

POLICY BRIEF

Hand Washing Behavior and Associated Factors in Punjab

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Summary

Handwashing behavior encapsulates importance not only for improving the health of people, but also impacting the overall socioeconomic development of a region. In fact, literature advocates handwashing behavior is the most significant and cost-effective health intervention. In Punjab, the availability of handwashing facility with both soap and water is prevalent, but factors such as region, wealth and education impact the attitude towards handwashing. Therefore, the province is in dire need of using social media and face-to-face mobilization to run awareness campaigns and community driven approaches in order to improve the handwashing behavior, particularly targeted towards rural regions and disadvantaged sections.

Background

Handwashing practice holds prime importance in any country as it is a simple yet an instrumental step to control the spread of diseases (Harris, 2000; Salman, 2018; Sustainable Development Goals, 2016). In fact, Luby et al., (2009) note that the handwashing promotion activities are likely to result in reducing diarrhea by 53%, which not only cause mortality, but limit the body's ability to absorb nutrition from food. Despite the availability of nutritious food, lack of handwashing reduces the positive health impacts¹. Moreover, the significance of an 'improved habit of handwashing' cannot be ignored – which is a very important public health intervention. However, it has been observed that handwashing indicators are strongly influenced by the socio-economic status of the households as the poorer households are half as likely to portray satisfactory handwashing behavior at critical times as compared to the wealthier households (Luby et al., 2008; Orsola-Vidal et al. 2011). Moreover, apart from water and a designated place for handwashing, the household wealth significantly impacts the handwashing behavior of the individuals (Seimetz et al., 2016). In fact, an adoption of the handwashing behavior has a strong impact on health outcomes of the regions, particularly in poor areas, where people usually lack the access to basic health and sanitation facilities. (Pinfold and Horan, 1996; Luby et al., 2004; George et al., 2014; Haq et al., 2020).

Hygiene is a significant component of the targets under the Sustainable Development Goals (SDGs) with the ambition to provide universal and equitable access to handwashing facility. Moreover, it also stresses upon the importance of hygiene by highlighting that handwashing practices help to maintain health and reduce the spread of diseases. The SDG 6.2 calls for an action to provide access to adequate and equitable sanitation and hygiene for all and end open defecation while paying special attention to the needs of women and girls and

those in vulnerable situations by 2030. Additionally, based on hygiene tracks, the indicator 6.2.1b highlights the proportion of population with a handwashing facility with soap and water on premises. Moreover, the SDG 1.4 focuses on an equitable access to basic services including hygiene for all especially poor and the vulnerable. Since, these targets of the SDGs are applicable worldwide, the WHO/UNICEF Joint Monitoring Programme for Water Supply and Sanitation (JMP) suggests to adopt a 'service ladder' approach thereby setting the target and monitor the improvement in countries at various level of development².

JMP Ladder for Handwashing

Basic	Handwashing facility with soap and water in the household
Limited	Handwashing facility without soap or water
No Facility	No handwashing facility

Source: <https://washdata.org/monitoring/hygiene>

Currently, the handwashing behavior has gained importance in minimizing the spread of Corona Virus which is the top priority of the Federal as well as the Provincial Governments. Although Pakistan has recorded a staggering progress in curbing the pandemic, a lot is still needed to be done for a country which has major chunk of its population being deprived from basic facilities. Much recently, the second wave of the novel Corona Virus started which can be dangerous for an economy that has already suffered enough during the first wave and cannot afford to go for another lockdown thereby pushing millions below the poverty line.

Therefore, it is imperative to promote a healthy practice of handwashing to mitigate any possible impact of the virus. In view of the above, the Government of Punjab (GoPb) aims to improve the development of the province by focusing on six key areas out of which one is health (RISE Punjab, 2020) and has drafted

¹Gilmartin 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.

