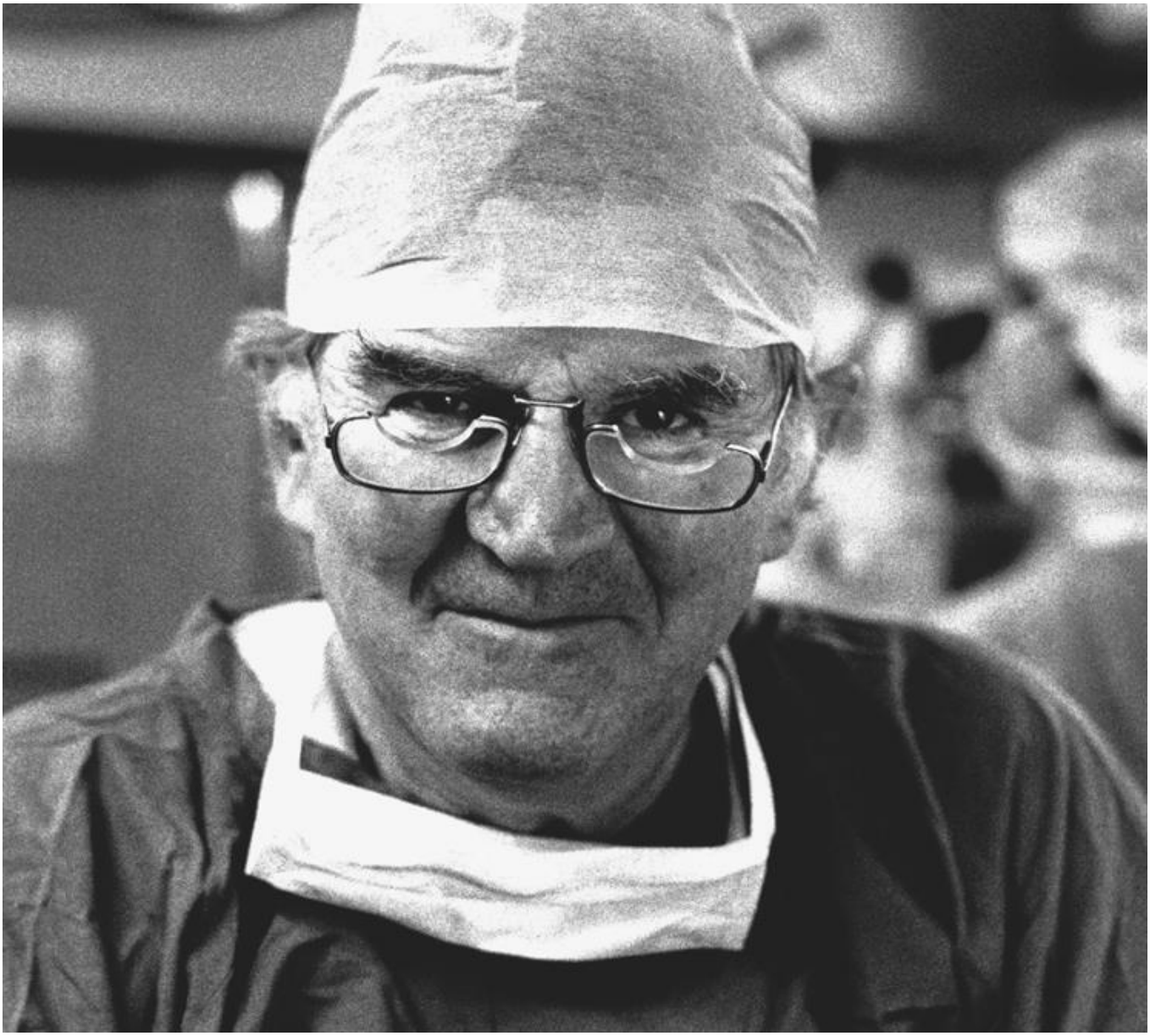
FINAL PROJECT EVALUATION REPORT

Project: Improving Vision to Empower Female Factory Workers

16th December 2019



16th December 2019

Submitted by CHD

The Fred Hollows Foundation

ACKNOWLEDGEMENTS

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Sincere thanks are sent to the Human Resource (HR) Department and the Health, Safety and Environment (HSE) Department of Rieker Company and the General Affairs Department of Foster company that have facilitated and supported us in undertaking the final evaluation successfully. In particular we would like to thank Mrs. Cao Thi Tham, HR Director and Assistant Doctor Ho Dinh Quang, Chief Medical Officer of the Rieker company; and Mrs. Nguyen Thi Thuy Hang, Head of HSE Department; Ms. Tran Kim Anh, a staff member of the HSE Department; and Ms. Phan Thi Hoa, a staff member of the Health Cinic of the Foster company for enthusiastically assisting us in field work and providing information and reports related to the evaluation.

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On behalf of the evaluation team - Center for Health Consultation and Community Development.

Leader

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LIST OF ACRONYMS

CHD	Center for Health Consultation and Community Development
FATP	Finish Assembly Test Procedure
FHFVN	The Fred Hollows Foundation in Vietnam
FGDs	Focus group discussions
Foster	Foster Electronics Company Limited in Da Nang
HSE	Health, Safety and Environment
M&E	Monitoring and Evaluation
MOLISA	Ministry of Labor - Invalids and Social Affairs
IDIs	In-depth Interviews
KAP	Knowledge, Attitude, Practices
OHS	Occupational Health and Safety
RE	Refractive error
Rieker	Rieker Shoes Company Limited
TOR	Terms of Reference
VA	Visual acuity

FINAL PROJECT EVALUATION REPORT

Project: Improving Vision to Empower Female Factory Workers

EXECUTIVE SUMMARY

16th December 2019

Photo credit: Rieker Company

The Fred Hollows Foundation

BACKGROUND

The Project "*Improving vision to empower female factory workers*" (hereinafter referred to as the Project) introduces eye care services to the manufacturing sector in Vietnam for the first time, taking advantage of the potential to reach a large number of women to strengthen eye health and improve workplaces.

The project will increase women's eye health seeking behaviours (access to eye assessment and treatment), and by doing so, increase productivity and engagement of staff.

The pilot will also work closely with factory management to improve occupational health policies, relating to eye health. A core focus of the pilot will be documenting project outcomes and learnings. This will add to the currently low evidence base on factory worker eye health. The Foundation will also engage widely with the sector with the aim of taking the project model to scale across Vietnam.

The project is implemented at Foster Electronics Company Limited in Da Nang city (Foster company/Foster factory) and Rieker Shoes Company Limited (Rieker company/Rieker factory) in Quang Nam and Quang Ngai provinces and for the pilot phase of the model. The owners of these factories have recognised the value of improving eye health of their employees and have committed to participating in this pilot. While the project will work with all employees, more than 90% of the workers in the project factories are women.

Total project budget: VND 3,449,741,500
Project duration: From April 2017 to December 2019

End of project outcome: A model to improve eye health in female factory workers has been developed, tested and shared.

Desired outcome:

1. Recognition and promotion of the importance of eye health and an eye healthy work environment is increased.
2. Eye health-seeking behaviour of workers is increased.
3. Utilisation of eye care services is increased.
4. Sound evidence base on eye health in factories is developed and shared.

PURPOSE AND EVALUATION QUESTIONS

The final project evaluation is to produce evidence on effectiveness, relevance, sustainability and impact of the project. The combined evaluation assesses the achievements and challenges of the project during the implementation stage and how they came about. It also provides recommendations for the project and local authorities for improvement and replication to other factories.

Specific objectives of final evaluation

- To consider what factors have most contributed to the effectiveness and relevance of this project and what areas of weakness have impeded the progress.
- To assess the sustainability of the work that has been done so far and provide recommendations to local stakeholders about what needs to be done to consolidate/continue any gains made through this project.
- To provide recommendations on whether the current project model has been effective or not with suggestions on how this model might be much more effective.

Key evaluation questions:

Relevance: *To what extent did the project meet the demand for eye care of the workers?*
Effectiveness:

- To what extent did the project increase access to eye health services among female workers in factories?
- To what extent did the project improve eye health of factory workers?

Impact: What changes has the project brought to female workers?

Gender equity: To what extent are the barriers to accessing eye health services for female workers identified and addressed by the project?
Sustainability:

- To what extent is eye care integrated into the factory practices on occupational health and safety (OHS)?
- The Final Evaluation will provide a recommendation for an effective eye care model.

The audiences of the final project evaluation report:

Ministry of Health, Ministry of Labor, Invalids and Social Affairs (MOLISA), National Trade Union and Provincial Trade Union, FHFVN, Foster Company, Rieker Company and The Standard Chartered Bank.

METHODS OF EVALUATION

This is a combined evaluation of the final project evaluation and the KAP end-line project survey. The evaluation is a cross-sectional descriptive study that combines qualitative and quantitative methods. There are a total of **764** people participating the final project evaluation including officers and workers of Foster Company and Rieker Company as well as partners involved in the project *"Improving vision to empower female factory workers"*.

1. **General results**: the project achieved four main outcomes: ***i) Eye health is integrated into occupational health and safety (OHS) policies*** and the annual work plan has been applied and implemented. These advancements in OHS are the result of the project capacity building for the factory board and the Trade Union. ***ii) Knowledge and Practice of eye care among workers is improved:*** the average score for eye careknowledge of workers increased from 4.0 in the baseline KAP survey to 6.0 points in the endline KAP survey, especially knowledge of dealing with eye injury while working, which increased sharply from 6.4 points in the baseline KAP survey to 8.4 points in the endline KAP survey. As a result, ***the percentage of workers actively seeking information on eye care has increased*** from 40.3% at the baseline to 63.5% at the endline and ***the percentage of workers attending periodic eye checks has increased sharply*** from 18.3% at the baseline survey to 50% at the endline survey. iii) ***All health staff at the two companies trained by the project on eye care can provide primary eye care services at the factory***, this avoids expensive costs and time-consuming referrals for factory workers. ***The project installed and encouraged the use of emergency eyewash bowls (11 devices), basic eye care kits (9 sets) and vision corners (80 corners) at the factories in order to facilitate workers' access to eye care services. iv) Data collection, including the baseline and endline KAP project and model on eye care was conducted within the factories, according to plan. The project shares its results, including lessons learned and good practices*** with the provincial Trade Union in Quang Nam province and Da Nang city. The results will also be shared with the National Trade Union to advocate for replication in other factories in two provinces and nationwide.
2. **Relevance**: The objectives of the project contribute to the implementation of the National Strategy on Blindness Prevention to 2020 and Vision to 2030. Of the workers surveyed, ***94.1% assessed the project's activities are relevant and were satisfied with many aspects of the project*** such as communication activities through the team leaders, eye exercises, comprehensive eye exams and visual testing to subsidised refractive correction glasses.
3. **Effectiveness:** ***i) Increased access to eye care services*****.** Most factory workers have been provided comprehensive eye care by hospital staff or factory health staff with a total of 33,144 eye care visits. The percentage of workers attending consultations, which may include treatment at the factory health room increased from 5.1% at the baseline survey to 49.0% at the endline survey***. ii) Eye health of workers has improved:*** a significant reduction in general symptoms and after work symptoms such as eye strain or headache (10.8% and 11.6%, respectively at the endline survey compared to 53.0% and 30.4% at the baseline survey). Eye disease such as red eye, conjunctivitis, and corneal inflammation have decreased significantly compared to the baseline survey from 14.9% to 1.8% of the endline survey. Among workers with eye diseases, the percentage of workers with refractive error (RE) has been reduced in Foster from 99.0% at the baseline to 92.3% while this percentage slightly increased in Rieker from 34.6% at the baseline survey to 35.7% at the endline survey. The incidence of eye injuries was reduced by 50% in three years of project implementation. These advancements in eye health are the result of improvements in the working environment and the quality of eye care services for factory workers.

