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Urban WASH and USAID's Key Initiatives



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The number of urban dwellers lacking provision for water and sanitation

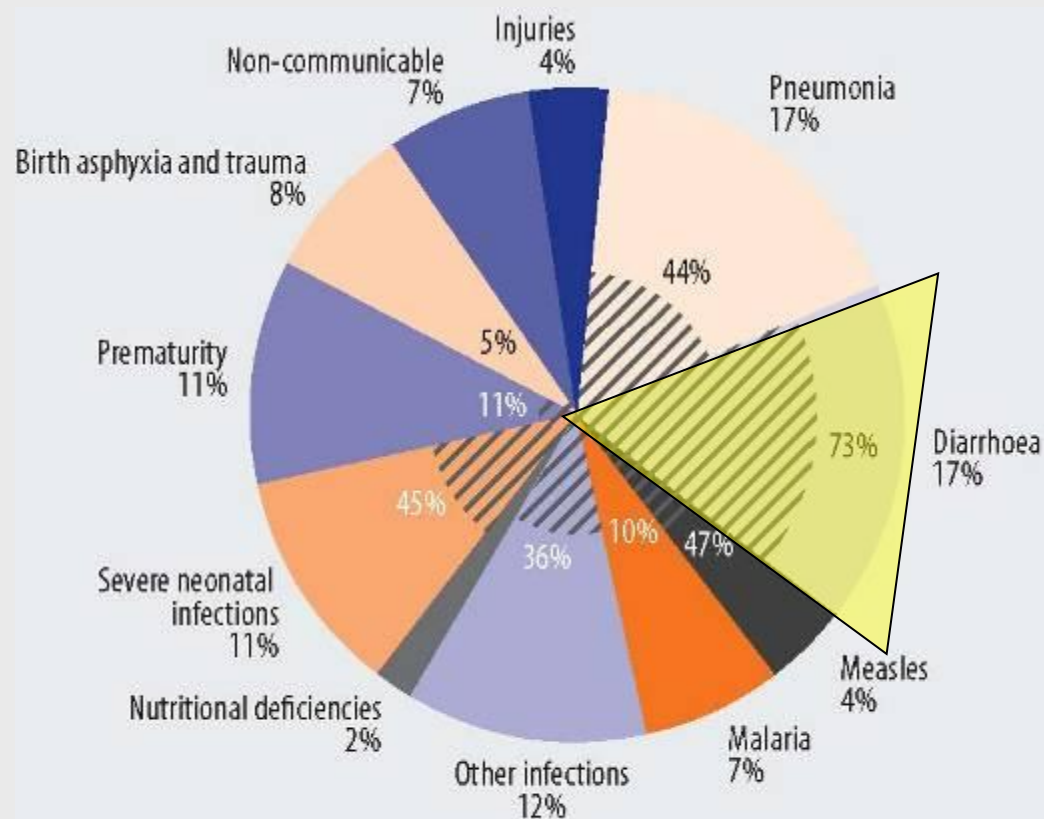
Region	Water	Sanitation
Africa	100 - 150 million	150 – 180 million
Asia	500 – 700 million	600 – 800 million
Latin America and the Caribbean	80 – 120 million	100 – 150 million

About 90% of diarrhea is caused by unsafe water, inadequate sanitation and poor hygiene

