**WASH in Emergencies**

**Final Exam:**

***Water Hygiene and Sanitation (WASH)***

**BY**

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**Introduction:**

As stated by former United States President (2009-2017) and Nobel Peace Prize winner (for his extraordinary efforts to strengthen international diplomacy and cooperation between peoples -e.g. Humanitarian Help, efforts regarding worldwide denuclearisation, etc.) Barack Hussein Obama in his 2009 Inaugural speech: “As our world becomes smaller, our common humanity will reveal itself” (Dallaire & Humphreys, 2010, p. 301). This quote is yet another inspiring demonstration of a great influencer and human right activist who used his position in order to promote what the Sphere Project guide “Humanitarian Charter and Minimum Standards in Disaster Reponses” considers the core principles which should guide anyone working in the Humanitarian Help and Development sector: alleviating suffering, meeting essential human needs and restoring life with dignity for populations in need (The Sphere project, 1998, p. 1). This final research paper constitutes the pinnacle of this six-month introductory course regarding Water, Sanitation and Hygiene in disaster response and will pivot between eleven central questions, namely: (1) What is Sanitation and Hygiene? (2) Why are Water, Sanitation, and Hygiene important? (3) What is open defecation? (4) What is Sanitation Marketing? (5) What are some of the biggest challenges you face in teaching hygiene and sanitation? (6) What is sustainable sanitation? (7) What are the steps for planning and implementing a successful WASH behaviour change campaign? (8) What are the challenges faced by WASH Projects in Africa? (9) You have visited one of the schools in your locality. What part of its surroundings can you see that satisfy the criteria for disease prevention? List parts of the building and its surroundings, and state why they are important. (10) You have asked the local county government to provide a licence for your new hotel in town. The *inspector* asks you to assist him to describe the basic hygiene for your business before licensing. Kindly describe. (11) You have to make a plan of action for the promotion of WASH in your town. Briefly describe the activities that need to be included in your plan.

1. **What is Sanitation and Hygiene?**

In order to adequately assess the question of WASH (Water, Sanitation and Hygiene), it goes without saying that one should primarily define what the terms Sanitation and Hygiene stand for. According to the 2018 edition of the Strategia Netherland’s manual (module four), Sanitation refers to: “all aspects of excreta disposal (human and animal, faeces and urine). It includes sanitary structures (e.g. latrines); material needed for the proper operation and use of the structures (e.g. water, soap); and the human behaviour and attitudes relating to excreta and its disposal” (Strategia Netherlands, Module 4, p. 3). Environmental Satiation, on the other hand, refers to the disposal of unwanted water (here defined as *drainage*), *Solid Waste Management* (SWM) (how refuse is dealt with) and *Vector Control* (strategies regarding the diminution of vector presence to acceptable levels to diminish the risks of disease spreading, etc.) (Strategia Netherlands, Module 4, p. 3). Further defining the terms included in WASH, the definition of Hygiene is strongly related to water access (without which Hygiene improvements cannot be achieved). According to the Oxford Dictionaries, the term Hygiene refers to: “Conditions or practices conductive to maintaining health and preventing disease, especially through cleanliness.” (Oxford Dictionaries, 2019). Moreover, as advanced by UNICEF, concentrating solely on improved water access and sanitation facilities will not necessarily be sufficient to attain the objectives regarding improved health if behavioural modifications regarding hygienic behaviours are not achieved (e.g. importance of hand washing post defecation or pre-food preparation correlates strongly with the reduction of the incidence of diarrhoea, etc.) (UNICEF, "The importance of hygiene", 2003).