4. **Factors enhancing project effectiveness:** ***i) The companies' managers were interested and committed to implementing the project,*** willing to support additional resources for improvement of the working environment, and facilitated workers' participation in comprehensive eye examinations and project communication activities. ***ii) Close coordination between project partners in implementation of the eye care model, including the local Trade Union and the factory Trade Union. iii) Strengthening of sustainable connections between companies, companies' trade unions and hospital health staff*** not only improves project efficiency, it **increases eye care service delivery** at the factory for workers and facilitates the maintenance of collaborative health care activities for workers.

5. **Factors that hinder project effectiveness**: ***i) The Trade Union of Industrial Zone did not participate – this unit has a strong understanding of the nature of working conditions of factory workers*** and their cooperation would assist in providing specific direction within the factory. ***ii)*** **Occupational health professionals with limited knowledge and experience in the field of eye care*. iii) Non-compliance with regular eye relaxation exercises as taught by the project, so the effectiveness is limited. iv) The form of communication on eye care at the two companies is still limited,*** so the effectiveness is not high as the project expected.

6. **Impact:** The project has contributed to the reduction of preventable blindness by providing vision assessment for all workers. More than 90% of workers were provided comprehensive eye examinations. Workers with eye problems were provided treatment and follow up at the factories' health rooms and provincial/district hospitals. As a result, ***workers feel more confident while labour productivity and quality of products have improved***. This is demonstrated by an increase in the average production percentage of the Rieker factory from 87.6% in 2017 to 91.2% in 2019. According to worker's reports, the average number of products also increased from 60,439 products in 2017 to 62,721 products in 2019.

7. **Gender equity: 90% of workers are female at the two factories, project activities have provided female workers the opportunity to access comprehensive eye examinations**, obtain glasses at the factories and subsidised treatment of eye diseases. Workers have been allowed sufficient time to attend the communication activities on eye care and practice eye exercises for relaxation, while working and receiving full pay from the factories.

8. **Sustainability:** The project is designed to meet the health care needs of both the workers and the factories to ensure it will be maintained within the available factory health care network – factory health staff, workers' leaders - peer educators and the workers all providing first aid on-site at the factories. The Project and Provincial Trade Unions of Quang Nam province and Da Nang city have shared the model on eye care with District Trade Unions and other local factories for replication and hopefully, further changes in policy. However, *Guidance on eye care is not officially included in the guidelines on OSH,* it is difficult to ensure the company leaders include eye care activities in the OHS plan because it depends whether the factory has a budget for implementation or not.

CONCLUSIONS

The project has achieved its goal of "Developing, piloting and sharing eye care models for female factory workers" at Foster Factory and Rieker Factory. The outstanding results of eye care model activities are: raising eye care awareness for the factory management as well as for workers, improving eye care practices of workers, improving eye care service quality of health workers and factory clinics. Some eye care activities will be maintained such as: comprehensive eye health examinations, counseling and primary eye care for workers at the factory clinics and eye care communication activities for workers.

RECOMMENDATIONS

Group 1: Integrating eye care into occupational health and safety plans

Recommendation 1: Work with MOLISA and Ministry of Health to develop occupation related eye care guidelines within the OHS program, creating a legal framework for implementation of the eye care model.

Enterprises should be encouraged to continue integrating occupation related eye care for workers into annual OHS programs.

Group 2: Applying and improving eye care model for factory workers

Further consideration is needed to improve the eye care model for factory workers as below:

- Concerns about eye health care and safety in current working environment;
- Health, safety and well-being concerns in the workplace, socio-psychological issues, including workplace organisation, culture and workplace health-related issues (information, opportunities, support, encouragement, medical care, etc.);
- Improvement of health care and utilisation of health services by workers, their families, and other community members.

Recommendation 1: Continue to improve and maintain quality of eye care services to meet specific needs of workers in the business. Services should be employee-centered and ensure eye care is continued throughout employees' lives.

Recommendation 2: Continue advocacy for enterprise policies to support workers with eye diseases/injuries; thereby helping to increase awareness and behaviour in seeking eye care services for workers.

Recommendation 3: WHO guidelines in "The Health promoting workplace" should be applied with participation of workers to increase the efficiency of improving working conditions related to occupational health care.

Recommendation 4: Continue to select appropriate communication media for workers. It is possible to use social networks such as Facebook or Zalo groups for workers to expand communication channels. Continue improving communication content and quality to attract workers' participation and increase workers' knowledge.

Recommendation 5: The education needs of workers are constantly changing, therefore regular assessments should be conducted to develop appropriate content and types of communication/training; and continue to provide regular training and communication activities for workers.

Recommendation 6: Continue to record productivity data as an initial indicator to demonstrate the effectiveness of the program.

Recommendation 7: The provincial Trade Union, together with relevant units should continue to share their knowledge to launch and mobilise implementation of this pilot model for enterprises at the annual "Labour and Environment Sanitation Safety and Fire Protection Week".

FINAL PROJECT EVALUATION REPORT

I. INTRODUCTION

Project background

Currently, vision problems are more prevalent in Vietnam, affecting people's lives and productivity. The Government and the Ministry of Health has recognised this issue, and is taking actions to find solutions. This includes introducing strategies and goals such as "Vision 2020 and Vision 2030", eliminating preventable blindness through health initiatives and creating a favourable legal environment in which eye health care initiatives can take place.

In the work environment, workers may be exposed to harmful factors including those that negatively affect their vision. Eye stress is considered one of the most common occupational health problems among some female labour groups in Vietnam [1]. In Vietnam, there are about 2.1 million people working in processing industrial zones, of which women taking about 70.0-90.0% of the labour force [2].

In fact, eye health care in Vietnam is facing a big challenge due to the aging population [3]. According to the 2015 RAAB report, people over 50 with vision impairment in both eyes increased slightly from 678,079 in 2000 to 695,131 in 2007, However it almost doubled to 1.131 million in 2015. In 2015, cataracts were still the main cause of blindness in Vietnam, accounting for 74% of eye cases, followed by diseases of the fundus (6.3%), complications after cataract surgery (4.6%), corneal disease (4.1%) and glaucoma (4.0%). In electronic spare parts production companies, 34.7% of workers suffer from eye inflammation, 65.2% from eye pain and 43.3% from blurred vision [4]. However, these workers are not properly protected against occupational diseases and do not have comprehensive eye health care. Barriers to accessing health services include: long working hours, lack of information and knowledge, high cost of services, unreliable quality and ineffective cooperation between the company health clinic and other health care facilities. These barriers to accessing eye care services affect their eye health, productivity and long-term occupational safety.

Worldwide, many studies have shown that workers are faced with many eye problems directly affecting their health and labour productivity. According to a report by the United States Institute of Health and Safety, every day about 2,000 US workers suffer from eye injuries requiring medical treatment [5]. Another research on workers working in electronics sectors and jewelry in Thailand showed that 25% of workers have eye problems that affect their work [6].

Most of the risk factors related to occupational eye injuries are related to working hours, educational levels, lack of accessibility to health care programs and limited workplace safety practices [7]. Potential dangers at workplaces are exposure to chemicals, smoke dust, metal fragments and other particles that may damage the eyes, contact with radiation (light, heat radiation, infrared, laser, ultraviolet radiation) and blood-borne pathogens [8].

The situation is similar in Vietnam where factory workers have limited knowledge about eye health care, how to prevent blindness and treatment options. At the same time, eye health care is often not taken seriously by company managers. This is contrary to the responsibilities of Vietnamese employers that are mentioned in the 2012 Labor Law. Specifically, employers must implement occupational safety and health measures at the workplace, ensure that employees are allowed to participate in vocational training, and are able to undertake periodic health checks. Employers must also meet workplace standards to protect workers, air, dust, steam, toxic gases and harmful elements as prescribed in the regulations [9].

In recent years, although the Government has made great efforts to set up a comprehensive eye care network from the central to grassroots levels, the quality of human resources specialised in eye care is uneven. These inequities are particularly made between district and provincial levels and rural and urban areas. For example, 50% of districts do not have ophthalmologists or ophthalmic nurses [10], weak primary eye care worker network at commune and factory level which are barriers to the provision of eye health care. However, at the community level there is a network of health care workers (commune health workers, village health workers) who form grassroots teams close to the people that are easily accessible and able to provide basic eye care information and services at reasonable costs, with simple and easy to use equipment. Many studies illustrate that training and empowering community health workers in eye care provision is an effective solution to improving people's eye health [11].

Ten factories were visited during project concept development and four were included in the project concept which was approved in August 2016. However, during the development of the Project Implementation Plan with factories and local authorities, only two factories (Rieker and Foster) were willing to partner with FHFVN. These two factories are located in Quang Nam province and Da Nang city. Rieker Company has operated a shoe factory in Dien Ban - Dien Ngoc Industrial Zone, Quang Nam Province since 2004. Currently the factory has 14,378 employees (July 2019), the company also has Quang Ngai branch with approximately 1,822 staff. Foster Company has four factories in Da Nang, Kien Giang, Quang Ngai and Bac Ninh. At the end of July 2019, the total number of employees working at Foster company in Da Nang was 1,402 people.

Currently, only FHFVN, with the cooperation of Foster Company and Rieker Company, is focusing on building an eye care model for factory workers. It does this by improving policies related to working environment conditions that meet eye health standards, developing eye care programs for workers, and strengthening the capacity of eye care services. In 2017, CHD and FHFVN conducted a KAP baseline survey for this project at the Foster and Rieker companies. The results showed that: among officials and workers who had eye diseases (13.1% and 18.0% of the total number of officials and workers, respectively), the percentage of workers with refractive errors (RE) was 78.0% and 94.9% respectively). The actual visual examination at the baseline survey also showed that 18.0% of those workers that had eye tests, (800 people), had poor eyesight (did not read and see well). This is higher than the 7.0% of workers who reported myopia and presbyopia. Moreover, the factory medical room mainly consists of technicians and nurses. Each of these health staff is responsible to take care of approximately 2,000 workers. Every year, these health staff are trained to improve their skills in health care. However, they have not received primary eye care training such as common causes of eye pain and injuries. With the desire to improve worker eye health, increase labour productivity and income generation of workers, FHFVN has cooperated with company leader teams to set up and apply an eye care model for three years at two companies with the additional support from referral hospitals and provincial Trade Union.

Total project budget: VND 3,449,741,500

Project duration: From April 2017 to December 2019

Project goal: Visual impairment and avoidable blindness among women working in factories is decreased.

End of project outcome: A model to improve eye health in female factory workers is developed, tested and shared.

Desired outcome:

- **Outcome 1:** Recognition and promotion of the importance of eye health and an eye healthy work environment is increased.
- **Outcome 2:** Eye health-seeking behaviour of workers is increased.
- **Outcome 3:** Utilisation of eye care services is increased.
- **Outcome 4:** Sound evidence base on eye health in factories is developed and shared.

II. METHODS OF EVALUATION

2.1. Purpose

The purpose of the final project evaluation is to produce evidence on the effectiveness, relevance, sustainability and impact of the project (Appendix 1 – Final evaluation TOR). The combined evaluation assesses the achievements and challenges of the project during the implementation stage and how they came about. It also provides recommendations for improvement and replication of the project in other factories.

2.2 Specific objectives of final evaluation

- To consider what factors have most contributed to the effectiveness and relevance of this project and what areas of weakness have impeded the progress.
- To assess the sustainability of the work that has been done and provide recommendations to local stakeholders about what needs to be done to consolidate/continue any gains made through this project.
- To provide recommendations on whether the current project model has been effective with suggestions on how this model might be much more effective.

