



Environmental health during difficult times

8 September 2015 Volume 1, Issue 2

Inside this issue:

Successful Meeting of Environmental Health in	1
Yemen, new emergency,	2
WHO Enhances access to safe drinking water for the inhabitants of	2
Cholera Risk Assessment in North Iraq, GOARN Mission 19-23 May	3-4
Afghanistan, capacity building and research	5
Pakistan to enhance its community based interventions	6
Final words	7



Scarce water resources during emergencies was one of the hot subjects for discussions during the meeting

Successful Meeting of Environmental Health in Emergencies Focal Points at CEHA

In December 2014 CEHA arranged a meeting for all Environmental Health in Emergencies focal points in nine countries. The meeting was held with four main topics on the agenda: firstly, to acquire country and regional updates, secondly, to look at the interventions that shape the WHO response in the region, thirdly, to examine the complex working environment and collaboration with other partners, and finally whether the program has any actual impact on public health in countries undergo emergency situation.

While there is a lack of resources in most of the countries undergo chronic emer-

gencies. Sudden onset emergencies seem to attract considerable resources to the area of Environmental Health interventions. During the meeting the following conclusions were made:

- In many occasions simple Free Residual Chlorine test is enough in absence of proper water testing laboratories
- There is a variety of water testing kits, and it is important to try to use emergencies as an opportunity to strengthen the lab capacities of MoHs
- Solid waste management in health care facilities is an area that needs more efforts to try to shape up our program in emergencies
- Urban emergencies started to be the norm in the region and that requires rethinking our interventions
- Delineations between the various cluster/agencies regarding the EH interventions are hard to define.
- Some guidelines needs to be made available in the region local languages.
- Food safety in emergencies is a major area of gap in our programs that requires more attention.
- There were some requests from country focal points to conduct the Chemical Exposure and Trauma Care (CeTC) as a national activity.

Participants stressed on trying to have this meeting on regular bases. A meeting report was finalized and CEHA is following closely on the implementation of the meeting recommendations. Despite the importance of the Area of Environmental Health in emergencies, many countries carrying out emergency programs we still lack of dedicated staff for this area at country offices in many countries.

Yemen, new emergency, new challenges

by: Mr. Abdulmalik Mofadal

Almost half year armed conflict in Yemen has made it more difficult for millions of people to obtain safe water. Safe water is becoming increasingly scarce with the problem becoming more acute in the most affected govern orates, including Aden, Lahj, Abyan, Taiz, Sa'ada and Hajja.

Shortages of safe drinking-water have resulted in increased risk of diarrhoea and other diseases. National disease surveillance reports show a doubling in the number of cases of bloody diarrhoea in children under the age of 5.

Responding to the dire need for water, WHO has provided water and hygiene supplies, as well as hundreds of thousands of chlorine tablets to disinfect drinking-water for internally displaced persons (IDPs), host communities and health facilities in the most affected governorates.

In Amran, WHO has provided water tanks, cleaning materials and water trucking services for internally displaced persons (IDPs) in Khamer district of Amran governorate. WHO is also rehabilitating bathrooms and toilets for the IDPs who fled fierce conflict in Sa'ada and now live in four schools, camps and Commerce College of Khamer.

WHO Enhances access to safe drinking water for the inhabitants of Damascus City

by: Dr. Mohammad Kayyal

The Syrian Water Authorities estimate a decline of approximately 50 percent in clean water available nationally, particularly in areas where extensive damage has occurred to water supply and treatment facilities. The insecurity felt by the local population as a result of the current conflict, in addition to the loss of basic civil infrastructure and destruction of public facilities, forces people to migrate to other safe areas. As a result, public utilities face significant pressures to fulfill the needs of the increasing population. This is the case in the southern suburbs of Damascus. Due to the significant destruction that occurred in rural areas of Damascus, over 1 million people moved to the safe southern suburbs of Damascus. Supply of drinking water dwindled



WHO has provided water tanks and 250,000 chlorine tablets for water purifications in IDPs gathering places in Hodeidah Governorate; and has distributed 50 000 chlorine tablets for 300 families and 500 jerry cans (20 L) in Sa'ada.



In Abyan, WHO has been providing water supplies and jerry cans for internally displaced families in 7 schools in Ja'ar and Khanfar cities.

