Hand washing products and hygiene promotion in rural Vietnam: A case study of the COVID-19 Response in the Women-Led Output-Based Aid (WOBA) Vietnam project

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EXECUTIVE SUMMARY

Introduction. East Meets West Foundation Vietnam implemented a COVID-19 Response project (Phase 1) in the period of May to July 2020 as part of the Women-Led Output-Based Aid Vietnam project, funded by Australian Department of Foreign Affairs and Trade under the Women for Water Fund. Phase 1 activities included distribution of portable hand washing stations to 172 commune health facilities, 172 kindergartens, 980 disadvantaged households in five provinces of the WOBA project, distribution of water tanks to 200 disadvantaged households in Ben Tre province, and promotional activities to promote hand washing and hygienic practices as preventative measures of COVID-19. Following the WOBA project approach, the Women Union was the key partner agency implementing the COVID-19 response.

Aim of the research. This research aimed to understand the extent to which distribution of hand washing stations and water tanks, and the Women's Union hygiene promotion activities in the COVID-19 Response (WOBA Vietnam project) has influenced the knowledge, attitude and hygiene behaviour of households and staff at commune health centres and kindergartens in two provinces in rural Vietnam.

Method. The research employed a mixed method case study approach. The case study focused on two provinces (Ben Tre and Hoa Binh) and Phase 1 (May-July 2020) of the COVID-19 Response. A survey with 372 households and staff at health centres and kindergartens was conducted, followed by structured interviews with 12 WU members.

Key Findings:

- Most survey respondents were using the handwashing stations and water tanks that they received.
- There is a relationship between hand washing stations, hand washing materials, water tanks, the station's features and functionality with respondents' motivation to wash hands. However, these were not drivers of changed hand washing practices.
- The aim of the WU's promotional activities was to raise awareness about COVID-19 infection and hygiene practices as prevention measures of the disease. To this extent, both the survey and interviews suggest positive impacts of the WU promotion, with "confidence in knowing how to wash hands properly" reported as most significant impact.
- The WU's hygiene promotion was integrated into their monthly propaganda meetings that were attended by WU members from households. Household visits were conducted for elderly people, people with disabilities to show them how to wash hands. Instructional workshops on hand washing were organised at schools and target children and parents.
- The WU members showed a strong sense of ownership in the promotional activities and considered the activities their duty to support other WU members, and to enable other WU members to support the broader community.
- The WU's promotion activities followed their propaganda work as a socio-political organisation, which afforded them the legitimacy and authority in the community to carry out the promotion.
- Attendance to promotion activities and accessibility to communication materials on hygiene practices varied by education and income levels and groups. So were the perceptions of effective communication methods for hygienic behavioural change.

Limitations

This research had several methodological limitations with regards to sampling, recruitment of participants, execution of the survey and interview instruments, self-reporting by participants who were beneficiaries and implementers of a donor-funded project. Although validation and reliability techniques were applied to enhance analytical rigour, the findings presented in this report should be interpreted with care and not generalised to the broader population.

Key recommendations

- Hygiene promotion could be incorporated into the WOBA project alongside infrastructural improvement of installing latrine and piped water connections.
- Hygiene promotion could be done by the WU as part of their WOBA mobilisation activities or by other grass root organisations, or organisations with expertise in behavioural change communication including social media communication.
- If hygiene promotion is incorporated, coordination between the project and the WU (at each level) is required with clear allocation of roles and responsibilities, and clearly identified activities, outputs and targets to be regularly monitored for progress and appraisal.
- Communities could be consulted in the development of the hygiene promotion content and communication methods, including staff from health centres, schools, organisations of people with disability or rights holder organisations, WASH enterprises and other private sector businesses, as well as other mass organisations besides the WU.
- Impact evaluation could be conducted using experimental or quasi experimental design to establish the causal attribution of observed changes (or impacts) of the intervention.

1. INTRODUCTION

1.1 Overview of the WOBA Vietnam project's COVID-19 response

In alignment with the Vietnamese government's response to COVID-19 and the World Health Organisation's recommendations, Thrive Networks/ East Meets West Foundation (EMW from here onward) supported the provincial efforts to prevent COVID-19 transmission at the local level. EMW implemented a COVID-19 Response project (Phase 1) in the period of May to July 2020 as part of the WOBA Vietnam project, funded by the Australian Department of Foreign Affairs and Trade under the Women for Water Fund. As having access to clean water and basic hand washing facilities are crucial for disease prevention, Phase 1 had three main implementation activities:

- Distribution of 1,672 portable hand washing basins to 172 (previously 173 but 2 communes merged to 172) commune health stations, 172 kindergartens, 980 disadvantaged (GESI) households in 5 provinces (Hoa Binh, Thanh Hoa, Nghe An, Ha Tinh, Ben Tre).
- Distribution of plastic water tanks to 200 poor plus GESI households in Ben Tre province to store clean water and harvest rainwater for hygienic practices.
- Promotion of hand washing and hygienic practices in the five provinces by the Vietnamese Women's Union (WU) in collaboration with the Commune Project Management Boards and supported by EMW.

Phase 2 implementation expanded on Phase 1 activities in distributing additional hand washing facilities for kindergartens in the same 172 communes, and community-based (in home and in school) promotional activities to teach children hand washing behaviours. In addition, training was delivered on a digital platform to WU members and implementing partners on GESI, climate resilience, water component issues. This training addressed the challenges due to COVID 19 in delivering face to face training (which is part of implementation activities of the WOBA program).

Health clinics, kindergartens and GESI households have been identified by WOBA project's government partners to have prioritised hygiene and health needs. Prior to the implementation activities, EMW conducted a needs assessment survey to understand the WASH-related challenges that the commune health stations (CHS) in five provinces were facing with regard to COVID-19. The key findings of the survey are: 1) half of CHS did not have clean water to use for health care activities. Water quality was not guaranteed and had been declining in past months; 2) although most CHSs had latrines, the latrines were not separated for staff, patient, and visitors. CHSs lacked sanitation staff and the latrines were not regularly cleaned; 3) half of CHS did not have hand washing facilities. Many lacked hand washing solution, soap, disinfectant, and essential personal protective equipment to manage the COVID-19 response; 4) half of CHS did not have accessibility items in the latrine areas for people with disability.

WOBA Vietnam has utilised hygiene infrastructure and promotional activities to promote hand washing practices as tools to prevent COVID-19 infection. The COVID-19 response was designed to follow the approach of WOBA Vietnam with the WU as the main implementation agency for the intervention. They carried out the distribution and installation of hand washing stations and water tanks to GESI households of WOBA, and they conducted hand washing promotional activities in the WOBA's provinces.

Vietnamese government's COVID-19 Policy

WOBA Vietnam COVID-19 response supports the Vietnamese government's COVID-19 policy. In May 2020, the Ministry of Education and Training (MOET) initiated a joint project with UNICEF and other development agencies to highlight the challenges of about 30 per cent of schools in Vietnam including lack of running water and other safe hygiene and sanitation measures. For children of these schools to be able to return to schools, the Ministry was clear that running water and soap is a priority. [1] Two surveys were conducted by Ministry of Education and Training and UNICEF[2] to assess availability and accessibility of water, hygiene and sanitation facilities among schools, and potential WASH-related or COVID-19 related risks that schools may face. These studies reported similar findings to the EMW's needs assessment of CHS. Although most schools had access to water, many were located 5 km or more from a water source. Water quality was a critical issue for many schools. For schools in areas with challenging conditions, water was sourced mainly from wells and were often insufficient during dry season. Schools in remote and mountainous areas lacked access to water and relied on neighbouring households for water. In both primary and secondary schools, there were not enough latrines to accommodate the number of teachers and students. Most school toilets did not have menstrual health management facility. Many latrines were in urgent need of repair. The sewerage systems in many schools did not work properly. Although there were hand washing stations in schools, they did not meet the health standard required.

As part of Vietnam's COVID-19 response, the MOET issued on April 28, 2020, a set of criteria for assessing the safety level of COVID-19 pandemic prevention and control in schools. If the educational institution meets 7 or less criteria, it will be judged as "poor performance, unsafe schools and are not allowed to operate". On September 9, 2020, Decision No. 2566/QD-BGDDT on Approve Handbook was issued to ensure safety in prevention and control of covid-19 pandemic in schools.

Water for Women Fund and DFAT COVID-19 Strategy

The COVID-19 response of WOBA Vietnam aligns with the Water for Women Fund's response to the COVID-19 pandemic. It contributes to DFAT Partnership for Recovery (P4R) strategy which pivot Australian development program to focus on COVID-19 together with its partners. The focus and contribution of WOBA's COVID-19 response to the P4R strategy is in the area of health security.

1.2 Aims of the Research Study

This study aimed to evaluate the extent to which WOBA Vietnam's COVID-19 Response has facilitated and promoted hand washing and hygienic behaviour in the target CHSs, kindergartens, and GESI households, and factors contributing to these effects. Drawing on the study's findings, this report offers some recommendations for WOBA and future interventions of promoting hygienic practices in similar settings. This report will be included in the mid-term review final report of WOBA Vietnam. Some of the findings were presented at the 2021 Water and WASH Futures COVID-19 Symposium on behavioural change communication.

[1] UNICEF (2020) https://www.unicef.org/vietnam/press-releases/attention-running-water-and-soap-needed-30-schools-viet-nam-children-can-return

[2] UNICEF (2020) Rapid Assessment on Water, Sanitation and COVID-19 Prevention and Control in School. Presented at the 3rd Emergency in WASH Meeting UNICEF, September 2020

1.3 Research Questions

To address the above aim, the study sought to answer the following research questions:

1. To what extent have the distribution and installation of hand washing stations and water tanks in the target CHS, kindergartens, and GESI households facilitated and promoted hand washing and hygiene behaviour in these settings?
2. To what extent has the WU members' promotion of hand washing and hygienic practices as preventative measures of COVID-19 raised awareness and facilitated hand washing and hygiene practices in the target CHS, kindergartens, and GESI households?
3. What are factors that contribute to effective promotion and facilitation of hand washing and hygiene practices in the target CHS, kindergartens, and GESI households?

1.4 Organisation of the Report

Following this introduction, Section 2 outlines the conceptual framework of the study that guided the research design. Section 3 presents the mixed-methods approach of the study using survey followed by structured interviews. Section 4 discusses the findings of the study to address the three research questions combining the results of the survey and interviews. The final section, Section 5 summaries the key themes and offers some recommendations for WOBA and implications for future research on hygienic behavioural change in similar contexts.

2. CONCEPTUAL FRAMEWORK

Hand washing and hygiene promotion interventions are likely to be more effective if they target the determinants of hand washing and hygiene behaviour. This study draws on White et al's (2020)[3] systematic review of the determinants of hand washing and hygiene behaviour (from now on referred to as hygiene practices) in domestic settings. Underpinned by a Behavioural Centred Design, these common determinants include:

- socio-demographic characteristics
- knowledge of hygiene practices and their benefits
- past experiences and practices, and norms of hygiene practices
- capabilities and willingness to engage in hygiene practices
- design and set up of physical spaces where hygiene practices take place
- infrastructure associated with hygiene practices (such as sanitation, hand washing facilities, water supply systems)
- accessibility to soaps, disinfectants and other materials used in hand washing
- social and physical environment and people's interactions in these environments
- hygiene practices policies and leadership (local or national) that shape perceptions and practices at the individual and organisational level.

These common determinants are used in this study to understand the extent to which the distribution and installation of hand washing stations and water tanks in kindergartens, CHSs and

[3] White, S., Thorseth, A., Dreibelbis, R. and Curtis, V. (2020). The determinants of hand washing behaviour in domestic settings: An integrative systematic review. *International Journal of Hygiene and Environmental Health*, Vol 227, 113512

GESI households promote hygiene practices (Research Question 1). The analysis of relationships between these determinants provides better understanding of contributing factors to improve hand washing and hygiene practices in WOBA's COVID-19 response, and potentially to improve WASH-related challenges generally (Research Question 3).

