

International team finds 'catastrophe' facing Iraq's women and children

On Feb. 16-21, a seven-man joint team of the World Health Organization (WHO) and the United Nations International Children's Emergency Fund (UNICEF) sent a mission to Iraq with a limited mandate to "ascertain essential health needs" of women and children. The team focused on Baghdad. The report that the team issued upon leaving Iraq, excerpted below, summarizes the disastrous situation facing Iraq within that context.

The mission found in Baghdad that normal life had come almost to a halt. The city's citizens now spend much of their time in family support preoccupations, searching for food, trying to find water, and improvising cooking and heating amidst an acute shortage of all kinds of fuel. Baghdad has no public electricity, no telephones, no gasoline for civilian vehicles, and less than 5% of its normal water supply. None of its water treatment plants are functioning. Toilets go unflushed, and unpumped raw sewage is backing up and overflowing in residential areas. Basic food items are scarce; rice and sugar are increasingly difficult to find. Most basic food items that are available are expensive. Meat is \$36 per kilo—this in a society where \$300 is an average monthly urban wage. Homes have no refrigeration for the preservation of food. Bottled gas for cooking and heating is so hard to come by that sales of it set off near stampedes.

As of this writing, the single most urgent health threat, to Baghdad and the country, is that of waterborne epidemics that could soon result from increasingly widespread public use of the Tigris River and other heavily polluted bodies of water for drinking. Freelance tank trucks are already selling water taken straight from the Tigris in urban neighborhoods. Radio warnings to boil water are largely unheeded, since the hard-pressed population is using scarce fuel for other purposes.

Food shortages

Essential commodities are rationed. An official ration of rice, flour, sugar, cooking oil, tea and soup is provided at low cost. The present ration provides an estimated 750 to 1,000 calories per day, irrespective of age. Children under

one year of age receive, in addition, two tins of 450 grams of powdered milk per month. This is 30 grams per day.

The ration of 750-1,000 calories available at present is less than half the daily requirement of a five-year-old child, or less than one-third of the requirement of a pregnant woman.

Iraq has no evidence of malnutrition from past records, although data are scarce. The team did not see malnutrition, but prodromal symptoms like listless behavior were observed in some children seen by the team. . . .

Given the difficulty of assessing present food intake or supplies, it is not easy to make a reliable estimate of additional needs for young children and pregnant women. . . . The present population of Iraq is 18 million. Of these, 4% (770,000) are children below one year of age. Infant formula will be needed for the children under four to six months only. Pregnant women also number an estimated 770,000.

Breakdown of health care

The immunization of children stopped completely at the start of the war, when electricity was cut. All vaccines were sent back to generator-operated central stores and hospitals. Only in the few days prior to the mission's visit had some centers resumed immunization one day per week, using cold boxes and vaccine carriers. However, not enough vaccines are available. . . .

The team looked into prescription practices, and observed that only a day's dose of doctor's prescription is issued at a time. Many women and children are not able to come back every day to complete the treatment. The danger of introducing resistance to antibiotics due to this non-compliance cannot be overemphasized. Treatment cannot be effective under these circumstances.

All the technical services of the Ministry of Health have been disrupted, but none more severely than epidemiological surveillance and the reporting of communicable diseases. These have practically ceased. Laboratory services in Baghdad have been cut back to almost zero. No information has been available since September 1990 on communicable diseases that were routinely reported by the health services up to that date.

Since such communicable diseases as typhoid, meningitis, measles, poliomyelitis, hepatitis A, and malaria are endemic in Iraq, the present conditions of contaminated main water supply and untreated, backed-up sewage have set the stage for the onset of some of these diseases in epidemic proportions. . . .

It is recommended that supplies for the control of cholera and meningococcal meningitis be procured and prepositioned in Iran for immediate shipment to Iraq.

Water-borne epidemics soon

The mission gave high priority to its inspection of Baghdad's water and sanitation situation, and saw a grim picture. If quick intervention does not take place, the Iraqi population faces the prospect of epidemics. Diarrheal rates are already four times their normal level.