1. **Why are Water, Sanitation, and Hygiene important?**

One cannot correctly understand the importance of WASH standards in emergencies, without primarily defining the main objective of WASH programs in disaster response, namely: the provision of safe drinking water, the reduction of feaco-oral disease transmission and disease-bearing vector exposure by means of establishing conditions allowing for individuals to live with good health, dignity, comfort and security through the promotion of adequate hygiene practices and the reduction of environmental health risks (all of the above obtained through sanitation: excreta disposal, vector control, solid waste disposal and drainage, etc.) (Strategia Netherlands, Module 2, p. 3). Moreover, due to the nature of emergency settings, adequate provision of help is often complex. This reality is particularly true in sudden onset emergencies (overwhelming needs, competing priorities, destroyed/damaged communications/transportation infrastructure, rapid influx of providers of humanitarian assistance, outbursts of mutual help from local citizens, highly stressed local government and non-government institutions, etc.) (UNDAC field handbook, 2006, p. 1). In such a context, it makes sense that Water, Hygiene and Sanitation are to be considered a priority (if not one of the most important aspects of disaster response -obviously, depending on the needs of the affected population) when intervening in disaster/crisis settings as these three components are central aspects of disease/infection prevention. In fact, they constitute the principal barriers to Food-borne infections (transmitted through pathogen contaminated food), Vector-borne infections (transmitted through biological vectors -mosquitoes, body louse, etc.-)/ Mechanical vectors (e.g. domestic flies, cockroaches, etc.), Water-borne infections (transmitted through pathogen infected drinking water), Water washed infections (infections -transmitted through direct/indirect routes- caused by pathogens whose transmission can be prevented through personal hygiene) and Faecal-oral infections (infections -directly transmitted through faecies excretion- which infects human/animal host through ingestion; can be Food borne, Water borne, Water washed; or infects hosts with mechanical vectors – e.g. domestic flies-/contaminated soil, etc.) (Strategia Netherlands, Module 4, p. 19).

1. **What is open defecation?**

First and foremost, in order to adequately observe/decline the potential issues which come as a result of the open defecation practice, one should define what it means, namely: “ (…) the practice whereby people go out in fields, bushes, forests, open bodies of water, or other open spaces rather than using the toilet to defecate.” (UNICEF, "Eliminate Open Defecation"). Due to the strong correlation between all excreta-related infections (faeco-oral infections, Food-borne infections, Vector borne infections, Mechanical vectors, Water-borne infections, Water washed infections) and open defecation, it makes perfect sense that open defecation is to be considered one a serious health threat and therefore, one of the top priorities when intervening in emergency settings through a WASH program (Strategia Netherlands, Module 4, p. 19). Moreover, as advanced by Strategia Netherland’s manual, the effectiveness of sanitary structures regarding disease prevention depends primarily on the use of these structures by everyone, at all time. Due to the fact that any infected individual has a great potential to contribute to the spread of pathogens, anyone (e.g. especially children, etc.) practising open defecation hinders the full effectiveness of the sanitary structures in place (e.g. Hookworm infected individuals can easily release one million eggs per day, even if a poor amount -400,000 infectious larva, infectious for a six-week period survives, the potential for disease spreading is very high, especially in emergency contexts) (Strategia Netherlands, Module 3, p. 75). Nevertheless, due to the great potential of disease spreading related to poorly maintained latrines (e.g. Faeco oral infections, hookworm, etc.), categorically condemning open defecation in areas with low population density might not be preferable (in a particular, controlled area, until the issue priory mentioned is dealt with) (Strategia Netherlands, Module 3, p. 76).

1. **What is Sanitation Marketing?**

Primarily, it is of the utmost importance to reinforce the statement that should not advance the terms/planning of “Sanitation Marketing” strategies without integrating/linking it to the terms “Community-Led Total Sanitation” (CLTS). Community-Led Total Sanitation refers to integrated approaches which aim at achieving and sustaining Open Defecation Free (ODF) status for communities while facilitating the community’s analysis of their sanitation profile, their defecation practises (and its consequences) with the final objective of promoting collective actions to attain the Open Defecation Free status (Kar & Chambers, 2008, p. 4). As for Sanitation Marketing, it seems like there is no broad consensus on what sanitation marketing is as some practitioners define sanitation marketing as “strengthening supply by building capacity of the local private sector” and others discuss it in terms of “selling sanitation” by using commercial marketing techniques to motivate households to build toilets (Devine, J. & Kullmann, C., 2011, p.3). Nonetheless, the Water and Sanitation Program offers a great definition which involves multiple fields (marketing mix, communications campaigns, etc. -which are critical to the design and implementation of an effective program-), namely: “an emerging field that applies social and commercial marketing approaches to scale up the supply and demand for improved sanitation facilities.” (Water and Sanitation Program, "What is Sanitation Marketing?"). Furthermore, UNICEF points out three communication objectives which should be prioritised in sanitation marketing , namely: (1) Reinforce CATS messages to stop open defecation (OD), (2) Stimulate household desire for a durable hygienic latrine (promoting private ownership of a hygienic durable latrine as highly desirable by using persuasive messages; use of humour and emotion to highlight the personal inconveniences and disadvantages of open defecation and the dislikes of unhygienic latrines); (3) Inform consumers and support sanitation businesses to introduce, advertise, promote, and sell their new products and services (UNICEF, “Sanitation Marketing Learning Series”, p.2).