²Target language and normative interpretation of SDGs 6.2, WASH in the 2030 Agenda New global indicators for drinking water, sanitation and hygiene by WHO/UNICEF-2017

the Water, Sanitation, and Hygiene in School (WinS) strategy. This is due to the fact that an improvement in the health profile of a region can be instrumental in bringing socio-economic development and reduction in poverty (Punjab Growth Strategy, 2023). Thus, the importance of a healthy economy cannot be over shadowed, where people could serve to the best of their potential and contribute vehemently to the national output.

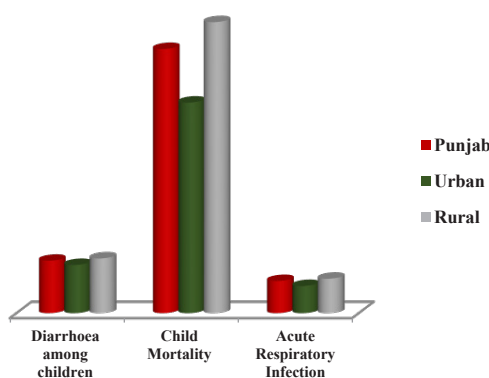
The scope of this policy brief is to understand the importance of handwashing behavior in the province of Punjab and suggest policy options for the Provincial Government for improving the handwashing behavior.

Why is it important?

Globally, it has been observed that handwashing with soap and water significantly decreases respiratory infections and diarrhea among children, which are the leading causes of child mortality (Biran et. al, 2014). Moreover, it also reduces the incidence of pneumonia in children under five (Cairncross & Valdmanis, 2006). According to the UNICEF, around 60% deaths are attributed to unsafe and poor WASH services in the world. Since, handwashing with soap and water can reduce the risk of diarrhea by 40%, good hygiene is important in minimizing the prevalence of preventable diseases e.g. diarrhea and pneumonia among children and adults . It ultimately results in resolving the issues of stunting, malnutrition, and mortality⁴.

Figure 1 shows the incidence of child mortality and preventable diseases in Punjab. The child mortality rate among children under 5 stands at 69 in the province. It is more pronounced in rural Punjab (76) as compared to urban Punjab (55). George et al. (2014) studied the risk factors for diarrhea in children under 5 and concluded that the knowledge of the caregiver regarding handwashing with soap had a direct impact on preventable child diseases and also highlighted the importance of combining the tools of hygiene awareness at household level with the provision handwashing of facilities.

Figure 1: Child Mortality and Preventable Diseases (children under 5)



Source: MICS -2018

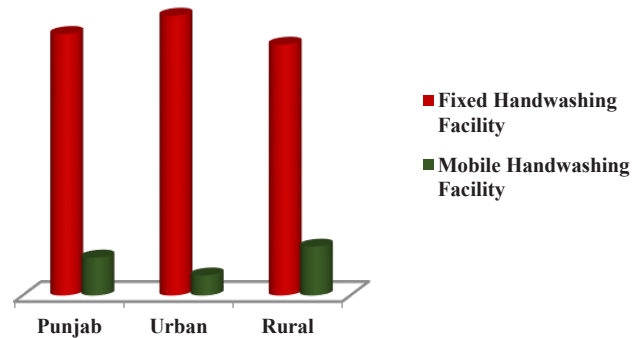
Analytical Perspective

The data from the Pakistan Demographic & Health Survey

³<https://data.unicef.org/topic/child-health/diarrhoeal-disease>
⁴Ruel 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.
⁵A fixed handwashing facility includes those that are built and cannot be moved such as Sink with tap (running) water, large covered container with tap, tippy tap, and tube-well/handpump located within/near the yard/plot.

(PDHS) 2017-18 highlights that fixed and mobile facilities are generally used for handwashing at household level in Punjab with varied percentages (Figure 2). 83.3% of households have a fixed place for washing hands while 12.1% use a mobile handwashing facility. However, the situation is different in rural areas, where 15.6% of the households have mobile handwashing facility as compared to 6.4% households in the urban areas of the province. The households in the survey area, without piped water, do not have a fixed place for handwashing and rely on mobile items for handwashing. This creates a physical hindrance to practice handwashing as when hands need to be washed, the individual has to take a water container along with soap in the courtyard to wash hands⁷.