In Aden, WHO has provided safe drinking water and hygiene items to two hospitals and to hundreds of IDPs in four schools in Bouraika.

The population reverted to uncontrolled groundwater wells. A dramatic increase in the number of cases of “acute diarrhea, bloody diarrhea, acute Jaundice syndrome and typhoid” occurred. In response to this dramatic situation, and within the frame of the *Syrian Humanitarian Assistance and Response Plan (SHARP 2014)*, WHO cooperated with the Damascus Water Establishment, on an exceptional basis, for implementation of a technical solution to increase the supply of safe drinking water to IDPs living along the southern outskirts of Damascus. The project was co-financed with ERF (Emergency Response Fund) for a total amount of USD 1.7 million. It entails the provision of approximately 45,000 m³ of drinking water from water sources located northwest of Damascus in order to cover the basic needs of 900,000 people. The project consists of drilling 5 wells to an average depth of 400 meters; equipping these wells with submersible pumps and all related mechanical and electrical accessories; providing 1250 kVA generator for emergency power supply; and connecting the network of wells to the nearby Damascus water supply network. The project initial operation is expected to be on 15 August 2015 operating at 85% capacity, which will be increased gradually to 100% by end of the month.



Drinking water supply have been used as unacceptable tactic that is why the WHO was involved in many projects to secure drinking water for health care facilities

Cholera Risk Assessment in North Iraq, GOARN Mission 19-23 May 2015

by: Mr. Mohamad Hamasha

Cholera remains a major public health risk in the Eastern Mediterranean Region. During the last decade, at least 13 out of the 22 countries in the region have reported cholera cases. Outbreaks are not uncommon, however, underreporting is rampant due to the fear of over-reaction from neighbouring countries as well as unwarranted restrictions on trade and tourism. Cholera is an endemic disease in Iraq and has been reported since 1966. The last 15 years major epidemics have occurred in Iraq every two to three years with a maximum of five years between two outbreaks. Recently in 1998, 2003 and 2007 Iraq reported major outbreaks. The objectives of the mission were to assess the risk of outbreaks of cholera and other diarrheal diseases in IDPs and the host community in Duhok, to determine the strength and gaps in cholera preparedness and response, and lastly to identify recommendations to fill in those gaps.

The visits included, MOH-KRG, Erbil, Sulaimanyia and Duhok DOH DGs, preventive Directors in the 3 DOHs, surveillance Units in the 3 DOHs, regional PHL in Erbil, Governorate PHL in Duhok, and Governorate PHL in Sulaimanyia, camps: Baharka Camp, Kaperto 1 Camp, Kaperto 2 Camp, Arbat Camp and Domiz 1 Camp, health Cluster Coordinator, and WASH Coordinator.

The visits revealed the following:

- EWARN System in the camps is sensitive to detect early signal of cholera outbreak. However, there is delaying in reporting of some health facilities outside camps.
- The availability of medical supplies for treatment of cholera and equipment vary from camp to camp.

The visits included, MOH-KRG, Erbil, Sulaimanyia and Duhok DOH DGs, preventive Directors in the 3 DOHs, surveillance Units in the 3 DOHs, regional PHL in Erbil, Governorate PHL in Duhok, and Governorate PHL in Sulaimanyia, camps: Baharka Camp, Kaperto 1 Camp, Kaperto 2 Camp, Arbat Camp and Domiz 1 Camp, health Cluster Coordinator, and WASH Coordinator.

The visits revealed the following:

EWARN System in the camps is sensitive to detect early signal of cholera outbreak. However, there is delaying in reporting of some health facilities outside camps. While the availability of medical supplies for treatment of cholera and equipment vary from camp to camp, the majority of the health cadres in the camps have not been trained on cholera standard management. Moreover, isolation rooms are not available in most of the camp health facilities. The visits also revealed that ARI, mostly URTI is the commonest ailment, followed by diarrhea/ acute gastroenteritis and the majority of Diarrheal patients aged <5 years, and mostly with nil or mild dehydration. Conversely, the present staff number and technical knowledge may not be adequate to meet the increased demand if outbreaks occur. To further exacerbate the situation, the high density, promiscuity within a same family in the camp is a factor for quicker transmission of water borne disease in case of an outbreak. There are difficulties for guidance, material liaison between WASH and HEALTH aspects . Overall lack of a reliable and coordinated system to monitor demand and supply (water, sanitation needs) could be detrimental to a swift response to diarrhoeal disease outbreak. Language is also another crosscutting issue, as not all WASH partners may be fluent in Kurdish, Arabic and English which are all used at some stage to interact. Finally, direct exposure to excreta, hand carriage of faeces are happening due unequal access to water in IDP camps, both for sanitation and personal hygiene needs.