The audiences using the final project evaluation report:

- Ministry of Health , MOLISA, National Trade Union and Provincial Trade Union (Quang Nam province and Da Nang city) - to influence both within and between factories across the whole of Vietnam, and as a key ally for advocating the merits of the model to other factories across the nation.
- The sponsor – The Standard Chartered Bank to provide accountability and evidence on effectiveness, relevance, sustainability and impact of the project.

2.3. Scale and key evaluation questions

This is a combined evaluation of the final project evaluation and the KAP end-line project survey.

The combined evaluation included the following:

- Desk review of all relevant project documentation and other materials.
- Develop the combined evaluation plan which is relevant to the production plan of two companies.
- Field work preparation at Foster and Rieker Company. Discussion and agreement between FHFVN staff and consultant of data and information collecting methods to ensure the possibility of implementation.
- Data collection at two factories, including discussions and interviews at Foster and Rieker Company.
- Processing and analysis of data, including use of baseline data to track changes regarding workers' KAP and eye disease prevalence, preparation of key findings and recommendations.
- Submission of final evaluation report and a KAP endline survey report to present lessons learnt, findings and recommendations for replication in the future.

Duration of implementation: July 18th 2019 – November 30th 2019

Key evaluation questions:

Relevance:

- To what extent did the project meet the demand for eye care of the workers?

Effectiveness:

- To what extent did the project increase access to eye health services among female workers in factories?
- To what extent did the project improve eye health of factory workers?

Impact:

- What changes has the project brought to female workers?

Gender equity:

- To what extent are the barriers to accessing eye health services for female workers identified and addressed by the project?

Sustainability:

- To what extent is eye care integrated into the factory practices on OHS?

- The Final Evaluation will provide recommendations for an effective eye care model.

2.4. Approach Method

This is a cross-sectional descriptive study that combines qualitative and quantitative methods as well as reviewing the data available at the companies and local health units in the project field. The project evaluation also considers the aspects of project implementers and project beneficiary.

There are a total of **764** people participating the final project evaluation including officers and workers of Foster Company and Rieker Company as well as partners involving in the project.

Quantitative methods:

- Review available company data: the rate of workers with eye diseases, the number of workers with eye injuries, the number of workers attending eye examinations up to the time of final evaluation.
- Data collection during three years of project implementation.
- Interview workers with the structural questionnaires – used in KAP survey. Participants selected are those included in baseline survey plus randomly selected participants within criteria: 1) Working at least 3 years in the company; 2) already participated in the communication and eye care services in project; 3) Above 18 years old and under 60 years old.

Qualitative methods:

- Desk review of all relevant project documentation including the project proposal, project reports (quarterly, half year and annual report), monitoring and evaluation (M&E) framework, the project collected monitoring data, project implementation work plan (annually), VISION 2020 program guidelines, policy documents and national and provincial level strategy documents on eye care.
- Interviews and discussions with relevant personnel from FHFVN and project management board members on the evaluation outline, project implementation, evaluation framework and M&E indicators.
- In-depth interviews (IDIs) and focus group discussions (FGDs) with different targeted groups including: factory management boards, factory medical staff, selected workers (workers taking eye examination, workers provided with corrective glasses), company Trade Union staff. Simultaneously, IDI with medical staff of referral hospital at district level where patient have been referred for eye care. Finally, IDI with staff of the provincial Trade Union of Quang Nam province and Da Nang city.

2.5. Evaluation team

CHD has been selected to implement the combined final project evaluation. The evaluation team members are included in Appendix 2.

2.6. Limitation

The evaluation team has been enthusiastically supported by the FHFVN office, the management boards of Foster Company and Rieker Company, the provincial Trade Union and related stakeholders. There were no difficulties during the final evaluation of the project.

2.7. Research ethics

The combined evaluation was approved by the Ethics Council in Biomedical Research of the National Institute of Hygiene and Epidemiology under the Certificate decision No.HĐĐĐ - 24/2019 dated August 26, 2019 in accordance with the General Rules and current ethics in biomedical research (see Appendix 3 for details).

III. RESULT OF EVALUATION

3.1. General results

Table 1: Project results from July 2017 – August 2019

	Activities	Units	Project outcome target	Project actual outcome
PROJECT GOAL (Impact): Visual Impairment and avoidable blindness among women working in factories.				
PROJECT OUTCOME: A model to improve eye health in female factory workers.				
OUTCOME 1: Recognition and promotion of the importance of eye health and an eye healthy work environment is increased.				
Output 1.1: Eye health is integrated into OHS practices/policies, applied and maintained	1.1.1 Develop action plans for eye health in factories	Plan	2	2
	1.1.2 Support and promote application of mitigation strategies	Strategy	2	2
Output 1.2: Awareness of occupational eye care among the management	1.2.1 Support training for management on eye health and occupational eye care	Training course/ Attendants	2 Training courses	3 Training courses (8 female, 9 male)
	1.2.2 Support factory managing personnel access to national and international forums on occupational eye health	Forum/ Attendants	2 Forums	2 Forums (3 female)
OUTCOME 2: Eye health seeking behavior of workers is increased.				
Output 2.1: Awareness of eye care among workers is improved	2.1.1 Support training on occupational eye health (TOT and peer education training)	Persons	353 persons were trained in 2017 and refresh trained in 2019	358 (330 persons were refresh trained in 2019)
	2.1.2 Design and distribute communication materials	sheets	5,608	22,120
	2.1.3 Organize education activities on eye health for workers	meetings/ number of participants	10 communication meetings (46,000 turns of workers participated in 3 years)	11 communication meetings (31,290 turns of workers participated in 3 years)

	Activities	Units	Project outcome target	Project actual outcome
OUTCOME 3: Utilization of eye care services is increased.				
Output 3.1: Eye care services are made available and accessible at factories	3.1.1 Provide eye care training to factory medical room staff on primary eye care and counselling	Factory medical staff	7	27
	3.1.2 Provide ophthalmic medicine and basic ophthalmic kits	Set	7	9
	3.1.3 Set up vision corners to facilitate quick eye tests for workers	Vision corners	15	80
Output 3.2: Access to eye care at district hospitals is improved through effective referral	3.2.1 Support training of district medical staff at referral facilities in ophthalmology patient counselling	District medical staff	6	1
	3.2.2 Provide basic ophthalmic equipment for eye examination and treatment	Set	3	2
Output 3.3: Female workers are supported to access eye care services	3.3.1 Support providing comprehensive eye examination for factory workers	Turn of Workers	56,871	33,144*
	3.3.2 Support medical glasses and eye treatment	Turn of Workers	957	3,032
	3.3.4 Improve vision outcomes (≥6/18) in workers with previous eye problems after 3 months of treatment	%		97%
OUTCOME 4: Sound evidence base on eye health in factories is developed and shared.				
Output 4.1: Model on eye care for female workers is supported with strong evidence and well documented	4.1.1 Conduct a baseline assessment of the quality and consistency of occupational eye health and safety practices	Survey	1	1
	4.1.2 Conduct an end-line assessment of the quality and consistency of occupational eye health and safety policies and practices	Survey	1	1
	4.1.3 Organize an end-term evaluation workshop and share good practices	Workshop	1	1

	Activities	Units	Project outcome target	Project actual outcome
Output 4.2: Project partners and stakeholders are effectively engaged and show ownership	4.2.1 Set up and maintain the project management unit (PMU)	Group/ meetings	2 PMUs and 24 meetings and 24 monitoring visits	1 PMU and 15 meetings and 34 monitoring visits
	4.2.2 Organise periodic review, planning and advocacy workshops (MOU signing, orientation, introduction, review, planning, management)	Workshop	12 workshops	12 workshops

**: The actual outcome has not included the results of eye examination at Rieker Company in September – October 2019 and the results in Foster Company has been lower than the target outcome due to the reduction of workers at Foster Company (number of workers in 2018 and 2019 are reduced to one third of the number in 2017)*

Source: File Project Indicator of results by Gender in October 2019

Table 1 shows that some project indicators have exceeded the target outcome: capacity building for factory medical staff on eye care, support and providing refractive corrective glasses and eye treatment for workers, and improve vision outcomes (≥6/18) in workers with previous eye problems after 3 months of treatment [13]. Specifically, regarding output 3.3 "*Female workers are supported to access eye care services*", participation in the comprehensive eye examination had increased at the time of final evaluation, but the indicator is lower than the target output due to the sharp reduction of workers at Foster Company (number of workers in 2018 and 2019 are reduced to one third of the number in 2017).

Some key project results are analysed below while other indicators are described in detail for the "Relevance", "Effectiveness" and "Impact" sections of this project evaluation.

Outcome 1: Recognition and promotion of the importance of eye health and an eye healthy work environment is increased

Eye health is integrated into OHS practices/policies: Results of the interview show that company managers and Trade Union staff at the two companies confirmed that eye care is included in the OHS policy, and the annual eye care work plan has been applied and implemented.

For example, at the Foster company workers are always reminded of the labour factors that affect the eyes. In addition, specific measures were implemented, including: protective cap for chemicals when required; store rarely used chemicals in one place; and safety goggles provided to workers in high risk workspaces. In addition, the company implemented periodic checks of workplace lighting. At Rieker company, there have been other related systems installed, such as: LED bulbs, ventilation pipes, chemical suction devices, etc.

According to the annual environmental monitoring report (2018, 2019), all environmental indicators at the two companies meet allowed standards.

Awareness of occupational eye care among the management is improved: As a result of the project's capacity building activities such as participation in baseline surveys, planning and project meetings, and monitoring visits, company management and the factory's Trade Union showed improved awareness. One staff member shared: "*I see the firstly [the project] the changing in awareness for the company management and Trade Union. But most clearly changes from the company management on eye care for their workers. They themselves paid* for *the lights, and windows, they arranged time for their workers to do eye relax exercises, and I saw that it is in line with the project goal, changed the awareness of the company management*." [Officer No. 1].

Outcome 2: Eye health seeking behavior of workers is increased

Knowledge and Practice of eye care among workers is improved: Most of the interviewees including workers, The Trade Union staff and company's leaders said that **the biggest change in the project was the workers' increase in awareness of eye care**. An average score of workers' knowledge on eye care

has been improved from 4.0 at the baseline to 6.0 points at the endline, especially knowledge of dealing with eye injury/trauma while working, which increased sharply from 6.4 points in the baseline to 8.4 points in the endline KAP survey [12, 14]. Workers demonstrated improved recognition of the importance of vision to work (more than 90%) and regular eye examinations (93.2%) [14]. These changes likely resulted from the project activities such as the communication exercises and materials (especially eye care handbooks with eye relaxation exercises), and posters hanging at the workshop.

The following interviews also confirmed the above result:

"With the handbooks and they attend the education session, they have the knowledge on eye care which help them protect themselves and at the same time in the communication, we also have some guidelines for family's eye care, they will remind their children not to see electronic equipment regularly or arrange more light for their children to study, sit up straight, correct posture ..." [Officer No. 2].

The percentage of workers actively seeking information on eye care has increased: from 40.3% in the baseline survey to 63.5% in the endline survey [12, 14]. Group discussions of workers at the Foster company show that they highly appreciate the project because they are aware of the importance of eye health, especially in their work.

The IDI result from the Rieker company also had similar results: "*Like me before starting the project, I had not been really care about my eyes, but ever since the project carried out I have realised that I have to protect my eyes, how to protect my vision to work, how to contact the computer, how to prevent and care of my eyes more and how often I go to check up my eyes to avoid affecting my eye disease*." [Company officer No. 6].

The percentage of workers attending periodic eye checks has increased sharply: from 18.3% at the baseline to 50% at the endline survey [12, 14].

