



RAPID ASSESSMENT OF HANDWASHING KNOWLEDGE & PRACTICES IN PAKISTAN DURING COVID-19

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We hope that the findings, analysis and recommendations of the rapid assessment study will contribute to informed and responsive planning and programming.

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Table of Contents

ACRONYMS	v
EXECUTIVE SUMMARY	1
1. INTRODUCTION AND BACKGROUND	3
1.1 Coronavirus disease and initial government response	3
1.2 Epidemiology of Covid-19	3
1.3 Importance of Handwashing in Pandemics	4
1.4 Research Background/ Context	4
1.5 Research Objectives	5
1.6 Scope of research/study	5
1.7 Sampling methodology	5
1.7.1 Provinces wise Allocation of Sample Size	6
1.8 Analysis Methodology	6
1.8.1 Quantitate data analysis	7
1.8.2 Qualitative data analysis	7
1.8.3 Triangulation	7
1.9 Research Ethics	7
1.10 Limitation of the study	8
2. RESPONDENTS DEMOGRAPHICS	9
2.1 Province wise distribution of respondents	9
2.2 Gender wise distribution of the respondents	9
2.3 Age wise Distribution of the Respondents	10
2.4 Occupation of the respondents	10
2.5 Education level of the respondents	10
2.6 Monthly household income of respondents	11
2.7 Disability among participants	12
3. MAIN FINDINGS RELATED TO HANDWASHING	14
3.1 Receiving of PAMs Especially Related to Hand Hygiene and Handwashing	14
3.2 Frequency of message received in last 15 days	16
3.3 Clarity of the PAMs related to handwashing	17
3.4 Importance of Hand Hygiene/Handwashing amongst the Participants	18
3.5 Handwashing Behavior	19
3.6 Respondents Knowledge about Proper Time of Handwashing	23

3.7 Motivation and Change of Handwashing Behavior at Home, Public Places and Health Care Facilities	25
3.7.1 Handwashing Behavior at Home	25
3.7.1.1 Association of Education Level with Handwashing Behavior.....	25
3.7.2 Handwashing behavior at public places and public institutions	26
3.7.3 Barriers to Handwashing at home and public places.....	27
3.7.4 Change of Handwashing Behavior in Comparison to Pre Covid-19 and During Covid-19	30
4. KEY CHALLENGES, LESSON LEARNT AND RECOMMENDATIONS.....	32
4.1 Challenges Related to Handwashing	32
4.2 Conclusion.....	32
4.3 Lesson Learnt and Key Recommendations.....	33
LIST OF ANNEXES	35
Annex 1: List of qualitative research participants.....	35
Annex 2: Details of the adopted methodology	36
Annex 3: List of district covered during the HH survey.....	37
Annex 4: Type and severity of disabilities amongst the survey respondents.....	40
Annex 5: References.....	43

List of Tables

Table 1: Distribution of Sample Size by province.....	6
Table 2: Province wise distribution of respondents	9
Table 3: Distribution of respondents by gender	9
Table 4: Distribution of respondents by Age	10
Table 5: Occupation of the respondents	10
Table 6: Literacy and education level of the respondents.....	11
Table 7: Respondents' monthly average HH income.....	12
Table 8: Disability presence in respondents	12
Table 9: Seeing, hearing, receiving PAMs related to Handwashing	14
Table 10: Medium of dissemination of PAMs.....	15
Table 11: Clarity level of the message to respondents.....	18
Table 12: Understanding importance of handwashing	19
Table 13: Hand washing with use of different material	19
Table 14: Type of Soap Used for Handwashing	21

Table 15: Type of water used for handwashing.....	21
Table 16: Handwashing behavior in relation to the water source	22
Table 18: Noting time during handwashing.....	23
Table 19: Important timing of handwashing	24
Table 20: UNICEF and WHO guidelines for washing hands in context of Covid and in general situation ..	24
Table 21: Change of handwashing behavior at home	25
Table 22: Change of handwashing behavior at home and literacy level of the respondents	26
Table 23: Change in Handwashing behavior at public places.....	26
Table 24: Handwashing Behavior at Institutions	26
Table 25: Reasons for doing handwashing	27
Table 26: Barriers to handwashing at home	28
Table 27: Places outside home where respondents are facing barriers to handwashing.....	29
Table 28: Types of barriers to handwashing at public places	30
Table 29: Change to frequency of handwashing during the Covid-19 time	31
Table 30: Staff Detail for Quantitative Research	36
Table 31: Disability related to seeing even if wearing glasses.....	40
Table 32: Disability related to hearing.....	40
Table 33: Disability related to memory and concentration.....	41
Table 34: Disability related to walking or climbing steps	41
Table 35: Disability related to self-care	42
Table 36: Disability related to communication and understanding and being understood.....	42

List of Figures

Figure 1: Triangulation Approach	7
Figure 2: Summary and intensity of the disability	13
Figure 3: Intensity of the four levels of disabilities.....	13
Figure 4: Sample of handwashing stations and some PAMs by Water Aid UK in Pakistan	16
Figure 5: Average number of receiving PAMs in the last 15 days	17
Figure 6: Additional information respondent shared regarding handwashing	23
Figure 7: Barrirs to handwashing at homes (# of respondent said yes; n=601	27
Figure 8: Barriers to Handwashing outside homes (# of respondents who said yes; N=601	29

ACRONYMS

AJK	Azad Jammu & Kashmir (Pakistan controlled territory)
CDA	Capital Development Authority
Covid	Coronavirus Disease
FATA	Federal Administer Tribal Areas (now called new merged districts)
GB	Gilgit Baltistan
Gov	Government
HFC	Health Care Facilities
HH	Household
HIES	Household and Income Expenditure Survey
HW	Handwashing
KP	Khyber Pakhtunkhwa
PAMs	Public Awareness Messages
PBS	Pakistan Bureau of Statistics
PPRP	Pakistan Planning and Response Plan for Covid-19
SOP	Standard Operating Procedures
SPSS	Statistical Package for Social Package
UNICEF	United Nation Children Emergency Fund
UNOCHA	United Nation Organization for Coordination of Humanitarian Affairs
WB	World Bank
WHO	World Health Organization

EXECUTIVE SUMMARY

This report summarizes the key findings of the rapid assessment research on handwashing behavior during the Covid-19 pandemic. Based on mixed method of quantitative and qualitative, the primary data for this research was collected from 601 respondents in seven regions/provinces of Pakistan. The respondents were selected randomly from a list of survey universe already available with the research firm from their previous surveys. The sample was proportionally divided on population size into the seven regions. The qualitative data was collected from 13 KIs with the representatives of local government, public research center, and potential partner organizations.

The study assessed the communication channels through which public awareness messages related to handwashing were disseminated. It assessed the clarity and understanding of the public regarding these awareness messages, handwashing behavior during Covid-19 and the barriers to handwashing behavior.

The dissemination of PAMs reached the intended audience during the Covid-19. Respondents (98%) received these messages. The range of receiving these messages in a fortnight is from 132 to 4 times (average of 6 messages per day). Those who did receive such messages were largely from rural areas. All respondents from Islamabad, AJK and GB received these PAMs, disseminated through various means/channels. The top three sources are social media, TV, and personal networking with family, friends and neighbors. Public announcements, leaflets, newspaper advertisements, and billboard were the least common sources for communicating PAMs. People generally perceived their social networks and health agencies as trustworthy sources of information. Religious and community leaders were found to be least effective in disseminating awareness messages. Only 5% respondents received awareness messages from mosque imams. There is a space to sensitize and guide these imams to play their role. Government key departments like local government, social welfare department, welfare organization and NGOs can play significant role in the sensitization of these important sources.

Most respondents (89%) found PAMs clear and timely and vastly increased the awareness and sensitization of the general public. However, PAMS were not clear to most respondents from rural areas. The reasons for not understanding the messages were their frequency, poor pictorial quality, too busy to read or listen, not relevant, font too small, language unfamiliar and illiteracy, etc. Respondents (85%) termed hand hygiene important in avoiding the spread of Covid-19 virus and the disease(s) the virus can cause. Only 3% respondents did not know about the importance of handwashing and hand hygiene.

People are washing hands differently. Some are using water with soap, others sanitizers and some the conventional method of using ash or mud with water for handwashing. Majority of the respondents (84%) are using water and soap, followed 11% sanitizer, and 4% just water for handwashing purpose, with most of them from rural areas.

People are using different types of water for handwashing – pipe water (72%), hand pump (34%) and bucket water (30%). Some respondents also reported use of well, tube-well and spring water for handwashing. It was found the source of water impacted the washing behavior with soap or sanitizer or both. The use of soap/sanitizer registered decrease if people have access to traditional water source /not-tap or pipe water. The use of “ash or mud or water- only” is common with respondents from rural areas with access to traditional water sources like bucket and spring water. In terms of handwashing time, majority of the respondents washed hands for 20 or more than 20 seconds. However, 93% respondents reported guessing the washing time. The key timings of handwashing reported by respondents align with the timing suggested by hygiene professionals and PAMs.

PAMs dissemination is effective in terms of changing handwashing behavior during the Covid-19. Respondents (86%) reported changing handwashing behavior after they received PAMs. Only 8%

respondents reported not changing handwashing behavior. The rest were not sure if they have changed or not handwashing behavior.

The change of handwashing behavior inside and outside home is greatly linked with the literacy level. We found a positive correlation between the literacy level and change of handwashing behavior. People living in urban areas and belonging to middle and above classes are more likely to change handwashing behavior.

Some of the key barriers to handwashing include unavailability of soap, expensive soap, other priority for using soap (bathing, laundry), unreliable water supply, lack of clean water, and lack of or damaged handwashing station. Compliance of SoPs to restrict the spread of Covid-19 virus is affected by the lack of awareness, lack of knowing the importance of hand hygiene, rumor about the virus not real, the social norms of attending certain ceremonies/large gatherings like weddings/funerals, and the social norm of shaking hands.

The use of electronic and social media is more compared to print media in disseminating PAMs. Religious leaders are effective in disseminating and increasing awareness but currently they are underutilized. Dissemination of public awareness messages in local language is understandable and likely to be acted upon. Introducing innovation in designing and disseminating PAMs seems more effective and interesting to public. Robust coordination among the agencies preparing public awareness messages is required in order to bring harmony into the content and the purpose of these messages. Better socio-economic conditions, including education level of the head of household and respondents, contribute to adopting hand hygiene principles/practices.

1. INTRODUCTION AND BACKGROUND

1.1 Coronavirus disease and initial government response

The first case of Covid-19 was identified in Pakistan on February 26, 2020. This report calls the time before this data as Pre-Covid and the time from Feb 26 onwards as during the Covid. Since Feb 26, the government of Pakistan initiated various containment measures, including procuring essential supplies, equipment and medicine, upgrading health infrastructure, training medical personnel, along with public awareness. Other measures included prohibiting promotional activities or events, closing educational institutions, canceling international flights, and delayed the National Assembly sessions for some time and imposed lockdown across Pakistan.

Pakistan is considered a high-risk country for rapid spread of Covid-19 because of its vulnerable public health system, underdeveloped sanitation and other infrastructure, and densely populated urban and semi-urban areas.

Pakistan has signed the South Asian Association for Regional Cooperation (SAARC) Covid-19 response joint plan, which calls for the countries to work together to implement containment and surveillance measures. In addition, Pakistan pledged \$3 million to the SAARC Covid-19 Emergency Fund¹.

On 23 April 2020, the government launched Pakistan's Preparedness and Response Plan (PPRP) in a bid to mitigate the spread of Covid-19. The Response Plan, worth \$ 595 million, is intended to strengthen Pakistan's capacity in emergency prevention, preparedness, response, relief and build health systems for a period of 9 months from April to December 2020. Public awareness including handwashing was one of the key objectives of PPRP.