Recommendations:

First and foremost, all health care workers need to be provided with intensive and comprehensive training/ refresher courses for standard case management of cholera and other diarrheal diseases; the medical supplies for treatment of dehydration are necessary to be available in the camps regularly and in adequate quantity; moreover, use of antibiotics needs to be rationalized; the number of trained laboratory staff may have to be increased to meet increasing demand of quality laboratory support.



Mission members visiting one of the mobile clinics, the mission had a strong EH presence .

Furthermore, the following actions need to be taken: build the capacity of laboratory staff in isolation, identification and differentiation of various bacterial diarrheal pathogens including *Vibrio cholera*; Ensure timely reporting of the national surveillance system; Build the capacity of the health cadres through refresher and on-job trainings; The rapid response teams have to be nominated and trained at the lower levels; Proper planning, procurement and distribution of all logistics; Construct a single platform, for coordination of the stakeholders; taking into account the current situation and possible/potential increase of IDP locally, cholera risk has been assessed as low to medium regarding clinical, WASH conditions. Assuming that the observations in the camps visited are representative of the others camps, the risk of an outbreak of cholera is low, however, the risk of other water borne diarrheal diseases is high (typhoid, shigellosis and also Acute Hepatitis A&E) .

Any change in the conditions prevailing in the camps at present may likely have impact on the probability of cholera outbreak (Erbil and Duhok). Further improvement of water supply, hygiene promotion and sanitation systems within the camps and among the host communities will further minimize the risk of cholera outbreaks.

Afghanistan, capacity building and research

By: Frederic Patigny

WHO is currently implementing WASH activities in Therapeutic Feeding Units (TFUs) to reduce the spread of Hospital Acquired Infections in Health Care Facilities. The activities in each selected TFUs were identified during a workshop on WASH in health facilities held in Kabul in March 2015.

The budget allocated for WASH is 121,000USD (including workshop, training, rehabilitation and procurement).

Malnourished children, with an impaired immune system, are particularly vulnerable to Hospital-Acquired Infections (HAIs). While they are hospitalized in a Therapeutic Feeding Center, it is essential to reduce as much as possible the exposure of the children, the staff and the caretakers to these diseases. An essential component is therefore to equip the health facilities with the necessary hardware to reduce such transmission, such as proper water supply system, a proper waste management system including safe excreta and wastewater disposal.

This project is addressing these specific needs in allocating a substantial budget to ensure safe WASH infrastructures are functional in the TFUs. This is done through rehabilitation of water supply system, installation of water points, procurement and installation of water heater to comply with hygiene messages in winter time, digging of new water well when needed, rehabilitation of wards to ensure proper cleaning and disinfection, procurement of hygiene items such as cleaning buckets and towels, etc.

The objective of the Workshop was to familiarize the participants with:

- The basic WASH infrastructures that should be installed in a health facility to reduce the risk of spreading hospital infections
- The rapid method to assess a health facility in regard to WASH and prioritize rehabilita-

This workshop was organized in the scope of the WHO nutrition project initiated in 2014. The overall objective of the project is to treat complicated malnutrition cases in 28 existing Therapeutic Feeding Units (TFUs) and 8 new TFUs.

The TFUs must be prepared accordingly and, in order to reduce the risk of transmission of hospital-acquired diseases to the hospitalized patients, the visitors and the medical personnel, the activity #4 of the project is the implementation of a basic WASH package in the TFUs.

This activity includes the following items: assessment of the facilities, improvement of water supply, health care waste management, excreta disposal, wastewater management, hospital hygiene and infection prevention and control.



The meeting had a good representation of health care facilities personnel as well as MoH staff.

Pakistan to enhance its community based interventions

By: Nosheen Usman

WHO is working in pursuit of reducing excess mortality and morbidity especially in poor marginalized communities and reducing risk factors to human health that arise from environmental causes. WHO provides technical guidance and support for developing policies and actions, encouraging and motivating the implementation of environmental health measure in healthy settings, including workplaces, schools, healthcare centers, homes and the community.