Figure 2: Place for Handwashing



Source: PDHS -2018

The pre-requisites⁸ for handwashing include the availability of water - standing or running – and soap (bar, liquid, or powder) as signified by literature that the handwashing behaviour is regarded as one of the significant and cost-effective health interventions to lower the disease burden. Despite the fact, only 19% population around the world wash hands with soap and water at critical times. (Luby et. al, 2005; Strunz et. al, 2014; Cairncross, 2010; Bartram & Cairncross, 2010; Freeman, 2014).

Table 1 shows that 93.4% of the households have soap⁹ and water available at the place for handwashing in urban areas as compared to 71.3% households in the rural areas of Punjab. Additionally, 21.9% of the households in rural areas have only water available to them, 4.6% of the households do not have water, soap, and other cleansing agents in place for handwashing, while 0.1% of the households have cleansing agent¹⁰, other than soap, for handwashing. The aforementioned statistics indicate that almost 5.0% of the households in rural areas do not meet the JMP criteria of ‘basic handwashing facilities’ as compared to the urban areas. The WHO/UNICEF progress report on WASH SDG also illustrates that globally, supplemented basic handwashing facilities, including soap and water at home, are available to households in the urban areas as compared to the rural areas. This urban (52%)-rural (24%) divide is more pronounced in lower income countries¹¹. Such disparities need to be addressed by ensuring that all communities have handwashing facilities with soap and water at the household level. Anwar et al. (2009)

⁶A mobile handwashing facility can be moved around from place to place such as bucket, jug, kettle, covered water container with ladle/cup, and open water bowl.

⁷<https://blog.dhsprogram.com/dhs7-wash/>

⁸Baseline Survey Report of WASH ASWA-II, UNICEF-2019

⁹Soap includes a detergent in bar, liquid, powder, or paste form. This column includes households with soap and water only as well as those that had soap and water and another cleansing agent.

¹⁰Cleansing agents other than soap include locally available materials such as ash, mud, or sand

¹¹Progress on Drinking Water, Sanitation and Hygiene; update and SDGs Baselines by WHO-UNICEF/JMP,2017

conducted a study on hygiene practices in Karachi. They concluded that lack of sinks, soap, water, and disposable towel were major barriers in handwashing thereby highlighting the provision of key facilities, as an important issue, in improving the frequency of handwashing practice. However, hand washing behavior is greatly associated with access to hand washing facilities with soap and water in “premises” and people are more likely to wash their hands at critical time when they have hand washing facility in home¹².

Table 1: Presence of Water and Soap at the Place for Handwashing by Area

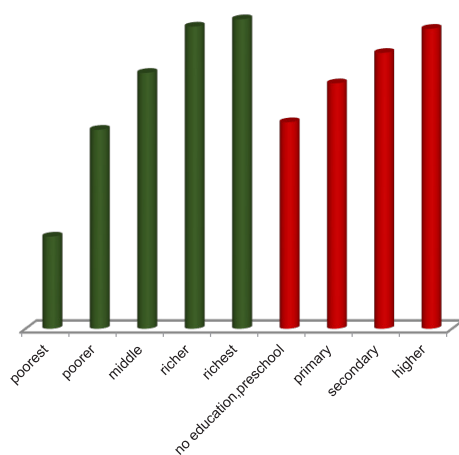
	Soap & water	Water & cleansing agent other than soap only	Water only	Soap but no water	Cleansing agent other than soap only	No water, no soap, no other cleansing agent
Punjab	79.6	1.3	15.6	0.2	0.1	3.3
Urban	93.4	0.2	5	0.3	0	1.1
Rural	71.3	1.9	21.9	0.1	0.1	4.6

Source: PDHS -2018

Handwashing behavior in relation to socio-economic Factors

Figure 3 shows the availability of water and soap for handwashing by wealth quintiles and education level of the household head. The data on associated factors indicates that only 28.2% of the households in the lowest wealth quintile have water and soap in place for handwashing as compared with 91% of the households in the highest wealth quintile. Moreover, 63.1% of the households use soap and water whose head is uneducated as compared to 91.6% of the households with an educated head. Both, educational level and wealth status of the households, significantly impact handwashing behavior and there is a dire need to target interventions towards households with low education and wealth to improve the handwashing behavior and overall health profile of the country (To et al., 2016 ; Odo and Mekonnen, 2021).