Further, the government, with support from international and national humanitarian and development partners, responded to the pandemic by strengthening response coordination, case management, disease surveillance, testing services in laboratories, strengthening health systems, and community mobilization, sensitization and empowerment to cope with the negative impact of the Covid-19. To mitigate the impact of the disruption of daily life, it took a number of initiatives, including a cash disbursement of \$80-\$82 per month to 12 million families through the Pakistan social protection programme (Ehsaas). Although early protective measures taken by the government resulted in containing the spread of the infection in the early weeks of the pandemic, a steady increase has been recorded in the notified cases since mid-March (UNOCHA and www.covid.gov.pk).

The government also has established a Covid-19 Relief Fund. Social network helplines were launched by the government in seven (07) local languages. Communication Task Force Balochistan with the support of UNHCR has developed IEC material in Dari and Pashto languages.

1.2 Epidemiology of Covid-19

The Covid-19 was first notified on 31 December 2019 in Wuhan City, Hubei province of China. Thereafter, it has affected the entire world including Pakistan. Initially the virus was named as "Novel Corona Virus (2019-nCoV)" but now called "Severe Acute Respiratory Syndrome Corona Virus-2 (SARS COV-2). WHO declared the disease as pandemic on 11 March 2020 (M. Saqlain, April 2020).

The first two cases of Covid-19 in Pakistan were notified on 26 February 2020. One case was notified in Karachi while the other was reported in Islamabad. The outbreak has now spread to all provinces and

¹ <https://www.theweek.in/news/world/2020/04/09/after-holding-out-pakistan-pledges-3-million-to-saarc-Covid-19-emergency-fund.html> (wed site accessed on June 5, 2020 at 12:20 p.m. PST).

regions of Pakistan. On 5 June 2020, Pakistan reported over 89, 249 total cases, along with 56,213 active cases, 1,838 deaths, and 31,198 recoveries (see www.covid.gov.pk for real time figures). The most affected province is Sindh, followed by Punjab, Khyber Pakhtunkhwa, Balochistan, ICT, GB and AJK.

In Pakistan, males (75%) have been affected more than females (25%). The most affected age group ranges from 20 to 49 years (45%). In Pakistan, only 28% of the affected population is over 50 years of age. Over 115 districts have reported at least one case of Covid-19 (PPRP for Covid-19).

Due to the huge multidimensional impacts of the virus, it has been considered an emergency beyond public health. UN Secretary General António Guterres said, “Covid-19 pandemic is a public health emergency — but it is far more. It is an economic crisis. A social crisis. And a human crisis that is fast becoming a human rights crisis.”

1.3 Importance of Handwashing in Pandemics

Handwashing is an easy, cheap, and effective way to prevent the spread of germs and keep children and adults healthy. It is the most important and first step to avoid the spread of disease. Teaching and motivating people about handwashing helps them and their community to stay healthy and strong. Therefore, it is important that people wash their hands properly and frequently to reduce the transmission of diseases.

Washing hands in health care facilities are particularly important. Cleaning hands at the right times and in the right way plays a central role in controlling the spread of any infectious disease like Covid-19. WHO also prepared guidelines on hand hygiene for health care support facilities.

According to the Centre for Disease Control and Prevention, handwashing with soap is not only simple and inexpensive, but it can also dramatically reduce the number of people who get sick. Teaching people about handwashing helps them and their communities stay healthy. Handwashing promotion in the community can reduce the number of people who get sick, reduces absenteeism due to illness in schoolchildren, reduce diarrheal illness in people with weakened immune systems, and reduce respiratory illnesses, like colds, in the general population.

Good handwashing practice remains one of the critical behaviors (along with physical distancing, respiratory hygiene, cleaning of frequently-touched surfaces, and quarantine/ self-isolation) to prevent the spread of Covid-19.

Keeping this paramount importance in mind, Water Aid is doing this research through third party to assess the level of knowledge of people, the degree to which they practice handwashing during Covid-19 time, the barriers which negatively affect hand hygiene behavior of the people.

This report specifically talks of the hand hygiene in the context of Covid-19.

1.4 Research Background/ Context

Handwashing with soap is one of the critical behaviors being promoted to reduce the risk of transmission during the Covid-19 pandemic. The pandemic has triggered renewed global attention on handwashing – both at home and when people are outside in public places². Handwashing with soap is being promoted on a huge scale through mass/social media campaigns and other channels. Governments and donors have supported the installation of handwashing facilities on a scale previously unseen. However, there is a lack of real-time information on how messages are received and understood by different groups, what factors

² WHO interim recommendation (1st April 2020) that member states should provide universal access to public hand hygiene stations and make their use obligatory, on entering and leaving any public or private commercial building and public transport facility, as well as improved access in all health-care facilities

may be driving behavior change, and what barriers may prevent good hand hygiene being adopted in different contexts.

This information is critical as the efficacy and sustainability of good hand hygiene will have a major impact on how well the first wave of Covid-19 transmission is contained and the resilience in preparing for future waves of this pandemic (and other diseases). WaterAid wants to use the current momentum in handwashing with soap and increase in facilities to radically change practice and access, so that routine handwashing at home and away becomes the new norm.

1.5 Research Objectives

The broad purpose is a rapid assessment of changes in handwashing practice during Covid-19. The specific aim is to answer the following evaluation/research questions.

1. *Communication channels*
 - a. Have people received messages relating to handwashing (since the Covid-19 pandemic began)?
 - b. From where did the people receive these messages?
2. *Content analysis*
 - a. How are these messages understood? To what degree the recipients understood the messages?
 - b. To what extent the understanding of the messages is different/same among different segments of the population?
3. *Motivation*
 - a. What are some of the factors that cause people to change their hand hygiene?
 - b. What is the current practice in different socioeconomic situations?
4. *Barriers*
 - a. What factors limit people's ability to adopt good hand hygiene at home?
 - b. What factors limit people's ability to adopt good hand hygiene at public places?

1.6 Scope of research/study

For this rapid assessment, primary data was collected from all provinces of Pakistan including Islamabad, GB and AJK. Keeping in view the lockdown because of Covid-19 and to ensure the safety of both respondents and data collectors/researchers, the primary data (quantitative and qualitative) was collected through telephone. The secondary data was collected from the published research through internet.

Data was collected from 601 respondents (see subsequent section for details) through administration of HH survey and primary qualitative data was collected through 13 KIIs (list is attached as Annex-1). Six of the KIIs were conducted with representatives of local government, five with local NGOs, and one each with FATA Research Center and the Capital Development Authority (CDA).

1.7 Sampling methodology

The sample design includes the determination of target population, selection of an appropriate sampling frame, representative sample size, and allocation of sample size in the seven regions of Pakistan. All households in Pakistan were the sample universe for our study.

APEX used the list of more than two million randomly selected households from previous surveys of five years across Pakistan. The households for most of these surveys are sampled from the sampling frame of Pakistan Bureau of Statistics (PBS).

Based upon 95% confidence level, unknown prevalence 50%, design effect and non-response of 1.5%, an estimated sample of 576 households were selected. These statistical parameters make our sample a representative sample at national level. After provincial and regional allocations, the total sample was 601 respondents.

1.7.1 Provinces wise Allocation of Sample Size

The sample size of 576 households was proportionately allocated. For this the official statistics of total population, according to 2017 census, was used. Using the proportion of no. of households in each targeted province as measure of size, the overall sample size was allocated. Following steps describes the sampling approach in detail.

- Calculating proportion of initially allocated sample size of households from each province (column E in Table 1);
- Taking square root (SQRT) of this proportion (column F)
- Taking proportion of square root value (column G);
- Total sample of households (576) allocated as per proportion of square root (column H);
- This sample size further adjusted with rounded figures. Consequently, the final sample size increased up to 600. (Column I)

Distribution of Sample Size

Table 1: Distribution of Sample Size by province

A	B	C	D	E	F	G	H	I	J
Provinces	Total Population	Proportion of Population (%)	Sample Size based on Proportion of Total Population	Proportion of Sample based on Total Population	SQRT of Proportion	Proportion of SQRT	Sample as per Proportion of SQRT	Adjusted Sample Size	Sample size achieved during the survey
Punjab	110,012,442	53	303	0.53	0.73	0.34	194	200	200
Sindh	47,886,051	23	132	0.23	0.48	0.22	128	130	131
Balochistan	12,344,408	6	34	0.06	0.24	0.11	65	70	70
KP	31,763,371	15	87	0.15	0.39	0.18	104	105	105
GB	1,240,000	1	3	0.01	0.08	0.04	21	25	25
AJK	4,045,000	2	11	0.02	0.14	0.06	37	40	40
Islamabad	2,006,572	1	6	0.01	0.10	0.05	26	30	30
Total	209,297,844	100	576	1	2	1	576	600	601

Following is the key distribution of 601 sample size.

- Seven provinces/regions reached
- Total 564 males; 36 females and 1 transgender part of the sample
- 367 respondents were from rural areas while 198 belonged to urban areas and 36 belonged to urban slum areas

1.8 Analysis Methodology

This research study is based on a mixed method of primary and secondary data. The primary data consists of both qualitative and quantitative. We adopted the following methodologies for the analysis of quantitative and qualitative data.

1.8.1 Quantitate data analysis

Quantitative data was analyzed in SPSS mainly through descriptive statistics of cross tabulation by province, multi-response analysis, frequency and percentages. Where relevant, we triangulated our findings with the findings from qualitative research and secondary/published data. Some of the key variables like age and monthly household income was converted to different categories through SPSS visual binning procedure. We also visualized some of the key findings through graphs.

1.8.2 Qualitative data analysis

The analysis of the qualitative data comprised the following steps.

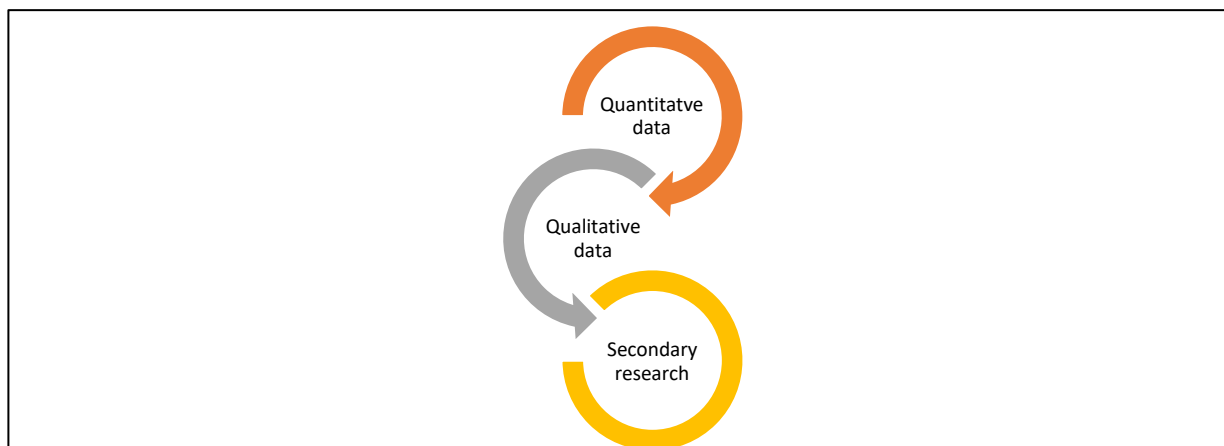
- Identification of relevant stakeholders
- Development of interview topic guides
- Interviews
- Identification of key responses and themes to each interview question
- Summarized responses in the Qualitative Coding Framework (QCF)
- Comparison of the findings from KIIs with the findings from secondary data and primary quantitate data. This helped in the triangulating the findings.
- Interpretation of the findings

1.8.3 Triangulation

Effort was made to triangulate the findings. Different data sources like surveys, KIIs and secondary research were used. Following figure shows our triangulation approach.

Please see Annex-2 for additional details of the adopted methodology.

