

Interventions to improve hand hygiene in community settings: A systematic review of theories, barriers and enablers, behavior change techniques, and hand hygiene station design features

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S14 – HH station design adaptations

Supplementary Table 14:

Design adaptations of hand hygiene stations.

Study ID, Country, Setting	Outcome of interest	Standard design	Design adaptation	Effectiveness*
Davis 2013** United States; Universities	Daily soap usage	Handwashing instructions on posters	Cues to action - Poster warnings of flu transmission	Adaptation performed worse
Lapinski 2013** United States; Universities	Observed handwashing	Low-prevalence poster ("One out of five college students wash their hands EVERY time they use the bathroom")	Cues to action - High-prevalence poster ("Four out of five college students wash their hands EVERY time they use the bathroom")	Adaptation performed better
Ford 2014** United States; Universities	Weekly soap consumption	Motion-activated towel dispenser	Cues to action - Towel was automatically available without action from users	Adaptation performed better
Dreibelbis 2016 Bangladesh; Schools	Observed handwashing after toileting events	No nudges	"Nudges"*** - Paved footpath with painted handwashing station	Adaptation performed the same
Grover 2018 Bangladesh; Schools	Observed handwashing after toileting events	No nudges	"Nudges"*** - Paved footpath, painted handwashing station, and painted shoeprints	Adaptation performed the same
Huang 2021 Philippines; Schools	Observed handwashing with soap after toilet use	No painted footpath or other nudges added	"Nudges"*** - Painted footpath with an arrow sticker	Adaptation performed better
Prasetyo 2022 Indonesia; Workplaces	Observed handwashing with water or soap	Sink alone	"Nudges"*** - Bright yellow footprints painted	Adaptation performed better
Weijers 2020** The Netherlands; Markets	Observed hand disinfection upon entering store	Message on dispenser	"Nudges"*** - Message combined with three blue arrows pointing to dispenser	Adaptation performed better
Bai 2022 China; Schools	Observed handwashing rates	Simple background with manual faucet	Placement – Aesthetic background (nature/wood) with spotlight and automatic faucet	Adaptation performed better
Thorseth 2021 Ethiopia; Internally displaced people camps	Observed handwashing with soap at critical events (after defecation, before preparing food, before eating, before serving/feeding another person food, and after	No additions	Placement - Addition of a mirror	Adaptation performed worse

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S14 – HH station design adaptations

cleaning a child's
bottom)

Notes: *Grey highlights are adaptations that performed better; *Effectiveness is determined if authors reported that the intervention was effective at improving hand hygiene outcomes; **Interventions that did not provide a handwashing station but used cues and “nudges” to modify/adapt an existing handwashing station; ***Interventions are classified as “nudges” as study authors used the term to characterize their own work;*