## ENDLINE SURVEY REPORT ON KNOWLEDGE, ATTITUDE, PRACTICES

Project: Improving Vision to Empower Female Factory Workers



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This endline survey on knowledge, attitude and practices (KAP) toward eye care of workers at two companies, Reiker Shoes Company Limited (Rieker company/Rieker factory) and Foster Electronics Company Limited in Danang (Foster company/Foster factory), is the final report of "*Improving Vision to Empower Female Factory Workers*" project supported by the Fred Hollows Foundation in Vietnam.

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

Leader

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The information and opinions contained in the evaluation report are those of the report authors and do not necessarily reflect the views and policy of The Fred Hollows Foundation.

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## **ABBREVIATIONS**

CHD	Center for Health Consultation and Community Development
FATP	Finish Assembly Test Procedure
FHFVN	The Fred Hollows Foundation in Vietnam
FGD	Focus group discussions
Foster	Foster Da Nang Electronics Co., Ltd
MOLISA	Ministry of Labour - Invalids and Social Affairs
IDIs	In-depth Interviews
KAP	Knowledge, Attitude, Practice
Rieker	Rieker Shoes Co., Ltd
RE	Refractive error



#### **ENDLINE SURVEY REPORT ON KNOWLEDGE, ATTITUDE, PRACTICES**

Project: Improving vision to empower female factory workers

## MESSAGE

M.A Nguyen Hoang Yen and colleagues - 16/12/2019

This report shares the results of endline survey report on knowledge, attitude and practices (KAP) conducted at two companies that participated in the project "*Improving vision to empower female factory workers*". The report also includes feedback about the project from workers interviewed during the course of the survey. The survey is sponsored by The Fred Hollows Foundation in Vietnam (FHFVN).

#### 1. Workers' knowledge and practices on eye care improved in the participating companies

**The knowledge of workers about eye care increased:** The average score of knowledge about eye care at the endline survey increased in comparision to the baseline survey from 4.0 points to 6.0 points. Especially, knowledge of dealing with eye injuries increased from 6.4 points at the baseline survey to 8.4 points at the endline survey.

**Attitude**: The percentage of workers who assessed periodic eye examinations as very importanct was 98% in the baseline survey and 93.2% in the endline survey.

The practice of workers about eye care improved: The percentage of workers who had periodic eye examinations at the endline survey increased by 50% compared to 18.3% at the baseline. The rate of always / frequent / occasional use of refractive error (RE) correction glasses of the group of workers who need glasses decreased from 93.3% at the baseline survey to 79.7% at the endline survey. The reason why workers do not wear refractive correction glasses is inconvenient when working / uncomfortable / unfamiliar (41.2%), not yet serious / not yet required to wear (14.2%), wearing causes a lot of eye strain (12.3%) and other reasons (32.3%).

**2. Appropriate communication on eye care**: All workers (100%) thought that the project communication content and format was appropriate.

**3.** Increased accessibility of workers to eye care services: 49.0% of workers visited and used eye care services at the company's clinics at the endline survey, increased compared to only 5.1% at the baseline survey. 50.6% of workers trusted the company's eye care services at the endline survey compared with 36.4% at the baseline survey.

**4. Working conditions have improved reducing the risk of eye disease:** 98.7% of workers were satisfied with the current working conditions at the endline survey compared to 93.7% at the baseline survey. The percentage of workers suffering from eye aches and headaches after work shifts decreased from 53.9% and 30.4% at the baseline survey to 10.8% and 11.6% at the endline survey.

**5.** The project meets the needs of workers on eye care: 94.1% of workers said that the project met their needs for eye care and they were satisfied with the project activities the two participating companies.

**Recommendation 1**: Continue to enhance communication to improve workers' knowledge about eye care;

**Recommendation 2:** Continue to improve the capacity of health staff in the companies;

**Recommendation 3:** Continue to enhance activities surrounding eye care in the companies and maintain the model;

**Recommendation 4:** Advocate for improved policies on eye care and replicate the model.

#### Summary of KAP endline survey

- The project "Improving vision to empower female factory workers" has improved the KAP about eye care for workers in two factories.
- Increased accessibility of workers to eye care services and improved working conditions have helped to reduce the risk of eye disease.
- Project activities on eye care are appropriate and meet the needs of factory workers and it is recommended the model be replicated.

#### Citation

Center for Health Consultation and Community Development, Project "*Improvising vision to empower company workers*": Endline survey on knowledge, attitude and practice, survey report The Fred Hollows Foundation in Vietnam, December 2019.



### ENDLINE SURVEY REPORT ON KNOWLEDGE, ATTITUDE, PRACTICES

Project: Improving vision to empower female factory workers

## SUMMARY REPORT

M.A Nguyen Hoang Yen and colleagues - 16/12/2019



#### **GENERAL INFORMATION**

Currently, in Vietnam, vision problems are increasing, affecting people's lives and productivity. This issue has been recognised by the Government and the Ministry of Health who are making efforts to find solutions. These include setting clear goals and strategies such as "Vision 2020 and Vision 2030", eliminating possible causes of preventable blindness through health initiatives and creating a favourable legal environment for eye health care.

