

For efforts to improve health and development to be the most successful, strategies to promote and facilitate handwashing must be included. Handwashing with soap has the potential to avert preventable deaths, improve healthcare outcomes, and bolster progress in education, equity, and WASH to achieve the Sustainable Development Goals.

Currently, national averages of access to soap and water in households range from below 10% to nearly 100%.¹ Even when facilities are available, handwashing is not practiced as consistently and thoroughly as it needs to be. Globally, it is estimated that 19% of people wash their hands after contact with excreta.²

Impact of Handwashing with Soap

Handwashing with soap can dramatically reduce the rates of common diseases including pneumonia and diarrhea, two of the leading causes of child death. Effective national handwashing behavior change programs can be expected to reduce diarrhea and pneumonia caused by lack of handwashing by 25%.³ Consistent handwashing with soap can also reduce the risks of disease outbreaks, which pose a critical threat to progress made towards the SDGs.

Good hand hygiene is a simple, effective way to reduce the spread of healthcare-associated infections and prevent antimicrobial resistance.^{4,5} On average, only 40% of healthcare workers (or fewer) adhere to recommended handwashing practices.⁶ Healthcare-associated infections affect an average of 1 in 10 patients each year;⁷ and neonatal infections are responsible for approximately 25% of newborn deaths worldwide.⁸

Handwashing with soap has been documented as a nutrition-sensitive intervention, and can accelerate progress in improving maternal and child nutrition.⁹ Handwashing prevents diarrheal diseases, which not only cause mortality, but limit the body's ability to absorb nutrition from food.¹⁰ Even when nutritious foods are available, lack of handwashing limits the health and developmental impact of nutrition programs.

A comprehensive strategy towards the SDGs

The integrated nature of the Sustainable Development Goals challenges practitioners and policy-makers to adopt strategies that will lead to benefits across multiple areas. Hygiene is measured in target 6.2, but the effects of handwashing with soap can drive progress across the 2030 agenda.

Hygiene matters not only for health—good hygiene removes barriers to education, nutrition, economic opportunity, and equity. It supports efforts to improve education by reducing missed schooldays and preventing diseases that hinder critical child

47% of diarrheal diseases preventable through handwashing.¹⁵

16% of respiratory infections preventable through handwashing.¹⁶

1:92 estimated return on investment of national handwashing behavior change program in India.¹⁷

40% reduction in healthcare associated infections with correct hand hygiene.¹⁸

61% of healthcare workers do not practice recommended hand hygiene.¹⁹

15% to 76% range in coverage of handwashing facilities from sub-Saharan Africa to Western Asia and Northern Africa.²⁰

¹ Progress on Drinking Water, Sanitation and Hygiene: 2017 Update and SDG Baselines. WHO, UNICEF, 2017. https://unicef.org/publications/files/Progress_on_Drinking_Water_Sanitation_and_Hygiene_2017.pdf

² Freeman MC, Stocks ME, Cumming O, Jeandron A, Higgins JP, Wolf J, Prüss-Ustün A, Bonjour S, Hunter PR, Fewtrell L, Curtis V. Hygiene and health: systematic review of handwashing practices worldwide and update of health effects. *Trop Med Int Health*, 2014 Aug; 19(8): 906-16.

³ Townsend J, Greenland K, Curtis V. Costs of diarrhoea and acute respiratory infection attributable to not handwashing: the cases of India and China. *Trop Med Int Health*, 2017 Jan; 22(1):74-81.

⁴ Kampf G, Löffler H., Gastmeier P. Hand Hygiene for the Prevention of Nosocomial Infections. *Dtsch Arztebl Int*, 2009 Oct; 106(40): 649-55

⁵ Evidence of hand hygiene to reduce transmission and infections by multidrug resistant organisms in health-care settings. WHO. http://www.who.int/gpsc/5may/MDRO_literature-review.pdf

⁶ Health care without avoidable infections: The critical role of infection prevention and control. WHO, 2016. <http://apps.who.int/iris/bitstream/10665/246235/1/WHO-HIS-SDS-2016.10-eng.pdf>

⁷ Health care without avoidable infections: The critical role of infection prevention and control. WHO, 2016. <http://apps.who.int/iris/bitstream/10665/246235/1/WHO-HIS-SDS-2016.10-eng.pdf>

⁸ Newborns: Reducing Mortality. WHO, 2016. <http://www.who.int/mediacentre/factsheets/fs333/en/>

⁹ Ruel MT, Alderman H, & the Maternal and Child Nutrition Study Group. Nutrition-sensitive interventions and programmes: how can they help to accelerate progress in improving maternal and child nutrition? *Lancet*, 2013 Aug; 382(9891): 536-51.

¹⁰ Gilmartin AA, Petri AP. Exploring the role of environmental enteropathy in malnutrition, infant development and oral vaccine response. *Philos Trans R Soc Lond B Biol Sci*, 2015 Jun 19; 370(1671): 20140143.

development. Failure to incorporate handwashing into water and sanitation programs will dramatically limit the impact of such investments.

