

Impact of Water, Sanitation & Hygiene Interventions on the Nutritional and Health Status of Children under 5 years old and mothers

* Water, Sanitation and Hygiene



Under 5 years old Mortality - World

- **OVERVIEW ON UNDER 5'S HEALTH STATUS (WHO 2014)**
- Globally, there are 1.7 billion cases of diarrhoeal disease yearly, resulting in 628,500 (9.5%) of children deaths
- 60% of deaths from diarrhoea are caused by unsafe water, pathogen-contaminated foods, lack of sanitation, and poor hygiene practices, and are therefore preventable
- Annually, there are 476,192 (7%) children deaths reported due to Malaria
- 996,520 (15%) children are reported to die from Pneumonia and other Acute Respiratory Infections (ARI) annually.
- Undernutrition accounts for 3.1 million (47%) children deaths



2.1 million children (31%) die directly or indirectly from WASH related diseases

- 161 million (24.5%) children are affected by stunting (low height for age)
- 51 million (8%) by wasting (low weight for height)
- 99 million (15%) by underweight (low weight for age)



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HOW DOES WASH ENVIRONMENT IMPACT THE CHILDREN NUTRITIONAL & HEALTH STATUS?

- WASH interventions can impact positively stunting incidence rates (Cochrane, 2013)
- WASH intervention effect is an equivalent to a reduction of 15% in global prevalence of stunting (Cochrane, 2013)
- There is a significant impact of sanitation on stunting (Spears & Hammer, 2013)
- Growth faltering is strongly associated with diarrhoeal disease cases (Weitz, 2011)
- There is strong evidence of a positive impact of WASH interventions on child infections (Fewtrell Review , 2005)
- Nematode parasites (such as hookworm) symptoms include loss of blood and consequently increased anaemia prevalence leading to chronic fatigue and stunting (Black, 2013)
- Improved WASH conditions can reduce parasitic intestinal infections such as worm infestation that impacts nutritional status (Pruss-Ustun, 2006)
- High pathogen environments induce recurring infections in the gut that limit proper absorption of nutrients, known as Environmental Enteropathy (Humphrey, 2009)
- Children younger than 5 years old in households that received plain soap and handwashing promotion had a 50% lower incidence of pneumonia than in control groups (Luby, 2005)

WASH IN NUT STRATEGY: THE FIVE MAIN AXES

Impact of WASH activities on under 5 diarrhoeal morbidity (Fewtrell, 2005)



- 1. Ensure geographical integration of WASH and Nutrition projects by focusing WASH projects in high GAM* prevalence areas
- 2. Prioritize the 'mother & child' dyad
- **3.** Ensure a WASH minimum package (kit, messages & standards) both at health and nutrition centres and home
- **4.** Place emphasis on behavior change
- **5.** Ensure that both coordination bodies (WASH and Nutrition) include representation from the other sector

* Global Acute Malnutrition

SOME OF THE KEY QUESTIONS STILL TO BE EXPLORED

- -> Does a safe WASH environment at household- or community-level have an impact upon the prevalence of Global Acute Undernutrition?
- -> Can a short-term WASH intervention have an effect upon Global Acute Undernutrition incidence rates?
- -> Does a WASH intervention, implemented during the treatment of a Severe Acute Malnourished (SAM) child, improve effectiveness and efficiency of the treatment (time and cost reduction) and reduce risks of post-recovery relapse?
- -> What is the impact of the "quantity of water available at household level" indicator on undernutrition?