Contribution of Undernutrition to Child Mortality

Diarrhea: 17% of all child deaths

Undernutrition contributed to 73% of these deaths

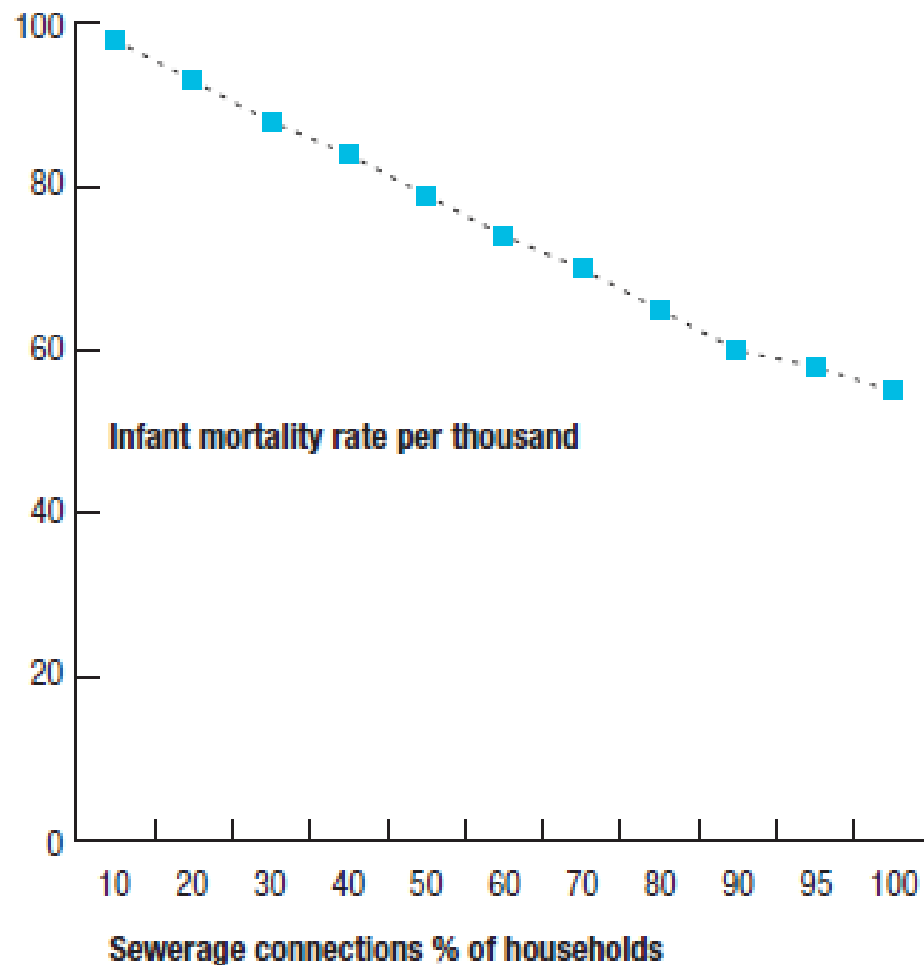


Shaded area indicates contribution of undernutrition to each cause of death

Urban Health and WASH

- Child mortality rates in urban areas strongly correlated with WS&S
- Child morbidity and mortality rates in poor urban settlements can equal or exceed those in rural areas

Infant mortality and sewerage connections



What Supports Child Nutrition?