Figure 1: Triangulation Approach



1.9 Research Ethics

We applied different social science research ethics. The key research ethics which we applied include (non-exhaustive) the anonymity of the respondents, independence/impartiality, taking consent of the research participants, voluntary participation of the research participants, ensured respects and dignity of the research participants, quoted the references of secondary sources, avoided discrimination on the bases of sex, ethnicity etc during data collection, analysis and reporting and we weighted responses equally, removed identifiers like names and addresses from the data sets, avoided harms to the participants and data, restricted ourselves to the objectives of the study/research, all of the research team members disclosed no-conflict-of-interest and the research team followed the government adopted SOPs developed for Covid-19 pandemic etc.

1.10 Limitation of the study

As lockdown hampered mobility, all interviews were done remotely through phone. We might have collected some deep insights should we have done these interviews in person. We mitigated this limitation by triangulating the findings from different sources.

- We hardly find good secondary research, especially related to hand hygiene and handwashing during the Covid-19 in the context of Pakistan. This is because a lot of organizations and professionals are working on key aspects of the Covid-19 and their findings are yet to be published. This limitation was mitigated by looking into most updated data from the government, international development agencies and World Bank etc. (Please see Annex-5).
- We advise all readers and users of this research study to be careful about general extrapolation of the results as female respondents are just 6% of the total respondents. The household survey could be conducted with only 36 females. This is due to the fact that mostly females don't have cellphones registered in their name. Usually the male member of the household purchases the SIM-Card against their National Identity Card number. Those who have cellphone SIMS registered in their name were not accessible and as a cultural aspect usually females do not answer calls from strangers.

2. RESPONDENTS DEMOGRAPHICS

2.1 Province wise distribution of respondents

We interviewed 601 respondents in 139 districts of Punjab, Balochistan, Sindh, Khyber Pakhtunkhwa, GB, Islamabad and AJK. Overall, 33% respondents were from Punjab, followed by 22% from Sindh, 17% from Khyber Pakhtunkhwa, 12% from Balochistan, 7% from AJK, 4% from GB and 5% from Islamabad. We administered the household tool in 139 districts (list of districts attached as Annex-3). This makes our sample representative at district level as we have covered more than 80% of the districts in each province and region.

Geographically 61% respondents (367 out of 601) were from rural and 33% (198 out of 601) from urban areas while 6% (36 out of 601) belonged to urban-slum areas. The World Bank and the 2017 population census found similar distribution of 63% people living in Pakistan's rural areas.

Table 2: Province wise distribution of respondents

Province	Total respondents	% allocation of respondents	No. of districts included in the sample	% of overall population of Pakistan ³
Punjab	200	33%	36	53
Sindh	131	22%	24	23
KP	105	17%	31	15
Balochistan	70	12%	27	6
AJK	40	7%	11	Not available
GB	25	4%	9	Not available
Islamabad	30	5%	1	1
Total	601	100%	139	

2.2 Gender wise distribution of the respondents

Respondents (94%, 564 out of 601) were male and 6% were females. One of the respondents was transgender. All respondents from Islamabad were male.

Table 3: Distribution of respondents by gender

Province	Gender			Total
	Male	Female	Transgender	
Punjab	183	16	1	200
Sindh	124	7	0	131
KP	104	1	0	105
Balochistan	70	0	0	70
AJK	32	8	0	40
GB	21	4	0	25
Islamabad	30	0	0	30
Total	564	36	1	601

2.3 Age wise Distribution of the Respondents

A little more than one-third of respondents (38%) were 19-32 years old, followed by 46% and 11% in the 33-46 and 47-60 years' age categories. Only 2% respondents were more than 61 years old.

Table 4: Distribution of respondents by Age

Province	Age in years					Total
	18	19 - 32	33 – 46	47 – 60	61+	
Punjab	8	81	91	15	5	200
Sindh	0	52	69	10	0	131
KP	3	41	40	19	2	105
Balochistan	0	20	43	7	0	70
AJK	0	20	10	6	4	40
GB	0	8	9	8	0	25
Islamabad	2	8	15	4	1	30
Total	13	230	277	69	12	601

2.4 Occupation of the respondents

A little more than half (54%) of the respondents were private employees, farmers and non-skilled workers. The remaining 46% were government employees, drivers, masons, mechanics and housewives. Respondents (3%) refused to answer the question regarding their occupation.

The distribution of our sample makes the findings diverse. We are reasonably confident that the findings are applicable to different types of people.

Table 5: Occupation of the respondents

Province	Punjab	Sindh	KP	Balochistan	AJK	GB	Islamabad	Total
Private employees	24	33	10	11	9	4	8	99
Farmer	43	13	8	18	3	1	0	86
Others	41	4	19	0	3	5	7	79
Non-skilled worker	21	14	25	4	0	1	0	65
Government employees	9	8	9	19	9	6	4	64
Other skilled worker	15	21	5	6	0	2	1	50
Driver	5	18	14	4	5	2	1	49
Masson	20	2	6	0	1	1	4	34
Mechanic	9	9	5	5	4	1	0	33
Housewife	7	6	1	0	6	2	0	22
Refuse to answer	6	3	3	3	0	0	5	20
Total	200	131	105	70	40	25	30	601

2.5 Education level of the respondents

Respondents (19%) had no formal education while 11% and 16% studied up to the primary and tenth grade (matriculation) respectively. A little more than one-fourth respondents (28%) had intermediate and above education.

Overall 43% respondents (257 out of 601) have primary or lower than primary education. This shows respondents are quite marginalized. About 36% of them are from Punjab, followed by 20% each in Sindh and Khyber Pakhtunkhwa, 16% Balochistan, 14% AJK, 11% GB and 3% are from Islamabad. Overall, 81% (487 out of 601-by excluding the 114 respondents who have no formal education) of the respondents were literate. This is much more than the national literacy level of 57% for 2019 (UNDP Human Development Report, 2019; Pakistan Education Status).

Table 6: Literacy and education level of the respondents

Literacy and education level of the respondents	Punjab	Sindh	KP	Balochistan	AJK	GB	Islamabad	Total
No formal education	28	25	35	16	5	2	3	114
Matriculate	34	24	20	3	3	3	8	95
Primary	46	11	11	6	5	2	4	85
Middle pass	32	15	11	8	5	4	2	77
Intermediate	22	14	8	15	4	1	5	69
Graduate	14	18	5	11	5	7	3	63
Lower primary	18	15	6	9	7	2	1	58
Master's	5	8	9	2	6	3	3	36
Other	1	1	0	0	0	1	1	4
Total	200	131	105	70	40	25	30	601

2.6 Monthly household income of respondents

We collected the household monthly income through continuous variable as this allows us to do variety of analysis. We created five income categories and generated cross tab by province with SPSS visual binning procedure.

One-fourth of respondents (24%) belonged to the bottom of the five income groups earning less than or equal to PKR 10000 a month while 21% were in the fourth group earning between PKR 10000-15000 a month. With monthly income between PKR 15001-20000, 18% respondents were in the third group. Those earning between PKR 20001-30000 and more than PKR 30000 were in the fourth (21%) and fifth (15%) groups.

Overall 63% respondents (380 out of 601) belonged to the bottom three groups. They represent middle class. Among these 380 respondents, 80 were from Islamabad, 74 Khyber Pakhtunkhwa, 70 AJK, 67 Sindh, 62 Punjab, 56 GB and 44 from Balochistan.

Table 7: Respondents' monthly average HH income

Province	Monthly HH Income (PKR)					Total
	<= 10000	10001 - 15000	15001 - 20000	20001 - 30000	+30001	
Punjab	43	46	34	49	28	200
Sindh	37	14	30	41	9	131
KP	26	36	17	13	13	105
Balochistan	14	8	9	14	25	70
AJK	12	11	5	5	7	40
GB	5	5	4	3	8	25
Islamabad	5	9	10	4	2	30
Total	142	129	109	129	92	601
% of column	24	21	18	21	15	100

2.7 Disability among participants

We used the Washington Group Short Set (WGSS) of Questions on Disability to measure the disability status of the respondents, who were given four mutually exclusive options of:

1. No - no difficulty
2. Yes – some difficulty
3. Yes – a lot of difficulty
4. Cannot do at all

Respondents (93%) shared they have no disability at all. About 7% reported some sort of disability (see subsequent section for detail and type of disability). None of the respondents from AJK reported disability.

Majority of the disable respondents are from Sindh (53%;), followed by KPK (26%; 11 out of 43), Punjab (12%; 5 out of 43), GB (5%; 2 out of 43) and Islamabad (2%; 1 out of 43). Overall, the percentage of disabled persons in our sample exceeds the national disable ratio of 0.48% (Census 2017, Pakistan). We asked for six different types of disabilities. Please see section below for details.

Table 8: Disability presence in respondents

Province	Respondents disability status		Total
	Yes	No	
Sindh	23	108	131
KP	11	94	105
Punjab	5	195	200
GB	2	23	25
Islamabad	1	29	30
Balochistan	1	69	70
AJK		40	40
Total	43	558	601

Following graph shows the summary of the respondents' disabilities. Overall, the disability related to seeing is more common. It is followed by communication, walking/climbing, memory, hearing and self-care. Majority of these participants are having these disabilities at "some difficulty" level followed by "a lot of difficulty". The difficulty at "cannot do all" is present in the sampled respondents but at exceptional level.

Figure 3: Summary and intensity of the disability

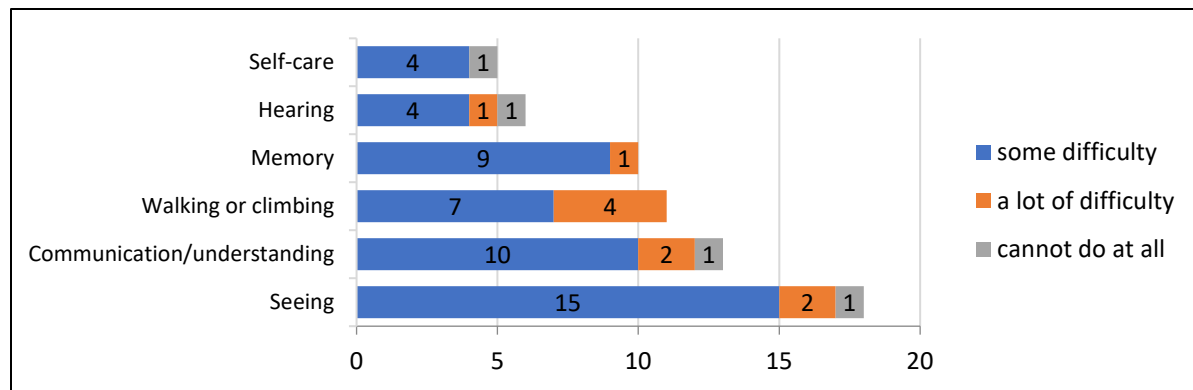
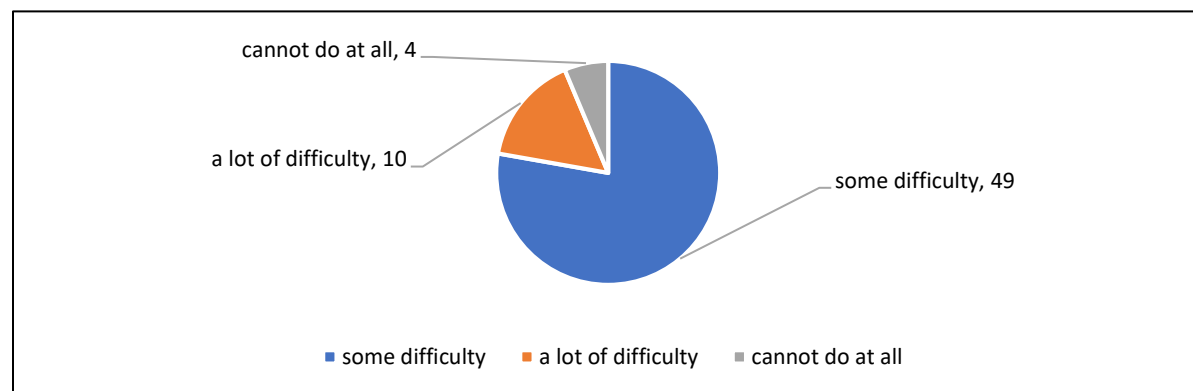


Figure 2: Intensity of the four levels of disabilities



Please see annex-4 for details regarding disability of respondents.