"*The second one is the change in knowledge and behaviour of workers. I see through the activities, they actively go to the eye examination, not hesitate as in the past. They are not afraid that their eye diseases will be laid off or moved to other workshop, now they understand better, they can be brave*. " [Officer No.1]

Outcome 3: Utilisation of eye care services is increased

Eye care services are made available and accessible at factories: all health staff of two companies were trained by the project (27 people, including workers with medical background) on eye care and can provide eye care services at the factory such as eye examination without expensive costs and time-consuming referrals for factory workers. Health staff were trained in the management of red eye (conjunctivitis), dust-borne infection, eye irritation, and dry eyes. Rieker company health staff can measure eye refractive errors.

"This project has trained a medical team on eye health care who had attended short-term courses sponsored by FHFVN. From the short-term course, the medical team are able to guide and provide primary eye care services for workers of company". [Company officer No. 1].

The project installed and encouraged the use of emergency eyewash bowls (11 devices), basic ophthalmic kits (9 sets) and vision corners (80 corners) at the factories in order to facilitate workers' access to eye care services. Up to 68.0% of workers have used self-testing vision corners which include simple visual acuity (VA) charts. In addition, workers were trained in the use of eyewash bowls (located in workshops or factory medical rooms) for exposure to dust or other eye irritants.

"[...] eyewash bowls can be used by everyone, medical staff instructed to use it. At first, factory medical staff will trained the worker's leader, workshop team leader/supervisor, and supporters to know how to use… " [Worker's leader No. 3]

"[…] In my floor, around the workshop or the area for Samsung production, there is a vision test chart for workers, standing 4 meters away to check for any eye problems. The [vision test] chart out there I also know that is for self-test." [Worker No. 1].

Furthermore, worker's leaders have been trained by the project on primary eye care and also provided education to workers at the workshop: "*Worker's leaders, workshop supervisors must have the knowledge to spread the word to workers at the beginning of the working hour, right at the workshop. Then workers will ask questions more boldly*" [Female worker's leader No.4].

According to the report of the factory medical room, most workers' eye diseases were screened by the companies' health staff and more than 90% of workers with eye problems had a comprehensive eye examination by an ophthalmic doctor at the factory. Workers with poor eyesight were checked and provided with refractive error (RE) correction glasses. When cases of eye disease required intensive treatment, they were referred to higher-level hospitals. This is a great achievement for the project implemented in two large production factories, including the Rieker company which employees more than 13,000 workers, while maintaining the factory's production plans.

In addition, the two district hospitals that received referrals from the factory, were provided with ophthalmic equipment such as the automatic refractometer and portable microscope to serve the mobile service and support training for the factory's health staff to facilitate the provision of comprehensive eye exams at the factories. The ophthalmic doctors of the two district hospitals were invited to train factory health staff and worker leaders in primary eye care and conduct a number of education sessions.

Outcome 4: Sound evidence base on eye health in factories is developed and shared

Data collection, including the baseline and endline KAP survey and model on eye care was conducted within the factories, according to plan. The project shares its results, including lessons learned and good practices with the provincial Trade Union in Quang Nam province and Da Nang city and the National Trade Union to advocate for replication in other factories in two provinces and nationwide. The results shared with the National Trade Union will increase the effectiveness of advocacy for replication of this eye model in another provinces and nationwide.

3.2. Relevance

The project has identified clear, specific and relevant objectives to the needs of workers on eye care, in line with the national goal of preventing blindness [15]. The relevance of the project is also manifested when introducing a series of rather comprehensive activities: Support for service providers (such as capacity building, equipment provision for factory's medical health room, district hospitals ...) and for service beneficiaries (raising workers' awareness, KAP about eye care and providing quality eye care services to workers).

Table 2: Meet the needs of workers on eye care

Assessed contents	Project Target	Outcome
Are workers diagnosed with RE willing to wear spectacles?	90% of workers diagnosed with RE through the project who wear spectacles annually	86.6% workers diagnosed with RE through the project who wear glasses annually
Are workers diagnosed with conditions requiring treatment accessing treatment?	90% of workers referred for treatment who access treatment quarterly / annually	100%* workers referred for treatment who access treatment annually

**: Project report and factory health report in 2019*

Source: KAP Enline Project Survey in September 2019

a. The project objectives and the core interventions of the project are relevant, contributing to the implementation of the National Strategy on Blindness Prevention to 2020 and Vision to 2030 [15]. These objectives include enhancing the accessibility of eye preventive services, early diagnosis, treatment and rehabilitation - contributing to reducing visual impairment and avoidable blindness for female factory workers, in which the project focused on increasing utilisation of eye care as examination, early diagnosis of RE, correcting glasses for workers with RE, increasing cataract surgery rate for workers in two factories. These are the indicators of outcome 1 and 2 (Reduce the blindness rate to less than 4.5 people per 1,000 people and increase cataract surgery rate to more than 2.5 people per 1,000 people) of

the National Strategy on Blindness Prevention to 2020 and is the goal of sustainable development No. 3.8 on health insurance for all people.

b. The project model meets the needs of workers on eye care

The project met the needs of the majority of workers on eye care (94.1%) and they were satisfied with the project's activities such as communication activities, eye exercises, eye examinations and visual test, and subsidised medical glasses [14].

Eye care has been integrated into the factory's annual OHS plan. As a result, the percentage of workers practicing eye protection and prevention has improved significantly, such as eye relaxation, far-distance vision during working hours or eye exercise significantly increased from 14.9% at the baseline survey to up to 56.4% at the endline survey; as well as eating foods with vitamin A increased from 16.1% to 25.6% [12,14].

During three years of project implementation, 2,947 workers received subsidies on glasses for RE correction. The endline survey results show that most of the workers were wearing RE correction glasses (86.6% of the 97 workers with RE participated in the endline survey) [14].

Workers felt their vision improved and more confident at work. One staff reflected: "*Most workers wearing glasses that allow them to see clearly, helping them to be more confident at their work*." [Officer No. 2]. The percentage of workers wearing glasses (always, often and occasionally) to work is 79.8% - lower than the project targets. Reasons why workers do not wear RE glasses include inconvenience / uncomfortable / unfamiliar (41.2%), not serious / not necessary to wear (14.2%), eye strain with use (12.3%); other causes (32.3%) [14].

96.4% of workers required to wear safety goggles (53/55) in the workplace have been equipped with safety goggles at the two factories. The percentage of workers wearing glasses (always and occasionally) to work is 100%, but the percentage of workers occasionally wearing safety goggles to work is still high (69.1%) [14]. Observations at the factory and interviews with workers show they all know about wearing safety goggles for eye protection, but still do not frequently wear them because it is still uncomfortable, not easy to work with the safety goggles or they wear refractive correction glasses.

Designing a communication program through training of trainer for worker leaders is appropriate: 358 workers' leaders (including 328 female leaders) have been trained and refresher trained (330) on eye care [13]. After training, the workers' leaders provided information, knowledge and practices on eye care to workers at the workshop during break-time or at the beginning of working hours to ensure access for 100% of workers. Education through the worker's leader, such as training of eye relaxation practices for workers and first aid treatment of eye injuries (types of injuries that may occur at the factory) is appropriate to simultaneously approach many workers without using too much of their time as they do not have to stop working to attend the communication sessions.

Mobilising the participation of workers with medical background in injury first aid at work place is an effective and appropriate approach:

A team of medically qualified workers such as midwives, nurses, etc.(including 272 workers of the Foster and Rieker factories) who work in the factory's workshops were trained by factory health staff on eye care and first aid within the workshop. This is an effort of the factory to implement the eye care model for workers. The project also subsidised medical aid bags for the above mentioned workers so they could provide first aid for workers' incidents on-site, as well as have support to take patients to the factory medical room or referrals. This team also plays an important role instead of the factory medical room during night shifts (factory's health staff are on duty at day shift only at Rieker company). The leather and footwear industry has specific workshops for specific types of accidents such as glue in the eyes, cloth dust, or mounds. According to previous records, rubbing the eyes with unclean hands or using the wrong eye washing method were two frequent ways of handling eye exposure to dust. Currently, the team of workers with medical qualifications at the workshop are able to provide correct instructions for eye washing so that workers can handle themselves in the environment of dusty or slightly vapoured

chemicals, or give some guidance on precautions to avoid occupational accidents. The factory health report shows the first aid team of workers also provided first aid on-site for normal and frequent accidents (such as bleeding, ...) at the factory. However, as they are also workers, the work requires sufficient time and productivity, which limits the performance of their function in the first-aid and care for other workers during the working time.

c. The project is also relevant to the needs of the project partners: The Provincial Trade Union of Quang Nam and Da Nang, the factory Trade Union as well as the district/region hospitals highly appreciated the relevance of the pilot model of eye care for workers in two factories as described in the section of "General results" and section of "a and b of Relevance". This includes the improvement of factory's OHS programs, especially of eye care for workers.

3.3. Effectiveness

a. The project increases the accessibility to eye care services for workers

Table 3: Accessibility to eye care services of workers at factories

Assessed contents	Project Target	Outcome
Is the number of workers accessing eye care services at the factory medical rooms and district hospitals increasing?	- 100% of worker having VA check. - 90% of worker having VA less than 6/18 having comprehensive eye check. - 90% of workers with eye diseases are having treatment.	- 100% of workers having VA check - More than 90% of workers having VA less than 6/18 having comprehensive eye check. - 100% of workers with eye diseases are having treatment.
How is the quality of eye care services at factory medical rooms and district hospitals?	- 85% of workers having good VA after surgery (WHO standard of cataract surgery outcome). - 80% of workers are satisfy with eye health services.	- 96.7% of workers having good VA after surgery (WHO standard of cataract surgery outcome)*. - 90% of workers are satisfied with eye care services**. - 85.3% of workers are satisfied with factory health staff attitude. - 96.4% of workers trust in the eye care services at the factory medical room.

**: Project data and final project report phase 1 in 2018*
***: Quick assessment to 94 workers who received subsided glasses or eye treatment at two factories.*
Source: Data of Foster and Rieker in September 2019 and Project report in 2017, 2018 and 2019

Increasing accessibility of workers to eye care services at the factories:

The results of Table 3 showed that ***all workers at the two factories (100%) accessed eye care services right at the factory. In which 90% of workers with eye problems have comprehensive eye examination by the hospital ophthalmic doctor***. These activities were highly appreciated by the workers.

The 3-year project report (2017-2019) showed that the project has provided eye examinations for 33,144 workers (93% female), achieving the results set with 100% of workers receiving annual eye examination, but the gained result is lower than the target indicators due to a sharp decrease in the number of workers

at Foster company as described above. The number of workers found to have RE was 3,490 (3,220 women and 270 men) and 726 workers had other forms of eye diseases (661 women and 65 men). Additionally, 2,947 spectacles (2,730 women and 217 men) were provided for workers from poor households.

"*Every year, the company organises a health check including eye examination for employees, after the annual comprehensive examination, there are always available assessments about the health status [eyes] and provide counseling on medicine and different methods on eyes protection*" [Worker No. 1].

"*It is a great effectiveness, firstly we have organised eye exams for more than 6,000 workers in 2 years of 2017-2018. This year (2019), we will organise an eye examination for more than 1,000 workers and it in October. Secondly, some workers with eye diseases are found after completed the eye examination, the project provided financial support for worker's eye treatment. And during the past two or three years, 69 workers have been subsided for their eyes treatment and this is also very effective. To workers with refractive errors, project subsided in providing RE corrective glasses for them. Then project equipped the factory medical room with equipment ...* " [Company officer No.4].

The percentage of workers who attended eye examinations or received treatment for eye problems in the factory medical room in the last twelve months (August 2018 to August 2019) increased from 5.1% at the baseline survey to 49.0% at the endline survey [12, 14].

