



Issue 196 | June 26, 2015 | Management of Infant/Child Feces

Children's feces are thought to pose a greater public health risk than those of adults because they tend to contain higher concentrations of pathogens. Parents perceive infant stools to be harmless, so young children are often allowed to practice open defecation in the household yard. In addition, latrines are not usually designed for small children. As a result, young children are at risk of being exposed to pathogens as they spend most of their time in the domestic environment and carry out exploratory behaviors that include putting fingers and objects in their mouths.

This issue of the weekly contains WASHplus resources on the management of infant/child feces, a SHARE policy brief that describes the potential impact of unsanitary child stool disposal, a Public-Private Partnership for Handwashing review on children as handwashing change agents, and other studies and resources.

WASHPLUS RESOURCES

What to Do with Infant Poo? Evidence-Based Programming to Support Safe Disposal of Young Children's Feces, 2015. E Rand, J Rosenbaum, M Weinger. [Presentation](#)

This presentation, prepared for USAID's Mini-University, discusses small doable actions and ways to improve the enabling environment for management of children's feces.

Exploring the Potential of Schoolchildren as Change Agents in the Context of School WASH in Rural Zambia, 2014. SPLASH Project. [Link](#)

Most pupils reported safe sanitation and hygiene behaviors at school and, due to a high perceived risk of disease, wanted to practice these behaviors at home. Pupils reported not using latrines for defecation at school and home. Pupils discussed a desire to alter their environment to have access to safe sanitation but did not feel they had the physical agency to influence this change. They reported negotiating with their parents (namely a male household head) to influence the construction of home latrines. As for hand hygiene, pupils were successful in building tippy taps at home.

POLICY

Estimating the Potential Impact of Sanitary Child Stool Disposal, 2015. SHARE. [Link](#)
Based on a literature review and new research, this policy brief describes the potential impact

of unsanitary child stool disposal and presents data on child feces disposal practices in 38 countries in sub-Saharan Africa and South Asia. It also highlights how the prevalence of safe disposal of child feces differs in households with access to different types of sanitation, across rural and urban settings, and with the age of the child. Finally, it offers recommendations for the WASH and health sectors on improving child feces disposal to reduce the presence of child excreta in the household and community environment.

RESEARCH

UNC Water Institute – Research on the Unsafe Return of Human Excreta to the Environment. [Link](#)

Human excreta needs to be tracked beyond their initial deposit in toilets through to their final return to the environment, to ensure that the population is properly protected from the diseases spread by this waste. The Water Institute team, in collaboration with the University of Alabama and with funding from the Bill & Melinda Gates Foundation, will develop and pilot approaches for international agencies and countries to estimate the fraction of human excreta unsafely returned to the environment and where in the sanitation chain this occurs.

CHILDREN AS CHANGE AGENTS

Children as Handwashing Change Agents: A Short Review of the Evidence, 2015.

Global Public-Private Partnership for Handwashing. [Link](#)

A growing body of thought supports the concept of respecting and valuing children as health-promoting actors for their families and peers. Children's knowledge, attitudes, and behaviors can be harnessed, and they can act as change agents to positively influence other people's health behaviors. Their potential impact is dependent on the power and knowledge hierarchies that surround them, which vary among cultures. For instance, in many cultures it is frowned upon for children to correct or challenge adults. However, despite constraints, this is an area that shows promise for handwashing.

Triggering Behavior Change: Children's Role in Development, 2015. The World Bank.

[Link](#)

The World Bank hosted an event with characters from Sesame Street, the long-running TV series whose beloved Muppets have become global icons. Raya, one of their newest members, is a blue-green Muppet whose mission is to teach young children about open defecation, or, as she likes to put it, "pooping outside." Her character was created specifically for Sesame Street's WASH (water, sanitation, and hygiene) campaign.

REPORTS/ARTICLES

Ensuring Safe Sanitation for Children – Water and Sanitation Program. [Link](#)

Safe disposal of children's feces is as essential as the safe disposal of adults' feces. This series of country profiles provides an overview of the available data on child feces disposal. Each brief concludes with ideas to consider, based on emerging good practice.

