, door locks and privacy fencing that completely shield users. There are especially affecting concerns for menstruating girls and women (figure 8). Many international agencies traditionally support Menstrual Hygiene Management (MHM) in emergencies by providing products and materials through various hygiene kits (including cloth and pads). In 2012, operational research showed that women and girls require a comprehensive package of culturally appropriate products, functional facilities and communication that can only be achieved through consultation with beneficiaries (UNICEF, 2012).

## GBV AND WASH IN EMERGENCY:

In public shelter, girls and women regularly face harassment when going to the toilet. Given the taboos around defecation and menstruation and the frequent lack of privacy, women and girls may prefer to go to the toilet or use bathing units under the cover of darkness. They may even delay drinking and eating in order to wait until nightfall to relieve themselves. However, using WASH facilities after dark puts women, girls, and other vulnerable groups at risk of harassment and sexual assault.

To clarify the issue and better respond to MHM in humanitarian crises, UNICEF WASH gathered feedback from affectees. Often a taboo subject, MHM research focused on analysing the special needs of menstruating women and girls by focus group and key informant discussions. The report showed that MHM is not often treated as a priority. Without a concerted effort to elicit female feedback, MHM will likely remain a hidden issue. A number of factors influence personal sanitary practices including cultural norms, affordability, access to facilities and water, the surrounding environment, information, handouts and the discussants' daily activities as it shown in figure 12 (UNICEF, 2012). Children have a naturally influential role and are in a position to effectively share WASH messages with family and peers. There is also an increasing recognition of Menstrual Hygiene Management (MHM) as a challenge in all contexts, and a push to tackle the issue in learning environments.

Sanitary items protect women's health by preventing perianal rashes and urinary tract infections (UTIs) caused by damp menstrual rags. Providing these supplies also allows women and girls to participate in economic activities, attend school, and access other basic services. These items usually require accompanying hygiene promotion interventions and are provided and coordinated by WASH actors and the WASH cluster respectively (CARE, 2016).

## OTHER ITEMS NECESSARY FOR EFFECTIVE PROTECTION OF WOMEN AND GIRLS MAY INCLUDE:

special items without which they cannot be seen in public, such as headscarves or veils

radios to keep them informed of developments in the crisis

torches to light up dark areas where they may be at risk of attack

Whistles to attract attention when they need help



FIGURE 12: FACTORS AFFECTING PERSONAL SANITARY MHM (UNICEF, 2012)

#### 2.13.FOOD HYGIENE AND SECURITY:

People have the right to expect the food they eat to be safe and suitable for consumption. Foodborne illness and foodborne injury are at best unpleasant; at worst, they can be fatal. But there are also other consequences. Eating habits too have undergone major change in many countries over the last two decades and new food production, preparation and distribution techniques have developed to reflect this. Effective hygiene control, therefore, is vital to avoid the adverse human health consequences of foodborne illness, foodborne injury, and food spoilage. Everyone, including farmers and growers, manufacturers and processors, food handlers and consumers, has a responsibility to ensure that food is safe and suitable for consumption.

2.13.1.HYGIENIC PRODUCTION OF FOOD SOURCES

The potential effects of primary production activities on the safety and suitability of food should be considered at all times ether in the shelter, or if the food was delivered from special contracted restaurants. In particular, this includes identifying any specific points in such activities where a high probability of contamination may exist and taking specific measures to minimize that probability. Producers should as far as practicable implement measures to (FAO and WHO, 2009):

In emergency time, the situation is totally complicated and difficult especially in public shelters. The provision of the resources and funds, number of the affected people and their diversity in gender, ages, health status and special diseases and their desire, all of that and other issues play an important role in the type, amount and hygiene status of the food, which should be taken in the consideration by the care providers and the shelter coordinators.



#### **ENVIRONMENTAL HYGIENE**

Potential sources of contamination from the environment should be considered. In particular, primary food production should not be carried on in areas where the presence of potentially harmful substances would lead to an unacceptable level of such substances in food.

Control contamination from air, soil, water, feedstuffs, fertilizers (including natural fertilizers), pesticides, veterinary drugs or any other agent used in primary production;

Control plant and animal health so that it does not pose a threat to human health through food consumption, or adversely affect the suitability of the product; and

Protect food sources from faecal and other contamination.

In particular, care should be taken to manage wastes, and store harmful substances appropriately.

#### 2.13.2.HANDLING, STORAGE AND TRANSPORT OF FOOD

#### PROCEDURES SHOULD BE IN PLACE TO:

Sort food and food ingredients to segregate material that is evidently unfit for human consumption;

Dispose of any rejected material in a hygienic manner; and

Protect food and food ingredients from contamination by pests, or by chemical, physical or microbiological contaminants or other objectionable substances during handling, storage and transport.

Care should be taken to prevent, so far as reasonably practicable, deterioration and spoilage through appropriate measures, which may include controlling temperature, humidity, and/or other controls (FAO and WHO, 2009).

## 2.13.3.CLEANING, MAINTENANCE AND PERSONNEL HYGIENE AT PRIMARY PRODUCTION:

## APPROPRIATE FACILITIES AND PROCEDURES SHOULD BE IN PLACE TO ENSURE THAT:

Any necessary cleaning and maintenance is carried out effectively; and

An appropriate degree of personal hygiene is maintained.

#### 2.13.4.NUTRITION AND GBV DURING EMERGENCY TIME:

Given that most nutrition programmes in emergencies target vulnerable groups based on physiological and social criteria (including pregnant and lactating women, adolescent girls, and children under five years of age) nutrition actors are particularly well-positioned to monitor the safety needs of women, girls and other at-risk groups, as well as provide support to survivors. For example (GBC, 2015):

Infant and young child feeding programmes can ensure privacy for breastfeeding mothers and help decrease the risk of harassment or violence against female participants.

Therapeutic feeding centres or stabilization centres can provide a supportive and confidential environment for women, girls and other at-risk groups seeking information about where to report risk or access care for exposure to GBV.

Community-based nutrition programmes can monitor households' resource scarcity and any resulting conflicts at the family and community levels; they can then share this information with GBV specialists so that preventative action can be taken at the earliest possible stage.

Nutrition programmes can provide nutritional support to survivors, including those who may have specific nutritional requirements for supporting the healing process.

Actions taken by the nutrition sector to prevent and mitigate the risk of GBV should be done in coordination with GBV specialists and actors working in other humanitarian sectors. Nutrition actors should also coordinate with—where they exist—partners addressing gender, mental health and psychosocial support (MHPSS), HIV, age and environment.

#### 2.13.5.PERSONS WITH DISABILITIES AND FOOD SECURITY:

Persons with illnesses, physical impairments, or physical or developmental disabilities may be unable to travel to or access therapeutic feeding centres, stabilization centres, health-care centres and other services. Those who do not have family members to assist them and have to rely on others for help may be at increased risk of exploitation and abuse. It is important to adapt and develop procedures according to the rights and needs of persons with disabilities. For example (GBC, 2015):

Nutrition messages should be communicated in accessible formats (e.g. with large prints; sign language; simplified messaging such as pictograms and pictures; etc.).

Nutrition and community outreach staff must be trained on how to provide disability-sensitive services and how to report data with disability-disaggregated information.

Awareness workshops should be conducted at the community level (with community-based organizations, family members of persons of concern) to assure that general knowledge about nutrition is widespread.

Services should be physically accessible with ramps, handrails, adapted toilets and medical equipment (such as stretchers, walkers, wheelchairs, crutches, sticks, etc.). Consideration should be given to arranging transportation to services for persons with limited mobility.

Additional assistance should be available for people who are not able to eat on their own—for example, providing modified devices, spoons or straws for persons who have difficulties using utensils.

Injured persons and persons with disabilities may need specific diets that are designed to ease their healing process, prevent complications and/or ensure their wellbeing.

## 2.14.HYGIENE KITS DISTRIBUTION MODALITY AND MINIMUM STANDARDS:

## 2.14.1.HYGIENE PROMOTION 'HARDWARE':

Oxfam distributes hygiene kits to support hygiene promotion and watsan activities in most Humanitarian situations. The terms 'hygiene kits', 'NFIs' and 'NFRIs' are almost interchangeable in Oxfam-speak, but the correct term is Hygiene kit. NFI and NFRI can cover any non-food Item and so encompass all sorts of items distributed in humanitarian responses such as cooking pots or clean up tools. A hygiene kit would also include the water storage and collection items (although presently in Oxfam budgets they do appear as separate line items) that are an integral part of the hygiene kit (Oxfam, 2008).