In particular, the rate of workers' satisfaction with the factories' health staff and trust in the quality eye care services at company clinics has increased (from 77.5% at the baseline survey to 85.3% at the endline survey and from 36.4% at the baseline survey to 50.6% at the endline survey respectively [12, 14]). The improvement occurred because the project provided training for 16 company health staff and 11 workers with medical qualifications on eye care and first aid on eye injuries, a factory health staff from Rieker factory and a district hospital staff also trained to become a refractive tester. In addition, the basic ophthalmic equipment is provided to two referral hospitals, and basic ophthalmic kits are provided to the factory medical rooms as described above. This is a great success of the project in improving the quality of eye care services available at the factory and thereby increasing the number of workers who have access to eye care services at the factory when they are reluctant to have an eye exam in far places or unwilling to go to hospital due to their labour day off.

b. The workers' eye health is improved

Table 4: The eye health of increased

Assessed contents	Project target	Outcome
How does the prevalence of eye diseases among workers change annually?	% of workers screened identified as having RE. 10% reduction in annual prevalence of eye trauma and eye infection.	More than 90% of workers screened identified as having RE by comprehensive health exams. 50% reduction in eye injury/trauma cases 87.9% reduction in eye infections (14.9% at baseline down to 1.8% at the endline)
The percentage of workers having good vision changed annually.	% workers having good vision (VA≥6/18) per year	96.7% workers having good vision (≥6/18) after 3 month treated*

**: Outcome indicators of the project in October 2019.*

Source: Baseline survey in August 2017 and endline survey in September 2019

The project's effectiveness is seen with significant improvements in workers' eye health: The endline survey results show a significant reduction in common post-work symptoms such as eye strain and headache (only 10.8%, 11.6% repectively) [14]. The percentage of those symptoms in the baseline survey was 53.9% and 30.4% respectively [12]. Eye diseases such as red eye / conjunctivitis / cornea infection have decreased significantly compared to the baseline survey from 14.9% to 1.8% of the endline survey [12, 14]. Among workers having eye diseases, the pecentage of workers with RE has been reduced in Foster from 99.0% at the baseline to 92.3% at the endline survey while this percentage has been increased slightly in Rieker from 34.6% at the baseline to 35.7% at the endline survey [12, 14]. To gain the mentioned results, two companies have conducted some improvements and installation of light system, ventilation to ensure the working environment of workers according to the standards allowed and as well as improve eye care service quality of factory medical room as described above.

Workers highly appreciated the daily eye relaxation exercise because it's simple and easy to use. It can be applied when they have eye strain while working - recognition of eye strain reduction so that they practice:

"*Worker No.5: I do eye relaxation exercise once or twice a day, when my eyes are tired*".

"Worker No. 2: The doctor advised me to do eye relaxation exercise 3 times a day, in the morning before working, at the short rest at noon and evening, not only when my eyes are tired, do eye relaxation in 15 minutes to help my eyes relax and prevent of eyes disease ..."

"Worker No. 6: do eye relaxation while eyestrain, every morning I practice ... follow the exercises: massage, look up, down, rub your hands against the eyes, look at the circle, easy to do ... feel comfortable." [Worker group No. 2].

Eye injury incidences have been reduced in three years of project implementation - achieved the project target. The data of eye injury cases of Foster and Rieker were reduced in three years (2017, 2018 and 2019): six cases, two cases and three cases; two cases, zero cases and one case, respectively. The important point is that these cases of eye injury are supported with treatment and regular follow up by the company's health staff. Workers who were treated for eye injuries were transferred to positions which caused less eye strain at another workshop.

According to the project monitoring data, most of the workers (97%) had good vision (≥6/18) following three months of treatment, demonstrated in the results of vision checks by the company's health staff [13].

3.4. Factors enhancing project effectiveness

a. The company management was interested and committed to implementing the project

As described above in the "Relevance" of project section, two companies (Foster and Rieker) selected for pilot implementation were willing and committed to work on safety and health care for employees, including eye care. This is one of the success factors for the model implementation.

"*Generally, there are many factors, but the most decisive factor to the model success is the arrangement and facilitation of the company. And in which we find most successful factor is the facilitation of the company especially of the business owner in installation of LED bulbs to protect the eyes of workers and I know the cost is absolutely over a billion VND..., business owners also see the effect of this project and they have actively actions*. " [Officer No. 5].

Awareness of company management on eye care is increased, so that eye care activities have attracted more investment from the company such as company owners are willing to support additional resources (funding, time, materials, equipment and facilities) for the working environment improvement, better eye care and facilitate workers to participate in comprehensive eye examination and project communication activities etc.

"…*Company owners are aware of this issue and facilitate as arranging time and favorable conditions for workers, because workers can participate in [eye care] activities when still get full paid, it is not easy*". [Company officer No. 4].

b. Close coordination between project partners in the implementation of the eye care model

Project implementation has brought positive impacts to the system of Trade Union from the provincial level to grassroots level and branches such as strengthening coordination among Trade Union at all levels to take care of workers' health at two companies.

"The main function of Trade Unions is to take care of and protect legal rights and benefits of employees, because of bringing the great efficiency to workers directly, workers also trust in the Trade Union and feel safety to work, strive and contribute to the production so as to increase the turnover for the company and increase the income for the employees themselves. And from that efficiency, we see that our Trade Union has been upgraded to our position " [Officer No. 5].

In addition, the good and harmonious coordination in the link between FHFVN and the two provincial Trade Union and the factory is an important factor in the successful implementation of the project's eye care model.

c. Strengthen sustainable connections between companies, companies' Trade Unions and hospital health staff

The fact that the two factories (Foster and Rieker) strengthen their close connection with district hospital health staff not only improves project efficiency, it **increases eye care service delivery** at the factory for workers and facilitates for collaborative health care activities for workers later.

"Through this project, we have a closer relationship with medical partners of the city because when we work with the Eye Hospital, with ophthalmic doctors, besides providing eye care, we also talk to those doctors, they also exchange with us some other issues related currently arising. Thereby creating other training courses such as reproductive health care, ..." [Company officer No. 5].

The district / regional hospital has supported workers' eye health care and receives eye care referrals from companies. The expansion of patients served also helps the hospital gain more knowledge and enhance the hospital's eye care services. The coordination creates a two-way relationship and benefits for both sides.

"I have to say that it is extremely great…. If there are similar projects, the people will receive benefits, then also workers and our hospitals ... FHFVN has supported us and especially the ophthalmic unit with equipment, some ophthalmic doctors to serve the hospital, support the medical examination and treatment for patients and at the same time create conditions for our doctors to approach and help the factories, help workers to solve the eyes problems ..." [Health officer No. 5]

3.5. Factors that hinder project effectiveness

The Trade Union of Industrial Zone did not participate – this unit has a strong understanding of the nature of working conditions of factory workers and their cooperation would have assisted in providing specific direction within the factory.

Occupational health professionals with limited knowledge and experiences in the field of eye care although the project has tried to connect and collaborate with occupational health professionals at the central level.

Non-compliance with regular eye relaxation exercises as taught by the project: workers follow the movement when the team leaders ask for practice only**,** so the effectiveness is limited. Workers cannot do regular exercises or just eye relaxation exercises (rub warm hands and touch on eyes) due to pressure of increase product yields to increase income or join in the chain work and the break-time is short, workers haveonly enough time to do their individual needs (the break-time on-site decreased from 7 minutes as reported by workers to 4 minutes at the endline survey, although most workers (83.3%) reported being on-site rest with eye strain) [12, 14].

The form of communication on eye care at the two companies is limited, so the effectiveness is not high as the project expected: *"The forms of communication activities in two companies such as education sessions by worker leaders, doctor talking, sports festivals, booklets ... as described above are still limited, although project and factory management staff are encouraged by the donor [FHFVN] to develop activities with more creative and effective manners", opinions of by the project officer"* [Officer No. 2].

3.6. Impact

Table 5: Impact of project to workers

Assessed contents	Project target	Outcome
What are changes the project brought to workers?	How is the performance of the workers?	Average change of products per month before and after workers getting spectacles has been increased. 98.7% of workers are satisfied with the working environment.

As described in the "Relevance" and "Effectiveness" sections, the improvement of eye care activities at the two companies contributed to the goal of reducing the incidence of preventable blindness in factory workers. Additionally, the project ensures that workers / patients with eye problems are treated and continue to be followed up with eye care at the factory medical room and medical facilities of Quang Nam province and Da Nang city. The results of IDIs with project partners and factory workers show that the project has a significant impact on the eye health care of workers. This is reflected in the improved spiritual and material life of workers. Specifically:

a. Workers' life changes - feel more confident*:* especially in cases of the project subsidising RE correction glasses or treatment of eye diseases (cataract surgery or correcting squint).

"[...] after receiving the glasses... my vision is bright, I work on differently, it's more agile and sensitive. It's overcome the stage that I feel my eyes having a problem..." [Worker received subsided glasses No. 4]**.**

"Did you have any changes?
I felt more confident. Before I had surgery, I realised that for example: many people saw [but not me] I felt not confident. [I] currently also feel much more confident now" [Worker received subsidised eye treatment No.3].

b. Economic Impact

Project contributes to improving productivity and product quality of workers

The changes in working environment and policies facilitating occupational safety as described above have contributed to increased labour productivity of workers at the company. At the Rieker company, the average percentage of average production in 2019 has increased compared to 2018 and 2017 (91.2%, 86.6% and 87.6, respectively)[1]. A company staff also commented, "*I myself manage the workers when I see the quality of products made by the workers have been improved daily ... after being trained on the time of eyes relaxation, when it is the sensitive time such as 1 - 2 o'clock in the afternoon, when the eyes are very tired and need to rest, it can arrange for worker to relax in 1 - 2 minutes go around outside and then come in. Quality of product has been currently made better. Then workers shared that it was better ... thanks to some people who followed the instructions, such as taking a break in time.* "[Company officer No. 1].

[1] Rieker data was provided in September 2019, No data available from Foster.

The results showed that 54.1% of workers in both companies assessed that the average number of products a month now (September 2019) increased compared to 2017 previously [14]. Specifically, the average number of products by month in 2017 was 60,439, which increased to 62,721 in 2019 [12, 14].

c. Workers are satisfied with the current working conditions at the two companies

Most workers at Foster and Rieker factories are satisfied with the current working conditions / working environment (99.4%, 98%, respectively) [14].

"Working posture" is less concerned by workers before the project implementation, by the end of the project they know about working posture to avoid disadvantages for the eyes. For example, workers knew that *"the posture of sitting up straight, head bowed at 10-15 degrees, distance between eyes and object 35 cm"* increased from 17.5% to 29.2% at the endline survey [14]. As discussed above, improving workers' eye care and working environment/ conditions (installing additional related systems such as LED light bulbs, ventilation pipes, chemical suction devices, etc. in the two factories) bring positive results. In addition, workers working in hazardous and dangerous places, such as working with laser cutting machine were equipped with the right type of safety goggles.

3.7. Gender equity

The selection of two companies with the majority of women is (more than 90%), the project benefits for the above-mentioned workers are also for female workers. The project expects Vietnam to "have a strategy to reach out and encourage women to participate more actively in eye care" [18]. They are subject to cultural norms of gender in society. Therefore, project activities are designed primarily for women. Gender-related cultural norms that are considered to be addressed in the project to reduce health risks for the workers and their families are analysed below.

There are no barriers to accessing eye care services for female workers as described in the "Effectiveness" section because eye care services are provided at the factories. However, due to the characteristics of women, they are always busy with family and spend less time for their health. Therefore, the project directly gives female workers an opportunity to have a comprehensive eye examination, support for measuring and subsided RE correction glasses right at the factory and support treatment for workers from poor households. In addition, the project and companies have set a suitable time so that female workers can participate in eye care communication activities and practice eye relaxation exercises during work time.

"The difficulties of women are only in terms of time because they care about family affairs and their children, so the time they have less time to access public eye examination. This project helps the company to support them a lot about that" [Company officer No. 3].

3.8. Sustainability

a. The project is sustainable due to meeting the needs of companies and the needs of workers on health care

In market competition, enterprises want to survive and develop, they must protect the environment, take care of their employees; such an effective health care project will be maintained by the enterprises.

