

Policy Brief

The Importance of Handwashing and Opportunities for Improvement in Nepal

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Abstract

Globally, 28.0% of deaths occurred due to infectious diseases in 2021, while 99.0% occurred in developing countries, including Nepal. Approximately 10.0% of these were associated with poor handwashing. The absence of a fixed place for handwashing is a barrier to the availability of soap and water at the household level. Without such facilities, the incidence of handwashing with soap remains low. This paper aims to report health promotion evidence on the importance of handwashing and opportunities for improvement in Nepal. A literature review was conducted using scientific papers, plans, policies, guidance, directives, strategies, procedures, and standards related to Water, Sanitation and Hygiene (WASH) and online messages to collect information. A narrative thematic analysis was performed descriptively. Available WASH policies were critically examined, and policy gaps in handwashing were identified. Policymakers are required to prioritize the promotion of handwashing. It is therefore suggested to formulate a handwashing strategy using an ecological model that aligns with health promotion approaches, such as effective health communication and improving health literacy on handwashing; ensuring handwashing service delivery using available resources; and adopting social norms and structural policies.

Article History



OPEN ACCESS

Received: 23 June 2025

Accepted: 12 October 2025

Published: December 2025

DOI:

<https://doi.org/10.3126/jhp.v13i1.87169>

Keywords:

Covid-19; Handwashing; Nepal; Policy; SDGs; WASH

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Introduction

Diarrhea, acute respiratory infections, undernutrition, and soil-transmitted helminthiasis caused by unimproved WASH, resulting in a global mortality rate of 18.3 per 100,000 population, ranging from 3.7 per 100,000 population in high-income countries to 41.7 per 100,000 population in low-income countries (World Health Organization, 2025). Despite a lot of progress in WASH services the infectious diseases, including COVID-19, remains public health challenges where approximately 28.0% of deaths occurred due to infectious diseases globally in 2021 (World Health Organization, 2024). Approximately, 99.0% of the deaths due

to infectious diseases mostly occurs in low and middle-income countries, including Nepal (GBD 2013 Mortality and Causes of Death Collaborators, 2015). The African and Southeast Asia Region alone accounted for 79.0% of the total global deaths due to unimproved WASH (World Health Organization, 2025). Around 10.0% of these deaths were mainly associated with a lack of inadequate handwashing facilities (Prüss-Üstün et al., 2008). Establishing a fixed place for handwashing plays a significant role in reducing infectious diseases and promoting health. Combined WASH facilities, which include an improved water source, a sanitary toilet, and available handwashing facilities with soap and water, promote the handwashing with soap behavior (Dhital et al., 2022). Less than half of the households have soap and water available in the handwashing facilities; this is a lower percentage than sanitary toilets and improved water sources in Nepal. In Nepal, 47.0% of household members used soap and water in 2016 (Dhital et al., 2022), rising to 72.0% in 2022 (Ministry of Health and Population, New ERA, & ICF, 2023). An encouraging environment, incorporating factors such as motivation, knowledge, behavior, income, and a fixed place for handwashing, is crucial for the prevention and control of communicable diseases, such as respiratory infections including COVID-19, diarrhea, and so on. The absence of a fixed place for handwashing precludes available soap and water. A fixed place for handwashing encourages individuals to wash their hands (Dhital et al., 2025). The general population tends not to undertake preliminary precautions, and policymakers are still adopting the reactive approach in the preparation and implementation of plans and policies to combat the risk of communicable diseases. This paper was prepared by reviewing the available existing WASH-related plans, policies, guidance, directives, strategies, procedures, and standards.

The intended audiences for these policy recommendations are political leaders. The recommendations may also be relevant to government authorities that represent health and beyond health sectors such as education, agriculture, water and sanitation, transport, the National Planning Commission, and various stakeholders. Adding to this, media organizations are also instrumental in delivering information regarding handwashing with soap to the public, and they also can influence political leaders. Finally, the general population can benefit from this paper.