3. MAIN FINDINGS RELATED TO HANDWASHING

3.1 Receiving of PAMs Especially Related to Hand Hygiene and Handwashing

Dissemination, communication and receiving of PAMs in any emergency and pandemic plays a pivotal role in raising awareness, reducing the negative consequences of the emergency and spreading (in case of medical emergencies) the disease. Different actors play design, publish and disseminate these messages. Nine respondents did not answer this question. Of the remaining 592 respondents, an overwhelming 98% received PAMs from different sources. Only 11 or 2% respondents did not receive such messages. Of them, eight were from rural areas. All respondents in AJK, Islamabad and GB confirmed receiving messages regarding hand hygiene and handwashing.

Table 9: Seeing, hearing, receiving PAMs related to Handwashing

Province	Have you seen or heard any messages about washing your hands in the past 15 days?		Total
	Yes	No	
Punjab	195	3	198
Sindh	127	3	130
KP	101	3	104
Balochistan	66	2	68
AJK	37	0	37
GB	25	0	25
Islamabad	30	0	30
Total	581	11	592

Table below shows the medium of message being delivered or disseminated to the public. The total row in table shows the number of cases, whereas the value in each cell under the province shows the number of responses any respondent shared during the survey. Messages were received through a combination of mediums. The top three sources in descending order are social media, TV, and personal networking with family, friends and neighbors. Public announcement, leaflets and billboard were the least common source for communicating PAMs.

Similar results were found during qualitative research. The respondents mentioned social media, TV, personal networking, and local government as key sources of communicating messages to public.

We triangulated this finding through secondary source. According to Mamdooh et al. (April 2020), the Covid-19 has seen a focus of education and information on handwashing aimed both at people working within the health sector and the general public. There has been a proliferation of public health messages through various sources about the importance of handwashing, and the correct technique for handwashing. Memes and short videos aimed at reaching people on their handheld devices, as well as through social media, and mainstream television, radio, print ads and billboards have been employed, with the same message that effective handwashing is crucial to stopping the spread of Covid-19.

Religious leaders like imams can play a central role in communicating PAMs. However, only 30 respondents (5%) received such messages from this important but underutilized source. Currently the role of religious leaders in promoting handwashing is not high. However, when they are involved in disseminating such messages, people listen. Significant space exists to sensitize religious leaders in helping the community and public in pandemic like Covid-19. Few respondents of qualitative research/KIIs

talked about religious leaders who communicated such messages, adding that these people can be an important and influential source in raising awareness through PAMs.

Covid response program designers and other implementing organizations can work with religious leaders to sensitize them for playing their role in helping and raising community awareness. This will help the public, reducing the negative impacts of the pandemic, and ultimately enhance the relevance and effectiveness of the response programs.

“There are a few clerics who played a positive role in promoting handwashing practices. But others have declared it as a conspiracy. Ulema can play a vital role in making people practice hygienic life. They have a strong societal influence. Tableeghi Jamaat, a religious outfit, can mobilize people for hygienic practices”, (a KII respondent).

Table 10: Medium of dissemination of PAMs

PAM received from	Province							Total
	Punjab	Sindh	KP	Balochistan	AJK	GB	Islamabad	
Social media	146	94	88	58	9	31	4	430
TV	168	76	50	36	27	17	29	403
Family / friend / neighbor	111	71	74	36	18	11	14	335
Local Government	19	14	5	1	1	14	1	55
Employer	10	27	5	0	6	2	2	52
Religious leader	13	16	19	0	0	3	0	51
Radio	0	11	8	1	1	23	0	44
Community leader	4	26	8	0	0	1	0	39
Newspaper	4	8	4	6	1	9	0	32
Religious place like mosque	17	4	5	0	0	4	0	30
Public announcement)	10	3	1	0	0	1	0	15
Leaflet	0	4	0	0	0	6	0	10
Billboard or poster	3	3	0	0	0	0	0	6
Total	505	357	267	138	63	122	50	1502

The channel of PAM dissemination was correlated with the income group. In this regard, the top three channel are social media, TV and family and friends. However, the order of these channels is different for different groups of respondents based on income. We see a relationship between the income and possibility of the message being delivered to them through a particular dissemination channel. From bottom and for first two categories, the dissemination channels are TV, personal network and social media. From top, the three income groups' respondents are receiving the message from same channels - social media, TV, and personal network.

This finding confirms that phone with internet, smartphones, are more likely accessible to top of the pyramids. It further shows TV is the top source of message dissemination to the bottom two groups but it is the second source for the top three segments of the population. Family network is the third medium for the higher income segments of the population.

Similar results were found with regards to message receiving channel and literacy level. For lower education respondents, personal network, followed by TV and social media, are the key message dissemination channels. For respondents with matriculation and above education, social media is the key channel, followed by TV and personal network. The cross tabs with income and education levels confirm

each other as rich people with smartphones are more educated than the lower class. The order of medium of message disseminator is same for income and education categories of the respondents. However, TV appeared as second top channel for both groups of respondents on the education level.

Medium/income level	<= 10000	10001 - 15000	15001 - 20000	20001 - 30000	30001+
First medium	TV	TV	Social media	Social media	Social media
Second medium	Family/friends/neighbors	Family/friends/neighbors	TV	TV	TV
Third medium	Social media	Social media	Family/friends/neighbors	Family/friends/neighbors	Family/friends/neighbors
Medium/education level	Up to middle level education			Matric and above	
First medium	Family/personal network			Social media	
Second medium	TV			TV	
Third medium	Social media			Family/personal network	

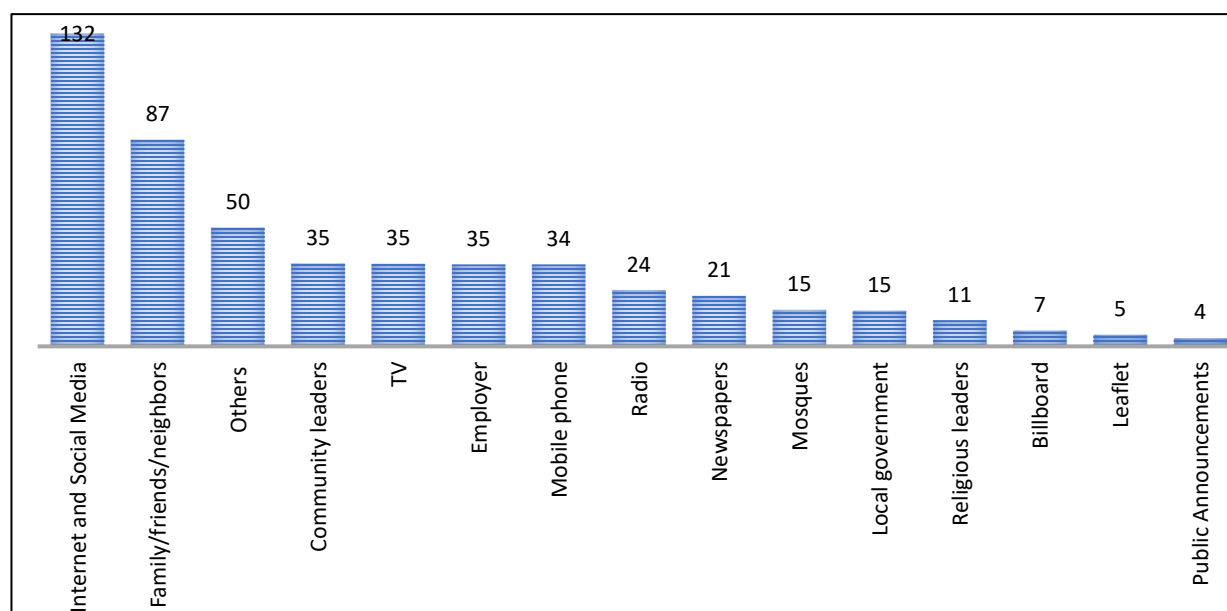
Figure 4: Sample of handwashing stations and some PAMs by Water Aid UK in Pakistan



3.2 Frequency of message received in last 15 days

The number of messages disseminated by each medium is another important indicator for increasing awareness. The repetitive dissemination of the message usually compels the recipient to think of the message, understand content and follow it. Thus repetitions can help in changing behavior. On average a respondent received PAMs 132 times in the last 15 days through internet and social media (9 messages per day), followed by 87 messages (6 per day) through personal networking. This shows the use of social media and personal networking can play important role in disseminating awareness in emergencies like Covid-19.

Figure 5: Average number of receiving PAMs in the last 15 days



3.3 Clarity of the PAMs related to handwashing

It is important the recipients understand and comprehend the messages delivered to them. This comprehension was gauged through three categorical categories of clearly understood, partly understood, and unclear or confusing. The messages were clearly understood by 89% respondents while 9% said they were only partly clear. Only 2% respondents termed the messages either not clear or confusing, 3% refused to answer the question.

Respondents shared reasons why message was not clear to them. These included the frequency of message was too much as they did not concentrate, quality of the pictorial message was poor, too busy to read or listen to the message, message not relevant, font too small, blind or partially sighted, unfamiliar language, unable to read due to illiteracy, etc.

Majority of these 2% respondents were from Punjab and Khyber Pakhtunkhwa. None of the respondents from Sindh, Balochistan, GB, AJK and Islamabad found the message unclear or confusing. All respondents from Islamabad said the message was completely clear to them. This confirms the good literacy level and other socio-economics conditions of the respondents from Islamabad.

Children can get the message effectively if they are shown through Cartoon characters. The respondent further said, "upper class is educated and takes the message quite seriously, while the lower class despite understanding the message takes it lightly (qualitative research)"

The clarity of PAMs is clearer to urban participants. For example, 51 out of 64 (80%) respondents who shared the message was partly clear or unclear were from rural areas. The future Covid-19 response programs and other programs focusing on PAMs should design comparatively easy to understand messages such as in the form of pictures and videos and in local languages.

Table 11: Clarity level of the message to respondents

Province	In your opinion, was the message(s) clear?				Total
	Clearly understood	Partly clear	Unclear/ Confusing	Other	
Punjab	166	21	7	1	195
Sindh	113	14	0	0	127
KP	89	8	3	1	101
Balochistan	62	4	0	0	66
AJK	33	4	0	0	37
GB	24	1	0	0	25
Islamabad	30	0	0	0	30
Total	517	52	10	2	581

Qualitative data also confirms this finding. Respondents (11 out of 13) said the message was clear and relevant to the need of the time, adding messages are in local and national languages and people discuss them with each other and with family members. One of the KIIs talked about official alerts and call centers through ringtones as PAMs communicator.

“As far as time is concerned, I presume it was on time. When the campaign started, there were very less number of people affected with Covid-19. But people were not serious. Some religious people may have sent wrong messages. Then there were rumors and conspiracy theories spread among people which could have negatively impacted the message of keeping safe against Covid-19.”

3.4 Importance of Hand Hygiene/Handwashing amongst the Participants

Importance of hand hygiene was clear to most of the respondents. All respondents answered this question. Respondents (85%) termed hand hygiene important in avoiding the spread of Covid-19 and the disease(s) the virus can cause. All respondents from Islamabad and AJK pointed out hand hygiene as prevention against the virus. The literacy rate is good in Islamabad and AJK compared to other provinces (Abdul Rehman et al., 2015). This is probably the reason⁴ all respondents from Islamabad and AJK are aware of the role of handwashing in avoiding the spread of Covid-19. About 12% respondents reported hand hygiene and handwashing important for overall personal hygiene. Only 3% respondents were not aware of the importance of handwashing and hand hygiene. Majority of these 21 respondents were from Balochistan (9), followed by five each Punjab and AJK and one respondent each from Sindh and Khyber Pakhtunkhwa.