Due to the changing in awareness of company management on eye care, eye care activities have attracted more investment by the company. Awareness of the practical benefits of the project for workers, company owners are willing to support additional resources as described above for improvements in a safe working environment, and health care for workers. It will bring long-term benefits for the company.

For three years of project implementation, the eye care project has brought an opportunity to help the company improve the working light system for workers as well as the ventilation system in the working environment, installing eye-washing bows in hazardous areas with mechanical chemicals, subsided/distributing safety goggles for workers in workshops such as laser cutting, working mounds, etc., aiming to increase the labour productivity of workers. For example, Rieker company invested nearly VND 1,753 billion to install 15,000 LEDs bulbs in replacement of fluorescent bulbs and VND 940 million to equip medical glasses, first-aid kits and ventilation systems in workshops. Company owners can arrange time to facilitate workers to participate in the communication activities of the project but still receive full salary (Rieker Company) or supported 50,000 VND / one worker/ one time to attend communication session on eye care because the company often organised talking sessions after work, with workers having to stay after work or on shift days (Foster Company).

b. A network of grassroots health care will be maintained

The companies' health care network trained at the factories, is a team of the companies' health staff, district hospitals on eye care, early detection of eye diseases; the team leaders and on-site first aid workers will be maintained on the job. In addition, basic ophthalmic kits and eye wash bowls and simple VA charts are provided by the project to two companies and hospitals have assisted eye care services for workers at two companies and promote their long-term benefits.

"*At present the project facilitates workers easily access eye care services by on-site eye examination, training for factory health to handle on-site eye problems, hopefully in the future if the project ends, the company's health staff are still available there, the ophthalmic kits are still there so when workers have eye problems they will visit the factory medical room and for further treatment the factory medical room will do referral*" [Officer No. 2].

c. Share about eye care model to other factories

At the provincial level, the Trade Union of Quang Nam province and Da Nang city and the management boards of the two companies shared the results of the eye model implementation as well as some communication materials about eye care with the district Trade Union and two other local enterprises in the annual summary meeting of 2018 to advocate for replication of eye care model for workers. Sharing project experiences with authorities at all levels is important in making policy and institutional plans to integrate and replicate the model's activities.

In addition, the Quang Nam provincial Trade Union shared the eye care model and lessons learnt from the project with other provincial Trade Unions in the 2018 specialised conference. They also shared the model implemented in Rieker company through a report on radio and television. Similarly, Rieker Company shared the eye care model for workers in the project "Enhancing gender equality and protecting women's labour rights in the industrial zone" with 50 enterprises in four other provinces in this project, including: Bac Giang, Hung Yen, Dong Nai and Long An. This has attracted the attention of enterprises employing many workers who are interested in eye care for workers.

d. Factors that need improvement to sustain the project achievements

At the time of the final evaluation (September 2019), the two companies reported that they could maintain annual health check-ups, including a comprehensive eye exam, eye care services and consultation at the factory medical room and communication activities integrate in sport festivals for workers. However, they do not have a plan to continue training, communication or improving the content and form of communication for new recruit workers.

Guidelines on eye care is not included in the guidelines on OHS, so it might be difficult for the company leaders to include eye care activities in the OHS plan because it depends on whether the factory has budget for implementation or not. In addition, the factories are not affiliated to the Trade Union (vertical

system), so the Trade Union cannot direct the factory to integrate eye care activities into its OHS plan even though this unit has a duty to protect the rights of workers.

The rate of periodical health checkup is still not high (50%) [14] which is a point of note for factories and workers because it does not ensure that the work of eye care for workers is continuous and meets the needs of each person.

IV. EYE CARE MODEL

The evaluation results show that the eye care model was successfully deployed in the two companies and this model could be replicated to other factories, especially in places where working conditions have a bad influence on eye health.

4.1 Factors contributing to the effective implementation of eye care model

- Participation and commitment of the two factories to implement the model. The project must work with the factories for consensus and coordination. The two enterprises selected care about workers' health and were willing to cooperate.
- Mobilise the stakeholders to promote their roles and linkage, and combine existing professional bodies such as health agency and those in charge of workers' rights protection such as Trade Union. The project has the coordination of many components and multi level such as provincial Trade Union, factory Trade Union, hospital health and factory health as described in the section "Effectiveness".
- Promotion of the role of trade unions to protect workers' rights so that factory workers can participate in health care activities in general. This includes comprehensive eye exams in particular as well as participation in communication activities and exercises during working hours and still get paid.
- Appropriate and effective working model: It is necessary to integrate eye care activities into occupational health care, including annual OHS activities. Putting workers at the centre and paying special attention to female workers and mobilising participation of workers in the project activities in various forms.
- Select the appropriate communication channel through worker leaders, practice instructions are simple, less time consuming but effective.
- The project management board works closely but not too formally such as too many meetings. This helps save time and operations are flexible, quick and efficiently adjusted.
- FHFVN plays a good coordination role and ensures sufficient resources during implementation of the model at the two factories.

4.2. Points to be improved

- Lack of contact and monitoring with district / regional hospitals on referrals of workers with eye diseases requiring examination or treatment makes it difficult to follow up and support the cases of workers in need of care. Meanwhile, tracking and recording workers with eye disease in two factories is limited and needs to be improved.
- The communication method through worker's leaders is mainly focused on guiding eye relaxation exercises but there is no explanation of the importance of and basic knowledge about eye care (such as regular eye check, having a break and doing eye relaxation exercise, etc.) for a short time (10-15 minutes). Moreover, the form of testing on knowledge of eye care for workers through given multiple choice has not encouraged workers to seek for further information.
- An eye care guide is not included in the guidelines on OHS, so the integration of eye care in the OHS plan is difficult because it depends on whether the factory has budget for implementation or not.

4.3 Proposed eye care model

For further effectiveness, the evaluation team proposes an eye care model. This proposed model is based on the current eye care model and emphasises a few points for improvement - as described below:

4.3.1. Purpose of eye care model

Eye care model for factory workers aims at minimising visual impairment and preventing eye diseases related to factory working conditions. This model should be integrated into the health care program for workers.

4.3.2. Objectives of eye care model

- Raising awareness, emphasising significance of eye care and a safe working environment in relation to eye care;
- Encouraging workers to seek out and use eye care services with a focus on treatment of eye diseases for workers.

4.3.3. Principles of the model

- Workers-centred approach.
- Participation of the workers.
- Integration into occupational health care programs.
- Mobilising participation of business owners.
- Support to improve eye care service capacity from grassroots to higher levels.

4.3.4. Steps to apply eye care model

Identify relevant partners participating in eye care model including: Trade Unions, Department of Health, District Health Center, company leaders and Trade Unions, Safety office and Health office and concurrently identifying define their roles.

STEP 1. Identify relevant stakeholders

Establishment of a Steering Committee, then setting up working groups to assign specific tasks.

The steering committee is formed from the provincial level to the grassroots level:

At Province level:

- Provincial Trade Union (key contact role)
- Department of Health (responsible for expertise)
- District health centre - supportive role

At the company level:

- Company leadership
- Company Trade Union
- Safety Manager
- Head of Health Department

Trilateral relationship: Department of Health - Provincial Labour Confederation - Factory Management Board closely, regularly contact, adjust operations as needed.

Necessary to emphasise the following roles:

- *Company leadership* has a key role in success or failure of the program. Once the business leaders actively provide favours, the program will be supported in terms of resources and mechanisms. One of the keys to success of the project is to choose an enterprise with a passionate leader in occupational health care.
- *Labor representative: Trade Union organisation*

  + *The provincial Trade Union* has been invited to participate from the inception stage to the implementation stage with the mode of operation as below:

During the implementation period, the provincial Trade Union participated in the executive board to apply the eye care model, regularly direct the front line, practically monitor operations of Trade Union of the factory, regularly attend activities at the enterprise and closely coordinate with other stakeholders. The provincial Trade Union has assisted the grassroots Trade Union in resolving difficulties in their operations.

+ *Factory Trade Union* with the task of educating employees, taking part in eye care model application also help to gain experience in protecting workers' rights to health care.

- *Specialised agencies:* The eye care model with the above mentioned goals cannot be separated from medical experts such as ophthalmologists, hospitals, OHS experts.

STEP 2. Situation investigation, needs assessment of eye care of workers

Implementing:

- Collecting information: eye care situation, eye care system, relevant stakeholders, factory OHS situation, working conditions of workers as well as eye health of workers. Occupational factors that affect eye health will be noted.
- Determining eye care needs of workers in the participating factories.

It should be noted: The collection of information must be conducted not only from the beginning but also during the implementation of the eye care model, which makes the model monitoring and supervising more effective.

STEP 3. Objectives and priorities identification

Based on objectives of the model, enterprises build specific targets for their establishments. It is worth noting that the eye care model mentions "Awareness raising, emphasising the importance in eye care and the safe working environment related to eye care". That is one of the characteristics when bringing an eye care program into the business. This means not only raising awareness of common eye care but also raising awareness about eye care related to specific occupations.

The following should be noted:

- Communication should be focused on occupation related eye care.
- The model focuses on female workers, while ensuring gender equality.
- Based on the actual situation of each factory, priority activities are selected.
- Eye care action plan is developed at the factory. The plan must be comprehensive and in detail for easy monitoring and supervising.

STEP 4: Development of activities' content and specific results

In order to achieve its objectives, the model should carry out the following activities:

a. Create eye care needs for workers through: raising the awareness of the importance of eye care and a safe working environment related to eye care, improving health seeking behavior and use of eye care services by workers through communication activities on eye care and vision checking/screening and comprehensive eye examinations for workers.

It is necessary to note the following:

- Eye care is incorporated in the OHS policies that are applied and maintained.
- Proper attention is paid to improve labour safety conditions at factories. This is a very specific activity in employee health care. Health care for employees in general and eye care for workers in particular cannot be separated from building a healthy workplace.
- If enterprises apply WHO guidelines on "The Health promoting workplace" with participation of workers, effectiveness will be higher [19].
- There should be strategies to mitigate risks and potential dangers to eye health in order to have a safe working environment in the factory.
- Training is provided to the factory management so that they can take initiatives to improve working conditions aimed at eye protection and eye care in the factory.

Communication activities

With the principle of "***The worker-centered approach***", communication activities are very diverse as below:

- Organising communication activities and talk shows for workers to raise eye care awareness.
- Providing primary eye care training for worker leaders. These leaders will disseminate eye care knowledge to workers at the workplace.
- Eye exercises are designed and introduced for workers to practice at breaks.
- Eye care communication materials are designed and distributed to factories and district hospitals to remind and promote good eye care practices.

Support eye care services:

- Establishing the available initial contact points during work time and at the workplace is the first basic step to facilitate access to services for factory workers.
- A vision test corner will be installed in a small space inside the factory so that workers can check their eyes at convenient times.
- Providing available and easily accessible services for primary eye care right at the factory health clinic.

b. Develop and improve the capacity of local health workers on eye care: Training, workshops, provision of equipment.

It is necessary to note the following:

- The referral system needs to be improved and workers must be supported to access eye care services. Therefore, medical facilities in the referral network need to be surveyed and established.
- Capacity building is provided for district hospitals (with the support of the Department of Health and district hospital leaders) through the following activities:
  - ✓ Providing training on referral procedures and eye care counseling for district hospital health workers as well as nurses and opticians.
  - ✓ Providing necessary basic kits (VA checks, optometry, magnifiers, ophthalmoscopes).

c. Support for treating and restoring vision for people in need

- ✓ Comprehensive eye examinations for workers are held once a year at the factory. Workers with eye diseases that can cause blindness such as cataracts, glaucoma, etc. will be referred to the higher level for intensive examination and treatment.
- ✓ If possible, the factory should invite providers of high quality refractive glasses so workers can buy the RE corrective glasses in a timely fashion with no need to go outside to buy them.

d. Implementation of the model should be closely monitored and documented with evidence. The documentation is necessary and will provide evidence as a basis for future change.