Most available policies, guidelines, strategies, and directives related to WASH mostly address water and sanitation, but the handwashing issue is yet to be addressed. Handwashing with soap remains a health promotion challenge. It is an issue historically neglected in health policy and programs and by the general population (Gammon & Hunt, 2019). This paper aims to report health promotion evidence on the importance of handwashing and opportunities for improvement in Nepal.

To What Extent Do Existing WASH Policies Support Handwashing with Soap?

Existing policy records have been discussed in this paper. National WASH policy 2023 advises the preparation of an inclusive sanitation plan at all 753 local government levels and prioritizes basic services and gender equality by focusing on provision, conservation, municipality planning, cost-sharing, tariff recovery, regulatory transformation, private sector engagement, and social inclusion (Ministry of Water Supply, 2023); however, this remains

challenging due to situational variation in different Provinces. There is a guidance note on minimum WASH requirements in COVID-19 quarantine and isolation centers developed by the Ministry of Drinking Water Supply in 2020 (Nepal Red Cross Society, 2020). However, a national hand-washing strategy does not exist yet in Nepal.

The Rural Water Supply Policy of 2004 supported good handwashing practices by ensuring adequate water supplies. The communication of this policy was conducted via locally accepted channels, which increased health literacy in handwashing (Ministry of Physical Planning and Works, 2004). The Urban Water Supply and Sanitation Policy in 2008 endorsed core principles, such as public health, economic growth, social inclusion, protecting and optimizing investment, environmental protection, urban water supply, and sanitation (Ministry of Physical Planning and Works, 2009). The Sanitation and Hygiene Master Plan of 2011 emphasized the importance of handwashing with soap at critical moments. Significantly, none of these initiatives included strategies for handwashing in households or institutions (National Planning Commission, 2011). However, the Constitution of Nepal, and the Sustainable Development Goals (SDGs, 2016-30) have given priority to WASH including the handwashing issue (Constitution of Nepal, 2015; National Planning Commission, 2015). The Nepal WASH Sector Development Plan (2016-30) addressed the importance of handwashing with soap (Ministry of Water Supply and Sanitation, 2016). The National Standard for WASH in Health Facilities of Nepal 2018 has also considered handwashing with soap as a priority action (Ministry of Health and Population, 2018). The School WASH procedure was launched to promote WASH at public and private schools, which encourages students, teachers, other staff, and parents to practice handwashing with soap (Ministry of Education, Science and Technology, 2018). However, other population groups not covered by the School WASH procedure may face obstacles to accessing handwashing with soap practice due to a lack of knowledge about handwashing with soap, shortage of soap and water at handwashing places, and the absence of a clear plan and strategy for handwashing.

Handwashing was not addressed in the 15th five-year plan (2019/20-2023/24) of Nepal as well as in the district, municipality, and village WASH strategies plan (National Planning Commission, 2019). Likewise, the 16th five-year plan (2024/25-2028/29) lacks attention to the issue of handwashing (National Planning Commission, 2024). Advocating the handwashing issue in the future will draw attention to keep it prioritized in the periodic national plan. The WASH strategy must include the burden of communicable diseases, the health care system, efficiency gains, and the value of money. The magnitude and burden of diseases help to estimate budget and WASH intervention including handwashing plans during the planning phase. Therefore, these components are interconnected and need to be considered during planning. Available directives and strategies related to handwashing must be implemented throughout the country and promptly.

Policy Recommendations for Improving Hand Washing Practices

Existing policies related to WASH indirectly support handwashing practices by providing access to water and toilet facilities. A handwashing strategy in Nepal should be developed in line with the mandate of the Constitution of Nepal (2015), WASH in School

Procedure (2018), the SDGs (2016-30), the National Health Policy (2019), and the policy recommendations discussed here. Policymakers should work to ensure all people informed of the importance and techniques of good handwashing with soap. To do this, Firstly, a situational analysis of handwashing must be conducted through context-specific workshops in different settings. Secondly, culturally appropriate health promotion approaches should be adopted for making an effective handwashing habit, including improving health literacy and ensuring the availability of soap, water, and fixed places for handwashing. Then, collaboration and coordination between health and non-health sectors should be tailored to the needs of the lower socioeconomic population, as this group would benefit most from these interventions. Finally, the handwashing strategy needs to be formulated with the leadership of the Ministry of Health and Population, Nepal, the National Health Education, Information and Communication Center with the support of associate divisions, centers and other stakeholders, and prioritized in the upcoming National Planning Commission's five-year plans and periodically monitored at all levels and settings.

