Improving the Nutritional Status and Work Productivity of Female Garment Workers in Bangladesh: A Pilot Study

November 2017

The Garment Industry in Bangladesh

The garment industry has contributed significantly to the economic growth of Bangladesh over the past decades- accounting for 82 percent of the country's US$ 31.2 billion export industry[1]. The garment sector employs directly approximately 4.4 million people - 80 percent of whom are female - and indirectly 20 million[2] mostly from the poorer and more vulnerable segments of the population. In a recent study of factory workers in Dhaka, the prevalence of anemia was 77%[3], considerably higher than the national prevalence of 42% (BDHS).

The Global Alliance for Improved Nutrition (GAIN) initiated a pilot study in 2014 under the assumption that interventions aimed at improving the nutritional status of workers through the provision of nutritious food and iron supplementation could ameliorate their health outcomes and boost individual- and factory-level efficiency and productivity[4]:

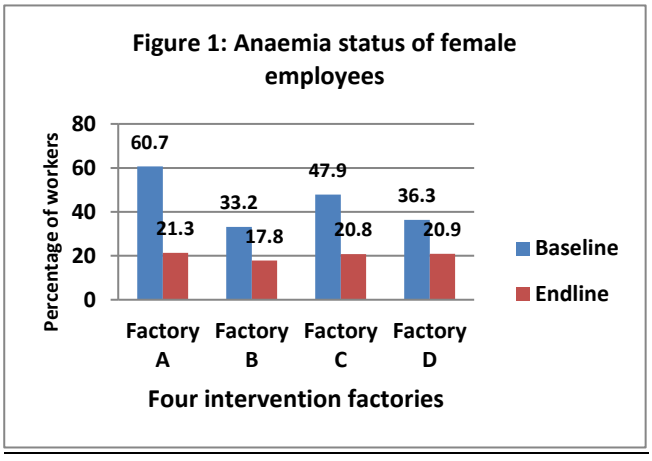
The Evaluation of the Pilot Intervention Targeting Female Garment Workers

GAIN, along with its partners [Business for Social Responsibility through Change Associates], implemented a pilot project involving four garment factories in Bangladesh. The project goal was to reach 32,000 female garment workers for a period of 10 months with different treatment or intervention combinations of hot meal provision (HM), iron folate supplementation (IFS) and rice fortification (FR) (Table 1). Behaviour change activities supported each intervention.

Table 1: Summary of treatment packages in factories

Factory	Intervention	Iron Folate supplement (IFS)	Hot meal (HM)	Fortified rice (FR)
Factory A	**IFS+ FR**+ HM+ **Enhanced** BCC	✓	✓	✓
Factory B	only HM+BCC		✓	
Factory C	**IFS+ Enhanced** BCC	✓		
Factory D	only BCC			

Selected Findings



Employee nutrition: In all the four factories the prevalence of anaemia in female garment workers declined from baseline to endline (**Figure 1**). There were greater benefits when the nutritionally improved hot lunch, with fortified rice, or iron-folate supplementation was provided.

Also, the overall nutrition knowledge in all factories, assessed through a knowledge test, of the female workers improved by 40-50 percent.

[1] Latifee, Enamul Hafiz. "RMG sector towards a thriving future". The Daily Star. Retrieved 15 March 2017. (http://www.thedailystar.net/supplements/25th-anniversary-special-part-2/rmg-sector-towards-thriving-future-210886); Bangladesh Garment Manufacturers and Exporters Association (BGMEA)

[2] Bangladesh Garment Manufacturers and Exporters Association (BGMEA)

[3] Khatun, T., et al., Anemia among Garment Factory Workers in Bangladesh. Middle-East Journal of Scientific Research, 2013. 16(4)

[4] Steinisch, Maria, et al. "Work Stress: Its Components And Its Association With Self-Reported Health Outcomes In A Garment Factory In Bangladesh—Findings From A Cross-Sectional Study." Health And Place 24.(2013): 123-130.

Figure 2: Average absenteeism rate by factory

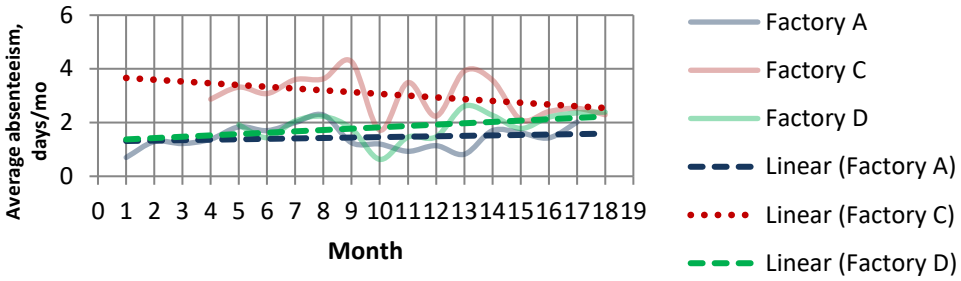
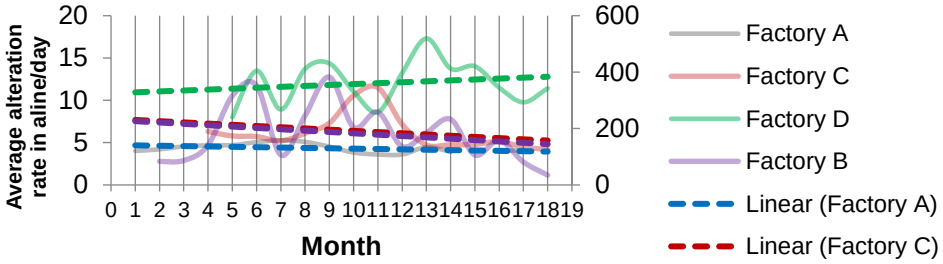


Figure 3: Average line level alteration rate by factory



Absenteeism: Monthly absenteeism in factory C (where it was initially high) was characterised by a slight decrease from baseline to endline (**Figure 2**). However, in factory A and D it increased slightly.

An important caveat is that absenteeism depends on factors such as sickness, household members' sickness, factories provision of sick leave with pay and so forth.

Work quality and productivity: Line-level alteration was slightly lower from baseline to endline except for factory D, which received only regular BCC training (**see Figure 3**). Line level productivity was slightly higher in factory C and factory D from baseline to endline.

Nevertheless, line-level productivity is a team outcome and depends on many factors such as absenteeism of one or more workers or on the availability of raw materials used for production as well as other factors.

Taken together, these findings suggest that the interventions may contribute towards reductions in anaemia. Trends in workers' and factory-level productivity outcomes are less clear based on this design.

Conclusions and Implications

These findings suggest an increase in the haemoglobin level as well as a **reduction in anaemia** over the course of the interventions. The **nutrition knowledge** of female garment workers also increased, which may in turn influence their behaviours at household level. The impact on absenteeism and line-level alteration are less clear and require a stronger impact evaluation design. However, given the high turnover of staff, productivity effects are harder to capture.

The nutrition results of the pilot project provide a basis for expanding the intervention to more factories. The second phase of the pilot in an additional 24 factories will strengthen the design of the intervention.

Hot meals and iron folate supplementation for female employees contribute to a **decent work environment**. They may also generate tangible productivity results for employers, as well as **positive reputational benefits** for the factories that run the interventions and the buyers and suppliers that work with them.

Acknowledgement

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