



Issue 141 April 11, 2014 | Focus on WASH and Maternal Health

This issue features a webcast and presentations from a recent event in Washington, DC, on WASH and maternal health. Other resources include a recently published systematic review, which concluded that there is evidence of association between WASH and maternal mortality. Additional studies discuss the impacts of anemia and helminth infections on maternal health.

EVENTS

Water, Sanitation, and Hygiene Programs as a Strategy to Advance Maternal Health

– Wilson Center, March 2014. ([Webcast](#)) | Presentations by: [Merri Weinger/USAID](#); [Lisa Meadowcroft/AMREF](#); [Lenka Benova/SHARE](#); [Annie Toro/International Medical Corps](#).

The Wilson Center hosted a panel on ways to advance maternal health using WASH strategies. Improving maternal health requires a greater understanding of WASH as it relates to maternal mortality and morbidity; monitoring to ensure effectiveness; and systematic evaluations of completed WASH projects. Further research and collaboration by the WASH and maternal health communities could garner more awareness and advocacy.

JOURNAL ARTICLES

Systematic Review and Meta-Analysis: Association Between Water and Sanitation Environment and Maternal Mortality. *Trop Med Intl Health*, Feb 2014. L Benova. ([Link](#))

There is evidence of association between sanitation and maternal mortality and between water and maternal mortality. Both associations are of substantial magnitude and remain after adjusting for confounders. However, these conclusions are based on a very small number of studies, few of which set out to examine sanitation or water as risk factors, and only some of which adjusted for potential confounders.

Climate Change and the Potential Effects on Maternal and Pregnancy Outcomes: An Assessment of the Most Vulnerable—The Mother, Fetus, and Newborn Child. *Global Health Action*, 2013. C Rylander. ([Link](#))

This article demonstrates that climate change will increase the risk of infant and maternal mortality, birth complications, and poorer reproductive health, especially in tropical, developing countries. Thus, climate change will have a substantial impact on the health and survival of the next generation among already challenged populations. Knowledge is limited regarding which regions will be most heavily affected.

Prevalence of Anemia and Its Risk Factors Among Lactating Mothers in Myanmar.

Am J Trop Med Hyg, Mar 2014. A Zhao. ([Abstract](#))

In Myanmar, 60 percent of the population consists of mothers and children, and they are the groups most vulnerable to anemia. The objectives of this study are to determine: the anemia prevalence among lactating women and the risk factors associated with anemia. The anemia prevalence rate was 60.3 percent in lactating women, with 20.3 percent of lactating women having severe anemia. Factors of malnutrition, self-reported symptoms of night blindness or poor dark adaptation, lack of primary education experience, low family annual capita income, drinking spring or river water, and drinking unboiled water were associated with anemia.

Prevalence Soil Transmitted Helminthiasis and Malaria Co-Infection Among Pregnant Women and Risk Factors in Gilgel Gibe Dam Area, Southwest Ethiopia.

BMC Res Notes, July 2013. M Getachew. ([Link](#))

Intestinal parasite and/or malaria co-infection is a health problem among pregnant women living around the Gilgel Gibe Dam area. Therefore, interventions including improving sanitation, removing stagnant water, and providing health education to pregnant women should be given.

Provision of Private, Piped Water and Sewerage Connections and Directly Observed Handwashing of Mothers in a Peri-Urban Community of Lima, Peru.

Trop Med Int Health, Apr 2014. W Oswald. ([Abstract](#))

Researchers observed 27 mothers directly, before and after installation of private, piped water and sewerage connections in the street just outside their housing plots, and measured changes in the proportion of fecal-hand contamination and hand-to-mouth transmission events with hand washing. Hand washing increased following installation of private, piped water and sewerage connections, but its practice remained infrequent, particularly before food-related events. Infrastructural interventions should be coupled with efforts to promote hygiene and ensure access to water and soap at multiple on-plot locations convenient to mothers.

REPORTS/PRESENTATIONS/VIDEOS

Danger, Disgust and Indignity: Women's Perception of Sanitation in Informal Settlements, 2013. L Heste, SHARE. ([Video](#))

A presentation by Dr. Lori Heise (Senior Lecturer in Social Epidemiology at the London School of Hygiene & Tropical Medicine; Chief Executive of STRIVE Consortium) at the "Making Connections: Women, Sanitation and Health" event hosted by the SHARE Research Consortium.

Public Health and Social Benefits of At-Home Water Supplies, 2013. B Evans, UNC Water Institute. ([Link](#))

A strong theme that emerges from field data is that households often use multiple water sources. This dimension of water usage has received only limited attention from researchers. It is likely that the use of multiple sources of water for different activities is a significant confounder and one of the reasons why research into the relationships between health outcomes and use of specific water sources has been inconclusive.

WASH and Clean in the Labour Ward, 2013. D Mavalankar. ([Presentation](#))

This study, funded through SHARE in India, is a collaboration between the Indian Institute of Public Health-Gandhinagar and the Public Health Foundation of India. The study's main

objective is to analyze the processes and effectiveness of cleaning practices on labor wards as well as their determinants, including WASH, in areas of India and Bangladesh.

Water, Sanitation and Hygiene: Maternal and Newborn Health, 2014. Mayame. ([Link](#))

This fact sheet highlights the latest evidence on the link between WASH and maternal and newborn health. The links between maternal health and water and sanitation are multiple and occur not only during the continuum of care from pregnancy, to delivery, and the postpartum period, but also throughout the life of the mother and her child.

Women: Walking and Waiting for Water: The Time Value of Public Water Supply, 2013. E Gross, Courant Research Centre. ([Link](#))

Public funding of water supply infrastructure in developing countries is often justified by the expectation that the time spent on water collection significantly decreases, leading to increased labor force participation of women. In this study the authors test this hypothesis by applying a difference-in-difference analysis to a sample of 2,000 households in rural Benin where improved water supply was phased in over time. Time savings per day were rather modest at 35 minutes; even though walking distances are considerably reduced, women still spend a lot of time waiting at the water source. Moreover, a reduction in time to collect one water container induces women to collect a higher number of containers per day. Results indicate that time savings are rarely followed by increased labor supply of women; men are the first to be freed from water-fetching activities.

WASHplus Weeklies will highlight topics such as Urban WASH, Indoor Air Pollution, Innovation, Household Water Treatment and Storage, Hand Washing, 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 five-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 indoor air pollution (IAP). 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.