WATER QUALITY MONITORING AND INFECTION CONTROL IN HEALTH CARE FACILITIES

- Around 1000 water sources were tested for microbial quality from various sources of the IDP camps and IDPs hosting districts, > 85% of the water samples were found to be unfit for human consumption due to faecal contaminations. 1200 water samples were collected during field investigation from main water sources of the outbreak affected communities water, sources, in which >99% of the sources were found microbiologically contaminated. Provided 12 water testing kits to Tehsil Municipal Administration (TMA).
- More than 1120 samples have been tested for residual chlorine where tested water didn't match (35% of total in this case) WHO guide values (0.2 to 0.5 mg/liter), water where either rejected or rechlorinated.
- 50 TMA water station operators and volunteers from WASH partners were trained on drinking water disinfection, surveillance and monitoring
- Water sources protection and distribution of drinking water supplies (5,000,000 aquatabs, 500,000 purification sachets)
- Provided Infection control supplies, hygiene improvement and equipments for safe segregation, collection and disposal for critical units of 24 hospitals (autoclaves, waste collection bags, needle cutters with safety boxes, disinfectants, waste collection and segregation equipments)
- Hygiene promotion and health education campaigns (10000 hygiene kits, 200,000 soaps)
- Distributed water disinfection supplies (1000 HTH 70%) procured by CEHA for 2015 flood response.

HEALTH AWARENESS CAMPAIGNS

Health and hygiene awareness sessions were conducted in schools, IDP camps. WHO Celebrated World water day in collaboration with the Planning Commission, Ministry of Planning, Development and Reform, Government of Pakistan and 28 partner organizations. A conference on March 27 focusing on this year's global theme, 'Water and Sustainable Development - Role of Youth for Sustainable Water Resource Management' was organized in the Planning Commission Auditorium, Pak Secretariat, Islamabad.

HUMAN SECURITY PROJECT

UNESCO, UNDP and WHO have put together assistance package to support a programme to bring about improvement of human security situation among rural and disadvantaged populations through an inter-sectoral mechanism in UC Musa Zai, District DIKHAN, Khyber Pakhtunkhwa. The primary objective of the project is to reduce adverse human and socioeconomic impacts of prolonged internal conflict and resulting terrorism in the north-western region and to foster peace and stability in the region as a whole. It aims to improve the human security situation of disaster affected communities, victims of terrorism (IDPs) and their hosting communities whose needs remain largely unmet. The project has a multi sectoral approach to ensuring sustainable solutions to the livelihood and human security problems of the affected communities and other disadvantaged groups.

WHO provided technical support to build necessary capacities of the water supply authorities in monitoring water quality and promoting hygienic practices among affected communities, conduct sanitary surveys, and eliminate barriers to water pollution. WHO is providing technical assistance to strengthen the institutional capacities and promoting the involvement of the women and local community into the proposed system by enhancing the capacity of participating communities to effectively monitor quality of water sources affected by extreme events.

**World Health Organization (WHO)
Regional Centre for Environmental
Health Action (CEHA)**

**Amman
Jordan**

Tel: +962 6 5524655, 5531657

Fax: +962 6 5516591

email: emceha@who.int

<http://www.emro.who.int/ceha>

For further Information

Osama Ali Maher
Adviser
Environmental Health Security
Regional Center for Environ-
mental health Activity

Final Words

In our region, emergencies are the norms rather than the exception. Paying due attention towards environmental risks and environmental health services in crises (whether naturally occurring or anthropogenic) is indeed a must to save lives.

The regional Center for Environmental Health Action (CEHA) is fully committed to support member states to build Health and Environmental capacities during the preparedness, response and recovery phases of emergencies. Our expertise, training and supplies are made readily available to all Eastern Mediterranean countries. Within the framework of the regional strategy on health and environment, endorsed by the RC-60, CEHA's director and experts stand ready to provide the assistance deemed necessary as per the request of concerned WHO representatives.



Dr. A. Basel Al-Yousfi

Director, WHO/CEHA

Amman, Jordan



Drinking water quality monitoring is one of the vital functions of WHO during emergencies