Hygiene kits are distributed to families and so the number of items in a kit may depend on local family size.

An Oxfam 'hygiene kit' is designed to promote hygiene within the family, and may also include certain items considered to restore dignity such as shampoo for women. A hygiene kit should enable;

Although the 'software' side of hygiene promotion remains a key focus of programmes, convenient access to soap for handwashing or other enabling products that can facilitate the adoption of safe hygiene practices are also of critical importance. Enabling products 'influence individuals' opportunity to perform behaviour, regardless of their ability and motivation to take action' (Devine, 2010).

Examples of enabling products in relation to handwashing include tippy-taps (to store and regulate flow of water in sufficient quantity), soap nets, soap on a rope or soap dishes (to manage and store soap or a locally available appropriate alternative). These could be located in the home, shelters, a public place such as a school, or at a washstand to ensure water and soap are in one place. Furthermore, the appearance of enabling products may have an influence on whether or not they will be used, and hence their design needs to take into account user practices and preferences (Water Aid, 2012).

Storage of safe drinking water at household level,

Good practice around drinking water use

All family members able to practice handwashing at key times,

The washing of self and clothing,

Management of babies and young children's faeces

Dedicated water containers for anal cleansing (if used)

Management of menstruation

Practice of reasonable food hygiene



#### 2.14.2. SELECTION OF HYGIENE ITEMS

Discussions with affected men and women should form the basis of the selection of hygiene items and while it may not be possible to consult extensively in an acute emergency, there is always some space for dialogue with the affected population. As Sphere suggests:

'Existing cultural practices and familiar products should be assessed in specifying the items supplied. Care should be taken to avoid specifying products that would not be used (due to lack of familiarity) or that could be misused (e.g. being mistaken for foodstuffs).'

In areas where there are cyclical emergencies, it is easier to have such discussions as part of the emergency preparedness measures.

It is important to consider quality as well as cost, the cheapest items do not always last very long. In some cases around the world, (as it mentioned) angry refugees returned tools they had been given for cleaning up the camps when the tools broke after a few days.

#### 2.14.3PERSONAL HYGIENE ITEMS: (WASH CLUSTER, 2007)

The following hygiene items might be provided to affected populations but the exact contents of any hygiene kit will depend on specific circumstances (0xfam, 2008):

Soap for laundry and personal hygiene (Sphere recommends 250gms bathing soap per person per month and 200gms laundry soap per person per month)

Water collection and storage containers (Sphere specifies at least 2 water collecting containers of 10-20 litres plus 'enough water storage containers to ensure there is always water in the house')

Water purification tablets or water filter

Washable/disposable sanitary towels for women

Underwear for women and men (and children where appropriate)

Washable nappies for babies

Potties for young children

Bedpans/urinals for those with disabilities

Razor blades, nail clippers, combs, shampoo

Toothbrushes and toothpaste

Insecticide Treated Nets

Items for clean up or latrine cleaning and maintenance are additional to the hygiene kits.

## SOLID WASTE COLLECTION KITS MIGHT INCLUDE;

# plastic gloves masks plastic boots bars disinfecting soap shovels rakes wheelbarrow Solid waste collection point -concrete ring or wire cylinder plus bin liners

## LATRINE CLEANING KIT MIGHT INCLUDE:

Plastic gloves Masks

#### 2.14.4.DISTRIBUTION MECHANISMS: (WASH CLUSTER, 2007)

- It may be possible to organize a mass distribution of some pre-stocked priority items, such as soap or water containers, in the very early stages of a large emergency but with other items there must be an assessment of what people need and what is culturally appropriate.
- It is recommended that only items that are not culturally sensitive, such as soap (for laundry and personal hygiene) and water containers, be stockpiled for mass distribution in the first few days of an emergency. For other more culturally sensitive items (e.g. sanitary pads and underwear) pre-assessment is critical.
- It is beneficial to procure some items locally, where possible, to ensure that they are acceptable .
- It may also be possible to organise the provision of cash or vouchers to enable people to make their own decisions about the purchase of hygiene items especially for items such as underwear or sanitary material, thus enhancing people's dignity and ensuring appropriateness.
- Some of the above items e.g. soap and disposable sanitary towels may need a repeat distribution every few days to replenish supplies, depending on people's capacity to meet their own needs.
- Monitoring of the acceptance and use of the hygiene kits should take place as soon as possible after the distribution, and modifications made, as necessary, prior to the next distribution.
- If distribution is done through an intermediary e.g. community leaders or partner NGOs, follow up is also vital. Support may be needed to ensure adequate and systematic monitoring and follow up.
- In areas of high literacy it may also be possible to provide a written leaflet to accompany the materials distributed. This should clearly explain the contents of the kit, their use, and, where necessary, warnings about misuse. It should also explain people's rights in relation to the distribution.

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#### 2.14.5.TIPS FOR IMPROVING THE DISTRIBUTION OF HYGIENE ITEMS:

The primary principle of the following regulations and instructions are to ensure that the quality and quantity of items meets needs of beneficiaries adequately, are fit for purpose, and don't pose a risk to them, the following are a description for the stages of the defining of items what are the important consideration before distribution, arrangement of distribution and after distribution processes, (WASH Cluster, 2007).

#### **BEFORE DISTRIBUTION**

- Participatory identification and prioritisation of appropriate hygiene items should be done with the community if possible during the rapid assessment. The emphasis is on providing items that people are familiar with, especially where these may be important for cultural or religious reasons or depending on people priorities.
- Where possible provide people with samples of items so that they can choose according to preference e.g. materials for women's menstrual protection or items available on the local market.
- Priority needs: People may choose to sell the items provided if their priority needs are not appropriately met and so people's livelihoods need to be considered when planning distributions.
- Special needs: Some people with specific needs (e.g. incontinence or severe diarrhoea) may require increased quantities of personal hygiene items such as soap. Persons with disabilities or those who are confined to bed may need additional items, such as bed pans. Some items may require adaptation for sanitary use (such as a stool with a hole or commode chair).
- Menstrual hygiene: Provision must be made for discreet laundering or disposal of menstrual hygiene materials.
- A clear, detailed description of the item is required when ordering, along with an indication of the item's priority.
- NFIs should be packaged for ease of handling and transportation by beneficiaries, and securely enough to prevent leakage of liquids or damaging of the tools.
- A registration list of beneficiaries' households is required (indicating male, female, anyone with a disability or special needs, children, elderly people, and any other vulnerable group (e.g. female or child headed household) and the total number of household population/occupants).
- Ideally, use existing registration lists e.g. those for food distribution, or identify respectable leaders or volunteers within each area or sheltering place to do the registration. This can be cross-checked by random visits or interviews for some of the registered people or families to verify information given by leaders.
- A record of what was distributed needs to be kept ideally by both the agency and each beneficiary.
- An NFIs distribution team should be identified for each location and should include a distribution officer, beneficiary leader(s), and volunteers.
- A plan for distribution management, task allocation to various teams, flow management, recording, and security will also need to be drawn up. Other requirements may include: ink for thumb prints, pens for signatures, and tables and chairs for distribution committee members.
- A distribution schedule detailing dates/times, distribution sites, targeted beneficiaries, items needed, and the responsible persons for every site must be prepared. The list should be shared with the logistics team/warehouse to enable them to prepare transport and support if required.
- Information about the time, place, and nature of the distribution must also be communicated to the affected population via their leaders, notices, community health workers, shelter organizers and facilitators, etc. If the distribution is targeted, the beneficiary selection criteria should also be made known.
- If necessary, organize and train separate teams to carry out demonstrations or provide information on assembly and use of items distributed e.g. water filters, chlorine solution and ORS.

#### **DURING DISTRIBUTION**

- Ensure that beneficiaries understand the criteria for beneficiary selection, NFI content and use, in order to encourage transparency. They will also need to made aware of their rights in regard to distribution (specifically that the distribution is free) and the complaints procedure, should the need arise.
- Try to address queries or complaints as they arise and ensure that disruptions to the distribution are dealt with quickly and effectively.
- Where possible, ensure that the materials distributed are intact and functioning e.g. that buckets have lids and taps, and that water filters have all the component parts.

