



Accelerate action Together to Prevent Infections!

Hand washing with water and soap is highly appreciated as a mechanism for breaking the disease cycle. Globally, it is estimated that only 19% adhere to hand washing after visiting the toilet. This is a contentious figure factoring in the rudimentary methods mostly used. For example, in most developing countries like Uganda, adherence to hand washing with water and soap is estimated using the “spot-check of hand hygiene infrastructure and supplies” method¹. The spot-check method falls short of credibility because it does not reveal how many people washed and is subjected to reactivity.

Hand washing with water and soap challenges are world over and cut across professionals without sparing medical professionals who are believed to be overly knowledgeable. The hand washing practice is done ineffectively i.e., washing for less than the recommended 20 seconds, not cleaning the nails/gaps between hands or washing with water only².

During COVID 19 pandemic, there was a boom in adherence to effective hand washing.



This was partly because many institutions were vigilant and hired personnel to observe proper hand washing for their staff and other stakeholders before accessing their premises. As the pandemic eased, so was the strict adherence to hand washing.

People were washing hands because of enforcement and easily slid back to bad practice of not washing hands when strict monitoring stopped. However, hygiene related infections have not eased. They still take a toll on the population and thus the need to preach that hand hygiene can; reduce the rate of respiratory diseases by 25% and diarrheal diseases by 50% according to Lancet Infectious Disease Journal. So do the needful, wash those hands at all critical times.

Join the challenge: Save Lives- Clean Your Hands

Revolutionizing hand washing data collection with machine learning and wearable sensing

In an effort to improve validity and reliability of hand washing data, there is growing use of wearable sensor technology that allows collection of data in conditions that are more realistic.



Badaye Technologies, leading the revolution in Uganda

Badaye Technologies hand-washing facility is one of the touchless modern hand washing devices with a comparative advantage because its design minimizes touching of the device during hand washing. More to that, the technology is fitted with a solar panel and a sensor that enable sensitization and capture real-time data when people are washing their hands.

Similarly, reliable hand washing data is collected using machine learning/artificial intelligence (AI). Such technological advancement provide for measuring procedures and duration of handwashing, capturing real time data on the number of people practicing hand washing in addition to guiding people how to effectively wash their hands³

If scaled up, Badaye technologies hand washing device can be a good hand washing sensitization tool besides being used to monitor adherence to hand washing. All this would have a positive bearing on reliability of the country's hand washing data.

Badaye Technologies, best innovation at the ATC EXPO 2021



¹Tantum L K., Gilstad J R., Bolay K F et al (2021). Barriers and Opportunities for sustainable hand hygiene interventions in rural Liberian Hospitals. NIH National Library of Medicine. <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC8391939/>

² Garon I (2020). Hand Hygiene: Unexpected challenges and cutting-edge solutions. GBAC. Infection Control. tips <https://infectioncontrol.tips/2020/07/09/hand-hygiene-unexpected-challenges/>

³ Eysenbach G (2020). Accurate measurement of handwashing quality using sensor armbands: Instrument validation study. NIH National Library of Medicine. <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC7146248/>

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