PROVINCE WISE LITERACY RATE IN PAKISTAN (%)	
ISLAMABAD	96
AJK	70
GB	66
PUNJAB	61
SINDH	56
KHYBER PAKHTUNKHWA	53
BALUCHISTAN	43

⁴ Other factors like income level, access to information, access to services, cultural factors etc. also play important role but this is beyond the scope of this research study to link and determine this association of these factors with improved hand hygiene.

Table 12: Understanding importance of handwashing

Province	Why Handwashing is Important (in the Current Context)?			Total
	Prevent Covid virus (“disease”) spreading	Cleanliness/ personal hygiene	Not sure	
Punjab	174	21	5	200
Sindh	98	32	1	131
KP	94	10	1	105
Balochistan	59	2	9	70
AJK	35	0	5	40
GB	20	5	0	25
Islamabad	30	0	0	30
Total	510	70	21	601

3.5 Handwashing Behavior

People are washing hands differently. Some are using water with soap, some are using sanitizers and some are using the conventional method of using ash or mud with water for handwashing. However, in our qualitative research, none of the respondents mentioned the conventional method of handwashing with ash or mud. Therefore it did not factor in our triangulation. But we do have evidences from secondary resources that people in low income communities in developing countries do use soil, mud or ash as an alternative to soap (see Bloomfield S. F and Nath K.J., 2009).

Majority of the respondents (84%) are using water and soap, followed by 11% using sanitizer. Only 4% respondents are using just water for handwashing – most of them are from rural areas. Only three respondents – one each from Punjab, Sindh, and Khyber Pakhtunkhwa – were using water, ash and mud for handwashing. All three respondents did not possess any formal education.

Table 13: Hand washing with use of different material

Province	What are you using for washing your hands?				Total
	Using water and soap	Using sanitizer gel	Using water and ash/ mud	Using water only	
Punjab	186	5	1	8	200
Sindh	101	24	1	5	131
KP	101	3	1	0	105
Balochistan	34	30	0	6	70
AJK	35	1	0	4	40
GB	25	0	0	0	25
Islamabad	24	6	0	0	30
Total	506	69	3	23	601

Majority of the respondents are using bar soap, liquid soap, soapy water, washing powder and Dettol, etc. The respondents of qualitative research also shared these as major sources of handwashing.

Table 14: Type of Soap Used for Handwashing

Washing hands with	Province							Total
	Punjab	Sindh	KP	Balochistan	AJK	GB	Islamabad	
Bar soap	190	129	104	66	34	25	29	577
Liquid soap	36	48	18	5	12	14	8	141
Soapy water	12	27	2	1	4	0	0	46
Washing powder	9	6	3	1	0	10	0	29
Miscellaneous like water, Dettol etc.	5	1	3	2	2	0	0	13
Total responses	252	211	130	75	52	49	37	806

Respondents are using various types of water for handwashing. These include pipe water, well water, tube-well water and spring water. Respondents (72%) are using piped/tap water while 34% are using hand-pump water. A little less than one third respondents (30%) are using bucket water for handwashing. Rest of the respondents are using open well and spring water for handwashing.

Table 15: Type of water used for handwashing

Source of Water for Handwashing	Province							Total
	Punjab	Sindh	KP	Balochistan	AJK	GB	Islamabad	
Piped/tap water	141	114	62	40	28	22	27	434
Hand pump	120	54	17	3	8	0	0	202
Stored water without tap e.g. bucket water	64	47	19	18	7	21	4	180
Well	5	12	21	26	4	0	5	73
Spring	0	4	14	0	7	14	0	39
Other	0	0	1	0	0	2	0	3
Total	330	231	134	87	54	59	36	931

We also assessed if the source of water is affecting the washing behavior with soap or sanitizer or both. The type of water source does affect the handwashing behavior with soap or sanitizer or both. The use of soap/sanitizer registers decrease if people have access to traditional water source (non-tap or pipe water) and if they do not have access to pipe or tap water.

In terms of respondents' responses, majority of the respondent (58%) reported use of water and soap during handwashing followed by 26% of the respondents used sanitizer gel and 13% of the respondents reported use of water only. The use of sanitizer gel is decreasing if respondents have access to traditional water sources i.e. non-piped water. Few respondents reported the use of "water and ash/mud or water-only". The use of "ash or mud or water-only" is more common with respondents who have access to traditional water sources like bucket, spring water, and tube-well. The use of spring water is more common in rural areas. For example, 9% of the rural respondents are using spring water compared to 2% of the urban respondents.

Table 16: Handwashing behavior in relation to the water source

Handwashing at home	Type of water source						Total
	Piped/tap water	Stored water without tap e.g. bucket water	Hand pump	Well	Spring	Other	
Using water and soap	409	172	196	66	37	3	883
Using sanitizer gel	197	91	66	26	19	1	400
Using water and ash/mud	14	16	15	9	2	0	56
Using water only	73	62	55	6	8	1	205
Total	693	341	332	107	66	5	1,544

Following table shows the time of handwashing in seconds by the respondents. Majority of respondents are washing their hands for 20 or more than 20 seconds. This means majority of the respondents understand and are adopting the recommended minimum time of 20 seconds time during handwashing.

One-fourth respondents (24%) reported washing hands for less than 20 seconds. Any hygiene intervention, especially related to handwashing, should focus this aspect and communicate the minimum duration of 20 seconds for handwashing. However, 42% respondents are washing hands for 20 seconds while 34% are washing hands for more than 20 seconds. This shows PAMs delivered during the Covid-19 pandemics are clear and understandable in terms of following the minimum recommended time of 20 seconds for handwashing.

Table 17: Duration of handwashing in seconds

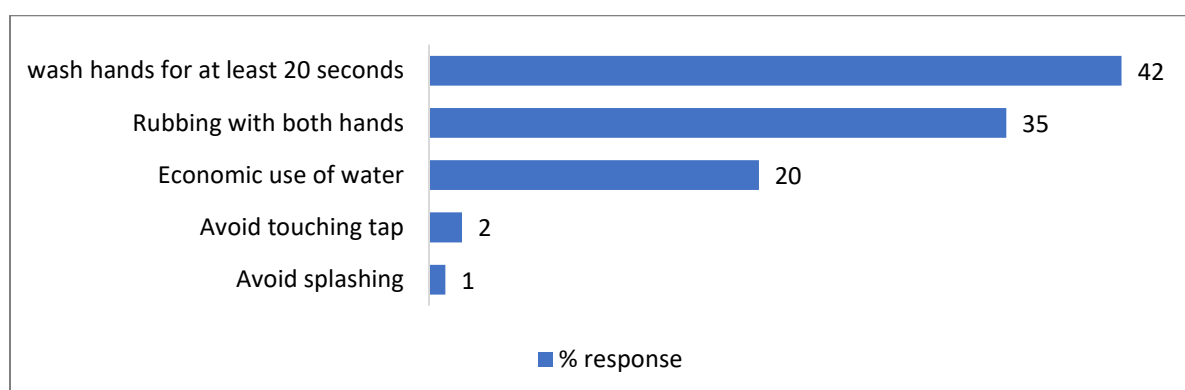
Province	Handwashing time in seconds		
	< 20 seconds	20 seconds	> 20 seconds
Punjab	48	75	77
Sindh	37	66	28
KP	27	20	58
Balochistan	8	49	13
AJK	21	9	10
GB	2	7	16
Islamabad	3	27	0
Total	146	253	202
% Total	24	42	34

As a follow up question, we asked respondents how they were checking the time of handwashing. Only 7% reported checking and noting time while washing hands. They checked time by looking at their mobiles, wrist watches, clocks at the handwashing stations and bathrooms wall, counted up to 20 in their minds and orally to ensure handwashing for 20 seconds. Rest of the respondents (93%) guessed the time without properly counting or noting it while washing hands.

Table 18: Noting time during handwashing

Province	Do you have a way of counting to check the time while washing your hands?		Total
	Yes	No	
Punjab	10	190	200
Sindh	5	126	131
KP	18	87	105
Balochistan	2	68	70
AJK	1	39	40
GB	5	20	25
Islamabad	3	27	30
Total	44 (7%)	557 (93%)	601

Regarding additional information about handwashing, majority of the respondents shared washing hands for 20 seconds, rubbing both hands, efficient use of water and avoiding or minimizing loss of water during handwashing, avoiding splashing, etc. Following chart shows the number of responses for each of these categories as additional information about handwashing.

Figure 6: Additional information respondent shared regarding handwashing

3.6 Respondents Knowledge about Proper Time of Handwashing

Our findings show that the key timing respondents reported are broadly aligned with the timing for handwashing suggested by hygiene professionals. Table below shows these important timings for handwashing. These are also aligned with the guidelines suggested by UNICEF in general and in the context of Covid-19.

Some of the key timings respondents reported for handwashing include before eating, before cooking, before feeding a child, after using toilet, when return home from outside, after coming into physical contact with a person (outside the home), after touching a surface that is likely to have been touched by others or frequently touched, after sneezing or coughing and before/ after looking after someone who is ill, etc. However, “after sneezing or coughing” and “before/after looking after a sick person” are considered by respondents as least important in terms of handwashing.

Table 19: Important timing of handwashing

Timing of Handwashing	Province							Total responses
	Punjab	Sindh	KP	Balochistan	AJK	GB	Islamabad	
Before eating	164	101	98	60	36	25	5	489
After using toilet	136	84	85	28	24	25	8	390
When return home from outside	140	99	40	36	28	14	29	386
After coming into physical contact with a person (outside the home)	61	44	35	30	8	5	20	203
Before cooking	19	40	3	9	10	13	0	94
Before feeding a child	14	62	7	0	7	4	0	94
After touching a surface that is likely to have been touched by others or frequently touched	26	27	11	14	0	2	2	82
After sneezing or coughing	31	29	7	2	0	10	0	79
Before/ After looking after someone who is ill	16	16	17	2	0	7	1	59
Total	607	502	303	181	113	105	65	1,876

Table 20: UNICEF and WHO guidelines for washing hands in context of Covid and in general situation

UNICEF and WHO Guidelines for Handwashing Timing in Context of Covid-19 and in General Situation	
Covid-19 Context	General Context
<ul style="list-style-type: none"> • After blowing your nose, coughing or sneezing • After visiting a public space, including public transportation, markets and places of worship • After touching surfaces outside of the home, including money • Before, during and after caring for a sick person • Before and after eating 	<ul style="list-style-type: none"> • After using the toilet • Before and after eating • After handling garbage • After touching animals and pets • After changing babies' diapers or helping children use the toilet • When your hands are visibly dirty
WHO guidelines for handwashing during Covid-19 in health care facilities ⁵	
<ul style="list-style-type: none"> • Before touching a patient • Before clean/aseptic procedure • After touching a patient • After touching patients' surrounding • After body fluid exposure risks 	

⁵ <https://openwho.org/courses/IPC-HH-en>

3.7 Motivation and Change of Handwashing Behavior at Home, Public Places and Health Care Facilities

3.7.1 Handwashing Behavior at Home

Respondents have changed their handwashing behavior at home. A majority of respondents (86%) reported changing behavior after receiving PAMs related to handwashing. Only 8% did not change their behavior. Whereas, 5% respondents were not sure about change in their handwashing behavior. The remaining 1% opted to not answer the question. All respondents from GB reported that they have changed handwashing behavior at home.

3.7.1.1 Association of Education Level with Handwashing Behavior

An in-depth analysis of the respondents who reported “no or don’t know” for changing their handwashing behavior at their homes was carried out. A total of 83 respondents (14%) reported “no or don’t know”. This response was compared with their literacy level. We found literacy level is affecting handwashing behavior at homes. The result (see table below) shows 56 out of the 83 respondents (68%) are those who possess middle or lower literacy level. The “non-yes” response is high for those with no-formal education at all. In other words handwashing behavior at home increases with increase in the literacy level.