#### **AFTER DISTRIBUTION**

- Monitor beneficiary satisfaction with the distribution process and the hygiene items, and observe the use of the items provided. This can be done by randomly selecting a percentage of households or families in shelters for interviews and/or through focus group discussions (a monitoring checklist is contained in the data collection guidance manual and toolkit).
- Monitoring may also highlight where items have been sold in order to purchase items that are considered more important e.g. food or medicines, and may thus highlight other unmet needs.
- Compile distribution reports of items distributed, the number of people receiving items and their level of satisfaction with the items received. Reconcile stock levels with broken or defective items etc. Document emerging issues and lessons learnt.
- Ensure that lessons learnt feed into subsequent distributions.

## 3.SANITATION AND SAFE WATER HANDLING: 3.1.SAFE WATER IN EMERGENCY TIME

#### 3.1.1.WATER QUANTITY AND ACCESSIBILITY:

All people should have safe and equitable access to a sufficient quantity of water for drinking, cooking and personal hygiene. Public water points are sufficiently close to the affected people in shelters to enable use of the minimum water requirement (SPHERE Project, 2011).

Key actions (to be read in conjunction with the coming guidance notes)

- Identify appropriate water sources for the situation, taking into consideration the quantity and environmental impact on the sources (see guidance note 1).
- Priorities and provide water to meet the requirements of the affected population (see guidance notes 2 and 4).
- Key indicators (to be read in conjunction with the next guidance notes)
- Average water use for drinking, cooking and personal hygiene in any shelter is at least 15 litres per person per day (see guidance notes 1–7).
- If the sheltering is out of closed buildings (like schools in Gaza context), the maximum distance from any household to the nearest water point is 500 metres (see guidance notes 1, 2, 5 and 6).
- Queuing time at a water source is no more than 30 minutes (see guidance note 6).

### **GUIDANCE NOTES:**

1. Water sources selection: The following factors should be considered in water source selection: availability, proximity and sustainability of sufficient quantity of water; whether treatment is needed; and its feasibility, including the existence of any social, political or legal factors concerning the source.

In emergency times, most of the desalination plants (main source of drinking water) in Gaza Strip are closed because of the electricity cutoff and other security concerns. Generally, groundwater sources in Gaza strip and by using portable sources of electricity for suitable pumps are preferable (at least biologically) for human uses and hygiene practices but not for drinking. Trusted drinking water bottles distributed by international agencies during the war for drinking purposes are popular in Gaza. In disasters and conflict times, a combination of approaches and sources is often required in the initial phase. All sources need to be regularly monitored to avoid overexploitation.

2. Needs: The quantities of water needed for hygiene is context based, and may vary according to the climate, the sanitation facilities available, people's habits, their religious and cultural practices, the food they cook, the clothes they wear, and so on. Water consumption generally increases according to the availability, accessibility and affordability of water. Where possible, 15 litres per person per day (l/p/d) can be exceeded to conform to local standards where that standard is higher. Table (3) shows the basic survival water needs.

Principal recommendations regarding water and sanitation (MSF, 1997):

- In an emergency refugee situation, priority must be given to meeting water needs. The amount provided in the early stage should be enough to meet drinking and cooking requirements and should then be increased as quickly as possible in order to ensure a satisfactory level of hygiene. In addition to a sufficient water supply, soap must be provided as soon as possible. Improving water quality and ensuring access to water should also be tackled quickly.
- ·Human excreta, medical wastes, etc. are always contaminated;
- Arrangements for their control and disposal in well-defined areas should be instituted as quickly as possible, using simple techniques.
- •The site should be cleaned in order to prevent intermediate carriers (vectors) from developing and spreading diseases.
- ·Health facilities such as feeding centres, health centres, etc. should respect the hygiene principles mentioned above as early as possible.
- •These preventive measures should be very quickly linked to disease surveillance. Monitoring morbidity and mortality data will highlight any weak points in a water, hygiene and sanitation programme.
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**TABLE 3: BASIC SURVIVAL WATER NEEDS** 

NEED	QUANTITY (LITRES PER DAY)	DEPENDENCE
Survival needs: water intake(drinking and food)	2.5-3	Depends on the climate and individual physiology
Basic hygiene practices	2-6	Depends on social and cultural norms
Basic cooking needs	3-6	Depends on food type and social and cultural norms
Total basic water needs	7.5-15	litres per day

- 3. Measurement: disaster affected populations survey (households/shelters gusts), observation and community discussion groups are more effective methods of collecting data on water use and consumption than the measurement of water pumped into the pipeline network or the operation of hand pumps or bottles distribution.
- 4. Quantity/coverage: In a disaster and until minimum standards for both water quantity and quality are met, the priority is to provide equitable access to an adequate quantity of water even if it is of intermediate quality. Disaster affected people are significantly more vulnerable to disease; therefore, water access and quantity indicators should be reached even if they are higher than the norms of the affected or host population. Particular attention should be paid to ensure the need for extra water for people with specific health conditions (some kinds of diseases and disabilities) and to meet the water requirement even for livestock and crops in drought situations. To avoid hostility, it is recommended that water and sanitation coverage address the needs of both host and affected populations equally.

# 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. TABLE (4) ILLUSTRATES THE APPROXIMATE GUIDELINES FOR THAT:

TABLE 4: THE APPROXIMATE GUIDELINES FOR THE NUMBERS OF PEOPLE PER WATER SOURCE		
NUMBER OF PEOPLE	ACCORDING TO	
250 people pertap	based on a flow of 7.5 litres/minute	
500 people per hand pump	based on a flow of 17 litres/minute	
400 people per single-user open well	based on a flow of 12.5 litres/minute	

These guidelines assume that the water point is accessible for approximately eight hours a day only and water supply is constant during that time. If access is greater than this, people can collect more than the 15 litres/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.

6. Queuing time: Excessive queuing times are indicators of insufficient water availability due to either an inadequate number of water points or inadequate yields at water sources. The potential negative results of excessive queuing times are reduced per capita water consumption, increased consumption from unprotected surface sources and reduced time for other essential survival tasks for those who collect water.

7. Access and equity: Even if a sufficient quantity of water is available to meet minimum needs, additional measures are needed to ensure equitable access for all groups. Water points should be located in areas that are accessible to all, regardless of, for example, gender or ethnicity. Some hand pumps and water carrying containers may need to be designed or adapted for use by people living with some diseases, older people, persons with disabilities and children. In situations where water is rationed or pumped at given times, this should be planned in consultation with the users including women beneficiaries.

### 3.1.2.WATER QUALITY:

Water in Gaza Strip is much deteriorated qualitatively and much scarce quantitatively according to many recent local and international reports and researches. Many of properties and tests are used to define the level of the quality and health of used water. Physical, chemical and biological parameters are developed locally and as worldwide to control the quality of the used water in order to protect the people from any risk could be delivered by water-related diseases or contamination. To insure that water offered in shelter is palatable and of sufficient quality to be drunk and used for cooking and personal and domestic hygiene without causing risk to health, the following important and practical key cations and key indicators are developed to be implemented to control the water quality in shelters (Sphere Project, 2011):

# KEY ACTIONS (TO BE READ IN CONJUNCTION WITH THE COMING GUIDANCE NOTES)

- Conduct a rapid sanitary survey and, if it possible, build up water safety plan for the sources (see guidance notes 1–2).
- Insure the safety and protection steps of the water chain by applying all of the needed measurements from the sources to the use (see guidance notes 3–4).
- For piped water supplies, especially within the shelters, or all water supplies at times of risk of diarrhoeal epidemics, undertake water treatment with disinfectant so that there is a chlorine residual of 0.5 mg/l and turbidity is below 5 NTU (nephelolometric turbidity units) at the tap. In the case of specific diarrhoeal epidemics, ensure that there is residual chlorine of above 1 mg/l (see guidance notes 5-8).
- Where household-level water treatment is proposed, ensure that it is accompanied by appropriate promotion, training and monitoring in an integrated and comprehensive approach (see guidance notes 3 and 6).