The following recommendations are suggested for policy makers and concerned authorities to develop the handwashing strategy for Nepal.

Strengthen WASH Governance at all Levels

Formulate federal, provincial, and local WASH steering committees to function at respective levels. This suggestion is supported by the WASH coordination committee working at municipalities and ward levels to coordinate and monitor WASH services in Nepal.

Integrate Handwashing into Health and School Curriculum

Health education must include handwashing with soap and create an enabling environment at all levels and settings such as schools, health facilities, community centers, which are supported by the global, regional and national best practices (Koirala Dhital et al., 2023) and a Nepal specific menstrual hygiene education study (Ghimire et al., 2024).

Use Digital and Mass Media Channels

Digital and mass media approach are more effective to provide knowledge, and develop positive habits of handwashing with soap, therefore a focus on multimedia channels is recommended at all type of health care delivery centres and catchment areas. This is supported by the learning brief, an example of developing countries for digital and mass media partnerships.

Establish Health Education Corners in Health Facilities

Health facilities should establish a health education corner with television broadcasting which helps to recall the importance of handwashing. This might be feasible through the joint leadership of wards, municipalities, and district health offices. Handwashing should be integrated with patient check-ups and cares from indoor, outdoor and emergency settings, immunization, and nutrition, emphasizing key moments including before feeding child and after cleaning child stools at both health care facilities and household (Dhital et al., 2024).

Promote Health Literacy

Health literacy (degree to which individuals have the capacity to obtain, process and understand basic health information and services needed to make appropriate health decisions) regarding handwashing with soap must be provided in multiple languages including sign language since Nepal is a multilingual nation.

Ensure Access to Handwashing Infrastructure

It is important to provide access to improved water, soap, and a fixed place for handwashing through a multi-sectoral approach for all households, suggesting contactless handwashing station practices adopted by UNICEF and partners in Nepal during the COVID-19 pandemic.

Apply Marketing Strategy

The Price, Product, Promotion, and Place (4Ps) approach for the promotion of the use of soap and water must be applied in the development of handwashing strategy.

Develop Operational Plan

A comprehensive health promotion strategy and risk reduction operational plan must be formulated and implemented consistently, which is supported by previous study report (Sapkota et al., 2020). This program must focus on empowering marginalized groups of people such as women, children and people living with a disability must be the champions of handwashing with soap by household heads, family members, and the community to support them in this endeavour (Gautam et al., 2018).

Mainstream Handwashing into National Health Strategy

Handwashing should be promoted as a multi-level approach with an individual responsibility which can be established as a habit and a governmental strategy. This is supported by the article published on WASH of Nepal (Dhital et al., 2024).

Monitor, Evaluate and Learn

Develop a robust monitoring and evaluation mechanism at federal, provincial, and local levels to assess the impacts of handwashing initiatives. Learn and expand knowledge through pilot projects, community feedback, and adopt the best practices in handwashing.

Implementation Considerations

Effective implementation of handwashing policy and strategy requires addressing several key thoughts as:

1. There must be adequate infrastructure in households, schools, healthcare facilities, and public spaces to ensure access to clean water, soap, and sanitation facilities.
2. Financial constraints could pose challenges, so partnerships with national and internal nongovernment organizations and external development partners are essential.
3. Cultural and behavioral factors play a significant role; hence, community-based health awareness and community engagement programs, as well as behavior change communication campaigns, should be prioritized to promote handwashing.
4. Engaging local leaders and stakeholders will enhance the community and support them for sustainable implementation of quality hand hygiene.
5. Various effective health promotion campaigns, including door to door visits must be ensured out by qualified health professionals. This is supported by the Government of Nepal's recent declaration of assigning Public Health Officers (PHOs) at all rural and urban municipalities throughout the country (Nepal health news, 2025). Each level of health care setting must have priority agenda of health education on handwashing and need to implement health promotion-oriented health care services such as welcoming

to clients, good quality health care services without any doubt, proper counselling and referral mechanism and follow up mechanism. It is recommended that the government need to develop a job description for PHOs who are working for the community. They must work for the public through day-to-day public contact and create an enabling environment for health promotion throughout the country, where promoting handwashing by all is one example.