1. **What are some of the biggest challenges you face in teaching hygiene and sanitation?**

I believe it is absolutely central to remind that although the consequences of traumatic events which characterise emergency settings tend to expose local populations through great deals of stress (etc.) which are susceptible to increase their vulnerability (e.g. illnesses), the individuals touched by the emergency are neither helpless nor passive and have their own ways of coping with (Strategia Netherlands, Module 2, p. 8). Furthermore, and following the idea mentioned above, due to the importance of pushing communities towards self-sufficiency and self-management, it is absolutely crucial that we, as humanitarian helpers, accept the postulate of “cultural distance” with the community we are trying to reach since the most effective/successful interventions are based on the experiences of the concerned community (traditional knowledge of the land, it’s people, habits/behaviours, etc. – and how to better attain the researched changes); this necessarily passes by recognition of their ability to assert themselves, to respond to their needs, to improve their living conditions (taking their experience as a source of learning without arriving with the Western bias of the "ready-made answer") through mutual exchanges (RÉFIPS, 1994, p.8). Moreover, as stated in the REFIPS practical guide “intervening in health promotion with the help of the ecological approach” (traduced from French here), a central condition to the success/sustainability of any program, with regards to cultural distance (etc.) is the involvement of potential stakeholders (communities, influencers/elderly people in these communities, local health workers/nurses/sorcerers) of the program in order to judge their level of support/opposition and predict their behaviour in relation to the program (among other things; e.g. religious/cultural constrains, determining the type of training necessary, etc.) (Renaud & Lafontaine, 2011, p.31). Moreover, due to the fact that communities constitute the main target audience, it is central to “create”/encourage/maintain their implication/engagement/motivation to ensure the perennity and perpetuity of the program we are trying to put in place (Renaud & Lafontaine, 2011, p.33).The human behaviour issue is considered to be the one of the most important factor in reducing WASH related diseases (through hygiene improvements and behavioural changes) but is extremely complex to address due to its influences from subjective factors such as: culture (religion, attitudes, traditional beliefs, etc.), social position (gender, age, cast, etc.), availability of means to make the changes (money, time, material, energy, etc.) and politics (Strategia Netherlands, Module 4, p. 27).

1. **What is sustainable sanitation?**

Beforehand, prior to explaining what sustainable sanitation signifies, I believe it is absolutely crucial to remind the importance for humanitarian helpers to constantly plan ahead and focus on the sustainability of any program/project they are trying to put in place in emergency settings. Moreover, as advanced by the 2018 Strategia Netherlands Manual, since sanitation refers to all aspects of excreta disposal (human and animal, faeces and urine), includes sanitary structures (e.g. latrines), material needed for the proper operation and use of the structures (e.g. water, soap), and the human behaviour and attitudes relating to excreta and its disposal (Strategia Netherlands, Module 4, p. 3), an appropriate definition for sustainable sanitation would therefore be: “a sanitation system that is economically viable, socially acceptable, technically and institutionally appropriate, and protect the environment and natural resources” (Schroeder, 2008). More precisely, as advanced by the “Waterlex” Organisation and the UN Environment Sector in its research document regarding “Sustainable Sanitation Systems”, these systems should ideally be included in a holistic approach to Integrated Water Resource Management (IWRM) in order to promote the management/protection of local/regional water resources as well as encourage wastewater recycling, safe water reclamation and reuse, and consider human activities (e.g. water withdrawals and pollution) and ecological services with long-term perspective optics (Thevenon, F. , p. 53) .