# KEY INDICATORS (TO BE READ IN CONJUNCTION WITH THE GUIDANCE NOTES)

- There are no faecal coliforms per 100ml of water at the point of delivery and use (see guidance notes 2, 4–7).
- Any household-level water treatment options used are effective in improving microbiological water quality and are accompanied by appropriate training, promotion and monitoring (see guidance notes 3-6).
- There is no negative effect on health due to short-term use of water contaminated by chemicals (including carry-over of treatment chemicals) or radiological sources, and assessment shows no significant probability of such an effect (see guidance note 6).
- All affected people drink water from a protected or treated source in preference to other readily available water sources (see guidance notes 3 and 6).
- There is no outbreak of water-borne or water-related diseases (see guidance notes 1—9).

### **GUIDANCE NOTES**

### 1. A SANITARY SURVEY AND WATER SAFETY PLAN:

A sanitary survey is an assessment of conditions and practices that may constitute a public health risk. It covers possible sources of contamination to water at the source in transport and in the home, defecation practices, drainage and solid waste management. Community mapping and shelters surveys are 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 micro-organisms (parasites, bacteria and viruses), such as cryptosporidium, giardia, salmonella and other common causes of human diarrhoea, and therefore presents a significant health risk. WHO recommends the use of its water safety plan (WSP), which is a holistic approach covering hazard identification and risk assessment processes, an improvement/upgrade plan, monitoring of control measures and management procedures, including the development of supporting programmes.

### 2. MICROBIOLOGICAL WATER QUALITY:

Faecal coliform bacteria (99 per cent of which are E. coli) are an indicator of the level of human and/or animal waste contamination in water and the possibility of the presence of harmful pathogens. If any faecal coliforms are present, the water should be rejected to be drunk and treated directly.

### 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. running water, lakes, entrusted bottled water and unprotected wells, for reasons such as taste, proximity and social convenience. In such cases, shelters managers, technicians, hygiene promoters and community mobilisers need to understand the rationale for the preferences so that their consideration 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 recontamination during collection, storage and drawing (safe water chain). Steps that can be taken to minimise such risk include improved collection and storage practices and distribution of clean and appropriate collection and storage containers. 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 source or post-delivery contamination. This risk will be determined by conditions in the shelter or the affected population area, such as population density, excreta disposal arrangements, hygiene practices and the prevalence of diarrhoeal disease. 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/shelter. For water to be disinfected properly, turbidity must be below 5 NTU, although for short-term emergency use, water of higher turbidity can be adequately disinfected with double chlorine dosage after filtration until turbidity reduction is achieved.

#### 6. DISINFECTION USING CHLORINE:

Consulting the specialized sides and experienced technicians in the field of water quality control should be conducted regularly during emergency time to define the dosages concentration, disinfection times and the contact period according the quality of the targeted water, portable water quality monitoring devices are available now to do such rabid field assessment of water. Double-dose chlorination can be considered for higher turbidity where there is no alternative water source. This should be attempted only for short periods of time and after educating users to reduce turbidity by filtering, settling and decanting before treatment.

#### 7. 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, the risks should be rapidly assessed by carrying out a chemical analysis. A decision that balances short-term public health risks and benefits should then be made. Furthermore, a decision to use possibly contaminated water for longer-term supplies should be made on the basis of a more thorough assessment and analysis of the health implications.

### 8. PALATABILITY:

Taste is not in itself a direct health problem (e.g. slightly saline water does not pose a health risk), but if the safe water supply does not taste good, users may drink from unsafe sources and put their health at risk, in many times, the human senses such as the taste, odors and colors are considered as indicators for pollution. To avoid this, hygiene promotion activities are needed to ensure that only safe supplies are used.

### 9. 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 usage levels.

### **HOW CLEAN IS YOUR WATER TANK?**

In Gaza today, plastic tanks have become a feature of the landscape. This has become necessary because supply of water lags far behind demand and this led to rationing. People are thus compelled to store water in large tanks when taps run. Unfortunately, many of the containers used to store water are not well protected hygienically though they are in fact, periodically cleaned and disinfected. Sometimes birds, reptiles and insects drown and decompose in tanks resulting in contamination. Water stored for too long contains sediments that eventually affect its physical attractiveness.

Corrosion resistant containers, fibre glass and well manufactured plastic containers are suitable for home use but they must always have lids which should be closed tightly to prevent foreign materials from falling into them. Water should be stored away from volatile organic products such as gasoline, kerosene, pesticides and other related chemicals. If water is not properly stored it absorbs gases within its surrounding and as such may have some odour. It is pertinent to state that water storage facilities should be cleaned and disinfected at least twice in a year with appropriate chemicals and in the right quantity. As long as this is done, potable water can always be safe for drinking and for other uses. If this is not done, storing water for more than six months is not safe (MWRWH/ MLGRD, 2011). One must avoid storing water in containers made of lead because lead poisoning may occur if it is continued as a practice over time. Consequences of not cleaning water storage facilities regularly include but are not limited

The growth of microbes which could lead to diseases like gastro-intestinal disorders like diarrhoea.

The accumulation of sediments.

The formation of bio-films (a zone in your water reservoir where bacteria colonize and multiply)

Growth of algae (green plant) on the walls of reservoirs which produce bad odour.

Change in the taste, odour and colour of the water

In conclusion, it is important to recognize that how well your tank is cleaned also matters. There are instances where cleaners enter reservoirs with bare feet or dirty boots. This could lead to further contamination after the work is supposedly done. It is therefore advisable to locate professional water reservoir cleaners to undertake such a task in order to safeguard your health and well—being.

### 3.1.3. WATER FACILITIES INSIDE SHELTERS/PUBLIC PLACES:

According to the previous experiences, overcrowding is considered as one of the most challenging problems happens in shelters during emergency cases in Gaza Strip, especially in the beginning time. It is very important that people in the shelters have adequate facilities 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, either in the shelters or within the affected population areas and homes, the following key actions and key indicators were developed by Sphere Project, (2011) to facilitate achieving these goals:

# KEY ACTIONS (TO BE READ IN CONJUNCTION WITH THE NEXT GUIDANCE NOTES)

- Provide the affected population with appropriate water collection and storage facilities (see guidance note 1).
- Actively encourage the participation of all affected individuals and vulnerable people in sitting and design of the managements and following up the laundry and bathing facilities inside shelter (see guidance note 2).
- Include, at water distribution points and community laundry facilities, private washing basins and laundry areas for women to wash and dry undergarments and sanitary cloths (see guidance note 2).

# KEY INDICATORS (TO BE READ IN CONJUNCTION WITH THE COMING GUIDANCE NOTES)

- Each family in shelter has at least two clean water collecting containers of 10–20 litres, one for storage and one for transportation (see guidance note 1), particularly, if the shelter hasn't been supplied by continuous piped water system.
- Water collection and storage containers have narrow necks and/or covers for buckets or other safe means of storage, for safe drawing and handling, and are demonstrably used (see guidance note 1).
- There is at least one washing basin per 100 people and private laundering and bathing areas available for women. Enough water is made available for bathing and laundry (see guidance note 2).
- Water at household level/shelter is free from contamination at all times (see guidance note 1).
- All people are satisfied with the adequate facilities they have for water collection, storage, bathing, hand washing and laundry (see guidance note 2). Regular maintenance of the installed systems and facilities is ensured and users are involved in this where possible (see guidance note 3).

### **GUIDANCE NOTES**

### 1. WATER COLLECTION AND STORAGE:

In case no continuous piped water source in shelter, people need vessels to collect water, to store it and to use it for drinking, cooking, washing and bathing. The vessels should be clean, hygienic, easy to carry and appropriate to local needs and habits in terms of size, shape and design. Children, persons with disabilities, older people and people living with some chronic diseases may need smaller or specially designed water carrying containers. The amount of storage capacity required depends on the size of the family and the consistency of water availability, e.g. approximately four litres per person would be appropriate for situations where there is a constant daily supply.

### 2. COMMUNAL WASHING AND BATHING FACILITIES:

People require spaces where they can bathe in privacy and with dignity. If this is not possible at the household level/public shelter, separate central facilities for men and women will be needed. Where soap is not available, commonly used alternatives, such as ash, clean sand, soda or various plants suitable for washing and/or scrubbing, can be provided. Washing clothes, particularly children's clothes, is an essential hygiene activity; cooking and eating utensils also need washing. The number, location, design, safety, appropriateness and convenience of facilities should be decided in consultation with the public health and water quality specialists and users themselves, particularly women, adolescent girls and persons with disabilities. The location of facilities in central, accessible and well-lit areas with good visibility of the surrounding area can contribute to ensuring the safety of users.