Most of Iraq's population of 18 million enjoyed, before the crisis, an average of over 250 liters per head daily. Baghdad city, with 4.5 million [people], received up to 500 liters per head. Over 95% of this water was the product of river water treatment provided by seven electro-mechanical plants, all of which operated with electric power and required chemicals for treatment.

All significant electrical power-generating plants in Iraq have now been destroyed, and similarly the refineries and main fuel storage facilities, leaving water treatment plants dead for all but six hours per day of operation on standby diesel generators. This necessitates a careful rationing of the systems remaining fuel supply, which will not last more than five more weeks.

The chemical plants which used to supply the main treatment elements, aluminum sulphate (alum) and chlorine, have been destroyed by the bombing. Small quantities of alum and chlorine are still stored at treatment plants, and minimal amounts of these dwindling supplies are used for treating the water that is still sent out. . . . The water is distributed without knowing its bacteriological characteristics, at a time when treatment levels are markedly sub-standard.

The city of Baghdad is served by the seven treatment stations mentioned above, each pumping directly into a network of over 6,000 kilometers of pipes. At present, the water supply to the inhabitants is between zero and 15 liters per person per day, with minimum treatment specifications at the stations and insufficient disinfection. The distribution is rationed in an uneven manner, since the rationing operations require the manual maneuvering of over 20,000 valves. This cannot be performed adequately by the available personnel, who have no fuel to travel about in their few vehicles.

In no sector of the city can water reach higher than the ground level of buildings, due to the weak pressure in the pipes. Some districts of the city receive three to four hours of water every three to four days, other districts three to four hours every two weeks. . . . About 1 million people receive almost nothing, since their main water feeder pipes have been

severely damaged and cannot be repaired for lack of parts. . . . Interrupted pumping inevitably leaves stagnant water in the pipes. This causes further degradation of the originally poor quality of water.

In order to limit the ongoing health threats and prevent epidemics, it is proposed to supply the city with 40 liters of water per head per day. In order to achieve that, the following intervention is urgently recommended for Baghdad city.

Supply of the necessary fuel to operate standby generators for a period of three months = 1,800 tons. Estimated cost for 3 months = \$540,000.

Supply of alum for three months = 1,500 million tons. Estimated cost for 3 months = \$525,000.

Supply of chlorine for 3 months = 45 million tons. Estimated cost for 3 months = \$22,500.

Supply of necessary collars to repair broken mains. Estimated cost \$52,920.

Supply of material and laboratory items. Estimated cost \$49,240.

Supply of spare parts for treatment station equipment. Estimated cost \$49,240.

Estimated total cost to support water supply of Baghdad city for 3 months = \$1,339,660.

Baghdad is a flat city. The sewage system cannot operate by gravity; therefore sewage is passed through to the treatment plants by pumping stations (lifting stations) at intervals. There are 252 of these stations, which are electrically operated, about 192 of which have standby generators.

If those lifting stations do not operate, the sewage pipes fill up and houses flood with sewage. This is occurring in Baghdad now. Additionally, large pools of sewage are forming due to the overflow of sewage at the pumping pits, creating other health hazards.

In order to partially contain this problem and keep up operation at a minimum safety level, the following are required.

Enough diesel fuel to operate the lifting pumps, generator, and sewage treatment station for 3 months. Quantity required = 900 million tons. Estimated cost = \$270,000.

Supply of essential spare parts sufficient to repair stopped generators. Estimated cost = \$100,000.

Supply of four 110 kva generators for mobile use, in order to supply power to lift pumps which have no standby power. Estimated cost = \$150,000.

Estimated total budget for sanitation for three months = \$520,000.

In short, the children and mothers of Iraq are living in a very acute water supply situation and in dangerous sanitation conditions, in weather which is now favorably cold, but which will warm to more than 40°C [104°F] in another five or six weeks. Few public services whatsoever are available. Fuel is nonexistent. Transport services do not function. If nothing is done to remedy water supply and improve sanitation, a catastrophe could beset Iraq.