



**Issue 200 | July 31, 2015 | Focus on Wearables for WASH & Health**

According to UNICEF, the wearable technology industry is expected to generate more than \$22 billion a year by 2020. Initially, wearable tech products were designed to be used for fitness monitoring purposes, but it soon became clear that they have much broader potential. In developing countries, wearable tech could literally save lives when used as a means of carrying out remote diagnosis and telemedicine.

A recent UNICEF wearables handbook asks if future wearables could educate students about handwashing in a school setting or monitor water points to encourage good hygiene habits or track the availability of supplies such as soap, sanitary napkins, etc.

**EVENTS**

**UNICEF – The Wearables for Good Challenge.** [Link](#)

Could wearables be the next mobile revolution? This challenge is to develop innovative, affordable solutions to make wearables and sensor technology a game-changer for women and children across the world. Applications will be accepted until August 4, 2015.

**Wearables for Good: Use Case Handbook of the Wearables for Good Challenge,** 2015. UNICEF. [Link](#)

This handbook describes specific use cases and principles—through the lens of UNICEF Innovation—so that the design, science, impact, and technology communities can work together to imagine and create solutions for some of the world’s most serious challenges. In the WASH section the report asks: How might we create a wearable or sensor technology to educate about/encourage handwashing in a school setting? Encourage the passing on of good hygiene habits to the household? Monitor water points to encourage good hygiene habits? Monitor supplies such as soap, sanitary napkins, and encourage school administrators, teachers, and other adults to make hygiene a priority for the environments they oversee?

**NEWS ARTICLES/BLOG POSTS/VIDEOS**

**Developing Wearable Technology for Social Innovation,** 2015. Bloomberg Business. [Video](#)

UNICEF U.K. Head of Strategy & Innovation Katherine Crisp and Arm Holdings Executive Vice President of Marketing Ian Drew discuss their partnership to bring technology into developing nations.

**How Developing Nations Are Utilizing Wearable Tech**, 2015. Bloomberg Video. [Video](#)  
UNICEF's Erica Kochi discusses the use of wearable tech in developing countries and potential applications and the skepticism over Internet.org with Bloomberg's Emily Chang on "Bloomberg West."

**We Can Design the Future of Wearables for Social Good.** *Huffington Post*, April 2015. H Mehr. [Link](#)

Wearables for international development interventions require a heightened focus on designing for local context, user feedback loops, and addressing privacy concerns. Understanding the human body and mind, and how humans interact with technology, is what will make wearables valuable. To make them sustainable in international development interventions, human-centered design and participatory processes must play a central role, so that products are co-created with users and address real needs in local contexts.

**Wearable Technology to Track Sanitation and Exposure to Disease**, *OpenIDEO*, Oct 2014. C Zimmerman. [Link](#)

Wearable technology is advancing to the point where it's very simple to track one's daily movements and habits. How might we adapt mobile technologies that track health care workers' hygiene to ensure those exposed to Ebola are properly cleansing themselves to prevent the spread of disease?

**Wearables for Managing Epidemics**, 2014. J Mischke. [Link](#)

New Ebola research by the Arizona State University demonstrates that quick and forceful implementation of control interventions are necessary to control outbreaks and avoid far worse scenarios. And this is not only true for the Ebola epidemic but also for other plagues of our times. This article takes a look at wearable devices that might have the potential to support caregivers and patients in the fight against Ebola.

**How Wearables Are Being Used for Social Good.** *FastCoexist*, Oct 2014. A Peters. [Link](#)

A wearable doesn't have to include electronics, it just literally has to be something that someone wears to solve a problem. UNICEF, for example, uses a simple armband to measure child nutrition in the developing world. If the paper measuring tape reaches into the correct color zone, a health worker knows the child is getting enough to eat.

**Solutions That Are Saving Lives in Humanitarian Response.** *Aid & Inter Dev Forum*, May 2015. A Barcock. [Link](#)

As record numbers of people are displaced by disaster and conflict, the humanitarian community faces increasing challenges. In addition, population increase and the impacts of climate change are intensifying the risk of wider humanitarian crises, such as food and water insecurity. Emerging innovations in humanitarian aid can help us mitigate these growing problems.

**Forget the Fitbit: Can Wearables Be Designed for the Developing World?** *FastCoexist*, May 2015. J Leber. [Link](#)

UNICEF, the design firm Frog, and the global mobile processor company ARM are teaming up to find ways that sensors and wearable tech can benefit the world's poorest populations.

## REPORTS

**Wearable Vital Sign Sensors and their Potential within Low and Middle Income Countries**, 2015. S McCarthy. [Link](#)

Healthcare workers continue to operate in challenging environments when assessing and treating patients in low and middle-income countries. These difficulties are exacerbated when it comes to the assessment of infant vital signs, e.g., pulse, blood pressure. As part of the EU-funded Supporting LIFE project, our aim is to develop a mobile health Android application with wearable vital sign technology integration for infant vital sign assessment.

-----

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](mailto: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](http://www.washplus.org) or email: [contact@washplus.org](mailto:contact@washplus.org).