Regarding the WU members' promotion of hygiene practices (Research Question 2), this study draws on the Campbell's 2017[4] systematic review of approaches to promote hand washing and sanitation behaviour change in low- and middle-income countries. The review identified that promotional strategies combining hygiene and sanitation measures appear to have a larger impact than either one alone. This is applicable for the study because the WU members' promotional activities were conducted alongside distribution of hand washing products, and their mobilisation of households to purchase hygienic latrines and connect to piped water schemes. According to Campbell's (2017) review, factors affecting the impact of promotion generally include:

- length of the promotion
- frequency of visit
- use of short messages in communication on hygiene practices
- culturally appropriate content
- availability of training materials
- kindness, respect, status and accessibility to the implementer of the promotion
- recipient awareness about benefits of hygiene practices, access to infrastructure, and interactions with social and physical environment (for example, teaching in school about hygiene practices)
- literacy to read and understand the promotional materials
- lack of interest and involvement from the family

To answer Research Question 2, the study analyses the extent to which these factors were evident in the WU's promotional activities and whether there is any correlation with behavioural factors such as knowledge, skills and attitude found in White et al (2020).

The Campbell (2017) review found that community-based approaches are most effective in promoting changes in hygiene practices, but sustainable impact is a challenge. This is particularly relevant for this study given the WU is a mass organisation with responsibility for grassroot propaganda in Vietnam. The WU is embedded in the community through its members who are household women. According to the review, factors affecting community-based approaches specifically include:

- involvement of the community
- enthusiasm of community leaders
- having a sense of ownership in the promotion
- the implementer of the promotion is part of the community
- gender of the promoter

[4] De Buck, E., Remoortel, H., Hannes, K. Govender, T., Naidoo, S., Bert Avau, B., Vande veegaete, A., Alfred Musekiwa A., Lutje, V. Cargo, M., Mosler, H-J., Vandekerckhove, P. & Young, T. (2017). Approaches to promote hand washing and sanitation behaviour change in low- and middle-income countries: a mixed method systematic review. *A Campbell Systematic Review 2017:7*. Retrieved from https://campbellcollaboration.org/better-evidence/, 19 September 2020.

- trust between the campaign promoter and the community
- clear communication and culture of cooperation

The study analyses whether these above factors contribute to the effectiveness of the WU's promotional activities in enabling hygiene practices (Research Question 3).

3. METHODOLOGY

The study was conducted in Ben Tre (Southern part of Vietnam) and Hoa Binh (Northern part of Vietnam) provinces using a case study mixed-method approach. Phase 1 involved collecting and analysing quantitative data through a survey. Phase 2 involved conducting structured interviews with the WU members who had delivered or participated in the promotional activities. The purpose of Phase 2 was to understand the type of promotional activities the WU members conducted, their perceptions of the impact of these activities, and factors contributing to these effects.

3.1 Data Collection in Phase 1

3.1.1 Survey instrument

The survey was implemented in Phase 1. The survey has four parts:

Part 1 surveys the respondents' perceptions of social and physical environment for hygiene practices and access to hand washing and water systems. This part has the following sections:

Access to hygiene and water systems and materials. This section surveys the location of hand washing and water system and the distance to the respondent's school, CHS, or household. It also asks about respondent's accessibility to soaps, disinfectants and other materials used in hand washing.
Design and set of hand washing stations and water systems. This section surveys the design and set up of the hand washing station or water system, the surrounding social and physical environment and respondent's interactions generally in these environments.
Hygiene practices and related policies. This section surveys respondent's awareness of current hygiene practices and WASH-related policies in place at the kindergartens, CHS, or generally in the community. It also surveys their perception of leadership (national, provincial, local, or organisational) on hygiene practices in response to COVID-19 and generally.

Part 2 surveys respondent's perceptions of the reach and effectiveness of the WU's promotional activities on hygiene practices. This part has the following sections:

Awareness of the WU's promotion campaign. This section surveys respondent's perception of the length, frequency and accessibility to the promotion.
Content of the WU's promotional materials. This section surveys the respondent's perception of the events organised by the WU and the promotional materials (banners, hand fans, and leaflets) in terms of readability, visually engaging, accessibility, appropriate messaging.
*Delivery of the promotion***.** This section surveys respondent's perception of the knowledge and skills, attitude and enthusiasm of the WU in promoting the campaign, the communication style of the promoter, perceived authority, respect and trust in the WU within the community.

Engagement in the promotion. This section asks about the respondent's interest and willingness to receive the promotional materials, their family and community's interest and willingness to be involved in the promotion, their ability to read and understand the promotional materials, their sense of ownership in the promotion.

Part 3 surveys respondent's knowledge, capabilities, and attitudes towards hygienic practices generally and for pandemic prevention. The survey items include:

- knowledge of hygiene practices and their benefits
- past and current hygienic practices since implementation of the hand washing and water stations)
- attitudes and values about hygienic practices before and after the implementation of hand washing stations and WU promotion campaign
- use of the installed hand washing stations and water systems implemented

Part 4 surveys socio-demographic information about the survey respondent.

The survey was developed in English by the lead researcher, Dr Lien Pham, in collaboration with the WOBA's implementation team. After three iterations, the survey was finalised and translated to Vietnamese. The lead researcher then programmed it using Qualtrics survey software platform. The English version of the survey instrument is included in Appendix 1.

3.1.2 Sampling

The survey was implemented in Ben Tre and Hoa Binh provinces. For the GESI households, randomised sampling was used to select 100 households from the list of 980 households who received the hand washing stations and water tanks in the two provinces. Randomised sampling was also used to select 50 households from the baseline data list of WOBA project target beneficiaries. The reason for selecting both recipient and non-recipient is to see if there are any differences between their responses.

Sampling was not conducted for the kindergartens and CHS as there no population was identified. WOBA's implementation team produced a list of contact names and email addresses for the two groups in the two provinces who received the hand washing stations. The field coordinator of the implementation team then sent emails requesting people on the list to complete the survey and forward the survey to other members of their organisation to complete the survey. The same field coordinator sent emails to remind these contacts to complete the survey every 2 or 3 days when the survey was in field. The sample size aimed to be 100 respondents from each group.

The study aimed for a total sample of 350 survey respondents (n=350) with 150 from households, 100 from kindergartens, and 100 from CHSs. The intention for different groups is to identify and compare group differences and apply statistical tests of association between group-related variables and hygienic practices across groups.

The survey was distributed using both paper and online link. The survey was piloted with 6 participants from the kindergarten, CHS, and households in the two provinces before it was fielded. A survey protocol was developed and distributed to WOBA's field staff who were responsible for conducting the survey with households.

Table 1. Background information of the survey respondents

	No. of respondents		No. of respondents
Groups		**Monthly income**	
Kindergarten received h/w station	98	less than 1 m dong	62
Health centre received h/w station	121	1-3 m dong	57
GESI/poor received h/w station	56	3-5 m dong	94
GESI/poor received water tank & h/w station	46	5-7 m dong	50
Non GESI/poor received h/w station	1	more than 7 m dong	103
Did not receive water tank or h/w station	50	not employed	6
Total	372	Total	372
Sex		**No. of people in household**	
Male	105	1-3 people	113
Female	262	4-6 people	239
Prefer not to say	5	7-10 people	19
Total	372	11 or more	1
		Total	372
Age		**Education level**	
18-24	7	Primary school	76
25-34	70	Secondary school	59
35-44	131	Upper secondary school	35
45-54	85	Technical/professional college	71
55-64	44	University	123
65 or older	35	Did not go to school	8
Total	372	Total	372
GESI category		**Age of youngest child in h/h**	
Persons with disabilities	30	5 years or younger	116
Elderly	17	6- 10 yrs	86
Single parent	19	11- 15 yrs	62
Prefer not to say	29	16 yrs or older	48
Not GESI	277	no child in household	60
Total	372	Total	372
Province		**No. of women in household**	
Ben Tre	184	No women	8
Hoa Binh	188	1 - 2 women	237
Total	372	3 - 4 women	119
		5 -6 women	5
		No answer	3
		Total	372

As part of the procedure of the local government, the list of 150 households (to be surveyed) was provided to the focal points of the two provinces along with the survey questionnaire, who would

inform the households about their selection to be involved in the study. The households were surveyed by two EMW field staff in their homes. These field staff also conducted the pilot survey. The survey was in field from February to March 2021. 372 people responded to the survey (n=372). Table 1 summarises the background information of the survey respondents.

3.2 Data collection in Phase 2

3.2.1 Structured Interviews with the WU Members

The interviews aim to understand the WU members' aims and types of promotional activities, content and methods of delivering promotional activities, and rationales for using the materials and modalities of communication. This phase aims to gain insights into the WU members' perceptions of environment and promotional approaches conducive to enable sustainable hygienic practices in their local areas and whether there are any perceived differences between target groups and geographical areas. The aim is to triangulate the interview results with the variable that correlate with hygienic practices identified in the survey.

The interview questions were designed to be asked in a structured format along the following areas:

- Types of promotional activities undertaken and the participant's role
- Types of promotional contents and methods used in conducting the promotional communication for different target groups
- Role of government regulations and mechanisms of promoting hand washing during COVID-19.
- Enablers or barriers encountered in their promotional activities
- Sustainable impact of their promotional activities

3.2.2 Sampling

Applying purposive sampling, the interviewees were selected from the list of the WU members that were involved in the promotional activities in the two provinces, which was supplied by the implementation team. Twelve people were selected. Since the WU members in Hoa Binh at the time of the interview, had not deliver any promotional activities and only distributed the promotional flyers or participated in observing a promotional activity, only 2 women were selected from this province. The remaining 10 were selected from Ben Tre, prioritising those that had a leadership role in the WU (i.e. they were president or deputy president of their branch).

A second letter was distributed to the focal points of the two provinces to advise them about the interviews, alongside with submission of the interview questions, and list of 12 WU members selected to take part in the interviews.

Two EMW field staff coordinated and facilitated the interviews, which were conducted on MS Teams. The interviews were conducted in Vietnamese by the lead researcher and another EMW staff in Thrive/EMW's Monitoring, Evaluation, Research and Learning team.

3.3 Analysis

Analysis of the survey data was conducted using univariate and bivariate analysis to identify clusters and group differences, and Chi-square tests of independence to assess association between various factors and hygienic practices. Linear regression was subsequently carried out for variables with statistical significance in the Chi Square tests. However, because the sample is not normally distributed and quite skewed towards agree and strongly disagree, violating the assumption of regression that assume independence of sample and normal distribution, linear regression is not reported in this report.

All 12 interviews were transcribed by the interviewers. The lead researcher analysed all transcripts thematically using NVivo 12 software. The themes were coded using the structure of the interview questions. Comparisons of codes across transcripts were undertaken to identify differences between cases and to validate the codes.

The results of the analysis of the interviews were further compared with the survey results for triangulation and deeper interrogation of the two sets of data. As the study was undertaken using a mixed method approach, the findings reported in Section 4 will draw on the analyses of both the survey and interview data to answer the three research questions.

3.4 Key Ethical Considerations

- The study sought verbal consent from participant households and WU members prior to conducting the survey and interview to ensure participants were adequately informed of the purpose of the study and type of information sought from them.
- Participant confidentiality was assured prior to the execution of the survey and interviews. No information about the survey respondents that could reveal their identity was collected in Phase 1 survey. No names of the WU members who took part in Phase 2 interviews are mentioned in this report.
- The survey and interview instruments were designed and conducted in Vietnamese language to ensure participants could understand and be comfortable answering the questions in a culturally sensitive manner.
- All survey and interview data were stored in a safeguarded manner and were only accessible by the EMW staff who were involved in the actual data collection process. Interviews with WU members were transcribed by the two interviewers and are accessible only by these two staff.
- The study followed the regulations of Vietnam's provincial and local government in entering local areas and engaging with citizens. The local partners who were WOBA's focal points at the two provinces where the participants were located were adequately informed through official letters about the study and its purpose and timeline. Prior to data collection of each phase, they were also provided with a list of participants' names, the survey questionnaire and interview questions to inform them about the type of information the study aimed to seek from these participants.
- Key findings of the study were presented to the WOBA project team prior to conducting final stage of analysis to account for their comments. A draft version of this report was circulated to the WOBA project team for comments prior to finalisation.