Currently, FHFVN is focusing on building an eye care model for workers, improving policies related to the working conditions that meet eye health standards, establishing eye care regimes for workers, and strengthening capacity on eye care services within companies. This approach is being piloted in two companies: the Foster Company and the Rieker Company. In 2017, the KAP baseline survey for this project "*Improving vision to empower female factory workers*" was undertaken at the two companies. This survey found that 18.0% of officials and 13.1% workers had eye diseases. The percentage of workers with RE is was respectively 94.9% and 78.0% at the two companies). 800 workers underwent a visual examination as part of

survey, and of these 18.0% had poor eyesight (did not read and see well, blurred vision) significantly higher than 7.0% of workers who self-reported myopia and short-sightness. The eye care model was officially implemented for three years in two companies with additional support from referral hospitals and Trade Union of Da Nang and Quang Nam provinces. The results of survey showed that the rate of using correcting glasses, always/ regularly/ occasionally, of the group of workers with RE decreased from 93.3% at the baseline survey to 79.7% at the endline survey. The reasons why workers did not wear corrective glasses were inconvenience to work/ uncomfortable / unfamiliar (41.2%), not serious/ not necessary to wear (14.2%), experiencing a lot of eye strain (12.3%); Other causes (32.3%).

#### **Objective of KAP Endline survey**

1. To measure the changes against the KAP baseline survey 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. To describe the association between the changes of workers' KAP/workplace conditions and the change in the prevalence of eye diseases and eye disorders.



### **METHOD**

#### Survey design

This was a cross-sectional descriptive study that used mixed-method approaches that incorporate both quantitative and qualitative methods.

#### **Survey participants**

A total of **764** staff and workers of Rieker company, Quang Nam Province and Foster company, Da Nang City participated in this survey through **32 indepth interviews (IDI)**, **2 Focus group discussions (FGD) and 716 interviews with questionnaires** to assess the knowledge, attitude and practices of workers towards eye care; other issues related to eye health care of workers in two companies.

#### **Procedures**

The list of samples was randomly selected from the list of workers provided by the two companies.

The methods used to collect information includes: literature review; observation of working conditions of workers in two factories; structured questionnaire; IDIs and FGDs.

### **FINDINGS & DISCUSSION**

#### 1. Project has improved workers' knowledge and practices on eye care in two intervened companies

Knowledge: Increased knowledge of workers on eye care: The average score of knowledge on eye care at the endline survey increased in comparision to the baseline survey from 4.0 points to 6.0 points. The majority of workers are able to answer the important questions such as listing common eye diseases as well as the signs, causes, and treatment for myopia, presbyopia, astigmatism, cataracts.

Knowledge of dealing with eye injuries increased from 6.4 points at the baseline survey to 8.4 points at the endline survey (P<0.05).

Attitude: Workers understood about the importance of eye care and periodic eye examinations. Most workers think that their vision is really important to their job and themselves in

both baseline and endline surveys, respectively 99.3% and 92.2%. The percentage of workers who assessed periodic eye examinations as very important in the baseline and endline surveys was 98.0% and 93.2%, respectively.

**Practices: increased practices on eye care by workers:** At the endline survey, the percentage of workers that went to periodic eye examination increased to 50% in comparision with 18.3% at the baseline (p<0.05).

## 2.Appropriate content and form of communication

The endline survey results showed that all workers (100%) thought that the communication, content and approach of the project was appropriate and useful for themselves and their families.

## 3. Increased accessibility of workers to eye care services

The percentage of visits to the company's clinic for eye exams and use eye care services increased greatly from 49.0% at the endline survey compared to only 5.1% at the baseline survey.

The project implementation has helped the company's clinic to improve the quality of health services. This includes improving professional capacity and providing basic eye care equipment. All of these initiatives help to improve trust in eye care services. The percentage of workers' trust in the capacity of the company's clinic to address eye-related diseases has increased from 21.0% to 31.7% and 50.6% of workers trust in the company's eye care services compared with 36.4% at the baseline survey.

## 4. Improvement of working conditions and reduced the risk of eye diseases

98.7% of workers are satisfied with the current working conditions at the endline survey compared to 93.7% at the baseline survey. The percentage of workers suffering from eye aches and headaches after work shifts decreased from 53.9% and 30.4% at the baseline survey to 10.8% and 11.6% at the endline survey. To gain these mentioned results, the two companies have conducted some improvements and installation of additional light and ventilation systems to improve working environment at the workshops in line with clear standards.



Better eye care contributes to increased labour productivity. According to Rieker company's manager the productivity of Rieker company has increased as shown by the percentage of average production in three years (2017, 2018 and 2019) as 87.6%, 86.6% and 91.2% respectively. The Foster company has no data. The endline survey results also confirmed this result: up to 54.1% of workers at the two companies thought that the average number of products a month now (August 2019) increase in comparision with to 2017. 38% of workers confirmed that the number of faults are reduced in comparision with the baseline survey. Similarly, the average number of days off of workers with eye diseases/eye errors in previous 12 months has declined by 0.24 day in compared to 0.27 day of the baseline survey.

