

# Diarrhea: Common Illness, Global Killer

*Diarrhea kills 2,195 children every day—more than AIDS, malaria, and measles combined.*

## 2,195

Children die daily of diarrhea — that's like losing nearly 32 school buses full of children each day

## 1 in 9

Child deaths are due to diarrhea

## 801 thousand

Child deaths from diarrhea every year

**Diarrheal diseases** account for 1 in 9 child deaths worldwide, making diarrhea the second leading cause of death among children under the age of 5. For children with HIV, diarrhea is even more deadly; the death rate for these children is 11 times higher than the rate for children without HIV.

Despite these sobering statistics, strides made over the last 20 years have shown that, in addition to rotavirus vaccination and breastfeeding, diarrhea prevention focused on safe water and improved hygiene and sanitation is not only possible, but cost effective: every \$1 invested yields an average return of \$25.50.

Learn how simple and inexpensive interventions to prevent and treat diarrhea can save the lives of children around the world.



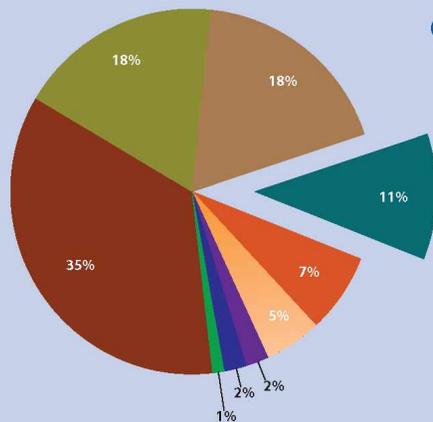
U.S. Department of Health and Human Services  
Centers for Disease Control and Prevention

# Stopping Diarrhea

Most diarrheal deaths are preventable using simple, low-cost interventions

## 1. Diarrhea: What we know

- It causes death by depleting body fluids resulting in profound dehydration.
- Diarrhea can have a detrimental impact on childhood growth and cognitive development.
- About 88% of diarrhea-associated **deaths** are attributable to unsafe water, inadequate sanitation, and insufficient hygiene.
- Rotavirus is the leading cause of acute diarrhea and causes about 40% of hospitalizations for diarrhea in children under 5.
- Most diarrheal germs are spread from the stool of one person to the mouth of another. These germs are usually spread through contaminated water, food, or objects.
- Water, food, and objects become contaminated with stool in many ways:
  - ◊ People and animals defecate in or near water sources that people drink.
  - ◊ Contaminated water is used to irrigate crops.
  - ◊ Food preparers do not wash their hands before cooking.
  - ◊ People with contaminated hands touch objects, such as doorknobs, tools, or cooking utensils.



Causes of Child Deaths Worldwide

- Neonatal causes
- Other
- Pneumonia\*
- **Diarrhea\***
- Malaria
- Injuries
- AIDS
- Meningitis
- Measles

\*Includes neonatal deaths

Source: Liu et al. *Lancet* 2012

## 2. Diarrhea: Proven ways to save lives

- **Vaccinate** for rotavirus
- **Provide**
  - ◊ Safe water
  - ◊ Adequate sanitation and human waste disposal
- **Promote**
  - ◊ Handwashing with soap
  - ◊ Breastfeeding to reduce exposure to contaminated water
- **Treat** appropriately with oral rehydration therapy and antibiotics
- **Train** health care providers and community health workers on diarrhea treatment
- **Educate** mothers and caretakers about caring for ill children and when to seek medical assistance
- **Build** laboratory diagnostic capability and identify the causes of diarrhea



***\$1 invested  
in diarrhea  
prevention  
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\$25.50***

# Pathways to Diarrheal Illness



Sick people without **proper sanitation facilities** defecate in or near a water source



Animals defecate in or near a water source

Water source contaminated with feces



Caregivers change a sick baby's diaper and **contaminate their hands**



Caregivers touch objects and other people, **contaminating surfaces** they touch



Farmers use **contaminated water** to irrigate their crops



People use **contaminated water** for drinking and food preparation



Caregivers prepare foods with **unwashed hands**, **contaminating the food**



Crops irrigated with **contaminated water** are used to **prepare meals**



Families eat and drink **contaminated food and water**

# What Can Be Done

Use effective interventions and proven treatment for diarrhea.

## Governments and ministries of health can

- Provide rotavirus vaccination
- Invest in safe drinking water, hygiene, and sanitation infrastructure
- Monitor progress and needs through the collection, analysis, and reporting of quality data
- Support clear and targeted health promotion and behavior change programs

## Non-governmental/aid organizations can

- Increase the adoption of proven measures against diarrhea
  - ◊ Rotavirus vaccination
  - ◊ Breastfeeding
  - ◊ Oral rehydration therapy
  - ◊ Household and community systems for treating and storing water
- Educate communities on the importance of safe water, sanitation, and hygiene
- Enhance and support government initiatives that invest in safe drinking water, sanitation, and hygiene infrastructure
- Ensure the sustainability of interventions
- Focus on the provision of safe water, sanitation, and hygiene when responding to emergency and conflict situations

## Health care providers and clinical facilities can

- Ensure availability of adequate medical supplies such as oral rehydration solution
- Improve training programs for health workers and educate them on the proper treatment of diarrhea
- Ensure that facilities for handwashing, provision of safe water, and proper disposal of human waste are provided at ALL healthcare facilities
- Encourage appropriate antibiotic use
- Meet demand for health workers
- Support community health workers
  - ◊ Improve training programs
  - ◊ Seek creative ways to motivate them

## Communities can

- Support and promote the importance of community health workers
- Ensure safe water is provided close to people's homes
- Discourage/eliminate open defecation
- Develop strategies for proper disposal of human waste
- Construct basic sanitation facilities
- Promote handwashing

# Preventing Diarrhea, Saving Lives



## SAFE WATER/ ADEQUATE SANITATION

Treat water before use and  
dispose of waste safely



## IMPROVED HYGIENE

Wash hands when appropriate



## ROUTINE VACCINATION

Provide rotavirus vaccine