### 3. MAINTENANCE OF WATER SYSTEMS:

It is important that the shelter management sides know obviously their responsibilities toward the maintenance works and following up of the sanitation facilities to maintain and sustain the systems provided.

# 3.2.SAFE SANITATION (EXCRETA) DISPOSAL WITHIN SHELTERS:

#### **3.2.1.MANAGEMENT OF SANITATION:**

All persons in an emergency shelter should have safe and equitable access to, and use of, sanitation/toilet facilities and resources. This includes suitable facilities and access for people with a disability. Pre-planning should include actions to manage the availability of toilets in the event of a disease outbreak that would require person/s to be isolated. However, individuals themselves should take all actions necessary to reduce public health risks.

Children should be able to reach soap dispensers and taps. Parents and caregivers should closely supervise children's hand washing, as the potential for cross-contamination in an emergency shelter is high, as mentioned previously. Posters, infographics, brochures, booklets and other IEC materials to remind centre residents and guests should be prominently displayed and circulated at critical points and all the time throughout the centre, such as bathrooms, the dining areas and the child play areas (ARC, 2015).

A cleaning system and waste management system should be in place for the maintenance of sanitation/toilet facilities. A role for the emergency management team is to monitor daily consumables, such as toilet paper usage and regularly inform the local disaster centre coordinator to pre-empt any short-fall of supply. A proper assessment of the sewerage/septic system must be undertaken by the local government authority to determine the capacity of the system to manage the projected occupation of the emergency shelter. Servicing of toilets needs to occur at least daily. As numbers increase in the shelter, consideration needs to be given for more frequent servicing of toilets to maintain hygiene standards and to minimise the risk of disease.

Designated areas should be provided for nappy changes, including change tables, disposable change mats, hand sanitizers and covered nappy bins. Queuing arrangements, particularly for outside portable toilets needs to be well-managed. Single queues are inefficient and prolong the queuing time for individuals. The length of time a person waits in a queue is more important than how long a gueue is (ARC, 2015).

### **3.2.2.APPROPRIATE AND ADEQUATE TOILET FACILITIES IN SHELTERS:**

People have adequate, appropriate and acceptable toilet facilities, sufficiently close to their dwellings, to allow rapid, safe and secure access at all times, day and night, key actions and the conjugated key indicators were developed by Sphere Project (2011) as follow:

#### **KEY ACTIONS (TO BE READ IN CONJUNCTION WITH THE GUIDANCE NOTES)**

- In case of no sanitation facilities are available in the shelter, consult and secure the approval of all users (especially women and people with limited mobility) on the sitting, design and appropriateness of sanitation facilities (see guidance notes 1–4).
- Provide the affected people with the means, tools and materials to maintain and clean their toilet facilities continuously (see guidance notes 6–7).
- Provide an adequate supply of water for hand washing and for toilets with flush and/or hygienic seal mechanisms and appropriate anal cleansing material for use in conventional pit latrines (see guidance notes 7–8).

# KEY INDICATORS (TO BE READ IN CONJUNCTION WITH THE COMING GUIDANCE NOTES)

GENERALLY, TOILETS ARE APPROPRIATELY DESIGNED, BUILT AND LOCATED TO MEET THE FOLLOWING REQUIREMENTS:

- They can be used safely by all sections of the population, including children, older people, pregnant women and persons with disabilities (see guidance note 1).
- They are sited in such a way as to minimise security threats to users, especially women and girls, throughout the day and the night (see guidance note 3).
- They provide a degree of privacy in line with the norms of the users (see guidance note 3).
- They are sufficiently easy to use and keep clean and do not present a health hazard to the environment. Depending on the context, the toilets are appropriately provided with water for hand washing and/or for flushing (see guidance notes 7–8).
- They allow for the disposal of women's menstrual hygiene materials and provide women with the necessary privacy for washing and drying menstrual hygiene materials (see guidance note 9).
- They minimise fly and mosquito breeding (see guidance note 7).
- They are provided with mechanisms for desludging, transport and appropriate disposal in the event that the toilets are sealed or are for long-term use and there is a need to empty them (see guidance note 11).
- In high water table or flood situations, the pits or containers for excreta are made watertight in order to minimise contamination of groundwater and the environment (see guidance note 11).
- •A maximum of 20 people use each toilet (see guidance notes 1-4).
- Separate, internally lockable toilets for women and men are available in public places, such as shelters, distribution centres, health centres, schools, etc. (see guidance note 2).
- ·Toilets are no more than 50 metres from living area (see guidance note 5).
- ·Use of toilets is arranged and followed up by special team in shelter and/or segregated by sex (see guidance notes 2–5).
- ·All the affected population is satisfied with the process of consultation and with the toilet facilities provided and uses them appropriately (see guidance notes 1–10).
- People wash their hands after using toilets and before eating and food preparation (see guidance note 8).

### **GUIDANCE NOTES:**

### 1. ACCEPTABLE FACILITIES:

Successful excreta disposal programmes depend on an understanding of people's varied needs and their participation. It may not be possible to make all toilets acceptable to all groups. Special toilets may need to be constructed for children, older people and persons with disabilities, e.g. toilets with seats or hand rails or provision of bed pans, potties or commodes. The type of sanitation facility adopted depends on the time of the intervention, the preferences and cultural habits of the intended users, the existing infrastructure, the availability of water (for flushing and water seals), the soil formation and the availability of construction materials, in case of construction of new toilets. In case of sever emergency, and the shelters were built up away from the schools as what was conducted during the previous wars in Gaza, Different excreta disposal types (possible alternatives for safe excreta disposal) for different phases of a disaster response could be followed, which are listed in table (5):

	TABLE 5: DIFFERENT EXCRETA DISPOSAL TYPES FOR DIFFERENT PHASES		
	SAFE EXCRETA DISPOSAL TYPE	APPLICATION REMARKS	
2	Demarcated defecation area (e.g. with sheeted-off segments)	First phase: the first two to three days when a huge number of people need immediate facilities	
	Trenchlatrines	First phase: up to two months	
3	Simple pit latrines	Plan from the start through to long- termuse	
4	Ventilated improved pit (VIP) latrines	Context-based for middle- to long- termresponse	
5	Ecological sanitation (Ecosan) with urine diversion	Context-based: in response to high water table and flood situations, right from the start or middle to long term	
6	Septic tanks	Middle-tolong-term phase	

#### 2. PUBLIC TOILETS:

In public places, toilets are provided with established systems for proper and regular cleaning and maintenance. Disaggregated population data are used to plan the number of women's cubicles to men's using an approximate ration of 3:1. Where possible, urinals should be provided.

### 3. FAMILY TOILETS:

Family toilets are the preferred option where possible. One toilet for a maximum of 20 people should be the target. Where there are no existing toilets, it is possible to start with one for 50 people and lowering the number of users to 20 as soon as possible. In some circumstances, space limitations make it impossible to meet these figures. In such cases, advocate strongly for extra space. However, it should be remembered that the primary aim is to provide and maintain an environment free from human faeces.

#### 5. SAFE FACILITIES:

Inappropriate sitting of toilets may make women and girls more vulnerable to attack, especially during the night. Ensure that women and girls feel and are safe when using the toilets provided. Where possible, communal toilets should be provided with lighting, or households provided with torches. The input of the community should be sought with regard to ways of enhancing the safety of users.

# 7. WATER AND ANAL CLEANSING MATERIAL:

Water should be provided for toilets with water flush and/or hygienic seal mechanisms. For a conventional pit toilet, 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 their safe disposal.

#### 8. HAND WASHING:

Users should have the means to wash their hands with soap or an alternative (such as ash) after using toilets, after cleaning the bottom of a child who has been defecating, and before eating and preparing food. There should be a constant source of water near the toilet for this purpose

### 4. SHARED FACILITIES:

Affected population should be consulted about the shared toilets, and the responsible cleaning and maintenance. Generally, clean latrines are more likely to be frequently used. Efforts should be made to provide people living with chronic illnesses with easy access to a toilet as they frequently suffer from chronic diarrhoea and reduced mobility.

# 6. USE OF LOCAL BUILDING MATERIAL AND TOOLS:

The use of locally available material for construction of latrines is highly recommended (in case of no latrines are available which is common in Gaza status during emergency). It enhances the participation of the affected population to use and maintain the facilities. Providing the population with construction tools will also support this aim.