3.5 Limitations

- The study relied on participants self-reporting, which risks reporting bias with likelihood of respondents providing positive responses, especially in the area of hand washing practices and norms which are difficult to observe. Further, the participants were also participants of the WOBA project which means that these households have received support from both interventions and the WU also carried out mobilisation activities for both interventions. The evaluative lens of the study risks participants providing positive answers or not willing to talk about negative or unintended consequences of the intervention.
- The study used two different methods to invite participants to complete the survey. While households were selected using randomised sampling technique, the population is from a targeted group of WOBA beneficiaries which means they are not independent cases. Persons from kindergarten and CHSs were invited to take part in the survey through email and several reminding emails by an EMW staff, which risks reporting bias and selection bias.
- Although the EMW staff who were involved in the survey also did the pilot and pilot briefing and were provided with the survey protocol prior to fielding the survey, there is a high risk that the survey was not conducted consistently between staff and households.
- The interviews with the WU members were conducted via MS Teams and at the WU offices. In many instances, there were many people sitting in the same room and with the EMW field staff. This surrounding interfered with the process of the interview, and risks interviewee bias in terms of their unwillingness to mention negative aspects of the promotional activities or the intervention.
- These limitations risk the quality of data collected. These risks were mitigated through rigorous analysis of the survey data using different statistical tests to see whether similar results are produced, comparisons of codes to identify differences between interviewees, and triangulation of survey and interview data. On a practical level, the study provides some relevant findings in terms of hygiene messaging practices in the context of WOBA Vietnam. However, care must be exercised in interpreting and generalising the findings to other contexts outside of this case study.

4. FINDINGS

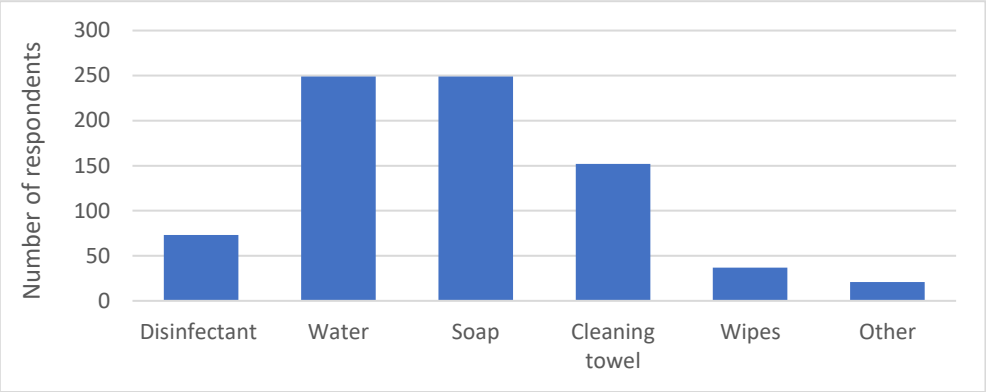
4.1 Research Question 1

To what extent does the distribution and installation of hand washing stations and water tanks in the target CHS, kindergartens, and GESI households facilitate and promote hand washing and hygiene behaviour in these settings?

Fig 1 shows the types of hand washing materials available at the hand washing station:

- 51 survey respondents from the household group received water tanks.
- All 51 reported that they were using the water tanks.
- 8 (out of 51) said other people outside their family also used the water tank.
- 304 participants received the Labobo/Inox portable hand washing stations.
- 278 (92% of 304) reported that they have used the station.
- Most of the respondents who used the station reported seeing more than one types of hand washing materials at the station.

Fig 1. Materials available at the hand washing station



96% of respondents reported that they washed hands more often since COVID-19 began. 91% of the total number of survey respondents reported that they washed hands more often since the installation of the hand washing stations. 81% observed that hand washing practices were more common in the community since the installation of the stations.

Fig 2 shows how often respondents reported washing hands, with the majority reporting washing hands 4-6 times a day or more.

Fig 2. Daily hand washing practices, by percentage of survey respondents

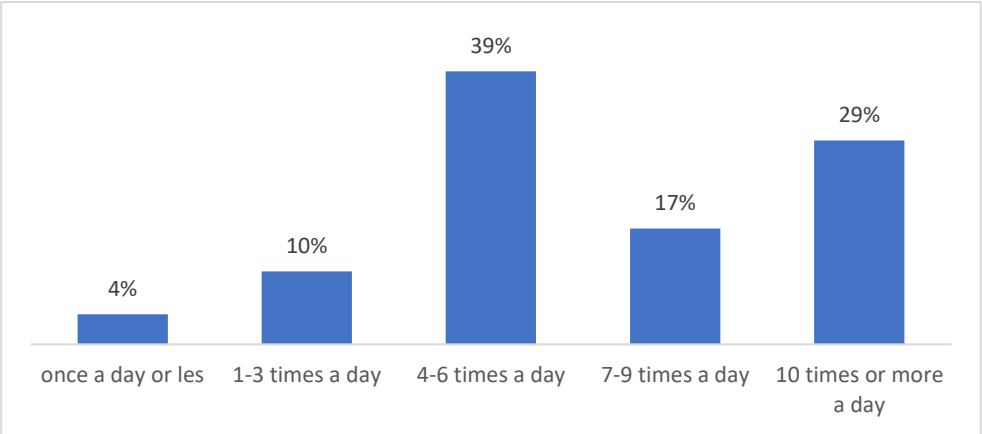


Fig 3. Main reason for increased hand washing practices

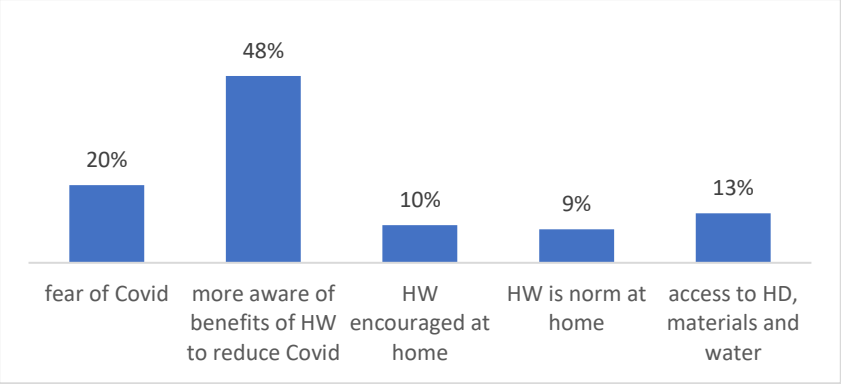


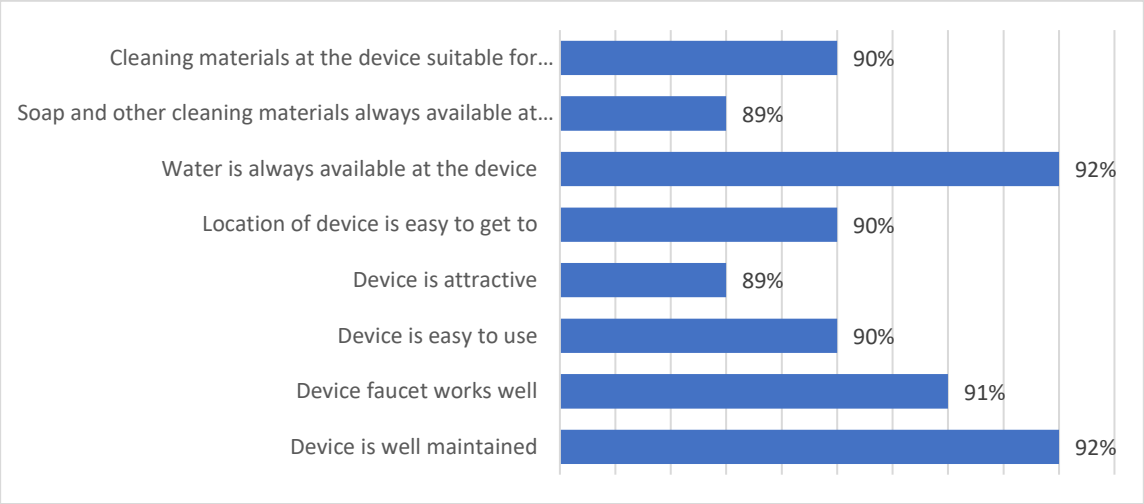
Fig 3 shows the respondents' reasons for increased hand washing:

- 48% of respondents reported "awareness of the benefits of hand washing".

- 20% said “fear of getting COVID-19”.
- 13% reported “access to station, cleaning materials and water”.
- 10% reported “hand washing is encouraged at home”.
- 9% said “hand washing is the norm at home”.
- 76% reported that they would “wash hands more if soap and cleaning materials are freely available”.
- 57% reported that they are “more likely to wash hands more if more people around them wash their hands”.

Of the 278 respondents that reported using the hand washing stations, 87% said that there were always someone using the station; 87% felt that the presence of the station made them want to wash their hands. In this regard, their motivation to wash hands could relate to access to hand washing stations and hand washing materials (as seen in Fig 3). It could also relate to functionality and features of the hand washing station. Fig 4 shows the proportion of respondents who agreed and strongly agreed with statements about the installed hand washing station’s features and functionality generally.

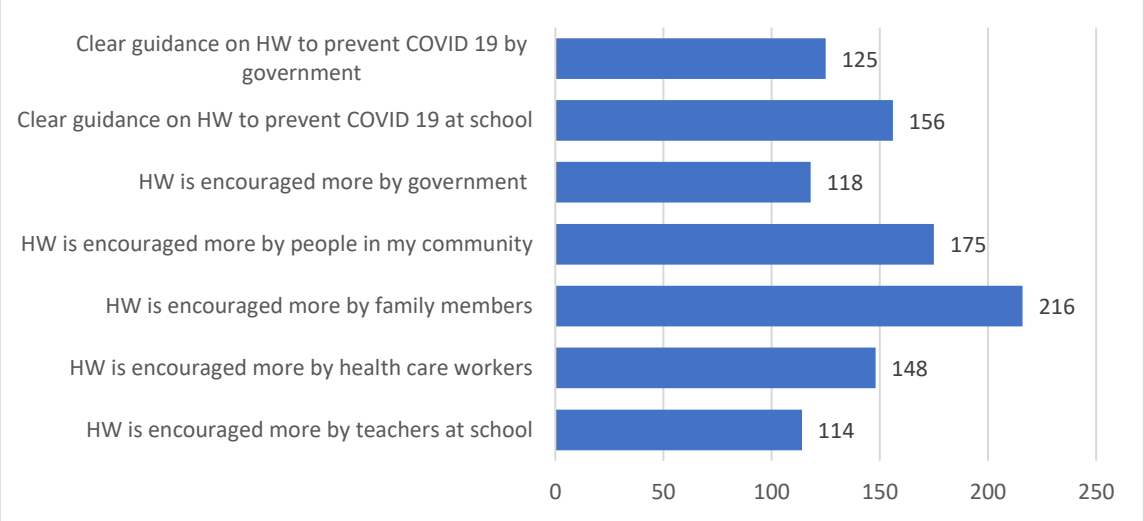
Fig 4. Proportion of respondents who agreed with the following statements about the hand washing stations



Reported increase in hand washing practices could also relate to other factors such as hand washing norms with 94% of all respondents said that their community generally “promote good hand washing practices”, or instructions and encouragement of hand washing during COVID-19. Fig 5 summarises the respondents’ perception of guidance on and encouragement of hand washing since the installation of the station in their respective settings.

Only 50% of the 121 respondents from CHS reported that hand washing is encouraged more by health care workers, and only 30% of 98 respondents from kindergartens reported that hand washing is encouraged more by teachers at school. This is interesting in light of the WU’s co-ordinated activities with schools to provide instructions on how to wash hands properly using the Labobo hand washing stations and that the Wu receives the content of promotional activities on hygiene practices from Ministry of Health and they coordinated with the CHS to distribute leaflets on COVID-19 and hygiene behaviour to households. This will be further discussed in the next section on WU’s promotional activities (see 4.2.1.2, and 4.2.3).

Fig 5. Encouragement and guidance on hand washing



4.2. Research Question 2

To what extent does the WU members' promotion of hand washing and hygienic practices as preventative measures of COVID-19 raise awareness and facilitate hand washing and hygiene practices in the target CHS, kindergartens, and GESI households?

4.2.1 WU's promotion of hygiene practices

4.2.1.1 Aims of the promotional activities

At the household level, the WU members had two main aims for their hygiene practices promotion. First, to raise public awareness about the harmful effects of COVID-19. Second, to encourage citizens to adopt hygiene behaviours including hand washing to keep the local community safe from COVID-19. At the kindergarten level, their aim was to instruct children on when to wash hands and the proper ways to wash hands. At the WU level, the aim was to provide WU members with awareness and interest about hygiene behaviours in order for them to mobilise the members' own families, local residents, or those who recently returned to the local community to attend promotional activities or receive the content of the promotion from the WU.