1. **What are the steps for planning and implementing a successful WASH behaviour change campaign?**

First of all, I believe it is absolutely crucial to put forward the “DO NO HARM” (UKAID, 2019) humanitarian principal (in every sense of the term: respect of cultural distance, ethical help, blocking dependency vicious cycles, etc.) which I mentioned in one of my previous papers as I consider it a pillar of any adequate efficient, beneficiary-oriented, optimised intervention and a responsibility as engaged humanitarian helpers. In that optic, as advanced by the Strategia Netherlands Manual, it would be senseless to try to address the planning and implementation of a WASH behavioural change campaign without primarily conducting a thorough assessment to identify the actual needs of the populations touched by the crisis/emergency (which will most likely result in a range of different issues, needs, and preferences which must be considered) and type behavioural changes we are trying to put in place with particular regards towards marginalised/weaker groups (elders, HIV infected individuals, women, children, etc.) in order to ensure everyone has access to WASH structures/can profit from the strategies applied (number, construction -children/elder/women adapted-, location of: latrines, water pumps, hygienic materials, etc.) (Strategia Netherlands, Module 4, p.88). Moreover, it increasingly acknowledged that educating people (e.g. cost effectiveness of interventions to end preventable feaco-oral disease spreading/child death with post defecation hand-washing, etc.) on health risks alone won’t necessarily lead to sustained behaviour change. Following this vision, the Sanitation and Hygiene Applied Research for Equity (SHARE) advances a five-step process for design, behavioural modification and (ultimately) evaluation in order to maximise the effectiveness of interventions – (1) Assess, (2) Build, (3) Create, (4) Deliver and (5) Evaluate-. The aim of the first step (*Assessment*) is to develop a general understanding a specific target behaviour which we aim to change with regards to cultural distance, the target audience, the context of intervention and its parameters (SHARE, p.1). The second step (*Building*), which includes the follow-up of the knowledge gaps which were identified in the prior step, is absolutely essential in order to develop a well design intervention. It uses formative research (field-based data collection, etc. – engaging directly with the target behaviour versus solely what individuals say about the behaviour) in order to acquire a deeper understanding of the specific contextual drivers of existing and/or target behaviours (SHARE, p.2). The third step (*Creating*) which is aimed at designing an innovative campaign/its associated materials should be “surprising and disruptive” (with regards to cultural distance, etc. -Obviously). With the support of a creative team working in close relations with WASH researchers/programmers and specifically chosen community members (influencers -e.g. Elders, Women, Religious leaders, etc.), this step aims at breaking the cycle of (wrong) behaviour repetition in order to maximise the effect of the specifically targeted (SHARE, p.4). The fourth step (*Delivering*) refers to the implementation of the intervention through multiple channels (face-to-face; mass media campaign – TV, Radio, etc.) and through a number of crucial factors which are to be examined, namely: exposure to the campaign, the length of intervention, coverage, intensity, acceptability, fidelity, interferences, evaluability and sustainability, etc.) (SHARE, p.4). The last step is *Evaluation* (which has been increasingly gaining importance and is inspired from the private sector), a crucial step in order to examining the flaws and successes of an implemented behavioural change program, acquire insights on whether or not a program should be reconducted/continued/redesigned for researchers and implementers and informs policymakers on the potential replication of similar programs elsewhere (SHARE, p.6).