Human resources (MSF, 1997):

A water, hygiene and sanitation programme in emergency situations requires the necessary human resources to carry it out. It is therefore essential to draw up job descriptions early on, defining the role of each participant in detail.

Water and sanitation programmes should be organized and supervised by an environmental health technician. In large-scale emergencies, two head technicians may be needed, working in close coordination, i.e. one for the water programme and one for hygiene and sanitation. The environmental health technician should define the different tasks and organize teams to carry them out:

• Surveillance of the various links in the water-supply chain (pumping, storing and treating),

- Maintaining water distribution points,
- · Building collective latrines and maintaining them,
- Preparing slabs for family latrines,
- · Collecting and disposing of waste,
- Hygiene in health facilities: cleaning latrines, waste disposal, spraying, preparing chlorine solutions, etc.,
- · Public education on basic rules of hygiene,

Monitoring environmental health indicators.

#### 9. MENSTRUATION:

Women and girls of menstruating age, including schoolgirls, should have access to suitable materials for the absorption and disposal of menstrual blood. Women and girls should be consulted on what is culturally appropriate. Latrines should include provision for appropriate disposal of menstrual material or private washing facilities.

#### 10. DESLUDGING:

When appropriate, and depending on the need, desludging of toilets/septic tanks and excreta containers, including sitting of final sewage disposal point, needs to be considered right from the start.

# 11. TOILETS IN DIFFICULT ENVIRONMENTS:

In flood or urban disasters, the provision of appropriate excreta disposal facilities is usually difficult. In such situations, various human waste containment mechanisms, such as raised toilets, urine diversion toilets, sewage containment tanks and the use of temporary disposable plastic bags with appropriate collection and disposal systems, should be considered. These different approaches need to be supported by hygiene promotion activities.

### **WASTE WATER CONTROL:**

# THERE ARE TWO CATEGORIES OF WASTE WATER (MSF, 1997):

- Run-off rain-water and waste water from water points are not a direct health risk for the population, but must be carefully controlled.
- Site planning must take drainage for rain-water into account from the outset in order to avoid soil erosion and flooding during heavy rains. Drainage trenches are usually located along the access roads.
- Waste water disposal at water points is ensured by trenches connected to main drainage or a soak-away pit. When this is not undertaken, stagnant water may become breeding sites for mosquitoes and may infiltrate and contaminate water sources.
- Waste water collected from washing areas and from health facilities may be significantly contaminated; for instance, sewage water may contain millions of faecal coliforms.
- Waste water should be evacuated by infiltration into the soil whenever possible. A safe distance of at least two metres between the underground water source and the infiltration system should be respected. Since this water usually contains a lot of matter and soap, evacuation requires a clarification process (in grease traps) before evacuation; if this is not done, the evacuation system will be rapidly obstructed.

# 3.3.GUIDELINES FOR OPERATION AND MAINTENANCE OF WATER AND SANITATION FACILITIES, ESPECIALLY IN SHELTERS:

In addition to HP and suitable personal hygiene in order to preserve human wellbeing and to increase the quality of the entire public health during emergency times, a good organization of cleaning and maintenance of the water and sanitation facilities in shelters is of utmost importance. The talk here is about the practical and implemental phases. Badly maintained sanitation facilities often cause an even bigger health risk. Stagnant water around tap stands and in blocked drainage channels attracts rodents and forms a breeding place for mosquitoes (UNICEF, 2011).

### 3.3.1.GENERAL INSTRUCTIONS

It is not so important who cleans and maintains facilities, but that arrangements for it are made for use and maintenance of facilities. The following are important considerations for proper operation and maintenance (08M) of water and sanitation facilities in the shelters (UNICEF, 2011):

- All family members and affected people in shelter (included the children) should use water and sanitation facilities
- Facilities should be lockable from inside.
- Shelters facilitators and parents should supervise and guide children for use of facilities.
- Sanitary disposal unit is provided in each cubicle to provide privacy and protect the modesty of girls menstruating at a sensitive age. Sanitary disposal facilities should be provided for all girls aged eight and over.
- Allow sufficient time or hygiene facilities special for uses of women and children within the shelter separated from that of adults is better.
- Check storage for drinking water and re-fill during Mid-Day.
- Fill water storage containers for flushing in the morning and re-fill as required.
- Provide for cleaning materials and brush and for hand washing facilities close to the toilet with soap, bucket and mug.
- Conserve water and use water judiciously.
- Drinking water supplies and facilities of any sort should not be located in the toilets.
- Provide for drainage facilities at hand washing points.
- The area around the sanitary complex should be kept clean.
- The starting date of the use of a leach-pit should be noted so that the period in which it is filled up can be known.
- Shelter water and sanitation facilities should be maintained regularly to avoid breakage and malfunction.
- Ensure supplies of toilet paper, soap, paper towels are stocked throughout the day
- Ensure emergency repairs of toilets are done promptly to minimize disruption to the service
- The shelter should hold spare cubicle locks and other fast moving items for quick replacement when required

Ensure planned maintenance activities all the time regularly.

### 3.3.2.CLEANING OF WATER AND SANITATION FACILITIES:

As proper cleaning and preventive maintenance are key components of operation and management of water and sanitation facilities, detailed description on cleaning requirements, frequency, methodology, equipment requirement and safety measures are discussed in this section to guide shelter administration and cleaning staff on day to day cleaning and preventive maintenance of shelter water and sanitation facilities, and many of these driving instructions can be applied in the homes within the regular time out of emergency.

When developing a cleaning and preventive maintenance schedules, the following should be considered to avoid interruption of sanitation services for affected people inside shelter (UNICEF, 2011):

- Shelter toilets should be cleaned at least twice a day, including between peak periods of use (such as morning, after waking up and after lunch break)
- Not all be cleaned at the same time to ensure adequate access for people
- Remain open to people throughout all of the day
- Restrict closures to temporary cleaning purposes
- Plan deep cleaning from time to time by experienced cleaning agent, at least one time per month.
- Sanitary disposal units should be emptied and cleaned sufficiently often by special team trained to do that well.

### 3.3.3.CLEANING FREQUENCY AND METHODOLOGY

The timing and frequency of cleaning should be determined by the crowd flow. Cleaning should be done more often during peak hours and less during off-peak hours. Frequency of cleaning is usually determined by expectation and standard of maintenance required by the management of the property and also the budget available for the maintenance of toilets. Tables 6a and 6b show the cleaning frequency and best methodologies should be followed in term of sanitation and hygiene facilities cleaning process inside shelters and also at home (UNICEF, 2011).

### TABLE 6A: CLEANING FREQUENCY AND METHODOLOGY

NO	ITEM	FREQUENCY	METHOD
	Fields and surfaces	At least daily	Surface areas must be manually cleaned and dried between uses and /or at end of day (depending on surface) using general purpose detergent & hot water. Ensure that all areas are thoroughly dry. Disposable cloths/paper towels could be used, but it is imperative that the correct sequence of cleaning is fallowed, from lower risk to high risk. Disinfectant to be used if known infection risk and then rinsed.
	Frequent hand contact sires, such as toilet flush handles. Caps and door knobs.	At least daily and it is advisable for to ilets to be cleaned twice or three times daily	As above use detergent and hot water. Cream cleaner can be used for sinks and basins. Ensure both sides of toilet seats and handles are cleaned- Clean and dry basin taps, clean toilet flush handles and door knobs. Attention should be made to the sides and underside of hand dryers.
	Wash hand basins lower risk	Consume use:- at least twice, or a d v i s a b l e , 3 times	All surfaces are to be washed down using a detergent and hot water Attention should be paid to the underside and surround. Disabled persons' grab rails should be cleaned with detergent and hot water.
	Toilets higher Risk	Constant use:- at least twice, or advisable, 3 times	All surfaces to be cleaned with detergent and dry polished. Disinfectant/hypochlorite to be used if known infection risk and then rinsed. Hand soap, preferably liquid soap, should be available for all hand washbasins Hygienic hand drying facilities should be in close proximity to hand basins.