## 5. The project has met the needs of workers in eye care

94.1% of workers said that the project has met their needs in terms of eye care and are satisfied with the project activities.

### RECOMMENDATIONS

# Recommendation 1: Continue to enhance communication to improve knowledge on eye care for workers

- Strongly emphasize the importance of periodic eye examinations every six months for workers with eye problems and once a year for workers with normal vision to ensure routine eye health care.
- Continue to communicate about the necessity of frequently wearing frequently RE correction glasses for workers who need to wear them Similarly, communicate about the need to wear safety goggles and the mandatory requirement to monitor the use of safety goggles by workers in those areas of the factory where their use is mandatory.
- Continue to introduce knowledge of some major eye diseases/eye disorders, such as refractive defects, cataracts, glaucoma and how workers can take care of their eyes and prevent common problems, through eye injury prevention and first aid, eating foods with vitamin A, taking regular breaks during worktime and undergoing periodic eye examinations provided by the company.

- Continue to maintain appropriate forms of communication/introductions that may include; inviting ophthalmologists to talk to workers and training team leaders to communicate to workers about eye care at the beginning or end of their working day. Regularly display video clips with contents related to instructions on care, treatment and prevention of eye diseases and posted on the company's website/Facebook/fan page/Zalo to increase the accessibility of workers to eye care information.
- Continue to print and hang shortened visual acuity charts at appropriate locations in the workshop and lodging areas so that workers can check their vision on a regular basis.
- Notify workers who are suspected of having eye problems to visit district/ provincial hospitals for eye examinations and to access early treatment.
- Update and provide workers with a list of trusted ophthalmic clinics which are open after working hours and near the worker's place of residence so that workers can easily access.

## Recommendation 2: Continue to improve the capacity of company health staff

 Continue to train primary eye care knowledge and providing eye health counselling for company's health staff so that they can meet the needs of workers' rights to eye care at the company's clinic.

# Recommendation 3: Continue to enhance eye care activities in the company and maintain the model

- Continue to emphasise the importance of taking breaks, relaxing eyes and changing postures during the work shift. Depending on the conditions and nature of the work of each worker and each unit, advocate that the Company Management Board allows workers to have 10 minutes breaktime per hour for workers who work continuously with the screen and 10 minutes breaktime every two hours for other workers. Continue to provide instructions and maintain practice of workers to conduct eye relaxation exercises during short breaktimes between the shifts.
- Continue to organise annual periodic health examinations that integrate eye examinations



for workers to detect eye problems early. The company should follow up and support workers with eye problems such as refractive errors to ensure they have proper corrective glasses and timely interventions for workers with other visual disorders. At the same time, communicate about quarterly checkups for workers who are provided with RE corrective glasses or have eye diseases; in cases of workers who are identified with impaired vision, the company should organise prompt referrals and intervention.

- Maintain the use of emergency eyewash bowls and eye wash facilities in accessible locations in the work areas that use hazardous chemicals or corrosives. The company's clinic should cooperate with occupational safety officials to plan and continue to organise regular practice on first aid for emergency eye injuries for workers.
- Continue to monitor of equipment related to eye examination and treatment in the company's clinic to be able to provide or buy new equipment to meet the needs of eye exams at the company's clinic. Maintain a record book to check and monitor the eye health of workers provided with glasses, closely follow up patients that have been referred from company's clinic to specialised eye hospitals / eye clinics in the area.

## Recommendation 4: Advocacy for policies and model replication

- Advocacy: the company should have a policy to support workers with eye diseases / eye injuries; thereby helping to raise awareness and behavior in seeking workers' eye care services. Bring the content of eye care for workers instructions line with occupational health and safety guidelines issued by MOLISA.
- The project management units of two companies share lessons learned with other

companies having similar working conditions to replicate the eye care model for other workers.

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The **Fred Hollows** Foundation

## I. General Information

#### **1.1 General information**

Currently, vision problems are more prevelant 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. These 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 as 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 make up 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 affects 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 25.0% of workers having 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, factory workers in Vietnam 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 Labour Law. Specifically, employers must implement occupational health and safety 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], which is a



barrier to the provision of eye health care. However, at the community level there are networks of eye health care workers (commune health workers, village health workers) who form grassroot 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].

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 programmes 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 was respectively 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. After baseline survey was conducted, the eye care model was officially set up and operated for three years in the two companies. The project was supported by The FHFVN, Standard Chatered Bank, referral hospitals and the Trade Unions of Da Nang and Quang Nam provinces.

#### **1.2 Purpose of work**

This KAP endline survey was conducted to provide evidence and lessons learned to improve the model efficiency, enhance the replication of the model in other companies across the country. In the context of limited resources, a good model needs to be evaluated, understood and maintained so that workers themselves can take care of their own eye health, improve labour productivity and their quality of life.