The WU interviewees spoke about their hygiene behaviour promotion as "part of the WU's 'propaganda' role and responsibilities". They viewed hand washing promotion through this lens of propaganda and mobilisation, to be conducted within the structure of the WU as part of Vietnam's vertical political system that "encourages WU members on COVID-19 prevention under the guidance of their superiors". The hand washing promotion was integrated into their WU monthly propaganda mechanisms. The interviewees were Presidents or Vice Presidents of the District WU who received propaganda activities from Provincial WU and directions of the District Party Committee and the District People's Committee. With the spirit of propagandists, "the awareness of the WU women when they carry out propaganda is generally very high. They comply with the instructions and regulations from the above and perform very well."

4.2.1.2 Types of hand washing promotions

The WU members conducted the hygiene behaviour promotions using different methods including coordinating with CHSs to distribute leaflets to households, distribute promotion (or propaganda) fans (see Fig 6 and Fig 7 for examples of fans), hanging banners about COVID-19 prevention at the gate of the Commune People's Committee, distributing hand sanitiser and instructions on how to wash hands, clean houses, and other preventative measures like wearing masks in public places and crowded places.

They co-ordinated with kindergartens through the district and commune management boards to arrange for teachers in the kindergartens to demonstrate to children and parents the “6 steps of hand washing” using the Labobo stations. In this regard, many WU interviewees considered the distribution of hand washing stations a mode of hygiene behaviour promotion not just installation of equipment. According to the WU interviewees, parents were invited to participate in the instruction events at these kindergartens because “parents always follow their children closely in the process of caring for and educating children throughout their developmental stages. Having parents involved will have an active part in the child's life to remind the children to maintain such good habits of hand washing.” The school administration was also used to disseminate flyers and teachers conduct outdoor promotional activities. Fig 8 and Fig 9 are examples of the posters used in one of the kindergarten instructional events.

Fig 6. Two sides of a promotional fan from Ben Tre province

Fig 7. Two sides of a promotional fan from Hoa Binh province

Fig 8. Poster for children on how to use Labobo station

Fig 9. Posters for teachers on how to wash hands properly

The WU members also raised funds to buy cloths, elastic bands, and other materials which they used to make and distributed masks to their WU branches and at the village markets. They also raised funds to buy masks and hand sanitisers to give to the WU members. These activities were consistent across the two communes and seemed to be done as a collective effort of the WU to support their members.

> "WU branch groups and associations carried out campaigning and communication news. In communes with better economic conditions, we [WU] set up groups to sew masks to distribute free of charge, mobilise households with financial means to purchase antiseptic cloths and then send them to other [WU] women to voluntarily sew and distribute to

> women in rural areas. We all aim for our women to know how to prevent COVID-19." Interviewee 1, Ben Tre.

> "The propaganda is conducted by WU members and then through their WU members who passed on the propaganda to their families." Interviewee 10, Ben Tre.

The most common method of promotion was integrating the hygiene behaviour communication in the agenda of monthly WU meetings, what they referred to as "monthly propaganda activities" conducted at the commune, district, village, and groups within villages. In these instances, there was no additional communication about the promotion outside these meetings. However, during the peak of the COVID-19 period, some information was provided in advance to the WU branches and associations to notify members about the promotion of hygiene behaviours to encourage them to attend.

> "I also announced that I will have a meeting where I will convey that there will be propaganda content on disease prevention for themselves and their families." Interviewee 9, Ben Tre.

> "I sent an invitation to the members about the meeting and agenda, stating that the meeting of the executive committee or the meeting of the branch, the association, will have propaganda on COVID-19 epidemic prevention." Interviewee 4, Ben Tre.

The WU members also leveraged other mass organisation meetings for example with Youth Union to deliver the hygiene behaviour messaging.

During the peak of the COVID-19, due to social distancing or limits of groups meetings, the WU members used Zalo group, which is similar to WhatsApp, and Facebook to disseminate information about hand washing and COVID-19 prevention.

> "In our network, there is a group network, the Zalo group. We also announced that the meeting will have such and such content on COVID-19 prevention and suggested that the members send our invitations to their WU members to attend the meeting." Interviewee 2, Ben Tre.

Because the WU interviewees were Presidents or Vice Presidents of their WU branches, they delivered many hygiene behaviour promotions to a large number of households. this activity was the main propaganda task of the WU's work during the peak period of the pandemic. The interviewees, on average, had each delivered hygiene behaviour promotion in 30 to 40 WU meetings since March 2020. Each meeting had about 20-25 attendants, resulting in about 400-500 people per person. The number of promotions depended on the number of communes in the district of the interviewee. At the WU village level, there were more participants, ranging from 30 to 60 attendants for each meeting.

Some WU interviewees also visited households directly to distribute the flyers, although this was often carried out by the WU units at the village level. The process of Commune WU (CWU) conducting household visits involved the CWU members informing the head of village councils, who would inform households in advance about the purpose of the visit. The CWU could also phone households directly.

4.2.2 Target audience

Due to the nature and mandate of the WU, household women were the main target audience of hygiene behaviour messaging in the monthly WU propaganda meetings. At the community level, the WU's promotion prioritised elderly people, persons with disabilities because these groups were not able to travel to attend the WU meetings, and were considered vulnerable to COVID-19 infection. According to the interviewees, most people who came to the WU meetings were regular attendants of the meetings, on average 30-60 years old, but there were also groups outside of this age range.

There seemed to be awareness among the interviewees about working with persons with disabilities;

> "People with disability are quite sensitive about hand washing. They feel insecure about their disability. So, we need to understand and pay attention so that we can help them to be aware of how to prevent COVID-19, to protect their health. We pay attention to people with disability household that have young children." Interviewee 5, Ben Tre.

The strategy of targeting audience based on needs followed the WU's propaganda strategy for mass mobilisation that aims to address different groups' mobility to encourage attendance. The WU members visited elderly people's homes to instruct them on how to wash their hands. The poor and near-poor households who could not come to meetings were prioritised in terms of receiving soap and other hand washing materials. This could also because these WU members were following WOBA's target beneficiaries of poor and GESI households eligible to receive the hand washing stations and water tanks.

Target groups influenced the timing and location of the promotion because the WU members aimed for high number of attendants;

> "Delivering the promotion in a public hall would not attract many people because this is not accessible for many people, or the timing may not be ideal for people to come. Similarly, activities at the market mainly involves distribution of leaflets and masks because it is not feasible to gather people in the morning. People who live in hamlets would not want to travel to attend events. They also have little access to information, so we prefer to visit each household in these locations. As for those who often go to work far away from home, we target them for evening meetings and communication." Interviewee 1, Ben Tre.

While the promotional modalities were different for different groups, the content of the promotion was uniform across groups using the same communication materials including fans, flyers and leaflets.

4.2.3 Content of the hygiene behaviour promotion

The content of the WU's promotional activities on hygiene practices and COVID-19 was received from their leaders and the WU at the higher unit of administration, which adhere to the propaganda process of the WU alongside the Party and People's Committees.

> "The superiors direct the contents and methods of delivery depending on the place and each organisation." Interviewee 2, Ben Tre.

The content of the flyers is produced by the Ministry of Health which the WU members obtained directly from the MoH or from the CHSs. They sometimes shortened the content to make it easier for the households to understand, or easier for them to integrate the content into their monthly WU meeting agenda.

Leaflets and promotional fans were provided by the Provincial WU to the District WU who then sent them to the WU units in the communes. The commune WU transferred the leaflets to the WU branches and associations in villages and hamlets. The interviewees felt that the leaflets were more effective than verbal presentation because the meetings at the provincial and district levels, or meetings with other departments and unions often have many agenda items. According to the interviewees, the leaflets were produced by the provincial and district steering committees in coordination with the health department. Thus, the content of the leaflets and flyers align with the official messaging of the government and meet the communication requirements of the WU.

Since the content and communication process aligned with the WU's propaganda work, the interviewees found it easy to deliver the hygiene behaviour messaging. It is one of the factors that facilitated their promotional activities because the community was already familiar with the propaganda role of the WU and trusted that the material concurred with official messages and government directives.

Most WU members interviewed did not see the need to change the content of any of the materials they received. They considered the content to be appropriate. Many said they could easily download the same information and infographics to create their own resources if they had not received the materials.

The WU members did produce their own content to distribute with the masks that they made. They compiled the messages, printed and inserted into the mask package. The short message reminded people of the collective responsibility of protecting health of the community, which the WU interviewees believed would encourage people to read and be aware about the importance of preventing COVID-19. They felt that this message reinforced the content of the leaflets, flyers, and fans, and was a good reminder about hygiene practices.

4.2.4 Delivery of the hygiene behaviour promotion

The WU tailored their communication style according to the audience. When working with young people, they used game and rewards for correct answers to create excitement. When working with the elderly, they presented short content because they felt older people do not listen much. They considered the tactic of communication to be the norm of the WU's propaganda methods:

> "To implement the resolution of our WU Association, we choose subjects for propaganda and apply that method of propaganda to our promotion activities relating to COVID-19." Interviewee 2, Ben Tre.

Some felt that different types of communication would address different people's needs and expectation of the format of the activity. They mentioned the use of drama, verbal exchange between the WU members about the content of the topics that they want to communicate, or other forms used in other activities of the WU's propaganda work like hanging questions, drawing answers, picking flowers, using games.

At the kindergartens' instruction events the teachers carried out the demonstration of hand washing and through questions and answers, children were asked to recall the steps. One interviewee commented on this demonstration and how she would do it differently,

> "On instructing children about the time to wash hands, I will not ask at what time should the children wash their hands, but I will use a picture to illustrate washing hands at this time, to let the children choose for themselves. Because I find with children seeing and judging, it will help children to think for themselves and become more interesting for them. In the 6 steps of hand washing, I don't think we should the children what the 6 steps of hand washing include, rather we can use pictures according to those 6 steps and then let some children or a group of children discuss among themselves. Let them arrange the steps because they have already learned. The communicator summed up how to evaluate the ranking, how correct the results were. This is very interesting to me because the use of pictures in communication activities for children is very interesting and effective." Interviewee 11, Hoa Binh.

Both the interview and survey data indicate that time and location of the promotion affects people's participation. Timing of promotion activities depend on the economic development conditions of the local areas and the WU members planned their schedule to accommodate the community. In most cases, because rural people often work in the fields or selling goods at the markets, the WU members chose weekends, and evening or noon to hold meetings.

> "For small traders, I never choose mornings because that's the time they sell goods so I have to choose evenings or noon time. Some sisters [WU] take their children to school, so I can't choose that time. I often choose weekends because if you invite them during working time when they are cutting grass to feed the cows, cooking rice, they will not come." Interviewee 6, Ben Tre.

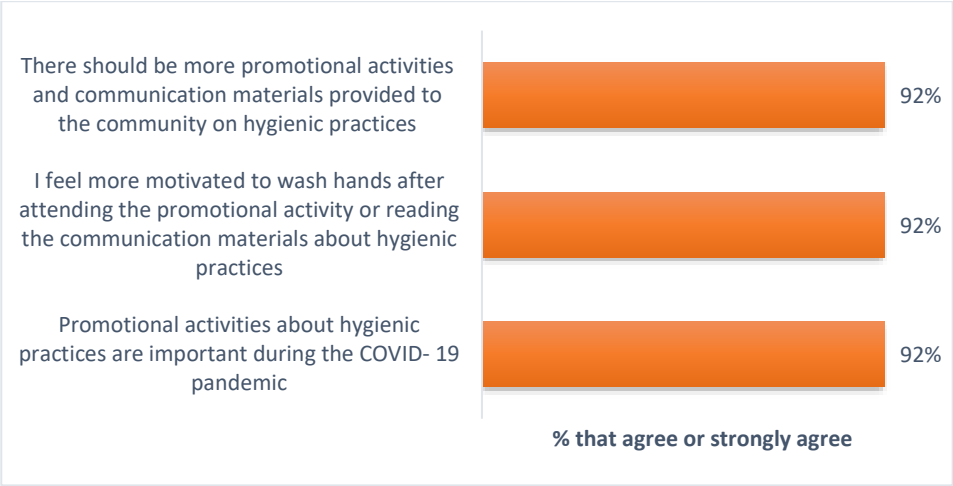
The location of the event is also selected to ensure people can come. For people living in hamlets far from the communes, it is not possible for them to attend commune events held at commune areas and thus household visits. However, there are some areas that are difficult to travel and inherently difficult for any type of propaganda activities.

4.2.5 Engagement with Women Unions' hand washing promotion

Fig 10 shows the survey respondents' agreement with hygiene behaviour promotion in general. 92% reported that it is important to carry out these promotions during the pandemic and that they were motivated to wash hands more after attending the WU's promotional event or reading the communication materials. Although the majority (92%) reported that they washed hands more since COVID-19 began (see 4.1.2), there was no statistical significance between attitude toward hygiene behaviour promotion and "washing hands more".