STEP 5. Developing an implementation plan

- Enterprises need to make a plan to carry out the above-mentioned activities. The plan must be specific and detailed for implementation as well as include monitoring and supervision. The plan must be full of information such as what activities? What methods? Results to be achieved? Place? Time? Who will implement? Funding?

STEP 6. Monitoring

- A monitoring system is established to track model progress.
- Periodical monitoring activities are conducted with specific activities and targets. It is important to find out the reasons why activities are not implemented as planned. Then, necessary changes and adjustments can be made in time to operate effectively.

STEP 7. Evaluation

- Prior assessment and periodical evaluation after each stage of applying the eye care model are planned at the beginning. The evaluation should describe the process of eye care model implementation from the beginning until the results are achieved as well as changes in the model implementation. The assessment helps to verify that factories are complying with safety and occupational eye care according to laws and their policies.
- In addition, the assessment helps identify eye care knowledge and awareness among workers, health workers and managers and what needs to be addressed to achieve an eye-safe working environment.

V. CONCLUSIONS AND RECOMMENDATIONS

5.1. Conclusions

The project has achieved its goal of "Developing, testing and sharing eye care models for female factory workers" at Rieker Factory and Foster Factory. At the time of evaluation (September 2019), most of the project activities have been completed (except for the comprehensive eye examination activity of Rieker company and end-of-project meeting to share the project model with stakeholders) and four main outcomes have been achieved.

The outstanding results of eye care model activities are: raising eye care awareness for the factory management as well as for workers, improving eye care practices of workers, improving eye care service quality of health workers and factory clinics. Some eye care activities will be maintained such as: comprehensive eye health examinations, counseling and primary eye care for workers at the factory clinics and eye care communication activities for workers.

5.2. Recommendations

Group 1: Integrating eye care into occupational health and safety plans

Recommendation 1: It is necessary to work with MOLISA and Ministry of Health to develop occupation related eye care guidelines integrated with the OHS program to have a legal framework to implement eye care model. Specifically, the issue of breaks for workers on the production line with eye risk factors so that workers can perform eye relaxation exercises. Continue implementing and communicating the importance of periodical eye health checkups to ensure quality of eye care for workers and regular follow up.

Enterprises should be encouraged to continue integrating occupation related eye care for workers into annual OHS programs. The plan usually follows a common template given by MOLISA, but needs to guide enterprises to specify the contents of occupational health care based on the general plan template, and to include eye care for the areas where working conditions affect workers' eyes.

Group 2: Applying and improving eye care model for factory workers

An eye care model in particular and health care in general for employees as well as an enterprise occupational safety and health model needs close cooperation between business owners and employees in implementation, continuous improvement and maintenance. Therefore, based on the identified needs, further consideration is needed to improve the eye care model for factory workers as below:

- Concerns about eye health and safety in the current working environment;
- Health, safety and well-being concerns in the workplace, socio-psychological issues, including workplace organisation, culture and workplace health-related issues (information, opportunities, support, encouragement, medical care, etc.)
- Improvement of health care and use of health services of workers, their families and other community members.

Recommendation 1: Continue to maintain and improve quality of eye care services to meet specific needs of workers in the business. Services should be employee-centered and ensure eye care is continuous throughout employees' lives: i) Periodic eye examination results, comprehensive eye examination results, and eye disease treatment should be recorded and analysed as a basis for developing a plan to implement and improve eye care; ii) Continuing to maintain and promote good practices such as mid-work shift eye relaxation exercise and on-the-spot first aid team; iii) Continuing to link with ophthalmologists of higher-level hospitals to ensure regular monitoring of workers with eye disease; iv) It is recommended to link with occupational health professionals to expand health care for workers, including occupational eye care.

Recommendation 2: Continue advocacy for enterprise policies to support workers with eye diseases/injuries; thereby helping to increase awareness and behaviour in seeking eye care services for workers.

Recommendation 3: WHO guidelines should be applied to “Enhance workplace health” with participation of the workers’ community to increase efficiency of improving working conditions related to occupational health care.

Recommendation 4: Select appropriate forms of communication for workers. It is possible to use social networks like Facebook to create Zalo groups for workers to expand communication channels and to divide into small groups to improve the quality of communication. Continue improving communication content to attract workers' participation. Continue to recruit eye care communication workers’ leaders and where possible to use workers qualified in medicine who have been trained in eye care communication to increase coverage to many more factory workers.

Recommendation 5: Needs of educating workers are constantly changing, therefore regular needs assessment should be conducted to develop appropriate content and forms of communication/training. To continue training and improving quality of eye care counseling of district/region doctors and factory health officers. It is suggested to conduct annual refresher training for workers’ leaders and workers and communication for new workers on eye care.

Recommendation 6: Continue documenting productivity data to demonstrate the effectiveness of the eye care program.

Recommendation 7: The provincial Trade Union together with relevant units, including Trade Unions of the Industrial Zones to share experiences, launch and mobilise implementation of this pilot model for enterprises in the annual "Labour and Environment Sanitation Safety and Fire Protection Week".

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APPENDIXES

Appendix 1: Terms of Reference

EVALUATION TERMS OF REFERENCE (TOR)

Project title: Improving Vision to Empower Female Factory Workers

Country: Vietnam

Date: 21st May 2019

Introduction

The Fred Hollows Foundation (The Foundation or FHF) is a secular non-profit public health organisation based in Australia, which was founded in 1992 by eminent eye surgeon Professor Fred Hollows. The Foundation focuses on strengthening eye health systems and the treatment and prevention of avoidable blindness caused by cataract, trachoma, diabetic retinopathy, and refractive error (RE). The Foundation operates in more than 20 countries across Australia, The Pacific, South and South East Asia, and Africa. The Foundation was named The Australian Charity of the Year 2013 in the inaugural Australian Charity Awards.

The Foundation began working in Vietnam in 1992. Today it is one of the leading eye care international non-governmental organisations (INGO) in Vietnam. The Foundation works in partnership with the Government, Vietnam National Institute of Ophthalmology (VNIO), medical universities, and more than 20 provincial eye care service providers as well as other INGOs that are working in Vietnam both in eye health or other fields, IAPB, WHO in Vietnam, the Australian government aid program, Seeing is Believing program (SiB) and Standard Chartered Bank (SCB).

The Vietnam's program has developed a comprehensive eye care (CEC) model which is replicated in The Foundation's operations worldwide. This approach supports the surgery and treatment for patients, provides training for medical staff across the health system, provision of infrastructure and medical equipment, community awareness campaigns and advocacy with policy makers. The Foundation in Vietnam increasingly focuses on children, addressing the major causes of visual impairment, including RE. The program works at the national, provincial and community levels of the public health system in Vietnam and focuses on the communities which are the most vulnerable to preventable blindness.

Recently, when reviewing The Foundation's strategy on gender in Vietnam, it was obviously found out that the number of women suffering from blindness is greater than that of men (approximately 229,551 women versus 99,782 men). The Foundation encourages greater efforts to be made to ensure equitable access to eye care programmes for women and girls, especially those living with high vulnerability. The Foundation specifically aims at women in order to help them overcome the unique or greater barriers that prevent them from accessing eye health services and treatment to the same degree as men. Therefore, the Improving Vision to Empower Female Factory Workers project has been developed and piloted in two factories in Da Nang city, Quang Ngai and Quang Nam provinces.

Project background

The Improving Vision to Empower Female Factory Workers project introduces eye health services to the manufacturing sector in Vietnam for the first time, taking advantage of the potential to reach a large number of women to strengthen eye health and improve workplaces. The project is increasing women's

eye health seeking behaviours (access to eye assessment and treatment), and by doing so, increasing the productivity and engagement of staff.

The project works closely with the factory management to improve occupational health policies relating to eye health. A core focus of the project is documenting project outcomes and learnings. This will add to the currently low evidence base on factory worker eye health. The Foundation also engages the sector to take the project model to scale across Vietnam.

The project works in Rieker Shoes Factories in Quang Nam, Quang Ngai Provinces, and Foster Electric Factory in Da Nang during this pilot phase. The owners of these factories have recognised the value in improving eye health of their employees and have committed to participating in this pilot stage. While the project works with all employees, more than 90% of the workers in the project factories are women.

Project duration: 1st April 2017 - 31st December 2019

Project donor: Standard Chartered Bank (SCB) via SCB Innovation Fund phase 1 (July 2017 – June 2018) and phase 2 (July 2018 – December 2019).

Project partners: Provincial Trade Unions of Da Nang city and Quang Nam province.

Project goal: Visual impairment and avoidable blindness among women working in factories is decreased.

End of project outcome: A model to improve eye health in female factory workers has been developed, tested and shared.

- **Outcome 1:** Recognition and promotion of the importance of eye health and the eye healthy work environment is increased.
- **Outcome 2:** Eye health-seeking behaviour of workers is increased.
- **Outcome 3:** Utilisation of eye care services is increased.
- **Outcome 4:** Sound evidence base on eye health in factories is developed and shared.

Outcome 1: Recognition and promotion of the importance of eye health and the eye healthy work environment is increased. A baseline survey was completed with its findings guided to develop the action plans for eye health in the two factories, supported and promoted application of mitigation strategies (protective eyewear for factory workers, first-aid bags, and emergency eyewash stations). The management personnel of the two factories were also supported to access forums on OHS safety to share and update their knowledge about occupational health, eye health and safety policies.

Outcome 2: Eye health-seeking behaviour of workers is increased. All production team leaders in the two factories were provided peer educator training and refresher training in primary eye care then they shared knowledge and information with their teams at workplaces. All workers of the two factories attended at least one eye care education campaign organised inside the factories. They also received information, education and communication (IEC) materials (such as an eye care handbook that included eye relaxing exercises) for their eye knowledge improvement and daily practice.

Outcome 3: Utilization of eye care services is increased. Firstly, vision corners – with a visual acuity chart and VA check guidelines were set up at small spaces inside the factories for workers to self-check their eyes regularly and at their convenience. Secondly, all factory medical staff were trained in primary eye care and essential eye care kits were provided to the factory medical rooms to make basic eye care services available and accessible right inside the factories. Thirdly, staff at the district referral hospitals had their eye care capacity strengthened through staff training support (on RE service) and the necessary basic equipment was provided to those hospitals (handle slit lamp, and auto refractometer). Finally, all workers with eye problems were supported to have an annual comprehensive eye check at the factories by the invited doctors and any cases that were identified as visual impairment were referred for further examination and treatment or spectacles were provided with project fund support.

Outcome 4: Sound evidence base on eye health in factories is developed and shared. To date, the project has completed a baseline survey on eye care knowledge, attitude and practice (KAP), and quality and consistency of OHS practices relating to eye health. The findings of this survey were used to develop the factory action plans for eye care. These findings and project achievements were also shared with relevant stakeholders through the annual project review workshops. The project is planning to conduct a project end-line survey, a return of investment (ROI) research, and a final project evaluation to collect and document the project model to share with provincial and national trade unions, the Ministry of Labor, Invalids and Social Affairs (MOLISA).

Purpose of work

This is the third and final year of the Improving Vision to Empower Female Factory Workers project and it aims to conduct:

1. The end-term project evaluation

2. The KAP endline project survey

Hence, this is a combined work (named the combined evaluation) of the final project evaluation and the KAP end-line project survey.

The project's design anticipated an independent evaluation at the close of the project to produce evidence on effectiveness, relevance, sustainability and impact of the project. The combined evaluation will assess the achievements and challenges of the project during the implementation stage and how they came about. It will also provide recommendations for the project and local authorities for improvement and replication.