#### **1.3 Survey Objectives**

1. To measure the changes against the KAP baseline survey in the factory workers' knowledge, attitude, and practices about eye-health, their eye care health seeking behaviours, their needs for eye care services, the accessibility of quality eye care services onsite and to capture their perceptions of their participation in the project.

2. To measure and describe the association between the changes of workers' KAP and workplace conditions and changes in the prevalence of eye diseases and RE amongst workers in two companies.



### II. Method

#### 2.1. Survey Design

This is a cross-sectional descriptive study that uses mixed-method approaches that incorporate both quantitative and qualitative methods.

The methods used to collect information included: literature reviews; observation of working conditions of workers in the two factories; structured questionnaires; In-depth interviews (IDIs) and focus group discussions (FGDs).

#### 2.2. Survey participants and Recruitment

#### **Survey participants**

Number of staff and workers: Rieker: 14,378 workers and Foster: 1,402 workers. Female staff are the majority of workers (99.0% in Foster and 89.49% in Rieker) (see Table 29, Appendix 8).

#### Sample size

A total of 764 officers and workers from two companies: Foster Company (Da Nang City) and Rieker Company (Quang Nam Province) participated in the survey through 32 IDIs, 02 FGDs and 716 structured questionnaires to assess workers' knowledge, attitudes and practices; working conditions and other issues related to eyes care. The structured questionnaire was tested at the baseline survey and appropriate language and contents adjustments were made for each location.

#### Sampling method

The list of participants was randomly selected from the lists of workers provided by the two companies. 24.1% (87/361) workers from the Foster company and 72.1% (256/355) workers from the Rieker company and in the list of workers who participated to interview in baseline survey. This ratio was affected by the Foster company's reduced workers; Rieker workers are off on seasonal vacation they could not take part in. The estimated list of 5 percent for the case worker can not participate into unexpected case. However, workers on a reserve list ensured standards: have at least three years working at the factory and have participated in eye care communication activities.

The data collectors were trained prior to undertaking the survey. This included purpose of the survey, contents of the survey, interviewing techniques and answering interviewees questions. A list of data collectors is shown in Appendix 2 and the Training is shown in Appendix 3. Guidelines for IDIs and FGDs, secondary forms and lists of documents to be sent to experts before going to field.

#### Survey area

The survey was undertaken at the two factories of the two companies: Foster factory located in Hoa Cam Industrial Zone, Da Nang and Rieker factory located in Dien Nam - Dien Ngoc Industrial Zone in Quang Nam province. Data was collected between 26 – 31 August, 2019 in Da Nang and 3 - 9 September, 2019 in Quang Nam.



#### 2.3. Data Analysis

#### Data source

Survey used online questionnaires with error checking functions and informed errors to interviewers for not ignoring any data field. The information in the questionnaire was also cross-checked to ensure that the information collected was correct.

#### Analysis software

Quantitative data was analysed on SPSS 22 and Microsoft Excel to calculate and design tables and charts. At the same time, statistical significance testing is used for correlations adapted objectives of the survey.

#### 2.4. Research ethic

The survey was approved by Ethics Council in Biomedical Research of the National Institute of Hygiene and Epidemiology under the Certificate decision No.HĐĐĐ - 24/2019 (Appendix 4) approved by the General Rules and current ethics in biomedical research.

### **III. Findings and Discussion**

#### 3.1. Characteristics of the Sample

A total number of 716 workers (361 Foster workers and 355 Rieker workers) were interviewed using structured questionnaires. The majority of these workers were female (98.6% at Foster and 96.1% at Rieker) and almost all were Kinh people, there were some people from Co Tu and Tay groups at the Foster Company. The characteristics of participants at the endline survey were not so different from the baseline survey, except after three years of project implementation, the workers were older and more likely to be married. The average age of workers participating in the endline survey was 33.4 years old. People under 40 years old accounted for the majority (85.9%) of the participants in the end-line survey and lower than baseline survey (90.6%), and most of these were married. As mentioned above, some new workers were recruited and these were included in the endline survey, the educational qualification of workers also have some differences from the baseline survey. In detail, there is not much change between the baseline and endline survey (43.4% and 46.6% respectively) but the percentage of workers having high school education are absolutely different (32.0% and 40.3% respectively); besides that the percentage of workers having how in the endline survey is also higher than in the baseline survey (14.8% and 10,3% respectively).

There was a change in the years of working experiences of workers participating in two surveys due to the the endline survey being implemented after three years and some workers were recruited between the baseline survey and the the endline survey: in the baseline survey, working experiences from three to less than six years accounted for the majority (48.1%) but in the endline survey, working experiences of over six to nine years dominated (51.3%). The experiences of over nine years in the endline survey is taking 2.5 times higher than the baseline survey (35.9% and 13.8% respectively). Generally these statistics show that workforce is stable with some new recruitment this is specifically the case in the Foster company. The average working experiences of workers participating in the survey at the endline and baseline survey were 8.5 years and 6.7 years, respectively.