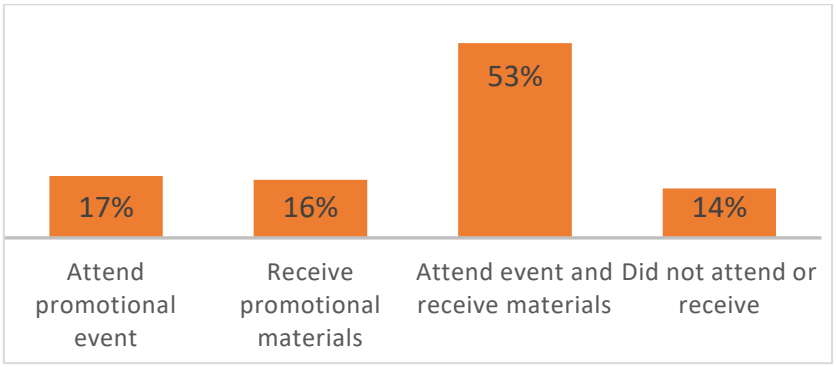
288 respondents (77%) were aware of WU's promotional activities; 84 (23%) were not. 92% reported that the promotion activity was held at a place convenient for them to attend, probably referring to the monthly WU meetings. 91% said that the materials of the propaganda were available for everyone to view and read.

Fig 10. Attitude toward hygiene behaviour promotion



The majority of survey respondents reported they attended or received the communication materials of the promotion. Fig 11 shows the number of respondents (out of the 288 that were aware of the WU's promotion activities) that attended or received the promotion materials. The main reason for not attending was "location of the event", followed by "not invited to the event", and "working" at that time. All respondents who did not attend or receive materials were interested in receiving hygiene behaviour messaging and COVID-19. 94% of all survey respondents said they were interested and willing to receive hygienic messaging and COVID-19 information.

Fig 11. Survey respondents' engagement with the WU's promotional activities



Engagement with the WU's promotional activities differed between respondent groups, income levels, and education levels. There were more respondents from kindergartens and CHSs who attended promotion events and received materials than those from households. Lower income respondents did not attend or receive communication materials while higher income respondents did both. The majority of respondents with lower education only received communication materials while the majority of those with upper secondary education and higher attended event and received materials.

The majority of respondents from CHSs and kindergartens remembered both the facilitator and the content of the promotional event while only half of household respondents remembered either the facilitator or content, and half remembered both. The contents of the promotion were viewed favourably (see Fig 12). The WU's facilitations of the promotion were also viewed positively (see Fig 13). The interview data is similar with the survey results, in that the WU interviewees felt that people who attended the event engaged positively because they were well aware of the need to

prevent COVID-19, and that they were familiar with the WU's facilitation in propaganda monthly WU meetings.

Fig 12. Content of promotion

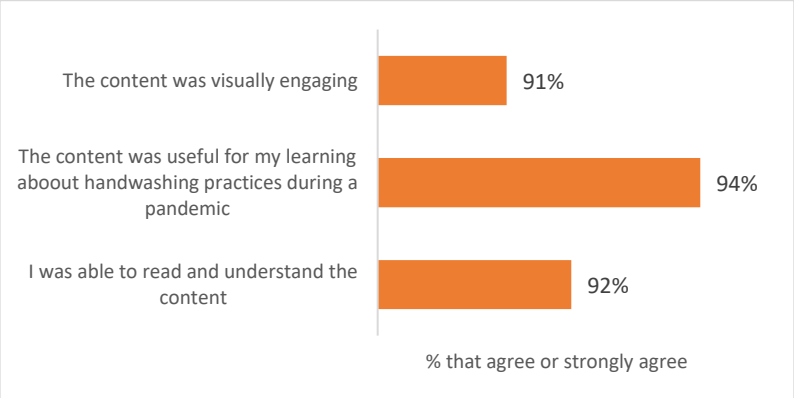
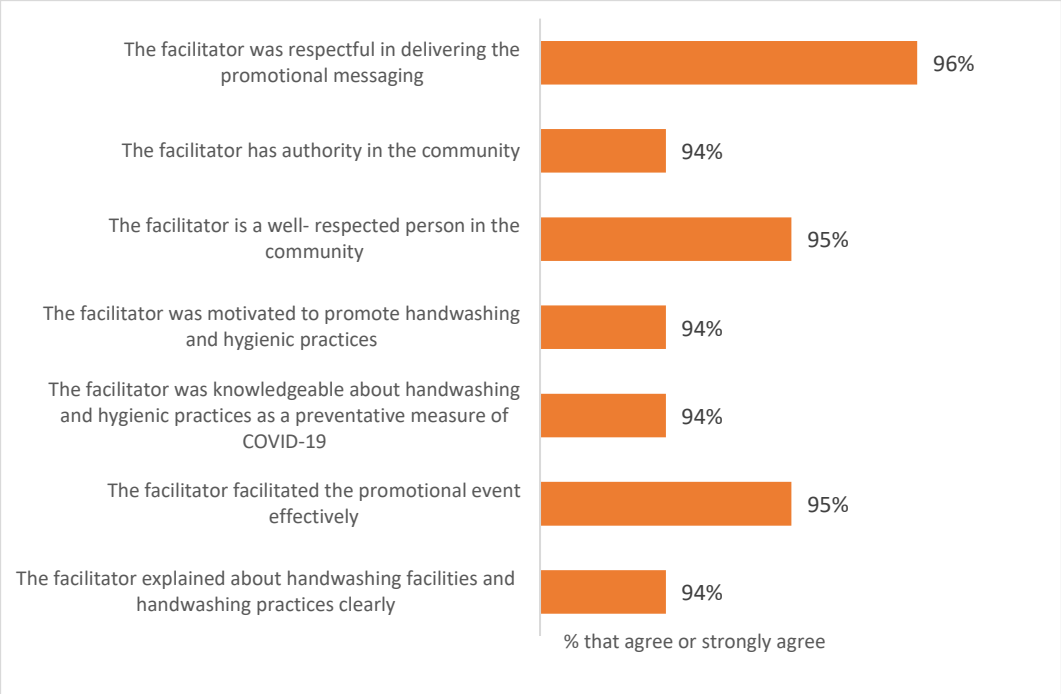


Fig 13. Facilitator of promotion



4.2.6 Awareness, ability, and attitude toward hand washing

Most interviewees considered their promotional activities to be impactful. They gave examples of observed behavioural change such as people are sharing stories about their hand washing practices which suggest a social awareness about hygienic issues.

> "At weddings and parties, our sisters talk more about hygiene, share more about what they have done in the prevention of COVID-19, for example 'I did like this, I washed my hands like this, how many times a day'. This is always a hot topic. When our sisters share stories like this, I think that our work is effective because it has affected awareness." Interviewee 7, Ben Tre.

The interviewees also described their observation of hand washing practices,

> "Before, during our meetings, our sisters ate without washing hands. Now, the sisters ask to wash their hands. When they sit in the meetings, they spray their hands with water, and they also do that before eating. There's always a bottle of hand sanitiser in their bags and they take it out from time to time. It is a habit." Interviewee 1, Ben Tre.

> "Our promotion is effective. We can see the households changing their behaviours. When they go to the street, they wear masks. When they are in the public interacting with the public, they wear masks. You can see that they wash hands in the way that those flyers say. So, I can say that people do change their behaviour." Interviewee 8, Ben Tre.

Some WU members referred to observed change in the practice of washing hands with soap, water, disinfectants as an indicator of households' knowledge about hand washing.

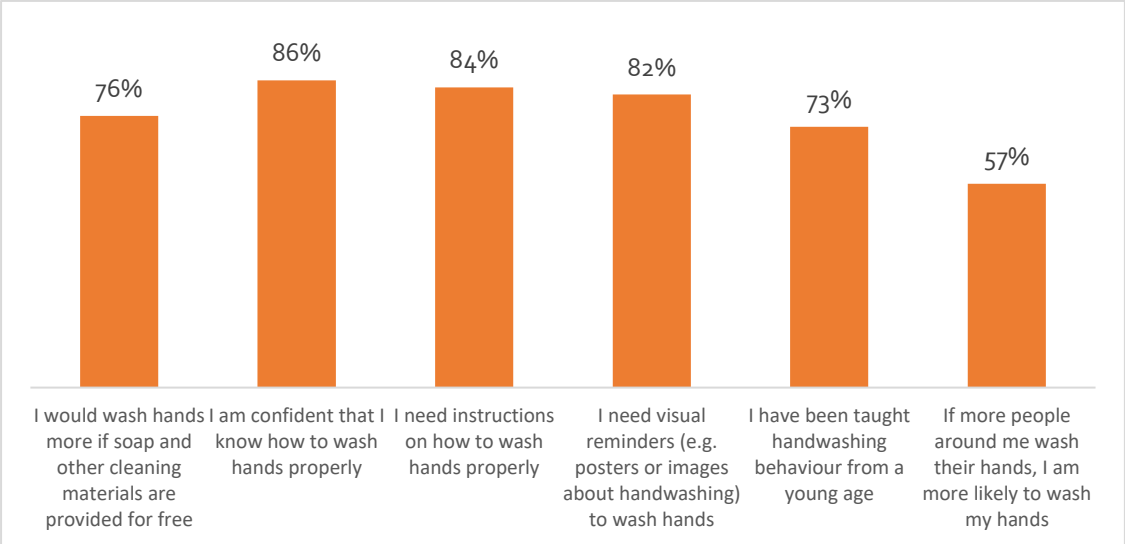
> "In general, they do follow our instructions on hand washing. Now every house has a bottle of Life Buoy hand sanitiser. In the old days, in general, we never used soap to wash our hands. Now, when going to a meeting in a [WU] branch or association, we can see that most of the people have hand sanitiser or antiseptic water at home. Interviewee 6, Ben Tre.

The WU members considered the impact to be long term because the awareness and changed practices both contribute to a habitual practice of hand washing.

> "I think it has sustainable impact because if they do that in the long time it becomes a habit. They will know that when they wash hands, they have to wash in this way." Interviewee 3, Ben Tre.

Fig 14 shows the survey respondents' attitude toward hand washing, which supports the interview data. "Confidence in knowing how to wash hands properly" was mentioned the most, followed by "needing instructions" and "visual reminders" which may suggest these are nudges for hand washing as a behavioural change. "Other people washing hands" rank lowest which suggest social norms may not be a factor for behavioural change.

Fig 14. Factors for hand washing practices



Results from Chi-square test of independence indicate that there is an association between both the content and facilitation of hand washing messaging (see Fig 12 and Fig 13) and “more aware of benefits of hand washing practices in reducing COVID-19 infection”, “confidence in knowing how to wash hands properly”, “instructions or visual reminders on washing hands”. However, neither the content nor facilitation were statistically significant with “washing hands more”. This may suggest that there are other factors in addition to the hand washing messaging that contribute to the WU interviewees’ observation of change in hand washing practices.

There is statistical significance between “visually engaging content” and “need visual reminders” and “need instructions” which suggest that visual content is an important element in the WU’s promotion for group of respondents. Interview data supports the survey results, as suggested in the below quote,

> “Engaging and attractive material is a factor in getting people to be aware. The promotional fan is very good idea because when it is hot, people use the fan. When they pick up the fan, they can read the words on the fan. So, it really taps into their awareness - an imprint into their mind. Pictures have a very big impact. For example, when people look at that picture of the virus, they say “Oh, this is so scary”. They become fearful. They know that the disease is very dangerous, or they would know that together they and their families would do things to prevent this disease to come to our local area.” Interviewee 1, Ben Tre.

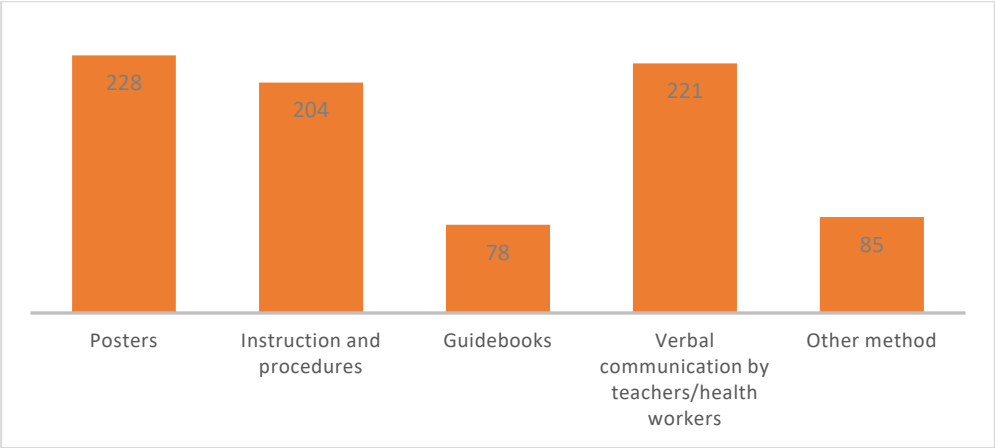
Most WU interviewees felt that facilitation skills are most important in promotional activities and more important than having knowledge about hand washing or COVID-19.

