



WASHplus Weekly Special Update | Focus on WASH and Nutrition - April 2014

This issue features some of the latest studies on WASH and nutrition integration. Included are recent presentations from a USAID meeting and a global WASH conference. Other recent studies discuss the impact of improved sanitation facilities on reducing malnutrition and anemia. Also included are links to past issues of the WASH and Nutrition Literature Update.

UPCOMING EVENTS

Emergency Nutrition Network (EEN) Technical Meeting on Nutrition – Oxford, UK, 7th, 8th and 9th October 2014. ([Link](#))

The aim of the meeting is to facilitate a technical learning and networking meeting on nutrition specific and nutrition sensitive programming in emergencies and high burden contexts and to inform better practice, research priorities and advocacy. The meeting will engage a broad audience that includes NGOs, UN agencies, academia, bilateral and multilateral donors, foundations, private sector and government representatives. The meeting will connect with other nutritional fora planned for 2014 to maximize relevance and the ENN will document and rapidly share the meeting discussions and outcomes.

RECENT PRESENTATIONS

The WASH and Nutrition Nexus Current Operational Approaches, Lessons Learned and Practical Considerations for Future Programming, 2014. F Ngure, Water and Sanitation Program. ([Link](#))

This presentation, which includes an overview, evidence, and practical programming recommendations on the topic, was made at a USAID meeting on April 1, 2014. Among the takeaways is the idea that targeting the poor, as opposed to universal coverage, can accelerate reductions in child undernutrition.

Latest Evidence on WASH and Nutrition: What Do We Know Now That We Didn't Know Three Years Ago? 2014. A Weitz, Water and Sanitation Program. ([Link](#))

This presentation at the WASH for Everyone Everywhere 2014 Conference in Brisbane, Australia, concludes that WASH is a key sector for maximizing nutritional impact and that nutrition interventions alone have had modest impacts on linear growth in children.

WASH & Nutrition in a Resettled Village: A Household Level Approach, 2014. T Bowling, Theun Hinboun Power Company. ([Link](#))

This presentation at the WASH for Everyone Everywhere conference describes an at risk households pilot study in Lao PDR.

The Correlation Between Household Environmental Sanitation, Water Supply, and Mothers' Hygiene Behaviour for Children under 5 and the Status of Child Nutrition in Vietnam, 2014. N Huy Nga. ([Link](#))

The director general of Vietnam's Health Environment Management Agency presented findings of this study at the WASH for Everyone Everywhere conference. The report concluded that the rates of underweight and stunting in communes using unsafe water and unhygienic latrines were significantly higher than those in communes using improved water and latrines.

FEATURED STUDIES/REPORTS

Chronic Malnutrition: A Cross-Section Analysis. *Global Jnl of Med & Pub Health*, 3(1) 2014. E Beatriz. ([Link](#))

Droughts, floods, extreme temperatures, and GDP per capita are the main basic determinants of malnutrition in the sample of countries. In addition, one underlying determinant had a major impact in the prevalence of malnutrition: improved sanitation facilities. The findings of this study demonstrated that the variables within the basic and underlying cause classification are the ones with a greater impact on chronic malnutrition.

Sanitation Externalities, Disease, and Children's Anemia, 2014. D Coffey, Princeton University. ([Link](#))

Anemia is a health problem with enormous economic consequences: it impairs cognitive ability and reduces educational attainment and adult productivity. Globally, almost half of children have hemoglobin levels below the threshold for anemia. This paper uses three complementary empirical strategies to provide the first population-based evidence for the hypothesis that lack of sanitation, a public good with important externalities, contributes to a disease environment that causes hemoglobin deficiency. First, it finds a robust cross-country gradient between children's hemoglobin and lack of sanitation. Second, it shows that in India and Nepal, which both have poor sanitation coverage, children exposed to worse community sanitation have lower hemoglobin levels.

Association Between Economic Growth and Early Childhood Undernutrition: Evidence from 121 Demographic and Health Surveys from 36 Low-Income and Middle-Income Countries. *The Lancet Global Health*, Apr 2014. S Vollmer. ([Link](#)) | [Comments about the article](#) |

A quantitatively very small to null association was seen between increases in per-head GDP and reductions in early childhood undernutrition, emphasizing the need for direct health investments to improve the nutritional status of children in low-income and middle-income countries.

Catch-Up Growth Occurs after Diarrhea in Early Childhood. *Jnl of Nutrition*, Apr 2014. S Richard. ([Abstract/order info](#))

Diarrhea is thought to adversely affect linear growth, but catch-up growth can occur if no additional insults are experienced. This study sought to characterize catch-up growth in relation to diarrhea burden in a multisite dataset of 1,007 children. When diarrheal episodes are followed by diarrhea-free periods in the first 2 years of life, catch-up growth is observed that may allow children to regain their original trajectories. The finding of a greater effect of diarrhea on linear growth in boys than in girls was unexpected and requires additional study.