			BA	SELINI	E SURVI	ΕY	ENDLINE SURVEY						
		Foster Rieker Total					Fo	ster	Rie	ker	Тс	otal	
		N	%	Ν	%	Ν	%	Ν	%	Ν	%	Ν	%
Sex	Male	1	0.3	23	5.8	24	3.0	5	1.4	14	3.9	19	2.7
	Female	399	99.8	377	94.3	776	97.0	356	98.6	341	96.1	697	97.3
	Total	400	100	400	100	800	100	361	100	355	100	716	100
Ethnicity	Kinh	400	100	400	100	800	100	359	99.4	355	100	714	99.7
	Others	400	100	400	100	800	100	2	0.6	0	0.0	2	0.3
	Total	400	100	400	100	800	100	361	100	355	100	716	100
	Under 30	180	45.0	174	43.5	354	44.3	113	31.5	111	31.3	224	31.4
Aging by	From 30 to 40	196	49.0	174	43.5	370	46.3	199	55.4	190	53.5	389	54.5
group	From 41 above	24	6.0	52	13.0	76	9.5	47	13.1	54	15.2	101	14.1
	Total	400	100	400	100	800	100	359	100	355	100	714	100
Marital	Married and living together	358	89.5	354	88.5	712	89	339	93.9	338	95.2	677	94.6
status	Single	35	8.8	35	8.8	70	8.8	16	4.4	13	3.7	29	4.1
	Widow	1	0.3	1	0.3	2	0.3	1	0.3	0	0.0	1	0.1
	Separated or divorced	6	1.5	10	2.5	16	2.0	5	1.4	4	1.1	9	1.3
	Total	400	100	400	100	800	100	361	100	355	100	716	100
	Primary (1-5 grade)	6	1.5	17	4.3	23	2.9	27	7.5	43	12.1	70	9.8
	Secondary (6-9 grade)	184	46.0	189	47.3	373	46.6	147	40.7	163	46.0	310	43.4
Education	High school (10-12 grade)	167	41.8	155	38.8	322	40.3	126	34.9	103	29.1	229	32.0
	College/ University	43	10.8	39	9.8	82	10.3	61	16.9	45	12.7	106	14.8
	Total	400	100	400	100	800	100	361	100	354	100	715	100
	From 3 to under 6 years	209	52.3	176	44.0	385	48.1	51	14.1	41	11.5	92	12.8
Seniority in	Above 6 to 9 years	186	46.5	119	29.8	305	38.1	232	64.3	135	38	367	51.3
Company	Above 9 years	5	1.3	105	26.3	110	13.8	78	21.6	179	50.4	257	35.9
	Total	400	100	400	100	800	100	361	100	355	100	716	100

#### Table 1: Characteristics of participants



#### 3.2. Findings in knowledge, attitude and practices to eye health care of workers

#### 3.2.1. Knowledge

There are 20 questions used to assess knowledge of health care (Appendix 5). Knowledge scores are assessed on a scale and classified according to the standards of the Ministry of Education and Training: Good (8 - 10 points); Fair (6.5 - 7.9 points); Average (5 - 6.4 points) and Poor (<5 points).

			SCOR		IOWLED	GE DIS	AGGRE	GATED	BY GR	OUPS		
						p<0.	05					
		Goo	od	Fa	ir	Aver	age	Po	or	Total		
		(8-10 points)		- 6.5) poin	(6.5 – 7.9 points)		(5 – 6.4 points)		er 5 nts)			
		Ν	%	Ν	%	Ν	%	Ν	%	Ν	%	
FOSTER	Baseline survey	0	0	8	2	69	17.3	323	80.8	400	100	
	Endline survey	33	9.1	134	37.1	136	37.7	58	16.1	361	100	
RIEKER	Baseline survey	1	0.3	11	2.8	76	19	312	78	400	100	
	Endline survey	26	7.4	105	29.8	107	30.4	114	32.4	352	100	
TOTAL	Baseline survey	1	0.1	19	2.4	145	18.1	635	79.4	800	100	
	Endline survey	59	8.3	239	33.5	243	34.1	172	24.1	713	100	

#### Table 2: Percentage of knowledge points about eye health care by company

Source: Baseline survey in August 2018 and endline survey in September 2019

**Knowledge about eye care of workers** in the two companies has increased after three years of eye care models implemented in the two companies. In the endline survey, the average score increased to 6.0/10 points compared to the baseline survey of 4.0/ 10 points. Specifically, at the Foster company, the average score increased from 3.9 points to 6.3 points and at the Rieker company the score increased from 4.0 points to 5.8 points., The percentage of workers getting an average score or higher has increased from 20.6% to 75.9%; and getting fair and good scores increased from 2.5% to 41.8%.

The IDIs results also highlighted increases in knowledge. "Before starting the project, I had not been really careful about my eyes, but ever since the project has been carried out I have not realised that I have to protect my eyes, how to protect my vision to work, how to use the computer screen, how to prevent eye problems and care of my eyes more and how often I should go for eye check-ups." [Staff of Trade Union 2]

The average score between Foster and Rieker was different in the endline survey (6.3 points and 5.8 points, respectively) and having statistically significant (p < 0.05).