> “If I don't communicate well, I have knowledge but don't have the skills, it's hard for the audience to understand what I'm trying to say.” Interviewee 8, Ben Tre.

4.2.7 Effective methods of communication

Effectiveness of hygiene promotion may depend on the type of communication methods used. Fig 15 shows the types of communication that survey respondents perceived to be effective. As with engagement patterns, there are differences between educational and income levels. Other method which was mainly commune radio was preferred by those without school education and with lower income (less than 3 million dong income per month). Posters and instructions and procedures were seen as effective by those with primary and lower secondary school, or not employed, while college and university qualified and middle to high income respondents reported that all four types of communication (posters, instruction and procedures, guidebooks, and verbal communication by teachers or health workers) were effective.

Fig 15. Effective communication methods reported by survey respondents



As indicated in Table 2 below, most survey respondents considered more than one method of communication as effective. Higher income and education levels (those from CHSs and kindergartens) were aware of and reported more than one methods.

Table 2. Popular methods of communication

	Number of respondents	**Most popular method**	**Respondent**
1 method	92	Verbal communication by teacher/health workers	45 households, 47 CHSs & kindergartens
2 methods	126	Posters and instructions/procedures	73 households, 50 CHSs & kindergartens
3 methods	73	Posters, instructions/procedures, guidebooks, verbal communication	7 households, 66 CHSs & kindergartens
4 methods	53	Posters, instructions/procedures, verbal communication, guidebooks	3 households, 50 CHSs & kindergartens
5 methods	7	Posters, instructions/procedures, verbal communication, guidebooks, commune radio station	1 household, 6 CHSs & kindergartens

Some of the WU interviewees felt that the most effective method of communication is state media such as TV for the government to share information from the Department of Health. Others felt commune radio is effective:

> "Commune radio is appropriate for all types of households due to the timing. Five am, six pm are times when everybody is at home so everybody can hear. Other methods may reach some groups and not others." Interviewee 12, Hoa Binh

On the other hand, some felt that mass communication like commune loudspeakers may be effective in reaching low-education households, but people easily forget the content. Multiple methods are useful to reinforce awareness, for example posters can reinforce what people have read, seen, or heard from promotion activities, and hand washing materials can remind people to wash hands,

> "People can forget what I say to them, but if I give them soap, they remember what I say when they use the soap. TV messages can be seen but also forgotten quickly. We need to carry out exercises that are '*mua dam tham lau'*, [when it rains a long time, people get soaked and they will feel the rain]. We must do continuous propaganda so the message sticks in their mind, so they remember it for a long time." Interviewee 5, Ben Tre

Others felt that for people with access to and are familiar with social media, this can be the most effective and quickest method to share the information to everyone.

The WU interviewees spoke about distribution of gifts as an effective propaganda technique. Gifts include masks, soaps, disinfectant and other hand washing materials from businesses or households with financial means. Gift giving also symbolises the collective efforts of the community in the fight against COVID-19. In this regard, some interviewees felt that another impact of their promotion is creating opportunities for others in the communities to undertake hygiene behaviour promotion.

> "I give a bottle of hand sanitiser from a business which also directs women to that business. It motivates businesses and women with financial capacity who want to do charity to buy hand sanitiser, masks, and distribute to poor households. I see that as working with the community towards the prevention of COVID 19." Interviewee 2, Ben Tre.

> "We can see that in some of the areas nearby, people follow us in making masks. Basically, what we do is tapping into their awareness about this matter. They ask us for those messages so they can put in the masks like we do. I can see the action of sewing masks and inserting hand washing messages has been replicated in other areas." Interviewee 1, Ben Tre.

The promotion events at schools were also replicated,

> "After the 6 steps of hand washing were demonstrated, the school as well as district and commune management boards highly appreciated it and wished to participate in the promotion and other activities especially for difficult communes."

4.3. Research Question 3

What are factors that contribute to effective promotion and facilitation of hand washing and hygiene practices in the target CHS, kindergartens, and GESI households?

4.3.1 Enablers for the hygienic promotion

4.3.1.1 Role of the WU

The WU's socio-political role and structure within Vietnam's political governance system provide the WU members a mandate to carry out hygiene practices promotions. The WU's fundamental

responsibility of conducting propaganda for the Party and government at all levels position the WU as organisation with the authority to carry out all kinds of promotions, and with that a level of trust in the content of their promotional materials as official messaging.

> "Because I am the President of the WU, I have authority with the community. I have a reputation with my community already. So, when I do the promotion, the members really engage and actively join in. I can work with the members a lot closer. We can exchange information with trust, share in discussing ideas for the promotion. People value highly and are more concerned with the activities that I do. This is for all propaganda that we do, not just hand washing campaign." Interviewee 8, Ben Tre.

However, others felt that being a WU member had no influence on how people engaged with their promotional activities. Rather, it was their personal relationships with the communities that influenced people's participation and engagement. In this regard, the authority of the promoter could be a positive factor. As the WU is structured vertically to align with the Party structure and People's Committee structure operating at the provincial, district, commune, village level, the appearance of a WU member from a higher unit could attract the community's interest,

> "People are more engaged when there are WU members at commune, district, provincial levels coming to the propaganda meetings. People seem to listen more." Interviewee 2, Ben Tre.

> "If someone from the People's Committee is mentioned, more people will attend that meeting. This is generally how our propaganda mechanism works, not only in COVID-19 situation. The same goes for other areas or units, when people from the People's Committee or Party Committee of the commune come down, more people will come to the meeting. In people's opinions, they will receive official information directly and they can directly discuss any issue with the departments, branches and mass organisations. They can ask questions directly and will be able to understand the problem better." Interviewee 7, Ben Tre.

These perceptions indicate top-down directed communication works is effective in the context of this study because of the perceived trust and legitimacy of the WU which is tied to the government structure.

4.3.1.2 Individual responsibility

At a personal level, the WU interviewees felt that they have a duty to be a role model when they engage in hygiene behaviour promotion. They felt that they had model hygiene behaviour because it was expected of the WU's "authority" and "respect" of the community. Such duty and role model are the motivation for their delivery of the promotion and demonstrated through their enthusiasm and passion,

> "Enthusiasm moves people in general. When people see our enthusiasm and determination in epidemic prevention, they will respond better." Interviewee 9, Ben Tre.

> "The promoter needs to share their emotion with the listeners. If the person communicates in a very passionate way, then people will feel like they listen more." Interviewee 3, Ben Tre.

It follows that some WU interviewees felt personally satisfied because of their promotional activities. This sense of satisfaction was enhanced when they observed the community's awareness about hand washing,

> "In general, I participate in these activities to help households to understand the harmful effects of COVID-19, to know how to prevent and not get infected. I have done this regularly for about 2 years now. I feel very happy to have supported and helped people understand the harmful effects of the epidemic. In general, I find my work meaningful." Interviewee 5, Ben Tre.

4.3.1.3 Leadership and government strategy

Most interviewees noted leaders' support in respect of their promotional activities. Such support includes receiving the directives for the promotion and they were active to follow the leaders' direction. They accorded with the content disseminated from the leaders and the timing of the leaders' own promotional activities. It was a co-ordinated effort resulting from the vertical relationship of WU members and the socio-political position of the WU organisation. It seems that the leadership support referred to by the WU interviewees are premised on this political position, as commented below,

> "Following the policy from above downward helps my leader to care about helping us to carry out the task of propaganda. If the leader does not understand or care to implement, no matter how enthusiastic we are, they will not understand or know." Interviewee 9, Ben Tre.

The close coordination between agencies allowed the WU's promotional activities to adhere to the regulation of the government and agreed by the local authorities. This is important especially in organising public events such as schools' demonstrations. Generally, this type of agreement and co-ordination by leaders is what the interviewees referred to as "leaders' support:,

> "The project management board must meet to agree on where to do it, how to do it, what is the audience, what is the communication purpose, what is the topic, and then coordinate with commune management, especially school administrators and preschool teachers. This is the support necessary for public activities." Interviewee 6, Ben Tre.

The WU's operation within this vertical governance structure could explain why most interviewees did not perceive that a government's communication strategy on hygiene behaviour is a factor for effective communication. They felt that the receipt of directives from above provided necessary guidance and authority to carry out the promotion effectively. In addition, they viewed hygiene practices as prevention measure of COVID-19 as a collective responsibility where the WU works with other mass organisations and departments and everyone in the community. Thus, a separate communication strategy by the government is not necessary. In light of the literature on public health communication that elevates the role of government strategic communication, this finding is interesting and highlights the influence of communication culture in any public communication campaign. In this instance, it could be that government ideologies are already inculcated in Vietnamese society through propaganda mechanisms of mass organisations and embedded in society at every level, or the issue of hygiene behaviours to prevent COVID-19 is already communicated through other means at societal level, that government strategic communication is

seen as superfluous. Another reason could be that due to the diverse contexts of households, it is difficult to have one communication strategy nationally. This finding may explain the survey results where only 118 (out of 372 respondents) reported that "hand washing is encouraged more by government" since COVID-19. The below comment from an interviewee offers insight into the survey result and illustrates the nuanced issue,

> "As for washing hands with soap, I feel that there is no specific strategy from the government, but the orientation of washing hands with soap is already integrated into other programs. For example, the prevention of COVID-19 has many interlocking factors, including hand washing activities. The Women's Union cooperates with other departments to do the same, but there are places where the WU do it themselves. That's because the way of doing things in each locality, of each unit is different, thus the application of measures to prevent the covid epidemic, including washing hands with soap, is different. I think it is not necessary to have a separate strategy by the government. This is a common task for all." Interviewee 4, Ben Tre.

4.3.1.4. Gender

When asked whether gender affects hygiene behaviour promotion, there were mixed responses from the WU interviewees. Some felt that being a woman had an advantage, although that advantage was confounded with the role of the WU which is to serve women's interests.

> "My advantage is that I'm a woman. I'm in contact with women to create a reputation for women. I have the WU mandate to work for women. Only we [WU] have the reputation to do propaganda in Vietnam. I think that is advantageous for me and my [WU] sisters to do propaganda." Interviewee 8, Ben Tre.

Some responses suggest the WU interviewees' gendered view of hygienic messaging leverages the traditional role of women in Vietnamese society in regard to the issue of hygiene. There seems to be some distinction between women as audience and women as promoters. Some said that women are targets of promotion because of their role in the family and ability to instruct their own families. There is no difference between men and women in terms of promotional skills, but society may still consider hand washing instructions are women's jobs. For example,

> "People often think about women more when they think about hand washing because in the family, mothers, grandmothers, or sisters often guide children on such issues. However, in terms of communication, men or women can both do it. But some men, if they engage in this type of activities, can be seen as breaking the social rule as this is typically women's job. At the same time, educating children on things like washing hands need not only be the mother but also the father's role." Interviewee 11, Hoa Binh.

Interviewees who talked about advantage of being a woman in delivering effective promotion activities referred to the close relationships and trust between them and their WU members and the duty to take care of each other,

> "Being a woman is helpful. Women tend to share things among each other. Meeting up with women in the local area is very easy. I'm a woman. So, my promotional activities are easy to do. It's easy for me to integrate promotional activities into our monthly meeting agenda. The

role of the women in the promotional activity is very important to me, because I have the trust of the WU members. I want to maintain that trust. I want to be able to share information to them in a timely manner, to give back to the love that the WU members gave me." Interviewee 5, Ben Tre.

4.3.2 Challenges

The WU interviewees were mainly concerned with attendance to their promotion activities in the early period of COVID-19. Low attendance was attributable to time and location of the activities. However, as discussed in RQ2, they adapted to households' working patterns and location. Household visits to elderly people and people with disabilities were challenging for the district WU and commune WU members because of lack of time, which they then delegated to members at the village or groups within village level. They also integrated promotion activities with other activities to motivate the households to attend. For example, they combined drought relief activities with COVID-19 activities in Ben Tre. In general, they took advantage of all community forums to incorporate their COVID-19 messages.