1. The final project evaluation (FE):

The specific objectives of the evaluation are:

1.1. To consider what factors have most contributed to the effectiveness and relevance of this project and what areas of weakness have impeded the progress.
1.2 To assess the sustainability of the work that has been done so far and provide recommendations to local stakeholders about what needs to be done to consolidate/continue any gains made through this project.
1.3 To provide recommendations on whether the current project model has been effective or not with suggestions on how this model might be much more effective.

The FE should answer and complete the following key evaluation questions with evidence:

<u>Relevance</u>

- To what extent did the project meet the demand for eye care of the workers?

<u>Effectiveness</u>

- To what extent did the project increase access to eye health services among female workers in factories?
- To what extent did the project improve eye health of factory workers?

<u>Impact</u>

- What changes has the project brought to female workers?

<u>Gender equity</u>

- To what extent are the barriers to accessing eye health services for female workers identified and addressed by the project?

<u>Sustainability</u>

- To what extent is eye care integrated into the factory practices on OHS?

The FE should also provide a recommendation for an effective eye care model as described below.

- Provide an all-in one, six-page document to describe a recommended factory eye care model (more effective model) for future replication based on the current project. This document should contain: visual description of the factory eye care model with key components; a process to apply, implement and sustain this model inside factories; lessons learnt and benefits from this model application.

2. The KAP endline project survey:

The aims of the KAP end-line survey are:

2.1. To measure the changes against the baseline KAP study in the factory workers' knowledge, attitude, and practice on eye-health as well as their eye care seeking behaviours, their needs of eye care services and their accessibility to quality eye care services onsite during the project life and association between the exposure to project activities and those changes.

2.2. To describe the association between the changes of workers' KAP/workplace conditions and the change in the prevalence of eye diseases and eye disorders (including RE) among workers in the two factories.

The audiences

This combined evaluation is intended to meet the needs of the following users:

- FHF office in Vietnam (FHFVN) – to use lessons learnt to inform decisions for designs of future projects in Vietnam.
- FHF Development Effectiveness team – to provide information about what has worked and why to inform other gender eye care projects supported by The Foundation.
- Provincial Trade Unions and National Trade Union - to influence both within and between factories across the whole of Vietnam, and as a key ally for advocating the merits of the model to other factories across the nation.
- The Standard Chartered Bank – to provide accountability and evidence on effectiveness, relevance, sustainability and impact of the project.

Approach

It is suggested that this combined evaluation adopts a participatory approach to involve key stakeholders in the process. This will foster a culture of learning through seeking to produce information about a project's achievements and lessons learnt that is of value to stakeholders.

The project team from FHFVN will provide necessary support to provide context and documentation, and will coordinate the field visit schedule.

The combined evaluation should include the following:

- Desk review of all relevant project documentation and other materials such as the project implementation plan (PIP), annual work plans, M&E framework, project reports and the project collected monitoring data, VISION 2020 program guidelines, any commissioned research findings (e.g. baseline survey report and Return on Investment research report of this project), policy documents and national and provincial level strategy documents (to be compiled and provided by FHFVN).
- Interviews and discussions with relevant personnel from FHFVN and project management board members.
- Site visits to the referral district hospitals, including discussions with the district hospital director, eye doctors and eye nurses.
- Site visits to the two factories, including discussions and interviews with the factory management boards, the factory medical staff and selected workers (for the endline survey, the same workers interviewed for the baseline survey will be selected).

- Processing and analysis of data, including using of baseline data to track changes regarding workers' KAP and eye disease prevalence, preparation of key findings and recommendations for presentation to FHFVN.
- Brief verbal reporting after field trips to FHFVN Senior Program Manager to present lessons learnt, findings and recommendations.
- Submission of **a KAP endline survey report** comparing the findings from the baseline survey; **a final evaluation report;** and **a six-page summary description document of the recommended factory eye care model** reflecting comments and feedback received from selected FHFVN staff.

Deliverables

The combined Evaluation Team Leader will produce the following documents:

a. The combined evaluation plan: The plan will elaborate on this ToR and will represent the agreement between the consultant and FHFVN on how the evaluation and the survey will be conducted based on the FHF evaluation plan template. It should include technical design and preparation, training of field data collection, data entry, data cleaning and analysis, as well as reporting and presentation of the final reports.
b. Presentation of initial findings and recommendations: to be presented to the FHFVN Senior Program Manager and project team for validation and discussion, prior to commencing the evaluation report and the endline survey report.
c. The final evaluation report and the KAP endline survey report with no more than 40 pages each and a six-page summary description document of the recommended factory eye care model. The production of these reports/document will include facilitating and incorporating comments and feedback from the evaluation team members and project partners. The final reports (both in English and Vietnamese versions), following initial feedback from FHFVN, the East Asia Regional team, the M&E team and the donor coordinator, will be submitted to FHF Vietnam approximately 6 weeks after the field work ends at the latest.
d. A PowerPoint summary report to support dissemination of findings to stakeholders.

FHFVN will be responsible for subsequent sharing of the report and its recommendations with relevant stakeholders in Vietnam.

Schedule

FHFVN will enter into a contract for services with the Evaluation Team Leader. The fieldwork for the endline survey and the final project evaluation is required to be carried out simultaneously to ensure the efficient use of time for key informants. The Evaluation Team Leader will be required to undertake the following tasks within 35 working days between August and October 2019 as per the following tentative schedule:

Activities	Duration	Person in charge
Desk Review of project documentation	3 days (Jul 2019)	Evaluation Team Leader
Combined evaluation plan production, including phone/email consultation with FHFVN on design of evaluation plan	2 days (Aug 2019)	Evaluation Team Leader
Field work preparation (including training for data collectors). Discussion and agreement between FHFVN staff and consultant of data and information collecting methods.	2 days (Sep 2019)	Evaluation Team Leader
Field review and consultations, excluding travelling days (discussion, interview, meeting with	9 days (Sep 2019)	The Evaluation Team

Activities	Duration	Person in charge
stakeholders, project partners and projects' beneficiaries)		
Analysis of data collected from interviews and consultations, including documenting key findings and recommendations	6 days (Oct 2019)	The Evaluation Team
Presentation of findings to FHFVN Senior Program Manager and project team for validation and discussion of findings	1 day (Oct 2019)	Evaluation Team Leader
Final report productions	10 days (Nov 2019)	Evaluation Team Leader
Sign off, including incorporation of feedback from key stakeholders	2 days (Nov 2019)	Evaluation Team Leader, FHF VN, East Asia Regional Team, donor Coordinator
Total	**35 days**	

Evaluation team and qualifications

The Evaluation Team will comprise of an external consultant and their team, one project manager from FHFVN office and a member of the Provincial Management Board (PMB) in each province/city. The external consultant will act as the Team Leader and is responsible for the planning and delivery of the evaluation/survey, reports and recommendations. The project team of FHFVN will provide necessary support to provide context, documentation and will coordinate the field visit schedule.

External consultant

The external consultant and their team should have the following skills:

- Team Leader experience.
- Knowledge and experience of eye health or programs focused on occupational health care in Vietnam.
- Knowledge and experience of health policy influencing and advocacy.
- At least 7 years of demonstrable experience in research, monitoring and evaluating public health programs and eye health programs, including the development and use of quantitative and qualitative data collection tools and participatory evaluation methods.
- Strong skills in qualitative research design, interviewing, and qualitative data analysis.
- Excellent report writing skills (in both English and Vietnamese).

Management and logistics

The project manager will be the key person to prepare logistics and coordinating communications between the evaluator/s and the project partners. The project manager will support the evaluator/s to access relevant documents and data; arrange introductions to partners and other key participants; and provide logistical support to conduct field work, etc.

Application procedures

This evaluation will be conducted within 35 days. The consultants will provide to FHFVN the following application documents:

- Application for this combined evaluation.

- Brief proposal for final project evaluation and end-line survey detailing the proposed methodologies, time frame, and a 2-3-page statement of interest which outlines the candidates' key skills and experiences relevant to this combined evaluation.
- The updated CVs of proposed evaluation team.
- Financial proposal for this combined evaluation.

Confidentiality

The evaluator/s agree to not divulge confidential information to any person for any reason during or after completion of this contract with The Foundation. Upon completion or termination of this contract, the evaluator/s undertake to return to The Foundation any materials, files or property in their possession that relate to the business affairs of The Foundation.

Intellectual Property

All intellectual property and/or copyright material produced by the evaluator/s whilst under contract to The Foundation remain the property of The Foundation and will not be shared with any third parties without the express permission of The Foundation. The evaluator/s are required to surrender any copyright material created during the term of the contract to The Foundation upon completion or termination of the contract.

Insurance

Any consultants involved in this evaluation will be required to have in place insurance arrangements appropriate to provision of the requirements in this ToR including travel insurance.

Other

The Foundation is committed to ensure a safe environment and culture for all children with whom we come in contact during the course of our work. All members of the evaluation team will be required to comply with The Foundation's Child Protection Policy and sign the Child Protection Code of Conduct.

Appendix 2: List of Final Evaluation Team

Ord.	List of Evaluation team	Position	Function, Responsibilities
1	Ms Nguyen Hoang Yen	Team leader	- Develop the research outline for data collection and review; - Developing research protocol including qualitative and quantitative methods and tools; - Field data collection; - Provide training for data-collectors; - Qualitative data analysis; - Report writing including endline KAP survey and final evaluation and recommendation on eye care model.
2	Dr. Nguyen Thi Thu	Senior Adviser	
3	Nguyen Ngoc Nga	Senior Adviser	
4	Pham Thi Huong	Reseach officer	- Recruit the data collectors; - Develop the data collection tools - Provide training and supervise data collecting; - Liasation with partners to ensure the field trips smoothly work as plan - Update field data collection daily; - Clean and analysis the qualitative and quantitative data.
5	Bui Van Nam	Reseach officer	
6	Lam Thi Quy	Reseach officer	
7	Nguyen Hong Ha	Data collector	
8	Bui Kieu Minh Triet	Research officer	- Clean and analysis the quantitative KAP data.
9	Le Pham Y Hai	Data collector	- Attend the training on using data collection tools; - Understand interview process with structured questionaires; - Interview workers by structured questionaires follow the interviewing process; - Ensure the list of interviewed workers as the selected ones of the companies.
10	Ho Thi Hang	Data collector	
11	Hoang Ha Giang	Data collector	
12	Le Thi Hong Thuong	Data collector	
13	Tran Thi Cong	Data collector	
14	Nguyen Khac Hai	Data collector	
15	Nguyen Thi Nga	Data collector	

Appendix 3: Ethics council's Approval

Hanoi, August 26, 2019

APPROVAL CERTIFICATE

ORIGINAL [X] REVISION [ ] CONTINUATION [ ]

The following proposal has been reviewed and approved by the NIHE's IRB in accordance with the Common Rule and any other governing regulations.

- Title of application: Improving Vision to Empower Female Factory Workers
- Principal investigator: M.Sc. Nguyen Hoang Yen
- Research institution: Fred Hollows Foundation
- Funding source: Standard Chartered Bank
- Site for research: Danang province, Quang Nam province
- Subjects and sample size: 712 workers from 2 factories and 46 peoples (deep interview and group interview) who are workers, factory union leaders, factory managers, factory/ hospitals health staffs, Fred Hollows Foundation project staff
- Research period: From July, 2019 to November, 2019
- The following documents are approved for use in the research:

No.	Documents	Version	Date
1.	Study protocol and procedures	01	August 26, 2019

This proposal is approved for use through November 30, 2019.

ATTESTED BY NIHE

VIỆN VỆ SINH DỊCH TỄ TRUNG ƯƠNG

Trần Như Dương

DEPUTY DIRECTOR

IRB CHAIRMAN

Prof. Nguyen Tran Hien

THANK YOU

Contact

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