1. **What are the challenges faced by WASH Projects in Africa?**

For a number of reasons which can include as much issues regarding poor respect of cultural distance (explained in the previous paragraphs), poor choice of channels of communication (Radio, TV, journal -individuals may not be able to access them/read, etc.) -between the populations in need, government officials and International Organizations/NGO’s- , poor community implication/participation/management (equates to: lack of sense of property, destruction of goods, absence of use, etc.), putting in place WASH projects (e.g. public health messages, habit/behavioural modification, 3R’s, etc.) can often be a real problem in Africa. Correct communication in disaster contexts will have to take into account multiple factors including gender, age, language, ethnicity, education (etc.) of the desired groups we are trying to inform/educate. The effectiveness of the messages will depend largely on the accuracy of the targeting and on the adequacy of the chosen transmission codes which include: language, education levels (etc.) (Caron-Bouchard & Renaud, 2001, p. 37.). Moreover, it is crucial to adequately choose individuals/facilitators (key community leaders and influencers- e.g. teachers, local health professionals, etc.) to ensure comprehension (population trust/implication/participation/sharing, etc.) of the importance of putting in place the preventive measures for WASH as their support will facilitate the establishment of these habits/projects. These individuals will also help to identify individuals/groups who may disagree with the program in order to understand their reasons, measure their capacity of influence in the community and demonstrate the benefits which will result from such a program (Renaud & Zamudio, 1999, p. 116-123). Furthermore, Public health requires collective action by society (collaborative teamwork involving physicians, nurses, engineers, environmental scientists, health educators, social workers, nutritionists, administrators, and other specialised professional and technical workers) and an effective partnership with all levels of government (Last & University of Ottawa, 2015). As advanced in the UNDAC field handbook, providing adequate help can obviously be a problem in a sudden onset emergency (overwhelming needs; competing priorities; destroyed/damaged communications/transportation infrastructure; rapid influx of providers of humanitarian assistance and poor coordination; outburst of mutual help from local citizens; highly stressed local government and non-government institutions, etc.); (UNDAC field handbook, 2006, p. 1). Accordingly, and following the different elements mentioned above, appropriate Public Health/WASH interventions in disaster response will require that NGOs ethically coordinate their efforts with previously existing structures. According to the 2019 Sphere Handbook, since the willingness of the state/non-state actors to facilitate access to the population can have determining effects, it is central to remind that the role of humanitarian agencies is not to substitute themselves to pre-existing government structures since the primary responsibility of taking care of the victims in a sovereign country is the local authority’s competence (Perrin & Bory, 1995, p. 426) (unless if these entities are unable/uninterested to provide conflict/disaster victims support covering their essential needs). Enhanced multilateral actions (eg. WASH Clusters, etc.) will contribute to strengthening partnerships/coordination between the government, UN agencies, the Red Cross/Crescent movement, international organisations and local/extraterritorial NGOs, IOs, pre-existing government institutions (etc.) ("The Sphere Project", 2018, p. 16); will allow a clear division of labor/responsibility to take place (avoiding gaps in services to affected populations; duplication of efforts; inappropriate assistance; frustration of relief providers, officials and survivors, etc.) (UNDAC field handbook, 2006, p. 2.); and will facilitate the identification of gaps in coverage and quality in order to maximise impact and achieve synergy (UNDAC field handbook, 2006, p. 1). Lastly, due to the necessity for occasional repairs and maintenance of water supply systems and latrines (etc.), appropriate selection of specialised materials (e.g. pump selection, type of latrines -hand dug/machine dug, etc.) will be a central solution to overcoming potential difficulties and problems which arise from frequent, heavy intense use (as it is the case in communal facilities) (Strategia Netherlands, Module 3, p.106). It is therefore important to prevent such issues by ensuring the potential standardisation as well as continual access/availability (storage facilities/local merchants, stocks, etc.) of a small number of models which are locally appropriate (proximity to access/manufacturers, simple to use, minimum requirements of tools/training in order to ensure maintenance, etc.) and provide capacity training in community management, spare part availability/durability and replacement/repair for community members/caretakers/mechanics (Strategia Netherlands, Module 3, p.109).

1. **You have visited one of the schools in your locality. What part of its surroundings can you see that satisfy the criteria for disease prevention? List parts of the building and its surroundings, and state why they are important.**

The chosen institution to answer this question is the “Cegep de la Gaspésie et des Îles de la Madeleine”, a pre-university institution particular to the Province of Quebec (the area in Canada where I am from). First and foremost, Canada is a developed country (economically, technologically, etc.) where the government is very “active” (everything is regulated -especially sanitation, hygiene, etc.-). Due to its very high access in financial resources, strong economic ties with the United States, Europe (etc.), it goes without saying that we do not suffer from the same issues as countries in development or in emergency/ crisis settings. The Cegep has four changing rooms its sports area alone, equipped with toilets, showers, and every commodity needed for basic hygiene (Water has chlorine in it, access to soap, toilet paper, etc.). The entire Cegep is three floors high (which each possess two toilets) and is entirely cleaned every day with strong disinfecting chemicals to ensure the illness transmission risks related to poor sanitation/hygiene are lowered to the minimum. It is also important to mention that most of Canada possesses an almost omnipresent “Household connection” Water technology (piped-based water delivery system) which grants us access to what seems like “almost unlimited” amounts of clean/palatable water (equipped with filters which are changed every three months, etc.) in every household/Cegeps (shower and toilet water as well unfortunately) and interior stand pipe designed systems (which suppress the risks of illness related to poor quality/infected water and cut the hand-mouth contact when drinking). Moreover, about a dozen garbage bins (separated in three sections: Recycle, Not-Recyclable, compostable) are placed at strategical areas (high student “traffic”) in order to make sure that the “3R” principal (e.g. Reduce, Recycle and Reuse) is respected, ensuring that environmental pollution is kept to low/acceptable levels (the standards applied are a lot stricter than in emergency settings -attaining minimum WASH standards- *although insufficient from a strictly personal point of view*) and that the appropriate facilities (several kilometres from town) deal/reuse the collected waste (human, medical, chemical, etc.). These same treatment facilities also make use of fecal matters (etc.) collected through pipe/sewer systems are treated adequately and reused/converted to energy, which ensures that the risks of contamination (feacal, etc.) is reduced entirely.