Diarrhea burdens are high throughout the first 2 years of life in these study sites, therefore, reducing the likelihood of catch-up growth. Extending diarrhea-free periods may increase the likelihood of catch-up growth and decrease the prevalence of stunting.

Water, Sanitation, Hygiene, and Soil-Transmitted Helminth (STH) Infection: A Systematic Review and Meta-Analysis. *PLoS Medicine*, Mar 2014. E Strunz. ([Link](#))

WASH access and practices are generally associated with reduced odds of STH infection. Pooled estimates from all meta-analyses, except for two, indicated at least a 33 percent reduction in odds of infection associated with individual WASH practices or access. Although most WASH interventions for STH have focused on sanitation, access to water and hygiene also appear to significantly reduce odds of infection.

ARTICLES/REPORTS/BLOG POSTS

A Job Analysis of Community Health Workers in the Context of Integrated Nutrition and Early Child Development. *Annals of the New York Academy of Sciences*, Jan 2014. J Phuka. ([Link](#))

Stunting and poor child development are major public health concerns in Malawi. Integrated nutrition and early child development interventions have shown potential to reduce stunting, but it is not known how these integrated approaches can be implemented in Malawi. In this paper, the authors aimed to evaluate the current jobs status of community health workers and their potential to implement integrated approaches.

Review of National Nutrition Surveillance Systems, 2014. FANTA III. ([Link](#))

Nutrition surveillance is a systematic approach used to detect malnutrition and identify populations at risk of suffering from it. This report presents descriptions of and information on the various methods used for nutrition surveillance in 16 developing countries.

Improving Nutrition through Agriculture Technical Brief Series, 2014. SPRING Project. ([Link](#))

The SPRING Project has developed a series of briefs that illustrate how a set of evidence-based pathways and principles can strengthen agriculture and nutrition linkages under Feed the Future. Short vignettes from agricultural activities highlight how the pathways and principles can be applied in diverse contexts.

Can Transfer Programs Be Made More Nutrition Sensitive? 2014. H Alderman, IFPRI. ([Link](#))

Malnutrition can best be addressed by a combination of nutrition-specific interventions and nutrition-sensitive programs, including social protection. This study reviews mechanisms of transfer programs to better design nutrition sensitive social protection. Social protection programs typically increase income as well as influence the timing and, to a degree, control of this income. Additionally, social protection programs may achieve further impact on nutrition by fostering linkages with health services or with sanitation programs, and specifically through activities that are related to nutrition education or micronutrient supplementation. This paper discusses what might be expected from such programs and reviews some of the evidence from specific transfer programs.

Wealth and Children's Health in India, 2014. *Econ and Polit Weekly*, Apr 2014. D Coffey. ([Link](#))

What are the relationships between wealth and children's health in India's states that are as

populous as many other countries? Presenting a state-level analysis of the association between state net domestic product (SNDP) per capita and three children's health indicators, this paper describes how these relationships differ in the last two rounds of the National Family Health Survey. It finds evidence that the cross-sectional relationships between aggregate wealth and children's health indicators are positive, yet the association was less steep in the mid-2000s than in the late 1990s. It also finds a negative relationship between growth in SNDP per capita and improvement in state-level children's health indicators. These findings are consistent with the hypothesis that the kinds of investments that improve health may lead to economic growth, rather than vice versa.

Role of Title II Programs in Addressing Undernutrition, 2014. V Letelier. ([Blog post](#))

This post provides comments and a discussion of the report "Title II Development Programs Implemented during the Second Food Aid and Food Security Assessment (FAFSA-2) Time Period." The extensive assessment identified various technical sector models, approaches, and practices that are more likely to contribute to positive food security impacts as well as lessons from efforts that have not worked well.

Using Satellite Remote Sensing and Household Survey Data to Assess Human Health and Nutrition Response to Environmental Change. *Population and Environment*, 2014. M Brown, NASA. ([Link](#))

Climate change and degradation of ecosystem services functioning may threaten the ability of current agricultural systems to keep up with demand for adequate and inexpensive food and for clean water, waste disposal, and other broader ecosystem services. Human health is likely to be affected by changes occurring across multiple geographic and time scales. Impacts range from increasing transmissibility and the range of vector-borne diseases, such as malaria and yellow fever, to undermining nutrition through deleterious impacts on food production and concomitant increases in food prices. This paper uses case studies to describe methods that make use of satellite remote sensing and Demographic and Health Surveys data to better understand individual-level human health and nutrition outcomes. By bringing these diverse datasets together, the connection between environmental change and human health outcomes can be described through new research and analysis.

PAST WASH/NUTRITION LITERATURE UPDATE

[February 2014](#)

[January 2014](#)

[December 2013](#)

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.