The majority of WU interviewees viewed the distribution of hand washing stations and materials as hygiene promotion because they are "gifts" that attract people to the promotion activities, and they are practical tools to demonstrate hand washing practices. For these women, hand washing stations and materials were a contributing factor for effective promotion. It is not surprising that the WU members considered lack of funding to purchase hand washing stations, masks and hand washing materials a challenge. It is also worthwhile to note that because of the WU's role in the community, many poor people in the communities look toward the WU as a provider of resources to support them in many aspects of their lives,

> "We are limited by funding. We don't have enough money to buy these bottles of disinfectant. So, the impact of our work is limited. Promotion alone can impact on raising awareness of the people but practically the bottle of disinfectant actually raises their awareness because they can practise the action. That's another level of raising awareness." Interviewee 8, Ben Tre.

5. CONCLUSIONS AND RECOMMENDATIONS

5.1 Summary of findings

This section summarises the findings of the study to address the overarching aim of the study: 1) appraise the extent to which Phase 1 of WOBA Vietnam's COVID-19 response (distribution of hand washing stations and water tanks, and WU promotional activities) has facilitated hygiene behaviour in the target CHSs, kindergartens, and GESI households; 2) explain factors contributing to the observed effects.

Hand washing stations and water tanks

The findings generally align with the common determinants of Behavioural Centred Design that underscore the survey:

- Most survey respondents were using the hand washing stations and water tanks they had received.
- Most survey respondents washed their hands more since the installation of hand washing stations.
- There is a relationship between availability of hand washing stations, materials, water tanks, the station's design and set up and survey respondents' motivation to wash hands. However, these are not drivers for increased in hand washing.
- People's past experiences and practices and community norms of hygiene practices do not have an apparent relationship with hand washing practices.
- The community (of participants in the study) generally promoteed good hand washing practices, and there was increased encouragement for hand washing at the household level.
- Policies and leadership (local or national) on hygienic practices do not seem to shape perceptions and practices at the individual level. This could be because in the context of Vietnam, public communication is state-led and media is controlled by the government so public communication policies are not understood as something separate from propaganda.

WU's hygiene behaviour promotional activities

- The WU promotional activities followed the propaganda work that the WU is mandated by the Party and the government to do. This provides the WU the legitimacy and authority to conduct promotional events and disseminate materials to the communities. Although working within the community, this is distinctly different to the concept of community-based communication in the literature of hygiene promotion.
- Household members' attendance and engagement in the WU's promotion activities were influenced by their educational and income level which have interactional effect. Higher education and higher income groups attended events as well as received materials and remembered both. They were also likely to be exposed to more than one method of communication and thus perceived more than one method to be effective communication for hygienic behavioural change.
- The communication materials were provided from the WU agencies at higher unit in the form of flyers, fans and leaflets, with content provided by the MoH.
- The WU members tailored their promotion approach for different target groups. Elderly people, persons with disabilities received household visits to demonstrate how to wash hands. Young children received hand washing instructions from teachers through coordinated activities at schools. Most hygiene messages were integrated into the WU monthly propaganda meetings.
- The WU's coordination with kindergartens and targeting both parents and children align with the literature on the importance of family interest and engagement. The WU members considered parents to be the role model for their children to continue the encouragement of hand washing in the homes.
- The aim of the WU's promotion activities was to raise awareness about COVID-19 infection and hygiene practices as prevention measures of the disease. To this extent, both the survey and interviews suggest positive impacts of the WU promotion. Confidence in knowing how to wash hands properly appears to be the key impact of their promotional activities.

- The study aligns with the literature in noting that promotional strategies that combine hygiene and sanitation measures appears to have a larger impact than either one alone.

Contributing factors to effective hygiene promotion

The study's findings are similar with the literature on factors that influence effectiveness of behavioural change communication: 1) length and frequency of the promotion, with preference for regular promotion; 2) short messages accompanied with visual images particularly for elderly and young children highlighting the importance of accounting for people's ability to read and understand the promotional materials; 3) status of the promoter and trust between the promoter and community.

- Availability of training materials is not a critical issue because the WU members received directives and resources from the higher levels of WU agencies. Since the WU members considered hand washing equipment and materials as a training material, and shortage could limit the impact of their promotional activities. However, there was no evidence to suggest this is the case in the WU's interviews. In fact, most considered their promotional activities to be impactful.
- Ongoing propaganda work of the WU in the community was seen as producing sustained impact. This is different to one-off interventions used in the Campbell (2017) review that found little sustainable impact.
- Clear communication and culture of cooperation is leveraged by the WUs through their monthly meetings at the various levels (district, commune, village) and coordinated with other mass organisations.
- Communication technologies such as loudspeakers, radio, newspapers, and social media enabled the communication to reach the mass. In addition, people's general awareness of these technologies and messaging through these communication methods have made it easier for the WU to disseminate their promotional content.
- Other enabling factors that the study pointed to are similar with the literature although these are factors relating to the government structure and political communication in Vietnam rather than factors specific to the COVID-19 response. These include involvement of the community, enthusiasm of leaders of the WU, WU members' strong sense of ownership and duty in the promotional activities, the WU's authority and trust of the community.
- Contrary to the literature, it is not clear whether gender of the promoter is a factor for effective promotion. This is also contextual given the WU is a traditional women organisation whose role is to support women. In this regard, hygiene is considered as a women's issue and the target audience of women in the WU's propaganda work leverages and reinforces such social norm.

5.2 Implications and recommendations

This section presents some practical recommendations for the WOBA project and for similar interventions to support communities in similar settings generally. It also offers some implications for future research on hygiene behaviour change and hygiene promotion in Vietnam and similar contexts of the study.

5.2.1 Practical recommendations for WOBA project and broader policies

1. Hygiene promotion could be incorporated into the project alongside installation of hygienic latrines and piped water connections. The promotion could consider adopting the following:

- Hygiene promotion could be done by the WU as part of their WOBA mobilisation activities and/or by other grassroot organisations, or by organisations with expertise in behavioural change communication including social media experts.
- Any communication activities should be carefully developed to ensure the content fits with the local area, and the approach meets different literacy needs of households in the locality. This means attending to socio-economic conditions and intersection with disability status, education level.
- The communication campaign should use multiple sources of information and methods of communication on hand washing, hygiene practices, and COVID 19 that are accessible to all households particularly those with lower education and income level.
- In addition to the materials provided by the higher level of authorities, the project could collaborate with the WU and expert content developers to source information, curate visual images to be included in the communication campaign.
- The communities could be consulted in the development of the content and methods of promotion for example staff from health centres, schools, organisations of people with disability or rights holder organisations, WASH enterprises and other private sector businesses, as well as other mass organisations.
- The WU members should be provided training by experts on behavioural change communication, including communication principles, communication techniques (social media and in person), and developing content for the range of communication methods.

2. If hygiene promotion is adopted, there should be coordination of the hygiene promotion and clear allocation of roles and responsibilities between the project and the WU (at each level), and other organisations (if employed). In this regard, identifiable activities and outputs with set targets should be agreed and monitored for progress and appraisal.

3. The project could incorporate impact evaluation of the hand washing infrastructure intervention and/or the hygiene messaging intervention (for example of Phase 2 of the COVID-19 response) to establish the causal attribution of observed changes (or impacts) and the intervention. The impact evaluation should be conducted as experimental design (e.g. randomised control trial) or quasi-experimental design (e.g. difference in differences) to assess changes over time for participants in the intervention compared with those that are not.

5.2.2 Implications for future research

Although the study's findings align with the literature on hand washing behaviours and community-based promotion for hygiene behavioural change, they should be interpreted with care given the methodological limitations (see section 2), and should not be generalised to broader population. At a conceptual level, the findings suggest that the common determinants of hygiene behavioural change namely knowledge, characteristic traits (e.g. income, education) and infrastructure are relevant and could be applied in further research in similar contexts with rural Vietnam.

The high score of reliability of the scale items in the survey on content and facilitator of hygiene promotion also suggest the relevance of community-based promotion literature. Some qualifications are worth noting. The idea of "community" in the context of the WU in this study is unique in its state-led approach which is reflective of the WU's socio-political position in Vietnam's political system. Although the WU members are embedded within the community, their propaganda work is fundamentally state-driven, which is distinctive to the idea of community-based communication as dialectical between the community and the government. It would be worthwhile to further examine whether state-led communication programs or community-driven communication programs alongside government strategic policy might affect behavioural change in Vietnam or in similar contexts. The concept of community thus should be carefully applied in future analysis or study of community-based behavioural change communication, and ought to consider the context of the promoters and their organisations.

Other methodological implications for research and impact evaluation are:

- In designing survey, terms like "authority", "respect" to be used in relation to promoters need to reflect the context of participants and the promoters. In a hierarchical structure of the Vietnamese society and given the WU's political position, these terms could have been interpreted by survey respondents quite differently to the researcher's intention.
- Consistent method of observing, measuring and reporting on hand washing practices need to be applied in any survey even if it is self-reporting.
- A longitudinal study would be useful to understand the effects of behavioural change communication e.g. hand washing practices observed at different times and over time to understand people's intention, practice, habit of hand washing.
- The use of survey method should be combined with observational studies and experimental or quasi-experimental design to enhance the rigour of the data collection methods and data quality, particularly when adopting an evaluative lens and participants are beneficiaries in a donor-funded project.

APPENDIX 1. Survey Instrument

Survey on hand washing facilities and practices during the COVID-19 pandemic

East Meets West Foundation would like to invite you to participate in a survey about hand washing facilities and hand washing practices during the COVID-19 response. Your opinion is valued and appreciated. The survey will help us to assess the benefits of installing hand washing facilities and water tanks and delivering promotional messaging about hygienic practices as a response to COVID-19 in rural communities.
This survey should take you about 20 minutes to complete.
The information you supply on the survey will be kept completely confidential. Your real name will not be used in any disseminated report. Please answer the questions based on your personal experiences. There are no right or wrong answers. Don't try to think how other people might answer the questions. Mark only ONE response per question unless you are instructed to do otherwise.

Part 1. Hand washing stations and water tanks

Q1. Did your family receive the water tank from East Meets West project?
- o Yes
- o No

Q2. Does your family use the water tank?
- o Yes
- o No

Q3. Does anyone outside of your family use this water tank?
- o Yes
- o No

Q4. Approximately how many people outside your family use the water tank?
_____

Q5. Did your family/school/health facility receive the Labobo/Inox hand washing facility?
- o Yes (1)
- o No (2)

Q6. What is the approximate distance from your home/school/health facility to the hand washing facility?
- o Less than 50 m
- o 51- 100 m
- o 101 – 150 m
- o 151 – 200 m
- o 201 – 250 m
- o 251 – 300 m
- o 301 – 350 m
- o 351 – 400 m
- o More than 400 m

Q7. Do you use the Labobo/Inox hand washing facility?

- Yes
- No

Q8. Which of these are available at the Labobo/Inox hand washing facility? Select all that apply.

- Disinfectant
- Water
- Soap
- Cleaning towel
- Wipes
- Other cleaning materials

Q9. Please indicate the extent to which you agree or disagree with the following statements about the Labobo/Inox hand washing facility recently installed in your home/school/health facility/household?

	Strongly disagree	Somewhat disagree	Neither agree nor disagree	Somewhat agree	Strongly agree
The hand washing facility is easy to use (e.g. soap holder, basin etc.)					
The hand washing facility is attractive (e.g. nice colour, soap holder)					
The presence of the hand washing facility makes me want to wash hands					
The hand washing facility is in a location easy to get to					
There is always someone using the hand washing facility					
There is always water available at the hand washing facility					
There is always adequate soap and other hand washing materials at the hand washing facility					
The hand washing facility is well maintained					
The faucet of the hand washing station works well					
The hand washing materials at the hand washing facility are suitable for disinfection					

Q10. Which of the following have you observed since the installation of the Labobo/Inox hand washing station or water tank? Select all that apply.

- Hand washing practices are more common in community/school/health facility

- Hand washing is encouraged more by teachers in my school
- Hand washing is encouraged more by health care workers
- Hand washing is encouraged more by my family members (e.g. parents)
- Hand washing is encouraged more by people in my community
- Hand washing is encouraged more by the government
- There is a clear guidance on hand washing practices to prevent COVID-19 infection at my school/health facility
- There is a clear guidance on hand washing practices to prevent COVID-19 infection by the government

Q11. Does your school/health facility/community promote good hand washing practices?