### TABLE 6B: CLEANING FREQUENCY AND METHODOLOGY

NO ITEM	FREQUENCY	METHOD	
Floors	Daily	Wash with water and detergent. Disinfectant is required only after contamination with blood spillages.	
Refuse bins	Daily	Empty bins at least twice daily. Clean the outside of the bins daily. Clean inside with hot water and detergent, if contaminated. Liners to be renewed daily.	
Feminine hygiene bins	Daily	Clean outside of bins daily. Lift bins off the floor during wet mopping. Sanitary product disposal bins are emptied and cleaned sufficiently, often by trained cleaners.	
Mirrors (if exist)	Daily	Mirrors to be polished and any stainless steel should be kept bright.	
Walls	Walls / partitions spot denned daily	Check walls and partitions for marks and stains and clean as required, using detergent and a cloth with warm water.	
Ceiling! windows / lights / air vents / fittings	Periodically	Routine cleaning not required. Clean periodically with hot water and general purpose detergent. Clean with a disinfectant if contaminated with blood. Stainless steel should be kept bright.	
Pipe work Weekly (external)		Clean weekly with hot water and general purpose detergent	
Drinking water facilities	people drink directly from		

NO	ITEM	FREQUENCY	METHOD
	Blood or bodily fluid spills	Immediately	Where there is known blood or bodily fluid contamination (e.g. spills of vomit or faecal matter) spills should be cleaned Immediately and any contaminated surfaces cleaned and disinfected

#### 3.3.4.DETAILED DESCRIPTION OF CLEANING METHODS:

Cleaning of the toilets is very important and overlapped job, on the contrary of what the majority are think, it needs a lot of interesting and experiences to insure that the toilet is not a source of risk on health, the following detailed description of the cleaning methods, time and needed materials and equipments regarding the toilets cleaning and following up processes are developed by UNICEF (2011):

### **A.BASINS, SINKS, AND TOILETS**

## TABLE 7: HOW TO CLEAN BASINS, SINKS, AND TOILETS AND THE NEEDED EQUIPMENTS:

HOW TO CLEAN BASINS, SINKS, AND TOILETS	EQUIPMENT NEEDED
<ul> <li>-Assemble equipment.</li> <li>-Inspect hands and protect as necessary. Put on personal protective equipment (PPE), such as gloves and eye protectors.</li> <li>-Select correct chemicals, and prepare cleaning solution, adding product to water, put correct quantity into bucket.</li> <li>-Site "closed for cleaning" sign and open windows.</li> <li>-Turn off automatic flushing system.</li> <li>-Clear waste outlets and channels and empty the waste bins.</li> <li>-Flush toilets, lower water level. Apply cleaning solution (or de-scaler) and allow sufficient contact time, about one minute.</li> <li>-Work from clean to dirty.</li> <li>-Using a cleaner disinfectant, wash, rinse, and wipe dry all sanitary appliances.</li> <li>-Pay special attention to problem areas.</li> <li>-Remove any marks from walls and wipe handles.</li> <li>Brush inside of toilets, including, under the rim, rinse brush and wipe holder.</li> <li>-Replace paper, etc, as necessary, clean and store all materials and equipment.</li> <li>Remove signs and remember to close the windows.</li> </ul>	-Warning signs -Personal Protective Equipment -Toilet brush -Cloths and buckets of appropriate color -Cleaning agents as well as a de-scaler for pans -Measure or dispenser and a spray bottle -Non abrasive pad -Pair of tweezers -Sanitary bags, if appropriate bottle brush Replacement waste bags of appropriate color

### **B.FLOORS**

There are a number of different options for cleaning floors; following are some of the most popular methods. Single solution mopping unit (damp mopping) is illustrated in details in table (8).

TABLE 8: HOW TO DAMP MOP THE FLOOR AND THE NEEDED EQUIPMENTS

HOW TO DAMP MOP	EQUIPMENT NEEDED
-Assemble equipmentPut on P.P.E.(Personal Protective Equipment) -Prepare cleaning solution, adding product to water, put correct quantity into bucketSite warning signs and open windows, if they are closedPosition mopping unit and wringer behind line of work"Cut in" parallel to skirting and ensure that the mop is held correctlyDo a manageable area, do not overreachDo not over wet the floor and ensure that you wring the mop out correctly and stand in front of wringer (if applicable).	-Cleaning agent -Measure or dispenser -Abrasive pad -Personal Protective Equipment -Mopping unit and wringer -Warning signs
-Rinse mop frequently and change the cleaning solution as necessary and use abrasive pad to remove stubborn marksWipe skirting after mopping and check appearance of floorWash mop heads, leave buckets to drainClean & store all materials and equipment. Remove warning signs when floor is dry and close windows.	Bucket cloth (if necessary)

Note: It may be necessary to keep the toilets opened for a time after cleaning process.

### **C.REFUSE / WASTE BINS**

Table 9, show the detailed methodology and the needed equipments need in order to clean the waste bins well.

### TABLE 9: HOW TO CLEAN WASTE BINS AND THE NEEDED EQUIPMENTS

HOW TO CLEAN WASTE BINS	EQUIPMENT NEEDED
<ul> <li>Remove lid and look inside for dangerous or harmful objects.</li> <li>Carefully remove old liner from inside the bin.</li> <li>Put the old liner into the black bag.</li> <li>Spray the inside of the bin with a cleaning fluid and wipe clean with a cloth.</li> <li>Place a new liner bag into the bin whilst making sure that the liner is pushed to the bottom of the bin and will not obstruct waste from falling to the bottom.</li> <li>Replace lid and spray fluid all over the bin and inside the lid and wipe down.</li> <li>Remember to clean the bottom (underside) of the bin. Also, clean the floor area where the bin usually stands.</li> </ul>	-Personal protective equipment(P.P.E) -Cleaning agent -Cloths -Refuse / black bag -Replacement waste bags of appropriate color

### D.WALLS, CEILINGS, WINDOWS, MIRRORS ETC

Cleaning methodologies and the needed equipments of the walls, ceiling, windows etc. are described in details and step by step in table 10.

# TABLE 10: HOW TO CLEAN WALLS, CEILINGS, WINDOWS AND THE NEEDED EQUIPMENTS

10W TO CLEAN WALLS, CEILINGS, WINDOWS, MIRRORS ETC	EQUIPMENT NEEDED
-Assemble equipment -Put on P.P.E. Eyes, scalp and exposed skin must be protected if strong alkali chemical is to be used -Prepare cleaning solution, adding chemical to water. Wipe up any spillages, and site warning signs and open windowsUse dust covers, if applicable and mask electrical points etcErect access equipment correctly and ensure you use it safelyClean from bottom to top and remove drips and runs as they happen. Rinse from top to bottom. Leave surface as dry as possible and remove plugs safely. Check final appearance	-Platform steps, or other suitable access equipment -Warning signs -Personal Protective Equipment -Dust covers and cloths -Cleaning agent -Measure or dispenser -Masking taps -Abrasive pad

- -Clean and store all materials and equipment.
- -Remove masking tape.

Remove warning signs and close the windows.

-Plastic sheet, if applicable Buckets and cloths, OR spray bottle

### 3.3.5.BASIC EQUIPMENT AND SUPPLIES

Different equipment for different joints and corners, as well as different disinfectants, should be used in the cleaning of different sanitary wares and fittings. To carry out proper toilet maintenance at any populated building or in shelters during emergency, cleaners should have the equipment listed below:

Different equipment for different joints and corners, as well as different disinfectants, should be used in the cleaning of different sanitary wares and fittings. To carry out proper toilet maintenance at any populated building or in shelters during emergency, cleaners should have the equipment listed below:

1. Service tray or cart

concentrate

- 2. Premixed glass cleaner (with spray bottle)
- 3. Premixed disinfectant cleaner (with spray bottle)4. Disinfectant cleaner
- 5.stainless steel cleaner (if necessary)
- 6.Toilet bowl swab and container
- 7.Broom
- 8.Dust-pan corner brush

9.Signings such as 'wet floor' and 'closed for cleaning'

- 10. Clean cloth
- 11. paper towels/toilet paper/soap
- 12. Gloves

#### 3.3.6.SAFETY AND TRAINING OF CLEANERS:

- Cleaning equipment should be color coded (e.g. blue for toilets areas including basins, taps and cubicle locks; red for toilet pans, cisterns)
- Cleaners should follow all safety regulations and ensure the correct use and storage of detergents and chemicals.
- All cleaning materials should be out of reach and stored locked away from contact with public, especially children.
- Commercial brands are advocated over 'hand mixed' products in bottles or containers as they can readily become contaminated during the 'topping up' process.
  - Do not pour any waste water into toilets; this should be emptied into a butler cleaner's sink.
- Some dangerous chemical detergents like bleach (hypochlorite) are not permitted to be used. If permitted, bleach can be used where there is a known infection risk...and after ensuring that all Health and Safety are addressed.
- Toilet cleaners should be properly trained. Supervisors in shelters should also be trained with the right knowledge and skills to effectively supervise the cleaners.

