



High return on work efficiency amplified by water, sanitation and hygiene interventions

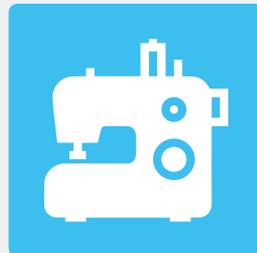
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Key Points

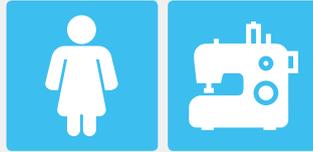
BDT 32.6 (\$0.38), BDT 8.4 (\$0.09) a return for each one taka (\$.012) spent on WASH promotion through, change agents at factory-level and community level respectively.

Absenteeism due to illness was lower among the garment workers in the intervention location compared to the garment workers in the control area.

The average overtime income of the garment workers at the intervention location is higher than that of the garment workers at the control location.



About Levi's intervention



The aim of Levi's project was to reach RMG workers at the communities and factories to increase knowledge and practices on good hygiene behaviors. The two strand activities included renovating water and sanitation facilities under a cost-sharing model with the landowners. To ensure that the safe supply of drinking water and improved sanitation facilities reach out to the people. Central to the initiative was multi-pronged communication strategy to reiterate and establish sustained hygiene behavior including broadcasting TVCs on satellite channels.

End line study

Levi's was a three-year project that began in April 2016 and was completed in March 2019. An end line study was carried out during February-March 2019. This briefing is set out to illustrate the findings of the end line study.

Research Questions



Did the WASH interventions at the community level and readymade garments factories made any positive impact on the lives of workers?

Did the community and factory hygiene interventions had any effect on the lives of the factory workers.

Methodology

A random sampling approach with a multi-stage sampling strategy with 95 percent of confidence interval, 5 percent precision and 1.2 design effect were adopted. A total of 750 participants (individuals in households) were surveyed equally between the treatment group (workers who received the intervention) and the control group (workers with similar socioeconomic characteristics that did not receive the intervention). Propensity score matching (PSM) was carried out based on observable characteristics (i.e. residential status, demographics, household property, connectivity, availability of drainage facilities, occupation) to ensure comparability between the treatment and group.

Key Findings

The study generated evidence that WASH intervention for the garments workers improved their health which in turn resulted in the increased well-being and income level of the worker.

WASH Interventions And Outcomes



2,984

garment workers
reached with safe water



1,777

garment workers reached
with improved sanitation

Access to water

The likelihood of accessibility to safely managed water is 200 percent higher because of this intervention.

Access to 'safely managed' water services

- Intervention **34%**
- Control **15%**

CASE STUDY

Improving and empowering the lives of garment workers through proper WASH practices

Sraboni has been working since 2008 in Cosmopolitan Industries Pvt Ltd (CIPL.) She works in the sewing section. Her current salary is BDT 11,900 (\$149) per month. She lives in Savar with her husband, mother, and her nine-month old daughter.

Sraboni received training on water safety, proper sanitation services, and improved hygiene within the factory under this Levi's project. She is a change agent who holds hygiene sessions at workplace. In August 2020 after the intervention she shared her experience. WaterAid intervention also provided safe water and sanitation services at her home. "I speak to people in my neighborhood about hygiene behavior and practices because I think it is going to help them" She further praises the nutrition training initiative taken by their buyer (Levi's) as it gave her an opportunity to increase her knowledge. With the spread of COVID-19 pandemic, factory authorities installed new hand washing devices to improve hand-washing practice. She believes their menstrual hygiene practices have also improved because of WaterAid's support. Currently they are using sanitary napkin instead of rags / jute to ensure proper menstrual hygiene. Now the factory is also promoting menstrual health and hygiene by selling subsidized sanitary napkin. Sraboni mentioned that the project has helped them learn how to protect themselves from the spread of diseases by practicing proper hygiene.



Access to sanitation

The data indicates that the intervention has increased access to basic sanitation by 109 percent.

In these peri-urban settlements, the garment workers typically have shared toilets. The construction of improved toilet facilities through the project has led to an increasing demand for individual toilets.

Factory management states

"We used to experience sewerage pipe blockage due to the dumping of menstrual material in the toilet, which hasn't happened in the recent past, this indicates a significant shift in menstrual hygiene behavior"

WASH Interventions And Outcomes



29,442
garment workers and their families reached with hygiene campaign and TVCs.