This positive association of literacy and education level was triangulated with published research. The Rabbi, S.E., Dey, N.C (2013) multivariate analysis shows socio-economic factors, including **education** of household head and respondent, water availability and access to media have strong positive association with handwashing behavior. Our qualitative research also confirms this finding. Based on these triangulations, we are confident that the literacy and education contribute to the adoption and enhancement of handwashing behaviors, particularly in pandemics like Covid-19.

Table 21: Change of handwashing behavior at home

Province	Change of handwashing practice at home				Total
	Yes	No	Don’t know	Not Applicable/did not answer	
Punjab	183	10	7	0	200
Sindh	110	19	2	0	131
KP	100	2	0	3	105
Balochistan	48	7	15	0	70
AJK	30	2	6	2	40
GB	25	0	0	0	25
Islamabad	22	7	1	0	30
Total	518	47	31	5	601

Table 22: Change of handwashing behavior at home and literacy level of the respondents

Education level	Grade level	Don't know	No	Not Applicable/did not answer	Grand Total
Below middle	Lower primary	6	4	1	11
	No formal education	16	17	3	36
	Primary	3	5	1	9
Middle or above	Intermediate	3	1		4
	Masters		2		2
	Matriculate	1	10		11
	Middle pass	2	8		10
Grand Total		31	47	5	83

3.7.2 Handwashing behavior at public places and public institutions

Respondents were asked if they have changed handwashing behavior at public places and public institutions like health care facilities. Nearly two-third respondents (64%) reported they changed handwashing behavior at public places.

Table 23: Change in Handwashing behavior at public places

Province	Change in Handwashing Practice In Public Places				Total
	Yes	No	Don't know	Not Applicable/did not answer	
Punjab	129	50	8	13	200
Sindh	81	24	26	0	131
KP	82	8	4	11	105
Balochistan	35	11	24	0	70
AJK	22	9	3	6	40
GB	20	2	1	2	25
Islamabad	15	11	4	0	30
Total	384	115	70	32	601

Almost half of the respondents (47%) reported change in their handwashing behavior at health care facilities.

Table 24: Handwashing Behavior at Institutions

Province	Handwashing practice in Institutions (e.g. health-care facilities)				Total
	Yes	No	Don't know	Not Applicable/did not answer	
Punjab	73	51	25	51	200
Sindh	61	14	55	1	131
KP	66	8	5	26	105
Balochistan	33	11	25	1	70
AJK	24	9	5	2	40
GB	17	4	1	3	25
Islamabad	7	11	12	0	30
Total	281	108	128	84	601

The percentages for handwashing behavior at public and institutions places are low comparatively to the percentages at home. This is due to the limited mobility of respondents because of lockdown, fear of

getting virus, uneasy or interrupted handwashing facilities available at public places, and becoming more cautious in the time of pandemic.

Some of the important factors respondents reported for changing handwashing behavior are listed in the table below. These factors were also listed by KIIs as the motivation for the people to adopt handwashing.

Table 25: Reasons for change in handwashing behavior

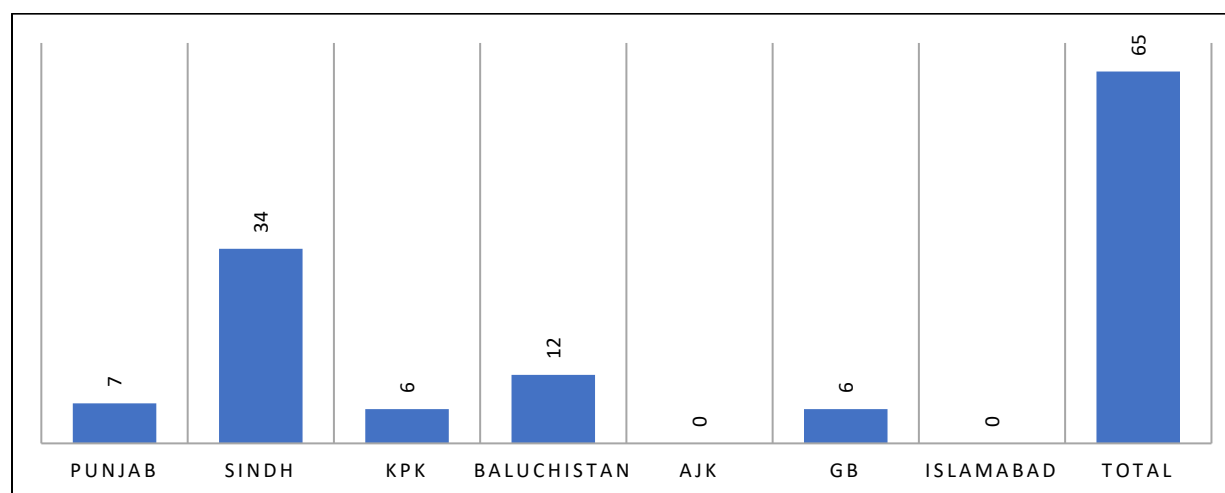
Reasons of Handwashing Behavior	Province							Total Responses
	Punjab	Sindh	KP	Balochistan	AJK	GB	Islamabad	
Fear – protect myself against Covid-19/ disease	173	111	97	48	33	25	25	512
To protect family and loved ones	113	76	65	6	22	25	25	332
Desire for cleanliness	56	64	15	5	12	16	0	168
Follow Govt, community instructions	54	40	18	1	0	19	3	135
To conform/ be respected by community or peers	5	11	1	0	0	1	0	18
Increased availability of handwashing facilities	10	11	1	0	0	4	2	28
Total	411	313	197	60	67	90	55	1193

3.7.3 Barriers to Handwashing at home and public places

Respondents (11% or 65) reported facing some barriers preventing them from washing their hands. Most of these 65 respondents were from Sindh and Balochistan. This may be due to low economic status of Sindh and Balochistan compared to Khyber Pakhtunkhwa and Punjab and rest of the Pakistan. All respondents from AJK and Islamabad reported no barriers. The situation in rest of the provinces remained the same – on average less number of respondents faced barriers in this regard.

According to World Bank (Jan 2020), in Pakistan, 94% of people from richest households have basic handwashing facilities at home; only 17% of people from the poorest households have basic handwashing facilities at homes.

Figure 7: Barriers to handwashing at homes (# of respondent said yes; n=601)



The barriers to handwashing included unavailability of soap, soap too expensive, other priority for using soap like bathing, laundry etc., unreliable water supply, water is expensive, water use is prioritized over

handwashing, lack of pipe water, lack of clean water and lack of handwashing station like basin, sink and non-functionality/damage of handwashing utensils/stations etc.

Broadly, these barriers are related to affordability and supply of materials. We triangulated the finding related to barriers through published research. Affordability, supply of material of soap, water and hand station/utensils have been reported by Shaheen Parveen et.al (2018) as some of the important barriers communities face. According to World Bank (Jan 2020), in Pakistan 94% people from the richest households have basic handwashing facilities at home. But only 17% people from the poorest households have basic handwashing facilities at home. The World Bank found that 46% rural and 83% urban population has access to basic handwashing facilities.

Table 26: Barriers to handwashing at home

Barriers to Handwashing at Home	Province					Total
	Punjab	Sindh	KP	Balochistan	GB	
Soap not available	7	29	0	2	3	41
Soap too expensive	5	33	0	1	4	43
Soap prioritized for other purposes (bathing, laundry etc.)	0	25	0	0	3	28
Water not available/ reliable	1	14	6	2	3	26
Water too expensive	0	14	0	8	1	23
Water prioritized for other uses	0	8	3	0	1	12
No piped water supply	0	4	2	1	1	8
Water is dirty	0	2	0	1	0	3
No device for washing hands	0	2	0	0	0	2
Handwashing device broken	1	0	0	0	0	1
Others	0	0	0	0	1	1
Total	7	34	6	12	6	65

For Covid-19, the World Bank calculated lack of water or soap or both for different countries, including Pakistan. According to the World Bank estimates, the availability and access to water or soap or both vary differently for various segments of the population. The richest have complete (100%) access to water and soap.. However, for middle, poorer and poorest segments of the population, lack of access to water or soap or both is 11-20%, about 50% and about 80% respectively (World Bank, 2020).

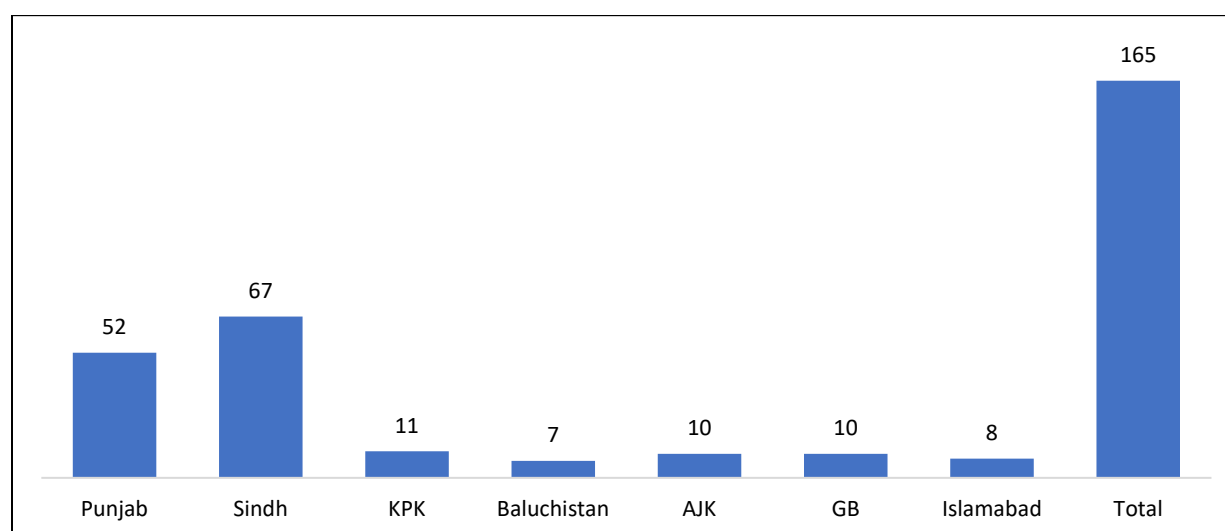
“People are generally poor and can’t afford soaps and sanitizers. I have not seen anyone distributing soaps and sanitizers for free. People do not have enough education as well. Daily wagers are not in a position to keep track of cleanliness or observe other precautions. Water is an issue in southern districts of Khyber Pakhtunkhwa. Hand washing facilities are not available in common places (a qualitative research participant).”

Some of the barriers not listed above but reported by the KIIs include lack of awareness, lack of knowing the importance of hand hygiene, rumors that virus is not real, the social norms to go and attend certain ceremonies/large gatherings like weddings/funerals, the social norm of shaking hands, non-compliance of the SOPs especially during the distribution of cash under the Prime Minister Ehsaas program and at the

office of NADRA and the belief of certain people that virus can negatively affect the non-Muslims only, etc.

More respondents (see bar chart below) reported facing numerous barriers to handwashing while outside home. Overall, 165 respondents faced barriers to handwashing when outside home. Of them, most are in Sindh (67) and Punjab (52). The situation in terms of the number/percentage of respondents facing some barriers in the rest of Pakistan on average remains the same.

Figure 8: Barriers to Handwashing outside homes (# of respondents who said yes; N=601



These respondents shared various places outside their homes where they faced barriers. These include communal/ public toilets, public water points, markets, public transport stations, schools and health care facilities. This is important in terms of designing future hygiene related projects to target and enhance the handwashing facilities at these places to promote the practice of handwashing.