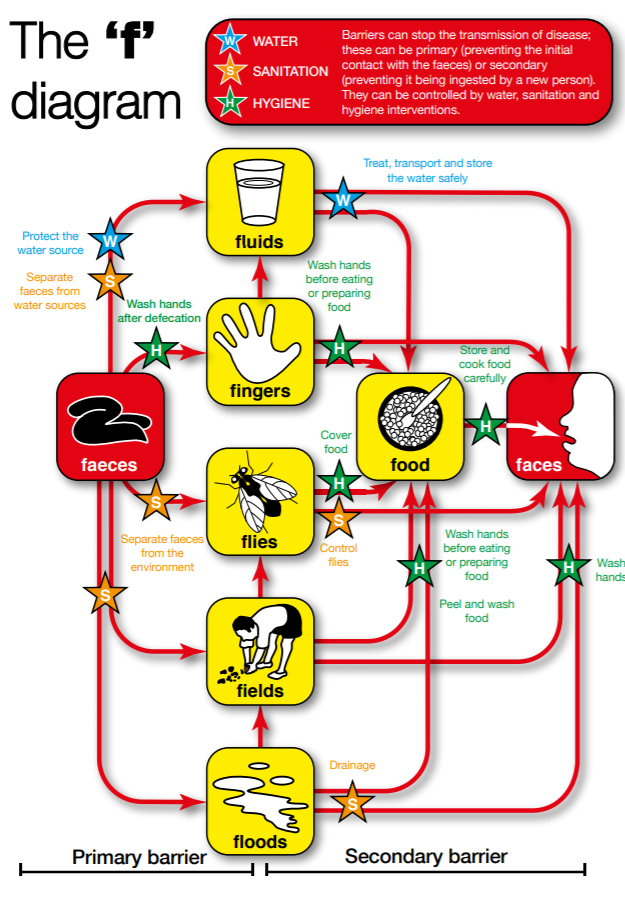
1. **You have asked the local county government to provide a licence for your new hotel in town. The *inspector* asks you to assist him to describe the basic hygiene for your business before licensing. Kindly describe.**

Due to the fact that this question is quite “open-handed” and due to the long list of potential basic hygiene standards for hotels depending of the area of the world one lives; my question will concentrate on Canada’s minimum requirements “1 STAR” criteria (1-5 Stars) for hotel rooms. First and foremost, I believe it is important to state that Canada has a functional waste management system due to the importance of environmental hygiene (sewers -to deal with urine, excreta, etc.-, garbage trucks -to deal with waste -following the 3R principal for environmental hygiene *although there are gaps in service regarding recycling*-, and access to clean, chlorinated, palatable water at all time -absence of risks of illnesses related to water consumption/use-). Hygiene is a top priority in every sector in Canada, due to this reality, rooms should be kept clean at all time before granting access to customers. In order to attain such a standard, hotels should ensure that daily housekeeping services are in place. This involves cleaning/disinfecting the entire hotel -entrance, communal toilets, elevators, breastfeeding rooms, etc.-, ensuring interior walls, floor coverings and carpets (etc.) are free from stains, burn marks or grease (AHLA, p.3). Furthermore, housekeeping services should clean each room individually with appropriate chemicals (effectiveness proven), sanitise each personal bathroom (showers, bathroom sink, toilets, etc.-), provide basic hygiene materials for personal cleanliness (fresh towels, soap, shower gels/shampoos, toothbrushes/toothpaste, mouthwash, tampons/sanitary napkins, etc.) and empty bins/garbages in every room at frequent intervals. Bedding must be changed for each new occupant (laundered/dry-cleaned). Also, the hotel should avoid crowding units with too many beds and / or poor arrangement of furniture and provide effective powered ventilation to introduce fresh air into the units and control potential respiratory problems (-e.g. dust-, allergies, etc.) (AHLA, p.3). Moreover, due to Canada’s strict laws regarding smoking in public establishments, the hotel should ensure that each unit is provided with the strictly controlled (approved and functional) smoke detector (which ensure smokeless rooms -free of breathing hazards for guests- and also serve a security purpose: fire/Carbon Monoxide detectors, etc.). Also, following the necessity to ensure the costumer’s health, Bathroom floors/walls should be constructed of impervious material & well sealed along the bathtub / shower / toilet & walls in order to make sure mold does not build up in these humid areas (due to the health risks they represent) (AHLA, p.4).