The endline surveys showed that there is a correlation between the average score of knowledge in eye care and education level (p <0.05). It identified that the higher the level of education among workers, the better they are able to perceive / acquire knowledge related to eye care.

The endline survey did not find a correlation between average knowledge and other variables such as gender, age, marital status, vocational training (P> 0.05). In the baseline survey, there was also no correlation found between these variables.

		EYE				
		Ν	Mean	Max	Min	
	Baseline survey	800	2.2	10	0	
	Endline survey	716	4.5	10	1.25	p<0.05
	Foster	761	3.6	10	0	
	Rieker	755	3.0	10	0	p<0.05
Foster	Baseline survey	400	2.3	10	0	
	Endline survey	361	4.7	10	1.25	p<0.05
Rieker	Baseline survey	400	2.0	10	0	
	Endline survey	355	4.3	10	1.25	p<0.05
Total	Baseline survey	800	2.2	10	0	
	Endline survey	716	4.5	10	1.25	p<0.05

#### Table 3: Average knowledge score about eye protection methods<sup>1</sup>

Source: Baseline survey in August 2018 and endline survey in September 2019

**a.** Workers have better knowledge on eye protection measures at the endline survey in comparision with the baseline survey (Table 3). Specifically: Wear sunglasses when it is sunny (from 55.6% to 69.6%); Relaxing eyes / look far in between the work (from 14.9% to 56.4%); Avoid dirt / do not rub dirty hand into the eyes (from 19.8% to 52.9%); Eat foods with enriched Vitamin A (from 16.1% to 25.6%). Endline survey results showed that workers have knowledge of eye protection measures but are not yet good at implementing these measures to prevent eye diseases. The training manual for the team leaders of worker group has included all measures to prevent eye diseases, but it has not been fully incorporated into handbooks for workers, so the information available to workers is limited. There is also insufficient time for the team leaders to focus on practicing eye relaxation exercises with the workers from both companies. Therefore, the company should pay attention to continued education of workers in eye care and in particular the practice of basic eye care techniques.

Notably, the group with eye diseases in the past three years had an average rate of eye protection higher than the group without eye diseases at 0.44 points (see the table 30 - Appendix 8) - there was a statistical difference (p <0.05). It may explain that in those workers with eye diseases, they have learned more about their eye disease, so they know better how to protect their eyes.

<sup>&</sup>lt;sup>1</sup> Question 2.6 – Assess the knowledge of workers on eye protection measures.





#### Figure 1: Eyes protection and prevention of eyes diseases

Source: Baseline survey in August 2018 and endline survey in September 2019

**b.** Knowledge on dealing with eye injuries of workers increased significantly after the project intervention, from 6.4 points at the baseline survey to 8.4 points at the endline survey (p<0.05). In which, the measures implemented include: visiting the company's clinic (from 71.8% to 90.1%); rinsing eyes with clean water (from 33.4% to 65.8%); visiting the nearest center / hospital / clinic for eye health care (from 38.9% to 59.1%). From the knowledge score of workers on how to deal with eye injuries/ eye damages at work, it is shown that workers tend to seek the nearest and most easily accessible medical services for first aid and timely treatment - that is from the company's clinic.

"The benefit for workers is really great because in the past workers had not taken care of their eye health. when their eyes got red, they just went to buy medicine as well as did not know how to prevent it. Since the project started, workers knew how to do eye care and how to prevent from eye diseases. At the same time, this project has trained a medical team on eye health care who had attended short-term classes sponsored by FHFVN. From the short-term class, the medical team are able to guide and provide initial eye care services for workers of company". [Staff of Trade Union 1].

Workers have the right knowledge on dealing with eye injuries/eye damages at work. This is the result of the two companies installing eyewash bowls in workshops and providing a training course for workers' leaders to help workers improve their knowledge on this issue and how to deal with eye injuries in an emergency. Other activities such as knowledge contests, doctors talking with workers and communication materials, inlcluding brochures and handbooks also contribute to improving workers knowledge on eye care.

#### c. Worker have better knowledge on the common eye disease



		CATARACT	ΜΥΟΡΙΑ	PRESBYOPIA
SURVEY	Baseline	1.6	5.1	1.7
	Endline	4.0	6.0	5.1
p VALUE		p<0.05	p<0.05	p<0.05

Source: Baseline survey in August 2018 and endline survey in September 2019

The average score of knowledge about three common eye diseases among workers (myopia, presbyopia and cataract) increased in the endline survey with statistically significant differences. In which, knowledge about myopia, presbyopia take an average score (6.0 points and 5.1 points) while cataract below the average score (4.0 points).