- Yes
- No
- Not sure

Q12. How does your school/health facility/community promote good hand washing practices? Select all that apply.

- Posters
- Instructions and procedures
- Guidebooks
- Verbal communication by teachers/health workers (
- Other methods. Please state the method

Part 2. Women's Union's promotional activities on hygienic practices during COVID-19

Q13. Are you aware of the Women's Union' promotional activities about hygienic practices during COVID-19 in your community?

- Yes
- No

Q14. Did you attend the recent Women's Union's promotional event or receive the Women's Union's promotional materials about hygienic practices for COVID-19 prevention?

- I attended the promotional event only
- I received the communication materials only
- I attended the promotional event and received the communication materials
- I did not attend the promotional event or receive the communication materials

Q15. How well do you remember this promotional event?

- I remember both the facilitator and the content
- I remember the facilitator but not the content
- I remember the content but not the facilitator
- I don't remember at all

Q16. Please indicate the extent to which you agree or disagree with the following statements about the promotional activity?

	Strongly disagree	Somewhat disagree	Neither agree nor disagree	Somewhat agree	Strongly agree

Promotional activities about hygienic practices are important during the COVID-19 pandemic					
The promotional materials were available for everyone to view and read					
The promotional event was held at a place convenient for people to attend					
I feel more motivated to wash hands after attending the promotional activity or reading the communication materials about hygienic practices					
There should be more promotional activities and communication materials provided to the community on hygienic practices					

Q17. Please indicate the extent to which you agree or disagree with the following statements about the **content** of the promotional event or the communication materials provided (banners, hand fans, leaflets)

	Strongly disagree	Somewhat disagree	Neither agree nor disagree	Somewhat agree	Strongly agree
I was able to read and understand the content					
The content was useful for my learning about hand washing practices during a pandemic					
The content was visually engaging					

Q18. Thinking about the promotional event that you attended, please indicate the extent to which you agree or disagree with the following statements about the **facilitator** of the promotional event.

	Strongly disagree	Somewhat disagree	Neither agree nor disagree	Somewhat agree	Strongly agree
The facilitator explained about hand washing facilities and hand washing practices clearly					
The facilitator facilitated the promotional event effectively					
The facilitator was					

knowledgeable about hand washing and hygienic practices as a preventative measure of COVID-19					
The facilitator was motivated to promote hand washing and hygienic practices					
The facilitator is a well-respected person in the community					
The facilitator has authority in the community					
The facilitator was respectful in delivering the promotional messaging					

Q19. What was the MAIN reason that you did not attend the promotional event?

- Prior appointment
- Lack of time
- The event was too far
- There was a lock down
- I was not interested
- Other reason. Please write the reason _____

Q20. Are you interested and willing to receive promotional messages about COVID-19 and hygienic practices?

- Yes
- No
- It depends

Part 3. Knowledge, capabilities, and attitudes towards hand washing practices

Q21. Please indicate the extent to which you agree or disagree with the following statements about hand washing practices among your colleagues/friends/ family members/community members?

	Strongly disagree	Somewhat disagree	Neither agree nor disagree	Somewhat agree	Strongly agree
Most people do not wash hands properly					
Most people do not wash their hands as often as they should					
Lack of hand washing is a problem of culture and habits					
Hand washing is time consuming					
Hand washing is a highly regarded practice in the					

community					
Hand washing is a norm in the community					
Most people are too lazy to wash their hands					
Most people rather spend money on other things than on hand washing materials					

Q22. Have you washed your hands more often since COVID-19 began?

- Yes
- No
- Not sure

Q23. Have you washed your hands more often since the installation of the Labobo/Inox hand washing facility or water tank in your home/school/health facility?

- Yes
- No
- Not sure

Q24. What is the MAIN reason that motivate you to wash hands more than before?

- I am fearful of being infected with COVID-19
- I am more aware of the benefits of hand washing practices in reducing COVID-19 infection
- Hand washing practices are strongly encouraged at my school/health facility/community/home
- Hand washing has become a norm at my school/health facility/community/home
- I have access to hand washing facility, cleaning materials, and clean water

Q25. Approximately how often do you wash your hands currently?

- Once a day or less
- 1-3 times a day
- 4-6 times a day
- 7-9 times a day
- 10 times or more a day

Q26. At which moments do you generally wash your hands? Select <u>all</u> that apply

- Before entering the school/health facility/home
- Before any meal
- After using the toilet
- After school and on the way home
- After visiting health facility and on the way home
- Other. Please state other moments _____

Q27. Please indicate the extent to which you agree or disagree with the following statements about **your** hand washing practices?

	Strongly disagree	Somewhat disagree	Neither agree nor disagree	Somewhat agree	Strongly agree

I would wash hands more if soap and other cleaning materials are provided for free					
I am confident that I know how to wash hands properly					
I need instructions on how to wash hands properly					
I need visual reminders (e.g. posters or images about hand washing) to wash hands					
I have been taught hand washing behaviour from a young age					
I am too busy doing other tasks like household chores to wash my hands					
If more people around me wash their hands, I am more likely to wash my hands					

Q28. How would you feel if your health care worker deliver care to you without washing hands?

- I would refuse care fearing contamination
- I would ask him/her to wash his/her hands
- I would not know what to do
- I would not come back
- I would not care

Part 4. Socio-demographic information

Q29. Which group are you?

- Kindergarten that received the Labobo/Inox hand washing facility
- Health facility that received the Labobo/Inox hand washing facility
- GESI poor household that received the Labobo/Inox hand washing facility
- GESI poor household that received the water tank
- I did not receive a water tank or hand washing facility

Q30. What is your sex?

- Male
- Female
- Prefer not to say

Q31. What is your age group?

- 18-24
- 25-34
- 35-44
- 45-54
- 55-64

- Above 65

Q32. How many people live in your household?

- 1-3
- 4-6
- 7-10
- 11 or more

Q33. How many females live in your household?

_____

Q34. What is the age of the youngest child living in your household?

- 5 years or younger
- 6- 10 years
- 11-15 years
- 16 years or above

Q35. What is your **highest** level of education?

- Primary school
- Secondary school
- Upper secondary school
- Technical/Professional college
- University
- Did not attend school

Q36. What is your monthly income?

- Less than 1m dong
- 1m – 3m dong
- 3m – 5m dong
- 5m – 7m dong
- More than 7m dong

Q37. Do you belong to one of the following categories? Select all that apply.

- Elderly
- Person with disability
- HIV positive from poor household
- Child under 16 without parental or foster care
- People aged 16-22 attending school, college or university without parental or foster care
- Single parent

Q38. Which commune do you live in?

- An Bình Tây (1)
- An Điền (2)
- An Đức (3)
- An Hòa Tây (4)
- An Ngãi Tây (5)
- An Qui (6)
- An Thạnh (7)
- An Thuận (8)
- An Thủy (9)
- Bảo Hiệu (10)
- Bảo Thạnh (11)
- Bảo Thuận (12)
- Bình Hẻm (13)
- Bình Hoà (14)
- Chí Đạo (15)
- Đoàn Kết (16)
- Đông Lai (17)
- Gia Mô (18)
- Hòa Lộc (19)
- Hòa Lợi (20)
- Hưng Khánh Trung A (21)
- Hưng Lễ (22)
- Hưng Nhượng (23)
- Hưng Phong (24)
- Hương Nhượng (25)
- Khánh Thạnh Tân (26)
- Lạc Sỹ (27)
- Lạc Thịnh (28)
- Lương Hòa (29)
- Mỹ An (30)
- Ngổ Luông (31)
- Ngọc Mỹ (32)
- Nhân Mỹ (33)
- Nhuận Phú Tân (34)
- Phong Nẫm (35)
- Phú Cường (36)
- Phú Mỹ (37)
- Phú Vinh (38)
- Phước Mỹ Trung (39)
- Phước Ngãi (40)
- Quý Hòa (41)
- Quyết Chiến (42)
- Quyết Thắng (43)

- Tân Bình (44)
- Tân Hưng (45)
- Tân Phong (46)
- Tân Thanh (47)
- Tân Xuân (48)
- Thành An (49)
- Thạnh Hải (50)
- Thanh Hối (51)
- Thạnh Ngãi (52)
- Thạnh Phong (53)
- Thạnh Phú Đông (54)
- Thanh Tân (55)
- Thị Trấn (56)
- Thuận Điền (57)
- Tuân Đạo (58)
- Vũ Bình (59)
- Yên Nghiệp (60)
- Yên Phú (61)

Thank you very much for completing this survey. Your contribution provides valuable information for research on COVID-19 response strategies in Vietnam's rural communities.

APPENDIX 2. Interview Schedule

Interview guide – WU women that took part in the Covid-19 response promotional activities on hand washing and hygiene practices

1. How did you come to be involved in the Covid-19 promotional activities on hand washing and hygienic practices?

2. What were the specific aims of these promotional activities?

3. Please describe the promotional activities that you undertook relating to promoting hand washing practices (e.g which content and pictures did you use, which types of modalities did you use like presentation, demonstration of hand washing stations and practices, which type of training materials like leaflets, banners, guidebooks etc).

4. Can you tell me why you chose such content, pictures, materials, training modalities? Did you decide on these yourself or in collaboration with your colleagues, or as instructed by your boss, or to accord with government guidelines?

5. If you have to re-design the materials or communication method, would you do anything differently? Why and why not?

6. How long was each of your delivery of the promotional activities? How often did you deliver these activities since the pandemic began?

7. Were there specific target groups that these promotional activities aimed at? (e.g elderly, young people, PWD, women etc). If yes, why were those groups targeted?

8. How was the promotional event advertised or communicated to the community?

9. In your view, should there be different approaches to attract and invite different groups of the community to come to these promotional activities? (e.g poor, people with disability, elderly people, women, girls, young people etc)

10. Thinking back on your recent promotional activities, were you happy with the turn out? Did the audience seem interested in what you had to say? Did most people come by themselves or with their families? Did they seem to understand and like the materials distributed?

11. Were there any challenges that you encountered in delivering these activities? How might they affect the promotional activities?

12. In your view, which issues might affect how your community engages and learns from these kinds of community-based communication about hand washing practices (e.g presenter's knowledge and skills in communicating, presenter's enthusiasm in communicating about hand washing practices, gender of the presenter, the authority of the presenter in the community, communication materials are attractive and easy to understand and people can take home, time and place where the promotional activities take place).

13. In your view, would more people attend these promotional activities when they are aware of existing government policy guidelines or government's communication strategy on hand washing practices to prevent Covid infection?

14. What are some things that helped you to deliver the promotional activity well? (e.g. enthusiasm of the community leader and your WU leader, the important role that you have in raising awareness about hand washing during the pandemic, the activity involves the community, exiting trust between you and the community, your gender, time and place of the promotional activity).

15. In your view, should promotional activities about hand washing or hygienic practices be delivered during the pandemic or disease control situation only or should it be done all the time?

16. In your view, what is the most effective method of communication about hand washing practices for your community? (e.g. radio, loudspeaker, posters, instructions and guidelines, guidebooks, TV, focused meetings with WU, focused meeting with local government e.g. PPC, hygienic education day.

17. In your view, do these promotional activities have a long-term impact on people's awareness of the importance of hand washing and hygienic practices or even changing their hand washing/hygienic practices? Please explain.

    End of interview. Thank you.

APPENDIX 3. Consent Form for Interviews with Women's Union members

The purpose of this interview is to gain a better understanding of the promotional activities that you, as a member of the WU, undertook during the Phase 1 of the COVID-19 response of the WOBA Vietnam project. This interview is being conducted as part of the research study on the impact of WOBA Viet Nam's COVID-19 response and is in line with well-established ethical procedures set out by WOBA. These procedures outline our obligations to you as participants in the interview and cover issues such as privacy, consent, and storage of data.

The results of the study will help to inform future promotional activities relating to promoting hand washing and hygienic practices in rural Viet Nam.

With your permission, the interviewer will make an audio recording of the interview.

The information collected will only be accessible to the research team, who will present the results of this interview in the form of a report that does not identify you. The information will be stored securely in an electronic format that does not identify you.

Based on the information we have provided to you in our introduction, do you feel sufficiently informed about the interview and interview process? Do you have any questions?

Are you willing to confirm that you will participate in the interview on this basis?

Are you (the interviewer) confident that informed consent has been provided by all participants?

Yes / No	
Details/comments	
Were any concerns and/or questions expressed?	
If so, how were they dealt with?	

Interviewer to sign on behalf of interviewees.