Typically, vulnerable and disadvantaged populations bear the most severe consequences from inequitable access to handwashing facilities and effective handwashing promotion.¹¹ This in turn contributes to inequities in global health, nutrition, education, and economic outcomes.

Access to soap and water alone will not deliver the health and development benefits of handwashing. Handwashing behavior change efforts are critical to ensure handwashing with soap becomes habitual and is practiced consistently at critical times.

Investment case for handwashing behavior change

Handwashing with soap is among the most cost-effective ways to improve health and development outcomes. Research suggests that handwashing may be the single most cost-effective strategy to reduce illness globally, and presents the best value among common efforts to prevent diarrheal diseases.¹² National handwashing behavior change programs have been estimated to provide up to a 92-fold return on investment.¹³ Effective handwashing with soap programming can lead to reduced healthcare costs, as well as improved productivity and economic growth. Improved handwashing practice also stands to improve the cost-effectiveness of investments in water, sanitation, health systems, and more.

Calls to Action

Handwashing holds enormous potential to improve health and development outcomes. To ensure populations have access to these gains, decision makers must:

- Monitor and report on progress to achieve SDG indicator 6.2.1: Proportion of population using safely managed sanitation services, including a handwashing facility with soap & water.
- Ensure that schools, health facilities, and workplaces have access to handwashing facilities (for example, through accreditation and building codes).
- Promote and facilitate access to handwashing facilities in households.
- Provide education on hygiene in schools. Incorporate training on hand hygiene and infection prevention and control in health worker training strategies.
- Implement contextually appropriate behavior-centered programs to establish and engrain the habit of handwashing with soap at critical times.
- Utilize best practice, such as incorporating enabling technologies, social norms, and new applications of habit science, such as nudges.¹⁴
- Incorporate handwashing in policies, strategies, and programs that seek to achieve related SDGs.

SDGs Affected by Handwashing:

	NO POVERTY
	ZERO HUNGER
	GOOD HEALTH & WELL-BEING
	QUALITY EDUCATION
	GENDER EQUALITY
	CLEAN WATER & SANITATION
	DECENT WORK & ECONOMIC GROWTH
	REDUCED INEQUALITIES

Learn More

The Global Handwashing Partnership is a coalition of organizations working to promote hand-washing with soap as a pillar of international development and public health. Learn more on our web site:

www.globalhandwashing.org

¹¹Equity of Access to WASH in Schools. UNICEF, 2011. [https://www.unicef.org/wash/schools/files/Equity_of_Access_to_WASH_in_Schools\(1\).pdf](https://www.unicef.org/wash/schools/files/Equity_of_Access_to_WASH_in_Schools(1).pdf)

¹²Disease Control Priorities in Developing Countries, 2nd ed. Jamison DT, Breman JG, Measham AR, Alleyne G, Claeson M, Evans DB, Jha P, Mills A, Musgrove P. International Bank for Reconstruction and Development, World Bank; New York: Oxford University Press, 2006.

¹³Townsend J, Greenland K, Curtis V. Costs of diarrhoea and acute respiratory infection attributable to not handwashing: the cases of India and China. *Trop Med Int Health*, 2017 Jan; 22(1):74-81.

¹⁴Neal D, Vujcic J, Hernandez O, Wood W. The Science of Habit: Creating Disruptive and Sticky Behavior Change in Handwashing Behavior. USAID/WASHplus Project, 2015. http://www.washplus.org/sites/default/files/resource_files/habits-neal2015.pdf

¹⁵Curtis V, Cairncross S. Effect of washing hands with soap on diarrhoea risk in the

community: a systematic review. *Lancet Infect Dis*, 2003 May; 3(5):275-81.

¹⁶Rabie T, Curtis V. Handwashing and risk of respiratory infections: a quantitative systematic review. *Trop Med Int Health*, 2006 Mar; 11(3): 258-67.

¹⁷Townsend J, Greenland K, Curtis V. Costs of diarrhoea and acute respiratory infection attributable to not handwashing: the cases of India and China. *Trop Med Int Health*, 2017 Jan; 22(1):74-81.

¹⁸Kampf G, Löffler H, Gastmeier P. Hand Hygiene for the Prevention of Nosocomial Infections.

¹⁹Health care without avoidable infections: The critical role of infection prevention and control. WHO, 2016. <http://apps.who.int/iris/bitstream/10665/246235/1/WHO-HIS-SDS-2016.10-eng.pdf>

²⁰Progress on Drinking Water, Sanitation and Hygiene: 2017 Update and SDG Baselines. WHO, UNICEF, 2017. https://unicef.org/publications/files/Progress_on_Drinking_Water_Sanitation_and_Hygiene_2017.pdf