Assessing the understanding of each disease, the knowledge score for treatment is significantly increased because workers are always aware that when they having these diseases, they can have surgery, wear glasses or visit eye care medical facilities to be consulted by the doctors. The percentage of workers who think that treatment related to myopia, presbyopia, it is necessary to wear RE corrective glasses as prescribed by the doctor increased (from 52.8% in the baseline survey to 89.7% in the endline survey), taking medicine combined with eye exercises (from 22.8% to 70.8% respectively). The percentage of workers who have correct answers about cataract treatment surgery increased from 10.3% to 31.4% and visit medical facilities on ophthalmologic section for check-up and treatment increased from 29.8% to 61.9%. The knowledge of workers about the causes of three mentioned eye diseases and preventive measures are still low as mentioned in the "*Knowledge of eye protection measures*" due to the short time the worker's leaders only focused on practicing eye relaxation exercises.

*d. Knowledge on working environment conditions /factors* of workers that can affect their vision in the endline survey also increased significantly in comparision with the baseline survey such as insufficient light /bright light (40.0% to 80.9% at the endline survey), job requires looking closely at a screen (16.1% to 42.0% at the endline survey), working time / rest time (12.9% to 33.5% at the endline survey), working with chemicals (13.5% to 20.9% at the endline survey). This change is because the project / company has improved working conditions and has communicated repeatedly about eye-care through various channels. (See results in Table 26, Appendix 8).

#### 3.2.2. Attitude

**a.** Workers have positive attitude and concern about eye health care: The results of baseline and endline survey showed that most workers thought that eye diseases are dangerous and vision is really important to their job and themselves, respectively 99.3% and 92.2%. Similarly, workers highly appreciated the importance of periodic eye examinations, 98.0% of workers at the baseline survey assessed that periodic eye examinations to be from important to very important, the relevant percentage decreased in the endline survey (93.2%), but the difference between the two surveys is not statistically significant. The attitude of recognising the importance of eye care is also shared by the team leaders and the workers: "For example, many of the workers have symptoms of eye diseases, they have to take time off to go to the doctor for check up. In the past, they didn't care about that [...] thus leading to a worse situation. Now when seeing any symptoms they had ever learnt in the communication session, they went to the medical center so that the doctors could check up on these and treat them promptly. [Worker's leader 2].





#### Figure 2: Assess the importance of eyes check up regularly

Source: Baseline survey in August 2018 and endline survey in September 2019

Most workers thought that each individual must take care of their own eyes first (95.9% and 96.6% respectively at the baseline and endline of the survey), then the responsibility of the company/ company's clinic (respectively 26.5%, 53.2% at the baseline and endline of the survey), while other units such as medical centres, ophthalmology clinics/ hospitals have a very low rate in both surveys. Similarly, most of workers believed that the company was obliged to take care of the workers vision at the company (increased from 84.5% in the baseline survey to 96.1% in the endline survey) and the percentage of workers who said they have the right to claim the company for issues affecting their vision has increased from 86.3% to 94.7%. It shows that workers have a very positive attitude towards the company's eye care responsibilities to them.

Statistical review of workers' attitudes toward eye care responsibilities and recommendations to the company on issues affecting their eyes showed that there is no difference between age groups, experiences or education level of workers in the endline survey.

#### 3.2.3. Practices

		BASELII	NE SURVEY	ENDLIN	ENDLINE SURVEY			
		Ν	%	Ν	%			
Eyes check – up	No	654	81.7	358	50.0	p<0,05		
regularly or not?*	Yes	146	18.3	358	50.0			

#### Table 5: Percentage of workers who had regularly eye examinations

\*Eyes check – up every six months or one year/time

Source: Baseline survey in August 2018 and endline survey in September 2019

**a.** The percentage of workers who had periodic eye examination increased significantly at the endline survey: Specifically, this rate nearly doubled compared to the baseline survey (50.0% compared to 18.3%). This is one of the indicators that showed the success of eye health care model in the two companies. Factors that account for this are, increased practice of workers to undertake periodic examinations, involvement of ophthalmologists in periodic eye examinations and routine follow-up by the medical staff in company's clinic for providing workers after receiving glasses and treatments.



The results of IDI showed that workers know how to take care of their eyes better: "Workers are more concerned about their health, they know how to care for their eyes. When they have eye strain, they know how to massage their eyes more comfortably, they make their eyes regulate better, they need more suitable light. In the past, there was insufficient light, he still sat there to work. For example, now when it's insufficient light, he stop working, he asks for turning on the light for him. In the past he thought that the light is weak, he could do but and he had to regulated his eyes, but he purposely did it carefully. Now when the light is off, he required to change the light then he start the work. It is obviously clear, for example, in the past when the lights were broken, it blinked, I went over and told him to change the light, but he even didn't think about changing the new one, it was necessary to remind him to do. Now when the light is a little dimmer, he see that it not good and need to replace another lamp. The better awareness is, the better he knows how to protect his eyes ... ". [Worker's leader 3].