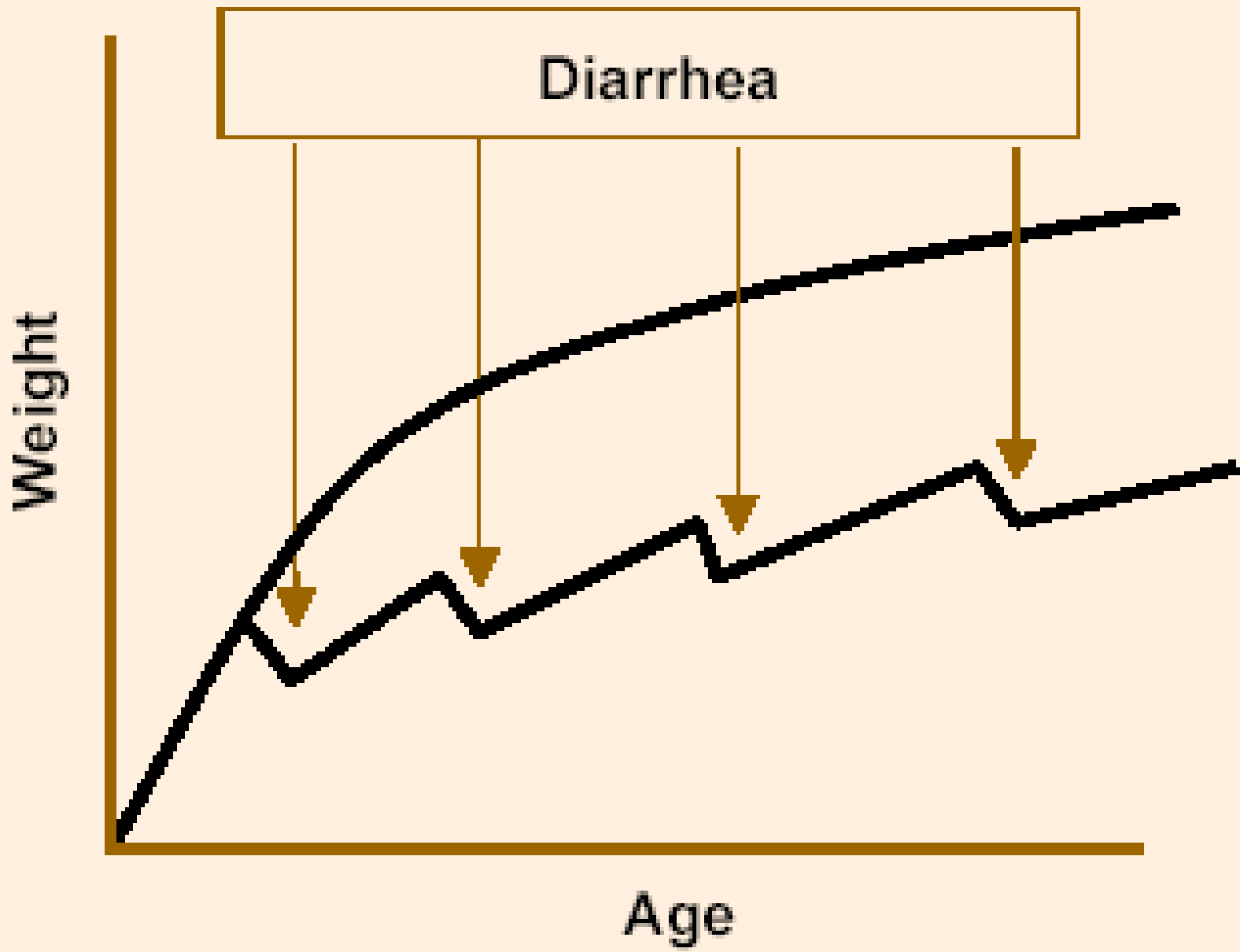


Child Nutrition

Access
to food

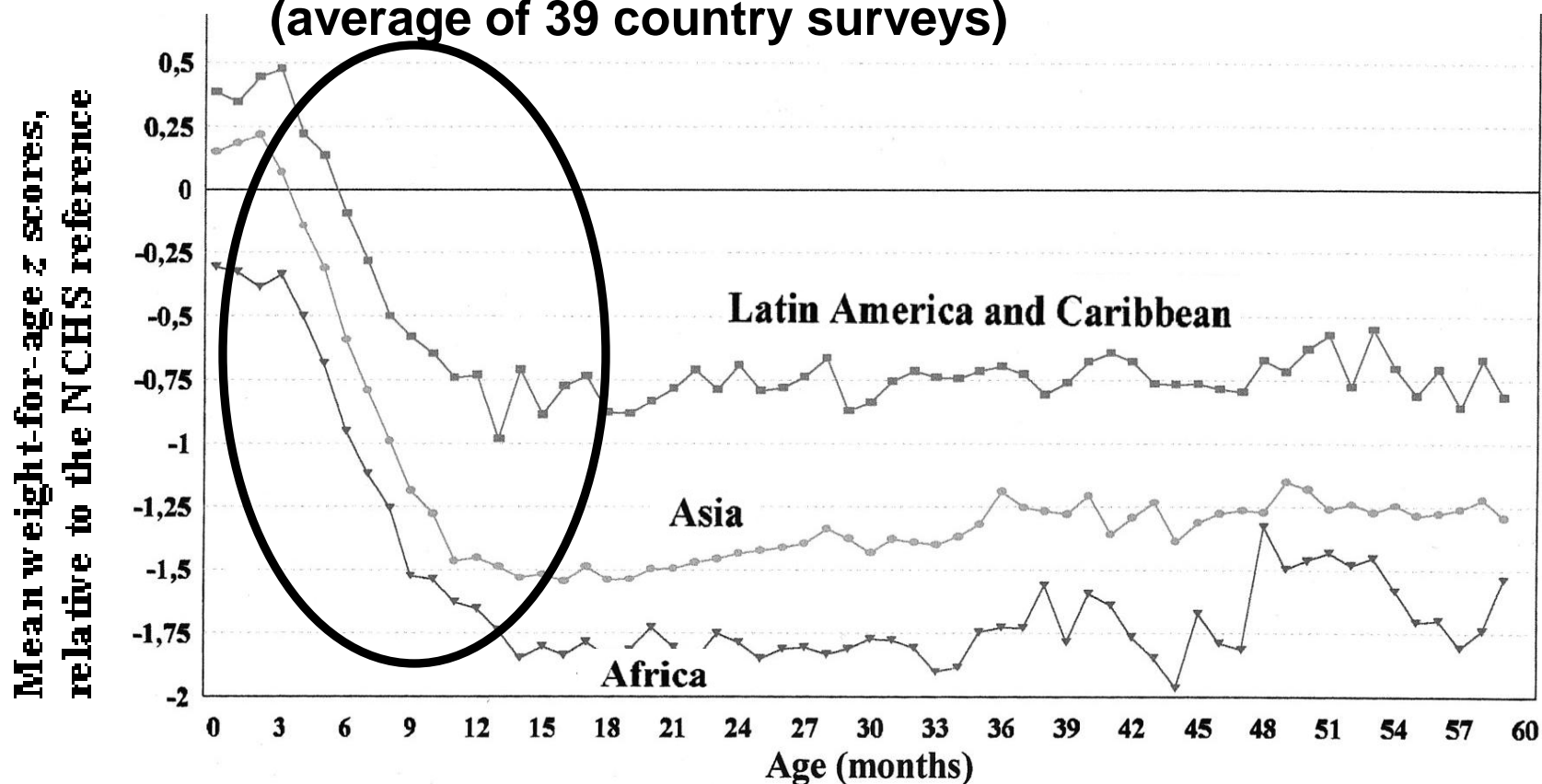
Improved
maternal
and child-
care
practices