6. Monitoring and evaluation mechanisms are necessary to assess the policy impact and make timely adjustments. The supervision and monitoring must be strictly implemented for the improvement, upgrade, and transparent services which links to public services.

Conclusions

Although Nepal has made progress in promoting handwashing through a few WASH-related documents, there are still notable gaps in a specific strategy of handwashing. Current policies offer indirect support but lack specific strategies, especially at the household and institutional levels. To enhance handwashing practices, there is an urgent need for a comprehensive national handwashing strategy that aligns with Nepal's constitutional goals, SDGs (2016-30), and global standards. This strategy should address handwashing commodities and financial challenges, overcome cultural obstacles, and emphasize widespread education and behavior changes to establish handwashing as a habit. Collaboration between health and non-health sectors, along with strong community involvement, is crucial for the sustainable implementation of effective handwashing practices throughout the country as it is an important and never-ending issue.

Conflict of Interest

There are no conflicts of interest.

References

- Constitution of Nepal. (2015). *Constituent Assembly Secretariat*. https://ag.gov.np/files/Constitution-of-Nepal_2072_Eng_www.moljpa.gov_.npDate-72_11_16.pdf
- Dhital, S.R., Chojenta, C., Bagade, T., & Loxton, D. (2024). Maternal handwashing with soap practices and associated risk factors in Nepal: A systematic review. *Hygiene*, 4(1), 14-22. <https://doi.org/10.3390/hygiene4010002>
- Dhital, S.R., Chojenta, C., Evans, T.J., Acharya, T.D., & Loxton, D. (2022). Prevalence and correlates of water, sanitation, and hygiene (WASH) and spatial distribution of unimproved WASH in Nepal. *International Journal of Environmental Research and Public Health*, 19(6). <https://www.mdpi.com/1660-4601/19/6/3507>
- Dhital, S.R., Chojenta, C., & Loxton, D. (2024). Multi-level factors associated with utilization of water, sanitation and hygiene services by mothers in Nepal. *PLoS ONE*, 19(3). <https://journals.plos.org/plosone/article?id=10.1371/journal.pone.0283379>
- Dhital, S. R., Chojenta, C., & Loxton, D. (2025). Effects of mothers' water, sanitation and hygiene habits on diarrhoea and malnutrition among children under 5 years in Nepal. *BMJ Public Health*, 3(2). <https://bmjpublichealth.bmj.com/content/3/2/e001815>
- Gammon, J., & Hunt, J. (2019). The neglected element of hand hygiene - the significance of hand drying, the efficiency of different methods and clinical implication: A review. *Journal of Infection Prevention*. 20(2), 66-74. <https://cronfa.swan.ac.uk/Record/cronfa50389>