#### 3.3.7.MONITORING OF TOILETS IN SHELTER:

Shelter toilets should be monitored regularly as part of a documented Rota and policy.

A cleaning audit checklist should be located in the toilets, dated and signed at regular A faults and repair audit checklist should be maintained

Toilets users should be educated well by taking the following points in the consideration:

### A.PERSUADING USERS TO DO THEIR PART

Having hygiene and sanitation awareness messages in the toilets, especially in shelters, can help persuade users to do their part in keeping toilets clean. In order to be effective in persuading people to do their part, a message has to be:

- Attended to
- Assimilated
- Remembered (for future action)

### B.MESSAGE DESIGN

People readily attend to visuals. This makes the use of visuals an important part of the design of the message. Generally, visuals should be:

- Simple and uncluttered, attractive, eye-catching and Direct
- Reading should be almost understood by the all.
- Jargon, big words and long sentences should be avoided.
- Slogans can be very effective because they are short, catchy and easy to remember.
- Subtle humor can be used to deal with the personal and sensitive issues surrounding toilet use.
- Humor can be successfully tapped through cartoon characterizations of toilet fixtures such as wash basin, toilet bowl and litter bin.
- An additional benefit of cartoon characters is that they can be used with minimal text,

### **C.MESSAGE PLACEMENT**

The usual means of message placement in shelters toilets are posters and stickers. The main purpose of posters and stickers should be to address specific behavioral concerns such as hand washing, latring use and water conservation, Stickers should be (UNICEF, 2011):

Made of vinyl material, rather than paper.

Made with adhesive than can be peeled off without leaving unsightly marks.

Placed strategically at the spot where the problem behavior occurs. For example: on the wall above the hand washing basin

Posters can be used to convey generic messages such as "Always Wash Hands after Using Toilet".

Posters should only be used when displayed in a way that makes them repellent to water e.g. laminated on both sides or protected by acrylic sheets.

### 3.4. VECTOR CONTROL:

The presence of vectors such as insects and rats is directly linked to the physical and climatic conditions of the settlements environment. They are likely to be a hazard in emergency refugee settings, where overcrowding, poor refuse and excreta disposal, inadequate personal and food hygiene provide favorable conditions for them to live and breed (UNHCR, 1982). Reducing the number of vectors in an emergency situation is not easy. Knowledge of the biology of each vector, even a rudimentary knowledge, is always essential for implementing effective control measures. It is vital to know how, where and when to act against a particular vector. All vector-control activities should follow these general principles (MSF, 1994):

The site should be made unfavorable to the development and survival of vectors (environmental hygiene);

Control is generally more effective if it focuses on forms that have not yet attained sexual maturity (eggs, larvae, etc.);

Complete eradication is frequently unattainable; the goal should be to maintain a vector population beneath a fixed threshold; beyond that threshold, the risk of epidemic would be too great.

The general measures for vector control are described below; specific measures for controlling vectors that pose a significant health risk are described in Table 11.

## TABLE 11: VECTORS REPRESENTING SIGNIFICANT HEALTH RISKS AND THE MAIN CONTROL MEASURES (MSF, 1994 AND UNHCR, 1982):

VECTOR	HEALTH RISKS	ENVIRONMENTAL HYGIENE	CHEMICAL CONTROL
Mosquitoes: - Anopheles - Culex - Aedes	Malaria Japanese encephalitis - Yellow fever, dengue	Destroy breeding sites for all types: - Eliminate stagnant water - Idem and protect latrines - Protect water containers	Insecticide or larvicide If epidemic, individual protection by mosquito-net
Lice	Epidemic typhus (LBTF), relapsing fever (LBRF)	Reduce overcrowding, improve hygiene, educate population	Insecticide powdering for individuals and clothes
Fleas	Plague, endemic typhus	Clean shelters and surrounds	Insecticide powdering for clothes and bedding If plague, first destroy fleas, then rats
Fleas	Eye infections (trachoma), diarrhoeal diseases such as shigellosis	Hygiene is the most essential Refuse disposal, clean spilled Food, waste water disposal, etc.	To be avoided as much as possible! Pour used oil into latrines In a large-scale epidemic, at least treat health facilities
Ticks	Relapsing fever (TBRF)	Household hygiene	Ether or insecticide to kill ticks
Mites	Scabies, scrub typhus	Personal hygiene	Benzyl benzoate on patients

Preventive measures: The first and the most effective measures in regard to vector control are general sanitation measures aimed at providing a cleaner site (MSF, 1994 and UNHCR, 1982). These will limit the risks of vector proliferation and thus of vector-related diseases. It is obvious that these measures should always be undertaken, whether or not vectors are present. They include:

The construction of a sufficient number of adequate latrines to prevent dissemination into the environment of pathogenic agents carried by various insects (with or without using intermediary hosts);

The elimination of stagnant water and protection of water containers to prevent the proliferation of mosquitoes (see above);

The collection and disposal of solid waste to prevent rats and flies assembling;

Improvements in personal hygiene (provision of water and soap) and reduction of overcrowding (site planning). The measures listed above should be complemented by monitoring the refugee population and the environment for the early detection of parasites (e.g. lice) as part of the surveillance activities.



### 3.4.1.CONTROL OF EXISTING VECTORS

The choice of insecticide must be recommended by an environmental health expert and should take into consideration (WHO, 1991 and 1985):

National/local recommendations for vector control.

The type of vector,

The residual effect sought,

Vector resistance to the available products,

Product toxicity. As it may be risky to use old stocks of insecticide available locally, these must be verified by an expert before use.

The mass use of insecticide is never without risk, and is not always effective. It may be indicated in a few situations, such as when there is a severe outbreak of a disease transmitted by vectors (e.g. relapsing fever or dengue) or when it is difficult to control breeding sites. It always requires specialist advice and close supervision. All use of chemical compounds must follow very strict rules (wearing gloves, paying attention to the proximity of any water source, etc.); this is in the safety interests both of the sanitation teams and the refugee population.

Impregnating mosquito nets with chemical compounds (with repellent effects) has shown good results in protecting against mosquitoes. Pilot projects are being studied in order to determine whether or not it is feasible to carry out large-scale distributions of mosquito nets and whether or not they are used by refugees. This would mainly be indicated in the post-emergency phase, where malaria is a major health problem and would require former study of the vector biting habits (e.g. inside/outside). The impregnation of shelters has been the most widely used method up till now.

A system should be in place to ensure regular collection of waste, including clinical and hazardous wastes in the shelter. Local governments/municipality should manage and coordinate extended waste disposal services with local contractors, including the frequency and breadth of services and storage capacity. The servicing of wet kitchen waste and nappy bins may require more frequent servicing to prevent odour and attraction of flies (ARC, 2015).

If vehicles for daily collection are not able to access the emergency shelter because of poor weather or poor road conditions or because of the security concerns, a designated alternate collection site should be planned for a safer location from the emergency shelter. The use of bin liners to contain potential contaminants (Particularly kitchen and bathroom/toilet waste) is critical if such a situation should occur. All clinical waste should be isolated and disposed of separately according to designated health guidelines. Provision for sharps waste disposal in approved puncture proof containers must be included in the planning. Internal garbage receptacles should be lined with plastic bags, changed daily and situated separately from living spaces (ARC, 2015).

### 3.4.2.WASTE PRODUCED BY THE SHELTER POPULATION:

This includes organic refuse such food waste, market refuse, sweepings, etc, posing an acute problem in urban-like situations, such as emergency shelter, because of their high population density. Organizing waste collection by cleaning teams with transport by trucks, creating a landfill system, i.e. trenches or individual pits, where waste is safely disposed of and daily covered with a layer of soil1(MSF, 1994). When the amount of waste is of limited volume and spread throughout the shelter, community or family refuse pits should be dug beside the shelters with tools distributed to families early on. A close collaboration should be maintained with refugee representatives and volunteer teams in regard to the organization of this task (UNICEF, 1986).

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