Access to
water/
sanitation
/hygiene
and basic
health
services



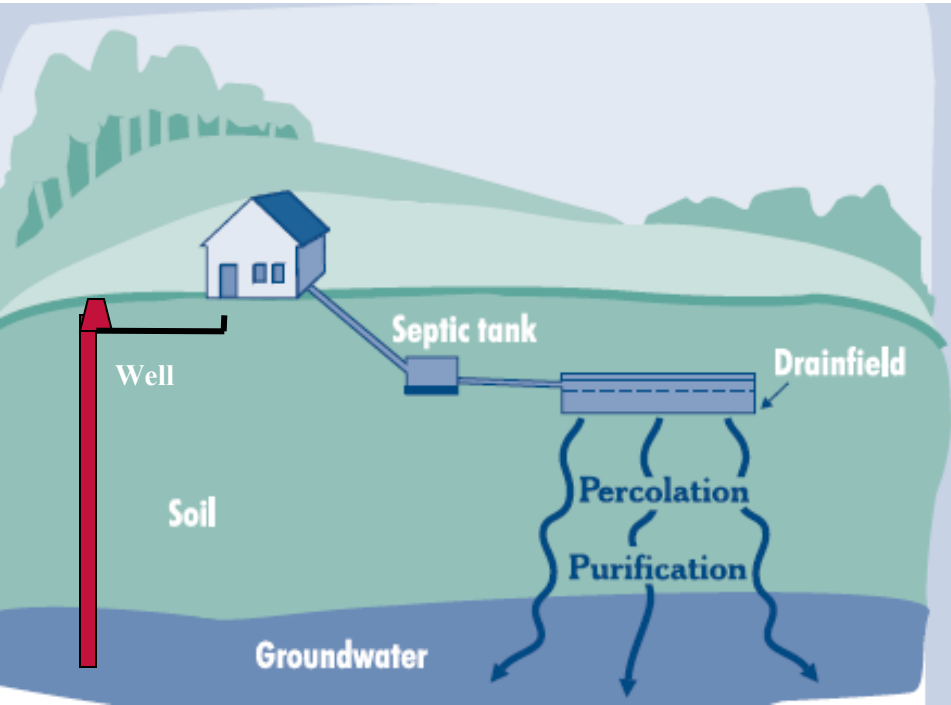
What about Malnutrition and WASH?

Children's nutritional status by age and region in the 1990s
(average of 39 country surveys)



Source: Shrimpton, R. et al., 2001. "Worldwide Timing of Growth Faltering: Implications for Nutritional Interventions" *Pediatrics* 107:e75.

Where does it go?



WASH/HIV Integration

- Basic Preventive Care Package
 - ❖ PEPFAR funds can support :
 - home-based safe drinking water interventions for PLWHA
 - soap and HW instructions
 - sanitation promotion

WS&S and Climate Change

- Water and sanitation provision in the future must be resilient to climate change
- But:
 - What factors contribute to the vulnerability of W&S technologies to climate change?
 - What adaptations can be made to W&S to increase resilience to climate change?
 - What are the policy implications?

Resilience of water supply technologies

Technology	Resilience	Issues
Tubewells	High	Motorised pumping may pose challenge in drying environments
Dug wells	Low	Problems with water quality and securing year-round supply already problematic
Protected springs	Low-medium	Water quality threats from increased rainfall and reduced flow in drying environments
Household roof rainwater	Low	Reduced frequency but more intense rain and drying environments pose threats
Treatment processes	Medium	Processes are resilient, but management systems will determine actual resilience
Piped water	Low	High inherent vulnerability, impact can be reduced with effective management

Resilience of water supply technologies

Technology	Resilience	Issues
Pit latrines	High	Many adaptations possible, but flooding will represent a particular challenge
Septic tanks	Low-medium	Vulnerable to flooding and drying environments
Modified sewerage	Medium	Less vulnerable than conventional sewerage to reduced water quantity, but flooding a threat
Conventional sewerage	Low-medium	Risk from reduced water availability and flooding of combined sewers
Sewage treatment	Low-medium	Treatment requirements may increase as carrying capacity reduces