The Effect of India's Total Sanitation Campaign on Defecation Behaviors and Child Health in Rural Madhya Pradesh: A Cluster Randomized Controlled Trial. *PLoS Med*, Aug 2014. S Patil. [Link](#)

Poor sanitation is thought to be a major cause of enteric infections among young children. However, there are no previously published randomized trials to measure the health impacts

of large-scale sanitation programs. India's Total Sanitation Campaign (TSC) is one such program that seeks to end the practice of open defecation by changing social norms and behaviors and providing technical support and financial subsidies. The objective of this study is to measure the effect of the TSC implemented with capacity building support from The World Bank's Water and Sanitation Program in Madhya Pradesh on the availability of individual household latrines, defecation behaviors, etc.

Infant and Young Child Faeces Management: Potential Enabling Products for their Hygienic Collection, Transport, and Disposal in Cambodia, 2015. M Miller-Petrie, WaterSHED. [Link](#)

Results demonstrate a need for interventions targeting the hygienic management of feces of children under 5 in Cambodia, and particularly for children under 2. The technologies most likely to facilitate hygienic disposal for these age ranges include reusable diapers, potties, and potentially latrine seats. Design features should ensure child safety, time-savings, cost-savings, ease of disposal, and ease of cleaning. Product marketing will also need to address hygiene behaviors related to child cleaning and caretaker handwashing to ensure reduction of disease transmission.

A Controlled, Before-and-After Trial of an Urban Sanitation Intervention to Reduce Enteric Infections in Children: Research Protocol for the Maputo Sanitation (MapSan) Study, Mozambique. *BMJ Open*, June 2015. J Brown. [Link](#)

The researchers have designed a controlled, before-and-after trial to estimate the health impacts of an urban sanitation intervention in informal neighborhoods of Maputo, Mozambique, including an assessment of whether exposures and health outcomes vary by localized population density. The intervention consists of private pour-flush latrines (to septic tank) shared by multiple households in compounds or household clusters.

The Epidemiology of Soil-Transmitted Helminths in Bihar State, India. *PLoS NTDs*, May 2015. K Greenland. [Link](#)

This paper presents the results of the prevalence and intensity cross-sectional survey and takes an exploratory look at the contribution of key risk factors to transmission. Maternal literacy, caste, open defecation (a common practice), and absence of handwashing stations at schools were associated with increased risk of hookworm or ascariasis.

Prevalence of Active Trachoma and its Associated Factors among Rural and Urban Children in Dera Woreda, Northwest Ethiopia: A Comparative Cross-Sectional Study. *Biomed Res Int*, March 2015. M Alemayehu. [Link](#)

The study showed that the prevalence of active trachoma in urban areas of the district was below the World Health Organization threshold of 10 percent that designates trachoma as a public health problem. However, in rural areas the disease is far from being eliminated. Thus, to improve awareness in the community, health education programs regarding facial cleanliness, use of latrines, and proper solid and liquid waste disposal need to be delivered using a multidisciplinary approach.

Risk Factors for Diarrhea in Children Under Five Years of Age Residing in Peri-Urban Communities in Cochabamba, Bolivia. *Am J Trop Med Hyg*, Dec 2014. C George. [Abstract](#)

This study examined the relationship between childhood diarrhea prevalence and caregiver knowledge of the causes and prevention of diarrhea in a prospective cohort of 952 children < 5 years of age in Cochabamba, Bolivia. The knowledge findings from this study suggest that

health promotion in these communities should put further emphasis on increasing knowledge of how water treatment, handwashing with soap, proper disposal of child feces, and food preparation relate to childhood diarrhea prevention.

WASHplus Weeklies highlight topics such as Urban WASH, Household Air Pollution, Innovation, Household Water Treatment and Storage, Handwashing, Integration, and more. If you would like to feature your organization's materials in upcoming issues, please send them to Dan Campbell, WASHplus Knowledge Resources Specialist, at dacampbell@fhi360.org.



About WASHplus - WASHplus, a multi-year project funded through USAID's Bureau for Global Health, supports healthy households and communities by creating and delivering interventions that lead to improvements in access, practice and health outcomes related to water, sanitation, hygiene (WASH) and household air pollution (HAP). WASHplus uses at-scale, targeted as well as integrated approaches to reduce diarrheal diseases and acute respiratory infections, the two top killers of children under five years of age globally. For information, visit www.washplus.org or email: contact@washplus.org.