

Supportive Environments for Healthy Communities

# Issue 3 April 8, 2011 | Focus on Handwashing

This is the third update from the WASHplus Project. This issue includes abstracts and links to journal articles, reports, etc. related to handwashing. Future issues will cover a range of water, sanitation, and hygiene topics as well as indoor air quality topics on a rotating basis.

#### **NEWSLETTERS**

 Soapbox, March 2011: Celebrating Global Handwashing Day, 2010 (Download, PDF)

The March issue of the newsletter from the Global Public-Private Partnership for Handwashing describes successful campaigns from Global Handwashing Day 2010 and features articles from Partnership partners.

### **VIDEOS**

• It's in Your Hands: The Tippy Tap, March 2011. (<u>Link to video</u>) This powerful video promoting handwashing with a simple tippy tap won the 2011 DoGooder Nonprofit Video Award for Best Thrifty Video. It was produced by the Watershed Management Group.

#### JOURNAL ARTICLES/BIBLIOGRAPHIES

Hygiene: New Hopes, New Horizons, IN: Lancet Infect Dis. 2011 Apr;11(4):312-21. Curtis V, et al. (Link to complete abstract)

Although promotion of safe hygiene is the single most cost-effective means of preventing infectious disease, investment in hygiene is low both in the health and in the water and sanitation sectors. A growing understanding of what drives hygiene behaviour and creative partnerships are providing fresh approaches to change behavior. However, some important gaps in our knowledge exist. For example, almost no trials of the effectiveness of interventions to improve food hygiene in developing countries are available. There is also the need to figure out how best to make safe hygiene practices matters of daily routine that are sustained by social norms on a

mass scale.

Variability in Hand Contamination Based on Serial Measurements:
 Implications for Assessment of Hand-Cleansing Behavior and Disease Risk,
 IN: Am J Trop Med Hyg Apr 2011 84: 510-516. Pavani K. Ram, et al. (Link to complete abstract)

Mothers of young children in Bangladesh rinsed both hands in 200 mL of ringer's solution. We compared results of serial samples with respect to fecal coliform counts. Contamination of the same subjects' hands varied substantially within a few hours. Because hand contamination measured at random cannot reliably predict hand contamination at times of potential pathogen transmission, single random hand rinses are not valid proxy measures for handwashing behavior.

• Systematic Review: Handwashing Behaviour in Low- to Middle-Income Countries: Outcome Measures and Behaviour Maintenance, IN: Trop Med & Intel Health, 16(4) 466–477, April 2011. Stephen M, et al. (Link to complete abstract)

While the literature is replete with a variety of handwashing studies in community, school and health care settings, none have been able to definitively document long-term behavior change, thereby challenging the sustainability of various interventions. Additionally, there is a need to better understand which research approach is most effective in promoting long-term behavior compliance in global low- and middle-income settings.

 The Effect of Handwashing with Water or Soap on Bacterial Contamination of Hands, IN: Int J Environ Res Public Health. 2011 8(1): 97–104. Maxine Burton, et al. (<u>Link to full-text</u>) pdf

In this study 20 volunteers contaminated their hands deliberately by touching door handles and railings in public spaces. They were then allocated at random to (1) handwashing with water, (2) handwashing with non-antibacterial soap and (3) no handwashing. Handwashing with water alone reduced the presence of bacteria to 23%. Handwashing with non-antibacterial soap and water is more effective for the removal of bacteria of potential faecal origin from hands than handwashing with water alone and should therefore be more useful for the prevention of transmission of diarrhoeal diseases.

Effects of Hand Hygiene Campaigns on Incidence of Laboratory-confirmed
 Influenza and Absenteeism in Schoolchildren, Cairo, Egypt, IN Emerg Infec Dis
 17(4) April 2011. Maha Talaat, et al. (<u>Link to full-text</u>)

 To evaluate the effectiveness of an intensive hand hygiene campaign on reducing

absenteeism caused by influenza-like illness, diarrhea, conjunctivitis, and laboratory-confirmed influenza, we conducted a randomized control trial in 60 elementary schools in Cairo, Egypt. Children in the intervention schools were required to wash hands twice

each day, and health messages were provided through entertainment activities. Compared with results for the control group, in the intervention group, overall absences caused by influenza-like illness, diarrhea, conjunctivitis, and laboratory-confirmed influenza were reduced by 40%, 30%, 67%, and 50%, respectively (p<0.0001 for each illness). An intensive hand hygiene campaign was effective in reducing absenteeism caused by these illnesses.

## **REPORTS**

 Enabling Technologies for Handwashing with Soap: A Case Study on the Tippy-Tap in Uganda, 2011. Adam Biran, Water and Sanitation Program. (<u>Link to full-text</u>) pdf

Access to a convenient handwashing station has been found to be associated with higher rates of handwashing and decreased fingertip contamination. One such handwashing station is the "tippy-tap," which consists of a small (3 or 5 liter) jerry can filled with water and suspended from a wooden frame. A case study was carried out May 11–18 2010, in Uganda to learn about two projects in which health workers and village-level volunteers promoted the tippy-tap, provided health education and carried out household inspections. The purpose of this study was to document the process through which tippy-taps were promoted to qualitatively explore the results and to draw out lessons for future interventions.

• Summary Findings from the Impact Evaluation Baseline Survey in Vietnam, 2011. Water and Sanitation Program. (Link to full-text) pdf

This research brief discusses the results of a handwashing project in Vietnam that was implemented in 540 communes across 56 districts in ten provinces. Some of the key findings include: water and soap widely available in households, poorer households less likely to report handwashing with soap at critical times and nearly 20 percent of children in poorer households experience malnutrition and stunted growth.

## WEBSITES

- Water and Sanitation Program Enabling Technologies for Handwashing
  with Soap (<u>Link to website</u>) This webpage is meant to serve as a as a "one-stop
  shopping" online reference on enabling technologies for handwashing with soap for
  program managers.
- International Scientific Forum on Home Hygiene (IFH) (<u>Link to website</u>) IFH is a global, professional, not-for-profit, non-government organization which was established in 1997 with the mission to promote health and well-being through improved hygiene in the home and community. It publishes a newsletter and literature reviews and fact sheets on hygiene topics, including handwashing.

WASHplus Updates will highlight topics such as Urban WASH, Indoor Air Quality, 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 <a href="mailto:dacampbell@aed.org">dacampbell@aed.org</a>.



About WASHplus - WASHplus, a five-year project funded through USAID's Bureau for Global Health, creates supportive environments for healthy households and communities by delivering high-impact interventions in water, sanitation, hygiene (WASH) and indoor air quality (IAQ). WASHplus uses proven, at-scale interventions to reduce diarrheal diseases and acute respiratory infections, the two top killers of children under five years of age globally. For information, visit <a href="www.washplus.org">www.washplus.org</a> or contact: <a href="www.washplus@aed.org">washplus@aed.org</a>.



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