Figure 3: Handwashing Behaviour and Associated Factors



Source: PDHS -2018

Conclusion

Overall, Punjab performs fairly well with regards to the availability of handwashing facilities including soap and water

in the premises. However, socio-economic factors including area (urban/rural), wealth status, and educational level of the household head crop up differences in handwashing with soap and water at the household level. There is a need to create hygiene awareness among poor, less educated, and people living in the rural areas as it is the attitude which has to be changed to ameliorate the handwashing behavior alongside a reduction in the spread of diseases. The awareness campaign initiated by the UNICEF (2020) highlighted the importance of good hygiene by changing the old patterns and habits. After reviewing the literature and analyzing the data, a common theme that originated is that the impact of education and a positive attitude of individuals towards the betterment of the society can result in a drastic change whereby people will try to adopt handwashing behavior to curtail the spread of diseases.

What needs to be done?

- There is a substantial need to promote public health through a community-driven approach (locally managed programmes for promotion of hygiene) that can promote the importance of hygiene by adapting handwashing as a routine behavior and sensitize the individuals to the health risks associated with poor handwashing. Which subsequently lead to sustained behavior change and increase the availability of soap and water at fixed and mobile hand washing facilities in premises, as around 21% households in Punjab lacks availability of soap and water in place for hand washing.
- The data indicated that almost 22% households in the rural areas use only water for handwashing with a high incidence of child mortality and diarrhea as compared to the urban areas in Punjab. Therefore, significant efforts are required to create awareness of good hygiene behavior among the rural households. In this regard, the social mobilization specialists/hygiene promoters may train the village/wash committees regarding the importance of handwashing practices, especially in the remote areas.
- The need of the hour is to forge partnerships with entrepreneurs and Civil Society Organizations (CSOs) for making a coherent effort on hygiene promotion.
- The hygiene promotion campaigns' through social media, electronic and print media, and face-to-face mobilization, by targeting broader audience especially people with less education, will not only decrease the spread of COVID-19 pandemic, but reduce the risk of preventable diseases in adults and children under 5 who are at the risk of preventable mortality and stunting due to poor hygiene practices.
- The awareness regarding handwashing may be made a complimentary part of the existing social mobilization programmes under the Health, Education, and WASH sectors with Lady Health Workers, Teachers, School WASH Clubs and Community Mobilizers, and Local Government staff actively playing their positive roles.
- There is also a need to assess the barriers to handwashing i.e. reason as to why people in communities do not wash their hands? Is it the issue of affordability or social norms that restrict people to install a proper handwashing facility with soap and water at homes? This aspect may also be the part of future national and provincial surveys as well as and research studies.

¹²<https://www.indikit.net/indicator/2-wash/70-handwashing-facilities-wi>

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The British Government established a Board of Economic Inquiry in India in the year 1919 to undertake evidence-based policy research on different socio-economic issues including Agriculture and Rural Economy. After the partition in 1947, the organization was renamed as Board of Economic Inquiry, West Pakistan. In 1975, it was reorganized as Economic Research Institute and in 1980 it was reactivated as Punjab Economic Research Institute (PERI) with the status of Autonomous Body of the Planning and Development Board under the Punjab Economic Research Institute Ordinance, 1980. Therefore, it is the oldest economic research institution in the country with an unbroken record of economic research going back to 1919.

Vision

A dynamic and vibrant research institute that provides analytical inputs for the formulation of forward-looking provincial development strategies, and also undertakes high quality, evidence-based research to broadly improve public policy making in the province.

Mission

To be a leader for provision of socio-economic insight in Punjab on evidence-based research by adopting proactive and new ideas/ orientation to assist in policy formulation.

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