Table 27: Places outside home where respondents are facing barriers to handwashing

Places where respondents face barriers to HW when they are outside home	Province							Total
	Punjab	Sindh	KP	Balochistan	AJK	GB	Islamabad	
Communal/ public toilets	5	53	1	0	2	6	0	67
Public water points	33	54	3	0	5	2	0	97
Market	19	24	10	4	4	7	7	75
Public transport	15	18	3	3	3	6	2	50
Schools	0	4	0	0	0	0	0	4
Health-care facilities	3	23	0	0	1	5	0	32
Other	3	0	0	0	0	0	0	3
Total	52	67	11	7	10	10	8	165

Some of the key barriers these respondents reported included (in descending order of sum of total responses) no device for washing hands, handwashing device broken (not functioning), difficult to access, difficult to use, unclean, queue too long (only reported by respondents from Sindh and GB), fear of catching virus by touching the infected handwashing station, and water and soap not available (reported by respondents from Punjab and Sindh). Overall, respondents from Sindh faced more barriers in public places compared to respondents from other provinces. About 86% of the 251 responses are from Sindh.

People do not have handwashing spaces; soaps and sanitizers are not available and government does not invest in such infrastructure. (KII)

Table 28: Types of barriers to handwashing at public places

Barriers outside in public places	Province					Total
	Punjab	Sindh	KP	AJK	GB	
No device for washing hands	4	43	1	0	2	50
Handwashing device broken	1	41	0	1	2	45
Handwashing device difficult to access (out of reach or difficult to reach)	1	37	0	1	1	40
Handwashing device difficult to use	1	24	0	1	0	26
Handwashing device unclean	1	21	0	0	4	26
Queue is too long	0	8	0	0	4	12
Handwashing points too close – fear of catching the virus	1	2	0	0	0	3
Water not available	2	19	0	0	4	25
Soap not present	3	21	0	0	0	24
Total	14	216	1	3	17	251

3.7.4 Change of Handwashing Behavior in Comparison to Pre Covid-19 and During Covid-19

Majority of the respondents (87%) reported that during the Covid-19 they have changed their handwashing behavior and are now frequently washing hands. Almost half of these respondents (48%) reported “some change”, whereas 39% said they have “substantial change” of handwashing during Covid-19. Only 13% respondents did not change their handwashing behavior. This further confirms the effective dissemination of PAMs and the understanding and comprehension of these messages by the general public.

“I see people have changed their lifestyle a lot. They are using sanitizers, washing hands and cleaning their houses. People are now washing vegetables and fruits more carefully than before. I do not have any statistical report to refer to but I am sure people have changed drastically. People observe cleanliness and try to avoid contracting Covid-19 in their own unique way (A KII).”

“The importance of hand hygiene during Covid-19 has increased. People in general did not have a good practice of handwashing before the first case of Covid-19 in Pakistan (A KII).”

We did some in depth analysis of the people who have not changed their handwashing behavior in this pandemic of Covid-19. Our results show that 72% of these 78 respondents are from rural and urban-slum areas. We found disability of the respondents was not linked to the “no-change” behavior of handwashing. Only three out of the 78 respondents with some sort of disability reported “no-change” to their handwashing behavior. Education level of the respondents is highly related to the change in handwashing behavior. Nearly two-third of the respondents (63%) who reported no change in handwashing behavior had lower than primary education.

Other published research found the positive link of literacy and education level with the handwashing behavior. Global Handwashing Partnership (2017) found that along with other key factors, literacy is positively associated with good handwashing practice (Global Handwashing, 2017). There is a positive association of literacy and formal education with good handwashing practice.

Table 29: Change to frequency of handwashing during the Covid-19 time

Province	Since the outbreak of Covid 19 in Pakistan (February 26, 2020) and as of now, to which extent do you think you have changed the frequency of handwashing?			Total
	No change	Some Change	Substantial Change	
Punjab	15	97	88	200
Sindh	21	37	73	131
KP	6	56	43	105
Balochistan	9	50	11	70
AJK	22	15	3	40
GB	0	6	19	25
Islamabad	5	25	0	30
Total	78	286	237	601

The change in handwashing behavior during the Covid-19 has been reported more in urban than in rural areas. A little more than half of urban respondents (53%) reported “substantial change” compared to 33% rural respondents. Similarly, the respondents with “no change” in handwashing behavior are fewer in urban (11%) than in rural areas (14%). However, the difference between the rural and urban respondents vis-à-vis “no-change” is small. The future Covid-19 response programs and other handwashing related intervention should target rural areas more intensively. Urban areas are comparatively are comparatively better in terms of different parameters, including the handwashing behavior. **4.**

4. KEY CHALLENGES, LESSON LEARNT AND RECOMMENDATIONS

4.1 Challenges Related to Handwashing

Infrequent supply of water, soap and sanitizers, particularly at shops, malls, hospitals and other general public areas are contributing to less handwashing. Also, the price of sanitizers, which is PKR 300 per 50 ml, is high. The poor people are unable to purchase sanitizers. Resultantly, their handwashing practice is quite irregular/less often or not at all, especially when they are away from home.

Some segments of the population (particularly the poor and illiterate) believed the propaganda regarding the virus. Resultantly, they did not believe the public awareness messages. According to some respondents, people did not take the issue serious due to the propaganda that virus is not genuine and it is some kind of nefarious plan to disturb the routine life of the people globally.

Some people from rural and slum areas still don't believe and are not aware of the serious consequences of the pandemic. Further awareness raising activities and strict government response in following the key SoPs to prevent the disease are required. However, majority of the respondents did say that handwashing help in protection against Covid.

Lack of proper knowledge, affordability and access are leading to adopting unhygienic practices. A KI said, *"In rural areas, I have seen four people using the same tooth brush."*

4.2 Conclusion

This research focused on the handwashing behavior in the context of Covid-19 pandemic with special reference to the dissemination of awareness messages, understanding of the messages and the barriers which hamper people handwashing behavior. The research is based on mixed method. Most of the findings are triangulated through primary qualitative and secondary research.

The dissemination of awareness messages in terms of reach, comprehension, frequency, key timings for handwashing, and the duration of handwashing and importance of handwashing is awesome in all regions of Pakistan particularly for urban areas and people with higher literacy level. The key sources of dissemination of awareness messages are social media, TV and social and personal networking. Public announcement, leaflets, newspaper advertisements and billboard are the least common sources for the communication of PAMs. Room exists for key government departments like local government, social welfare department and welfare organization to further improve the situation related to bringing positive change to people handwashing behavior.

The robust dissemination of awareness messages in the Covid-19 time has significantly improved the people knowledge, understanding and behavior of handwashing. The handwashing behavior is different for different segments of the population. The access to the type of water (like traditional water source and modern water source) is determining the handwashing behavior. The use of soap, sanitizers and other antiseptics is more for people with access to pipe water.

Unavailability of soap, the expensiveness of soap/sanitizers, lack of full knowledge of handwashing, interrupted water supply, the anecdote and conspiracy theory re the existing of the Covid-19 virus, lack of proper handwashing stations (in terms of number, functionality and accessibility) etc. are some of the key barriers which hampers the people handwashing behavior.

The role of media mainly social media and electronic media proved to be well effective in emergencies like Covid-19 pandemic. Religious and community leaders can play significant role as well to sensitize

public for doing proper handwashing but currently they are not utilized at their optimal levels. Designing the awareness messages in local language is positively related to the understanding of the messages.

4.3 Lesson Learnt and Key Recommendations

Some of the main key lessons and recommendations are given below.

Recommendations related to communication channels

- Role of electronic and social media is more effective compared to print media: In emergencies and endemics and pandemics, it is usually quite difficult to distribute newspapers and other print media stuff due to either or the combination of road closure, security, lockdown or other associated factors. In such a situation, it is easy and effective to disseminate key information and particularly public aware messages through electronic and social media. In the current study, majority of the respondents received messages related to Covid-19 through electronic and social media⁶.
- Religious leaders are effective in disseminating and increasing awareness: In far flung areas where the reach of electronic and social media is comparatively low or weak, religious leaders can play central role in disseminating and building awareness of the public. Currently, this important and one of the most influential agent in terms of changing people behavior is either not used or used partially or used but negatively. Future programs related to hygiene and handwashing should consider this important agent for bringing positive practice in the communities.
- Dissemination of public awareness messages in local language: Such messages in local languages are more understandable. They are easily understood and disseminated further through personal networks and word of mouth. The use of simple words, info-graphics and local language are positively related to the comprehension of these messages.
- The repetitive dissemination of the message usually compels the recipient to think about the message, understand the content, and follow it. Repetitions help in changing behavior. Initiatives by various stakeholders can take this as an area for future programming.
- Trust in media matters: Print and social media were the key agents of disseminating PAMs to the mass people and the trust on the media matters a lot. The disseminating agent(s) should also include source of such messages in order to increase the authenticity and credibility of the message and improve the people trust on media especially on social media. People can respond in better ways to the PAMs and are following the instructions being delivered through media if they are satisfied with the authenticity. The authentic messages are more followed and acted upon.

Recommendations related to content of the handwashing messages

- Introducing innovation in public awareness messages can build the interest of public and they are motivated to follow the messages. One of KIs maintained: *"Innovative methods like some drama making, symbols, cartoons and easy to understand local language articles can help increase knowledge of people about Covi-19. Some booklets can help as well."* Another participant added, *"The medium of dramas and cartoons should be used to spread messages about Covid-19."*
- .

⁶ Pakistan today has more than 100 private TV channels and more than 200 FM stations, along with PTV and Radio Pakistan. Another factor is the smartphone. The number of mobile phones in Pakistan is around 160 million.

- Future Covid-19 awareness raising programs and other hygiene promotion programs using PAMs as a tool should design easy to understand messages preferably in the form of pictures, videos and in local languages.

Recommendations related to motivation

- Better socio-economic conditions, including education level of the head of household and respondents, adding key motivation factors like fear of disease, protecting and caring for others, visual clues and improved access to facilities with water and soap contribute to adopting hand hygiene principles and practices. Future handwashing interventions may benefit by allocating some resources to improving literacy level of the targeted communities, adding the key motivation factors into the project design and ensuring easy access to improved facilities. This will increase the effectiveness and impacts of the interventions.
- PAMs have vastly increased the awareness and sensitization. Respondents now do believe that handwashing is the simplest, most cost-effective, and efficacious preventive measure against the challenge of infectious diseases faced by the community and world. Dissemination of PAMs is important in any medical emergency, especially in viral pandemics like Covid-19 as the spread is easy and fast and has vast negative impacts on societies.

Recommendations related to barriers and enablers

- Installation of handwashing facilities at public places can improve the handwashing behavior of public. Program designers of hygiene related interventions should think of this aspect in order to improve the hygiene and handwashing behavior of public at public places. The chances of getting infections at public places are high and hence handwashing facilities at these places can play paramount role in avoiding the spread of contagious diseases.
- Provision of soap and sanitizers at religious places like mosques is important. It will exponentially contribute to the change of behavior of handwashing and reducing the spread of disease. This is especially important in the context of Pakistan as the government did not opt for the closure of mosques during the lockdown. Provision of soap and sanitizers by the management of mosques, philanthropists, non-government organizations etc. can help the community in reducing the spread of disease.

General Recommendations

- Rigorous coordination among developmental players like government, donors, NGOs and regulatory bodies can multiply the benefits and results of their interventions. The coordination will avoid or reduce the duplication of work, the over and under targeting aspects. Overall it will generate good value of money invested in the development interventions (KII respondent).
- Response rate by females during the telephonic interviews was extremely low (36 out of 601 total respondents). Therefore, the extrapolation of findings of such studies should be made with extreme caution. The findings and associated interpretation of the findings and other similar studies may not be applicable to female population.
- As per the KII respondents, rumors about the Covid-19 are negatively affecting some segments of the population, especially the less educated, rural population, lower middle class and poor people. Resultantly, they are less likely to listen and follow PAMs and risk their own lives and of people around them. Government departments, especially the local government, social welfare and health departments, should play their role in terms of negating the rumors and guiding the public about the devastating effects of Covid-19.