- Gautam, M.S., Georgeou, N., Phillips, M., Pyakurel, U., Wali, N., & Clayton, E. (2018). *Women and WASH in Nepal: Key issues and challenges*. Humanitarian and Development Research Initiative, Western Sydney University, Australia. https://www.westernsydney.edu.au/_data/assets/pdf_file/0003/1465455/WSUNepalReportFINAL30thOctFINAL_Digital.pdf
- Ghimire, S., Gahatraj, N. R., Shrestha, N., Manandhar, S., & Dhital, S. R. (2024). Effects of health education intervention on menstrual hygiene knowledge and practices among the adolescent girls of Pokhara Metropolitan, Nepal. *PLoS ONE*, 19(9). <https://journals.plos.org/plosone/article?id=10.1371/journal.pone.0291884>
- Koirala Dhital, M., Dhital, S.R., KC, B.B., Owens, V., Khadka, H.R., Gyawali, P.(2023). Successful health promotion, its challenges and the way forward in Nepal. *Global Health Promotion*, 30(1), 68-71. <https://journals.sagepub.com/doi/abs/10.1177/17579759221117792>
- Ministry of Education, Science and Technology.(2018). *School WASH Procedure*. MOEST, <https://www.doe.gov.np/assets/uploads/files/06c289b42ca2eb8d83e994bb73ecd4bd.pdf>
- Ministry of Health and Population, New ERA, & ICF.(2023). *Nepal Demographic and Health Survey, 2022*. MoHP <https://dhsprogram.com/pubs/pdf/FR379/FR379.pdf>
- Ministry of Health and Population.(2018). *National standard for WASH in health care facilities (HCF) of Nepal*. MOHP. <https://shorturl.fm/BOzvP>
- Ministry of Physical Planning and Works.(2004). *Rural Water Supply and Sanitation National Policy 2004*. MoPPW. <https://shorturl.fm/47w4g>
- Ministry of Physical Planning and Works.(2009). *National Urban Water Supply and Sanitation Sector Policy* (Final Draft 4th). MoPPW <https://shorturl.fm/ZBDit>
- Ministry of Water Supply and Sanitation.(2016). *Nepal Water Supply, Sanitation and Hygiene Sector Development Plan (2016 – 2030)*. MWSS. <https://shorturl.fm/zJ2oh>
- Ministry of Water Supply.(2023). *National WASH Policy 2023*. Government of Nepal, MWS. <https://mows.gov.np/content/7359/7359-national-water-supplysanitati/>
- GBD 2013 Mortality and Causes of Death Collaborators. (2015). Global, regional, and national age–sex specific all-cause and cause-specific mortality for 240 causes of death, 1990–2013: A systematic analysis for the Global Burden of Disease Study 2013. *The Lancet*, 385(9963), 117–171. [https://doi.org/10.1016/s0140-6736\(14\)61682-2](https://doi.org/10.1016/s0140-6736(14)61682-2)
- National Planning Commission. (2011). *Sanitation and Hygiene Master Plan*. NPC. <https://www.ircwash.org/sites/default/files/Nepal-2011-Sanitation.pdf>
- National Planning Commission (2015a). *The Fifteenth Plan*. NPC. <https://lpr.adb.org/sites/default/files/resource/630/nepal-fifteenth-national-plan.pdf.pdf>
- National Planning Commission. (2015b). *Sustainable Development Goals 2016-2030*. NPC, <https://shorturl.fm/OSgQr>
- National Planning Commission. (2024). *The Sixteenth Plan*. NPC. <https://npc.gov.np/content/6462/the-sixteenth-plan--fical-year-2024-25-2028-29-/>
- Nepal Red Cross Society. (2020). *COVID-19 and Monsoon Preparedness and Response Operation*. (WASH Newsletter). https://nrccs.org/wpcontent/uploads/2020/11/NRCS_WASH_Newsletter_2020_Issue_3-1.pdf
- Nepal Health News. (2025, June 22). <https://www.nepalhealthnews.com/detail/64076>
- Prüss-Üstün, A., Bos, R., Gore, F., & Bartram, J. (2008). Safer water, better health: costs, benefits and sustainability of interventions to protect and promote health. *WHO*. <https://iris.who.int/handle/10665/43840>

- Sapkota, K., Dangal, G., Koirala, M., Sapkota, K., Poudel, A., & Dhital, S. R. (2020). Strategies for prevention and control of COVID-19 in Nepal. *Journal of Patan Academy of Health Sciences*, 7(1), 85-88. <https://shorturl.fm/gCFZR>
- World Health Organization. (2024). *World Health Statistics 2024. Monitoring health for the SDGs, Sustainable Development Goals*. <https://www.who.int/publications/i/item/9789240094703>
- World Health Organization. (2025). *World Health Statistics 2025. Monitoring health for the SDGs, Sustainable Development Goals*. <https://iris.who.int/bitstream/handle/10665/381418/9789240110496-eng.pdf?sequence=1>