

World Health Organization (WHO)

Background Guide

On the Question of Increasing Access to Safe Drinking Water and Proper Sanitation



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1. Introduction

Water, an essential component of all life, covers more than 70% of the earth's surface. Yet, billions of people lack access to clean water or the facilities needed to properly sanitize water to prevent illnesses from water-borne infections.

According to the United Nations, 95% of cities use the water supply as a dumpster for their sewage; the resultant unsanitary water leads to more than 75% of "all health maladies" affecting the populations of developing nations. As the populations increase in size, the scarcity of clean water will pose an increasingly severe problem to the people in developing nations. Meanwhile, in developed nations, the demand for freshwater is increasing faster than the corresponding increase in population. For example, a doubling of the U.S. population over a 100-year period was coupled with an increase in the demand for freshwater by a scale factor of almost six.

Where there is no safe drinking water, people suffer from waterborne diseases such as cholera, typhoid, giardia, and cryptosporidium. Such diseases spread quickly where proper sanitation and hygiene is not common, which is usually the case for areas where clean water is unavailable. Additionally, afflictions such as malaria and malnutrition are closely linked to unsafe water. Some of the symptoms of these diseases include severe dehydration, high fever, abdominal pains, nausea, and eventual death. Most of these diseases are easily preventable, given sanitary healthcare facilities and clean water supplies.

If clean water were available for everyone, at least a few million deaths could be prevented every year. However, the increase in urbanization and global population directly implies a decrease in the freshwater supplies and an increase in the amount of waste water that will be sanitized for multiple uses.

2. Background

The United Nations Millennium Development Goals (MDG), to be met by 2015, advocated for "Water for Life", specifically, the goal of halving the number of people without access to clean

water in the 25-year period. As of August 2004, 40% of the world's population lacked access to basic sanitation; over a billion people lacking access to clean water. As of February 2009, thousands of people were still dying from completely preventable waterborne diseases such as cholera. WHO reported that "Measures for the prevention of cholera have not changed much in recent decades, and mostly consist of providing clean water and proper sanitation". (see <http://www.who.int/mediacentre/factsheets/fs107/en/>)

In regards to the growing amount of wastewater, the WHO has published "Guidelines for the Safe Use of Wastewater, Excreta, and Greywater in Agriculture and Aquaculture" (see http://www.who.int/water_sanitation_health/wastewater/en/), proposing an approach that is "realistic under local conditions". For emergency situations in which drinking water and sanitation might become greater concerns than usual, the World Health Organization reports the top three priorities concerning drinking water and sanitation during an emergency situation to be: (1) "ensuring the provision of enough safe water for drinking and for personal hygiene to the people affected by the crisis"; (2) "ensuring that all people affected by the crisis have access to hygienic sanitation facilities"; (3) "promoting good hygiene behaviors". The Organization for Economic Cooperation and Development (OECD) reported that more than \$10 billion would be needed annually between 2000 and 2015 to meet the MDG for water availability.

The problem of improper sanitation facilities or lack thereof around the world needs to be addressed at a larger scale. Solving the water crisis will, in itself, solve many problems associated with disease epidemics in poverty-stricken areas. Millions of children's lives would be saved annually; child mortality will drop. Standards for sanitation and clean water availability require reconstruction and enforcement. UNICEF has placed standards for water, sanitation, and hygiene in schools, which has considerably reduced the burden of waterborne illnesses in communities. However, much more action must be taken to solve the clean water crisis.

3. Committee Goals

The World Health Organization has identified unsafe water as the cause for most of the diseases that afflict populations of developing nations. The basic goals for this topic are:

1. What standards currently define unsafe water?
2. What standards for clean water should be in place?
3. Where & how can standards for clean water be enforced on a global level?

The water scarcity problem of the future poses different problems for different regions around the world. As a result, different regions will experience different levels of waterborne illness prevalence.

Other questions that the committee must answer:

4. What will define an epidemic in the case of waterborne illnesses, which spreads via water or food?
5. How will epidemics of waterborne illnesses be dealt with differently in areas with unsanitary facilities from other areas?

Nations have not invested enough effort to work toward the goal of increasing access to safe water.

6. How can the United Nations increase involvement around the world in increasing access to clean drinking water?

nature/7873516.stm

- Report from 2000 on MDG, Includes Region-Specific Information
http://www.millennium-project.org/millennium/Global_Challenges/chall-02.html
- Article: “World facing ‘silent emergency’ as billions struggle without clean water or basic sanitation, say WHO and UNICEF”
<http://www.who.int/mediacentre/news/releases/2004/pr58/en/index.html>
- World Water Council: Description of the Situation and Benefits of Action
<http://www.worldwatercouncil.org/index.php?id=23>
- Article: “How do we Ensure Clean Drinking Water for All?”
<http://www.alternet.org/water/79883/>
- WHO Report on UN “Water for Life Decade”
http://www.un.org/waterforlifedecade/pdf/un_water_policy_brief_1_disaster.pdf
- UN Water for Life, 2005-2015: Website
<http://www.un.org/waterforlifedecade/index.html>
- WHO Guidelines for Drinking-Water Quality
http://www.who.int/water_sanitation_health/dwq/guidelines/en/
- Emerging Issues in Water and Infectious Disease
http://www.who.int/water_sanitation_health/emerging/en/index.html

4. Resources

- Article: “Global Water Supply Drying Up as Population Grows”
<http://environment.about.com/od/biodiversityconservation/a/watersupply.htm>
- Mayo Clinic Website: To look up Diseases
<http://www.mayoclinic.com>
- World Health Organization Page on Water
<http://www.who.int/topics/water/en/>
- Water, Sanitation, and Health at WHO
http://www.who.int/water_sanitation_health/en/index.html
- Article: “Where clean water is a pipe-dream”
<http://news.bbc.co.uk/2/hi/science/>