LIST OF ANNEXES

Annex 1: List of qualitative research participants

S. No	Name	Respondent type	Designation	Region	Major Role
1	Aqeel Ahmad	CDA-Islamabad	Field Officer	Islamabad	Field Officer
2	Mehran Ali	FATA Research Centre	Liaison Officer	Islamabad	Program Management
3	Zia Tareen	Local Government and Community Development Department	Chief Executive Officer	Balochistan	
4	Aziz Anwar	Local Government and Community Development Department	Councilor	Punjab	Campaign monitoring about Covid-19 in Jehlum, Punjab
5	Babar Minhas	Local Government and Community Development Department	Deputy Director Local Government	AJK	Campaign monitoring about Covid-19 in AJK
6	Zahid Hameed Quershi	Local Government and Community Development Department	President	Punjab	Campaign monitoring about Covid-19 in Multan, Punjab
7	Yar Muhammad Junrejo	Local Government and Community Development Department	Regional Deputy Director	Sindh	Awareness Campaigns
8	Hassan Khan	Local Government KP, Peshawar-Water & Sanitation services Peshawar (WSSP)	Media Manager	Khyber Pakhtunkhwa	Media Manager
9	Nisar Ahmad	Partner Organization	Executive Director	AJK	Disseminating public awareness messages, making and disseminating hygiene materials, impart training about Covid-19
10	Sabbor Ali Sayed	Partner Organization-Human Appeal International	Researcher	AJK	Research
11	Aslma Rind	Partner Organization	Ex-Councilor, Ex-Nazim,	Balochistan	
12	Ghulam Nabi Nizamani	Partner Organization-Handicaps Association	Coordinator	Sindh	Working on disability and supporting disable people.

13	Muhammad Asim	Partner Organization-Pakistan Red Crescent Society (PRCS)	District Liaison Officer	Khyber Pakhtunkhwa	Liaison with district administration
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Annex 2: Details of the adopted methodology

Additional details of the adopted methodology

Questionnaire Development

We modified the Water Aid already developed HH questionnaire for the context of Pakistan. The household questionnaire broadly included the demographics of race, gender, ethnicity/caste, religion, level of literacy, urban/ rural location etc. We incorporated the feedback of client and finalized the questionnaire.

CAPI Development

Our IT Expert designed and transformed the final questionnaire in ODK. Containing quality control checks, the electronic data collection took place on tablets running Google's Android operating system. The questionnaire was pre-tested with some couple of dummy data in order to check the reliability, consistency and the skipping pattern.

Recruitment and Training of staff

Recruitment of staff: Over the years APEX has developed a vast database of experienced enumerators and supervisors that have worked with us in past. APEX prefers candidates who are local, well versed with local languages and geography and have direct or indirect working experience with UN agencies/INGOs/NGOs. We recruited relevant enumerators from this pool.

Following staff was recruited for the household data collection/interviews.

Table 30: Staff Detail for Quantitative Research

Staff	Punjab	Sindh	KP	Balochistan	AJK	GB	Islamabad	Total
Enumerator	7	5	4	2	2	1	1	22
Regional Manager	2							2
Field Manager	1							1
Data Manager	1							1
Data Assistant	2							2

Training of Enumerators: APEX conducted one-day training on data collection. Keeping in view of the current situation, the training was imparted on Skype. All field staff were trained on survey objectives, survey questionnaire, CAPI application, survey protocols, data quality, and interview techniques and data security. Furthermore:

- Each enumerator verified each form of after completing interview and before uploading to server.
- All enumerators were provided with tablet to collect the data. The data was uploaded on a dedicated APEX's server on the same day of data collection.
- The data manager downloaded the data on daily basis. After downloading, data was checked in terms of completeness and consistency checks.
- In case of any discrepancy, relevant enumerator was contacted to resolve the issue.

Data Cleaning: Once data was uploaded, our data manager cleaned the datasets on the very next morning. Datasets was cleaned by using count check, coding, data distributions comparison of

interdependent questions, outlier verification, distribution of scale variables, and missing cell value techniques.

Annex 3: List of district covered during the HH survey

Province	District	Province	District
AJK	BAGH	Balochistan	Awaran
	Bhimber		Barkhan district
	Hattian		Chagai
	Haveli		Gawadar
	Kolti		Harnai
	Mirpur		Jafar abad
	Muzafarabad		Kalat
	Neelum		Kech
	Poonch		Kharan
	Sudnuti		Khuzdar
AJK Total	10		Killa Abdullah
GB	Diamer		Killa Saifullah
	Ghanche		Kohlu
	Ghizer		Lasbela
	Gilgit		Loralai
	Hunza		Mastung
	Kharmang		Mushkel
	Nagar		Panjgur
	shigar		Pishin
	Skardou		Quetta
GB Total	9		Sherani
KP	Abbottabad		Sibi
	Bajaur Agency		Subat pur
	Bannu		Zhob
	Batagram		Ziarat
	Charsadda	Balochistan Total	25
	Chitral	Sindh	Badin
	D.I.khan		Benazirabad
	Dir lower		Dadu
	Hangu		Ghotki
	Haripur		Haydrabad
	Karak		Jamshoro
	Khyber Agency		Karachi
	Kohat		Kashmor

Province	District	Province	District
	Kurram Agency		Khairpur
	Lakki marwat		Larkana
	Malakand		Nawab shah
	Mardaan		Sukkhra
	Mohamand Agency		Sanghar
	Nowshehra		Tando Allahyar
	Orakzai Agency		Tharparkar
	Peshawar		Thatta
	Shangla		Umerkot
	Swabi	Sindh Total	17
	Swat	Islamabad	Islamabad
	Tank	Islamabad Total	1
	Torghar		
	Upper dir		
KP Total	27		
Punjab	Attock		
	Bahawalnagar		
	Bahwalpur		
	Bhakar		
	Chakwal		
	Chiniot		
	DG Khan		
	Faisalabad		
	Gujranwala		
	Gujrat		
	Jhang		
	Jhelum		
	Kasur		
	Khanewal		
	Khushab		
	Lahore		
	Layyah		
	Lodhran		
	MB Din		
	Mianwali		
	Multan		
	Muzafargarh		

Province	District	Province	District
	Narowal		
	Okara		
	Pakpattan		
	Rahim Yar khan		
	Rajanpur		
	Rawalpindi		
	Sahiwal		
	Sargodha		
	Sheikhupura		
	Sialkot		
	Toba Tek Singh		
	Vehari		
Punjab Total	34		

Annex 4: Type and severity of disabilities amongst the survey respondents

Vision/sight disability

Out of the 43 respondents who have reported some disability, 15 reported sight problem, even when they wear glasses. Two of the respondents (5%) are suffering with a lot of difficulty and one respondent (2%) from Punjab is suffering a lot of difficulty (can't do at all) even if wearing glasses. Majority of the respondents (who are suffering some difficulty) are belonging to Sindh. Overall, the result shows that vision disability is quite lower in our sampled respondents.

Table 31: Disability related to seeing even if wearing glasses

Province	Do you have difficulty seeing, even if wearing glasses?				Total
	No - no difficulty	Yes – some difficulty	Yes – a lot of difficulty	Cannot do at all	
Punjab	1	3	0	1	5
Sindh	15	7	1	0	23
KP	6	4	1	0	11
Balochistan	1	0	0	0	1
GB	2	0	0	0	2
Islamabad	0	1	0	0	1
Total	25	15	2	1	43

Hearing disability

About 14% of the respondents (6 out of 43) are suffering with hearing disability. However, majority of this 14% respondents are having some difficulty (4 out of 6 i.e. 67%). One of the respondents out of six is having a lot of disability, and one of the respondents out of the six can't do at all. The hearing disability is quite minimum in our sample. Hearing disability is comparatively more in Sindh than other provinces of the country.

Table 32: Disability related to hearing

Province	Do you have difficulty hearing, even if using a hearing aid?				Total
	No - no difficulty	Yes – some difficulty	Yes – a lot of difficulty	Cannot do at all	
Punjab	4	0	0	1	5
Sindh	21	2	0	0	23
KP	10	0	1	0	11
Balochistan	0	1	0	0	1
GB	2	0	0	0	2
Islamabad	0	1	0	0	1
Total	37	4	1	1	43

Memory and concentration related disability

A total of 10 out of 43 respondents reported disability related to memory and concentration. However, 90% of these 10 respondents (9 out of 10) reported some difficulty. About 78% (7 out of 9) at "some difficulty" level of memory/concentration belong to Sindh province. Only one of the ten respondents from KPK reported a lot of difficulty. None of the respondents reported memory or concentration related disability at 'can't do at all' level.

Table 33: Disability related to memory and concentration

Province	Do you have difficulty remembering or concentrating?			Total
	No - no difficulty	Yes – some difficulty	Yes – a lot of difficulty	
Punjab	4	1	0	5
Sindh	16	7	0	23
KPK	9	1	1	11
Balochistan	1	0	0	1
GB	2	0	0	2
Islamabad	1	0	0	1
Total	33	9	1	43

Walking or climbing disability

About 26% (11 out of 43) respondents reported disability related to walking and climbing. About 64% of these respondents (7 out of 11) are having walking and climbing disability at “some-level”, whereas, the remaining four of the respondents (36%, 4 out of 11) are having walking and climbing disability at “a lot of difficulty” level. None of the respondents reported walking or climbing disability at the level of “can’t do at all”. Disability related to walking or climbing is absolutely absent in the sampled respondents in GB and Islamabad. However, such disability at “some difficulty” level is approximately equal in Punjab, Sindh and KPK.

Table 34: Disability related to walking or climbing steps

Province	Do you have difficulty walking or climbing steps?			Total
	No - no difficulty	Yes – some difficulty	Yes – a lot of difficulty	
Punjab	1	3	1	5
Sindh	21	2	0	23
KP	7	2	2	11
Balochistan	0	0	1	1
GB	2	0	0	2
Islamabad	1	0	0	1
Total	32	7	4	43

Self-care disability

About 12% of the respondents (5 out of 43) reported disability related to self-care. Four of these five respondents (two from Punjab and two from KPK) reported such disability at “some-difficulty” level, whereas, one respondent from Balochistan reported self-care disability at “can’t do at all” level. None of the respondents’ self-care related disability on any of the four Washington four options from AJK, GB, Islamabad and Sindh.

Table 35: Disability related to self-care

Province	Do you have difficulty (with self-care such as) washing all over or dressing?			Total
	No - no difficulty	Yes – some difficulty	Cannot do at all	
Punjab	3	2	0	5
Sindh	23	0	0	23
KP	9	2	0	11
Balochistan	0	0	1	1
GB	2	0	0	2
Islamabad	1	0	0	1
Total	38	4	1	43

Disability related to communication and the ability to understanding and being understood

About 30% of the respondents (13 out 43) reported the disability related to communication and the ability to understanding and being understood. However, majority of these 13 respondents (10 out 13 i.e. 77%) reported such disability and “some level of difficulty”. About 80% of these 10 respondents (8 out of 10) belong to province of Sindh. Only 2 of the 13 respondents (15%) reported such disability at “a lot level”. One respondent of such disability at a lot level belongs to Sindh and the other one belong to KPK. The one respondent who reported such disability as “can’t do at all” belong to Balochistan. None of the respondents from GB and Islamabad reported disability at any level related to communication and the ability to understanding and being understood.

Table 36: Disability related to communication and understanding and being understood

Province	Using your usual (customary) language, do you have difficulty communicating, for example understanding or being understood?				Total
	No - no difficulty	Yes – some difficulty	Yes – a lot of difficulty	Cannot do at all	
Punjab	4	1	0	0	5
Sindh	14	8	1	0	23
KP	9	1	1	0	11
Balochistan	0	0	0	1	1
GB	2	0	0	0	2
Islamabad	1	0	0	0	1
Total	30	10	2	1	43

Annex 5: References

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