1. **You have to make a plan of action for the promotion of WASH in your town. Briefly describe the activities that need to be included in your plan.**

According to the REFIPS “Guide for Planification and Better Action” (Traduced here), three crucial and detailed steps which should be covered for adequate planification namely: (1) Identifying the target group and thinking about what should be the program (assessment of issues advanced by affected populations, and association with influential individuals of the community -elders, local health professionals who know the context-; Gathering information about the issue with regards to the organisational context and the associated factors leading to the behaviour), (2) designing the program (make a rough draft with regards to the prior analysis; involving influential individuals of the community -elders, local health professionals, women, etc.- who will facilitate habit changing habits implementation; Reviewing accessible resources -human, monetary, technologically- with regards to the feasibility, realism and sustainability, etc.), (3) Developing a plan of action (plan the organisation of tasks; creation of a realistic schedule; developing a communication strategy that is adapted to the population we are trying to reach -language, educational levels, etc.-) (REFIPS, p.116-128). Moreover, since WASH promotion will be principally assessed through communication strategies -which, as previously mentioned are to be adapted to the population we are trying to reach- my plan of action would have to be linguistically adapted if there are multiple dialects and adapted to the touched population’s educational level (capacity or not to read/if not, drawing, etc.).

The image presented downwards is a great example of an effective communication tool adapted to multiple educational levels of individuals living in a population (since my area is principally English, it is written in English but it could be traduced to the adequate language depending on the country/region in order to attain the largest population possible):

(WEDC, p.2)

More importantly, since technology has now reached every part of the world, it is important for WASH promoters make good use of technologies accessible in their areas (do individuals have access to phones, radios, TV; respecting cultural distance: culturally appropriate, etc.). According to the Water Engineering and development center (WEDC), making good use of traditional and existing channels of communication will be easier than setting up new ones (their effectiveness will largely depend on the nature of the messages, the capacity the chosen media has to reach people and the message’s capacity to be understood by the users) (WEDC, p.5). An example of effective communication channels which could be used are community radio stations which, as mentioned in the article “Community Radio: A voice for the poor” in the website African Renewal, are the dominant mass media in Africa (inexpensive -can run on batteries or solar power-, cheap to create/consume, accessible -one does not need to be literate due to the oral nature of the radio-, lingually appropriate, are used in communications, and often already owned -one radio receiver for every five people in 2005 compared with one telephone for every 100 people) (Madamombe, I., & Githaiga, G., 2005).

**Conclusion**

In conclusion, as stated by Former UN High Commissioner for Human Rights Zeid Ra’ad Al Hussein: “When the fundamental principles of human rights are not protected, the center of our institution no longer holds. It is they that promote development that is sustainable; peace that is secure; and lives of dignity” (Ra’ad Al Hussein, Z., 2015).I feel very strongly about this quote as it is concise, well said, and refers to what should be our core principles/what we should all be aiming for as humanitarian helpers (alleviating suffering, meeting essential human needs and restoring life with dignity for populations in need) (The Sphere project, 1998, p. 1). This final examination paper focuses on the Water, Hygiene and Sanitation (WASH) aspects of disaster response (and issues one might encounter when intervening in such fields -particular focus: African Continent), puts an accent on the necessity for adequate planification/implementation, extensively covers aspects of sustainability in projects and also reminds the reader about so often forgotten central aspects of WASH response (e.g. Community Participation/management and empowerment strategies, MSWM, disease prevention, etc.). This entire course and exam also serve the purpose of reminding the reader/WASH technicians/Wash Project and Program Managers about one of the most fundamental aspects of intervention; the “DO NO HARM” humanitarian principal (UKAID, 2019). This principal ensures that we, as humanitarian helpers, adapt our responses to the beneficiary's needs (rather than they adapt to our decisions), re-centring touched communities in their rightful place as they are not helpless nor passive and should not be considered as so.

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