1,147
garments workers reached at factories with hygiene messages.



Handwashing knowledge and practice

At the intervention, awareness of at least three critical handwashing behaviors among garment workers is 36 percent higher relative to control.

Knowledge on at least three critical times of handwashing

- Intervention 67.2%
- Control 42.1%

Handwashing facility with soap and water at the household

- Intervention 36.7%
- Control 8.4%

Menstrual Hygiene Management

The likelihood of maintaining menstrual hygiene among garment workers who have received intervention are 76 percent higher than those who have not received any intervention

Readymade garment workers maintained menstrual hygiene

- Intervention 91.0%
- Control 80.3%

Impact Of WASH Interventions

The research shows that the recipient of the interventions had a lower rate of getting waterborne diseases, a lower average day off for sickness and a higher overtime income compared to garment workers who did not receive the WASH interventions.



Incidence of water borne diseases

- Intervention 27.6%
- Control 36%

Days off for illness during preceding month (self or HH member)

- Intervention .08%,
- Control .12%

Average expenditure on health preceding month

- Intervention BDT 99
- Control BDT 117

Average overtime payment of preceding month

- Intervention BDT 2,429
- Control BDT 1866

Impact Of WASH Interventions

Multiple linear regression that explains overtime pay for community-level recipients of WASH promotion through the WASH campaign, factory level recipients of hygiene messages, recipients of health promotion messages through television advertisements on satellite channels. The data shows strengthening of hygiene messages by multiple contacts resulted in an improvement in overtime payments of about BDT 339.28 (\$3.9) BDT 399.9 (\$4.69) BDT 173.5 (\$2) for the respective hygiene contact methods. Tests are statistically significant

Overtime increase (in the last month)

Attended campaign at community and effect on overtime pay

339.2

Received knowledge on water, sanitation, and hygiene from change agent and effect on overtime pay

399.9

Viewed TVC and effect on a payment received on overtime

173.05

Summary

The end-line results of the project 'Improving WASH access for LeviS RMG workers in Bangladesh' indicate that WASH intervention for garment workers through multiple contacts has impacted their lives beyond reducing the burden of disease, showing substantial return on investment. Furthermore, the results indicate a return on investment in hygiene when messages are reinforced by diversified dissemination approaches at the community and factory level. In addition, there have been significant achievement due to project interventions in terms of access to water and sanitation services, hygiene knowledge and behavior change. Most notably, the multiple regression yielded statistically significant results for the cumulative effect of different hygiene interventions. The result shows that each hygiene intervention was successful in influencing the other's effect. Although direct contact may have had a positive effect, the highest return is obtained from re-enforcing messages via television commercial.

Recommendations

- WASH initiatives, such as water and sanitation facilities and the promotion of hygiene, should be designed to improve the well-being of RMG workers both in the community and in the factory.
- Handwashing messages may be reinforced by mass media where direct communication is restricted or limited due to time constraints.
- A multi-pronged approach to message dissemination can be applied where people are reached through diversified media within the community and in factories.

Promoting hygiene by television commercials (TVCs) is not a face-to - face interaction, the modality is often used to reinforce hygiene messages. High return on investment due to hygiene messages via TVC demonstrates that while it is an efficient approach to behavioral change, it essentially complements face-to - face interaction but is not a substitute.

ANNEXES

Table 1: Results of fitting logistic model to find out the effect size of WASH intervention on different outcome level indicators

Indicators	Intervention	Control	p-value	e β (Odds Ratio)
Household have access to safely manage drinking water service	34.0	15.0	0.000	3.095
Household have access to basic sanitation service	17.7	6.2	0.000	2.941
Household effectively maintained WSP steps	34	12	0.000	2.685
Household women maintained menstrual hygiene, disposes properly if uses sanitary pad /wash with soap and water, dry under direct sun, and changes within 6 hours if uses rag	90.7	80.1	0.002	1.760

Table 2: Multiple Linear Regression results and ROI calculation

Explanatory variables	Constant (α)	Coefficient (β)	P-value	Population reached	Expenditure BDT	Cost per worker	ROI
Watched TVC ad on water, sanitation and hygiene (only hygiene)	2050.9	173.05	0.027	29442	98226	3.3	52.4
Attended hygiene campaign at community	2037.7	339.28	0.007	29442	1159892	39.4	8.4
Received knowledge on water, sanitation, and hygiene from peer educator	1985.1	399.93	0.001	8000	98226	12.27	32.6

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