p> 0.05		ΜΥΟΡΙΑ				PRESBYOPIA			ASTIGMATISM					TOTAL			
		Bas	seline	Endline		Ba	seline	En	dline	Baseline		Endline		Baseline		Endline	
		Ν	%	Ν	%	Ν	%	Ν	%	Ν	%	Ν	%	Ν	%	Ν	%
Workers have RE		39	69.6	59	60.8	8	14.3	20	20.6	9	16.1	18	18.6	56	36.6	97	63.4
Wear glass	Yes	17	43.6	52	88.1	7	87.5	18	90.0	6	66.7	14	77.8	30	53.6	84	86.6
	No	22	56.4	7	11.9	1	12.5	2	10.0	3	33.3	4	22.2	26	46.4	13	13.4
Frequency of using glasses	Never and rarely	2	11.8	11	21.2	0	0.0	2	11.2	0	0.0	4	28.5	2	6.7	17	20.2
	Always/ often/ sometim es	15	88.2	41	78.8	7	100	16	88.8	6	100	10	71.5	28	93.3	67	79.8

#### Table 6: Percentage of workers with refractive errors and glasses wearing behavior

Source: Baseline survey in August 2018 and endline survey in September 2019

**b.** The percentage of workers who had eye examinations in the last 12 months in the endline survey increased compared to the baseline survey (22.6% compared to 22.0% respectively), there was no big difference of the rate between Foster and Rieker in the endline survey (21.7% and 23.4% respectively). The main reason that workers have eye examinations is due to their eye disease/errors (baseline survey: 66.7%, endline survey: 61.7%) and poor vision (baseline survey: 36.8%, endline survey: 17.2%).



			BASE		URVEY			END		URVEY	
		Fo	ster	Rie	eker	p<0.05	Fo	ster	Rie	ker	p>0.05
		N	%	Ν	%		Ν	%	Ν	%	
Eyes checkup in	No	234	72.2	276	83.6		130	78.3	147	76.6	
12 months	Yes	90	27.8	54	16.4		36	21.7	45	23.4	
Reasons for eyes check – up	Eyes diseases	64	71.1	32	59.2		20	55.5	30	66.6	
	Economic condition is better	0	0.0	0	0.0		1	0.3	5	11.1	
	Family member advised to check - up	0	0.0	2	0.5		3	8.3	2	4.4	
	Village health worker/doctor advised to check up	0	0.3	0	0.0		2	5.5	5	11.1	
	Feel the eyes are worse	26	28.9	22	40.8		11	30.7	3	6.8	
	Da Nang Eyes hospital/Quang Nam Eyes Center	65	39.2	37	29.8		46	19.9	19	9.1	
Locations	National Eye hospital	3	1.8	0	0.0		11	4.8	2	1.0	
check-up regularly	Hospital/Clinic/ Private doctor	33	19.9	47	37.9		27	11.7	46	22.1	
and in the	Company's clinic	7	4.2	8	6.5		104	45.0	111	53.4	
past 12 months	Commune health clinic/District health center	58	34.9	32	25.8		43	18.6	30	14.4	

#### Table 7: Percentage of workers, reasons and location for eyes check-up in the past 12 months

Source: Baseline survey in August 2018 and endline survey in September 2019

*c.* The percentage of workers using RE correction glasses in the endline survey increased compared to the baseline survey (86.6% and 53.6%, respectively). The percentage of workers with RE among workers suffering from eye disease in the last three years in the endline survey is higher than that at the baseline survey. Specifically: myopia increased from 18.2% to 26.7%; presbyopia increased from 3.7% to 9.0% and astigmatism increased from 4.2% to 8.1% (Table 20, Appendix 8)

The rate of using refractive correction glasses always /frequent/ occasional among workers with refractive errors in the endline survey decreased from the baseline survey: Specifically, from 93.3% to 79.8 % at endline survey. Details in each disease separately: myopia decreased from 88.2% to 78.8%; presbyopia decreased from 100.0% to 88.8% and astigmatism decreased from 100% to 71.5%. The reasons why workers are not using RE correction glasses in the endline survey are: having myopia at low capacity and they can see close so that they did not use glasses frequently, not easy to work, feel uncomfortable, only use for traveling or reading, not so important to wear glasses or not used to wearing glasses.



Among the workers who wear RE correction glasses, the percentage of workers who think that their vision has decreased since entering the company accounts for a very large proportion 67.9%. It is worth noting that among the workers who said their vision decreased from the day they entered this company, the percentage of regular glasses wearing accounted for a low rate (26.3%) and most of them did not wear regular glasses (73.7%). We can see that workers are still not aware and practice using regular RE correction glasses to improve their vision and contribute to labour productivity for the company.

*d. The percentage of workers using safety goggles increased:* Some workers of the two companies need to be equipped with safety goggles to protect their eyes. A total of 55 workers said that their positions need to use safety goggles in the endline survey, of which 96.4% of workers are equipped with company safety goggles. Only two cases were reported of not being equipped with safety goggles by the company (Foster: one worker; Rieker: one worker). The percentage of workers who always/sometimes use safety goggles increased at the endline survey compared with the baseline survey (100% and 92.9% respectively). However the percentage of workers who always use safety goggles is still low even though the companies supplied them: Foster only 42.3% and Rieker 20.7%. The reason for not wearing them always is because workers find it inconvenient or workers have their own corrective glasses.

					p>	0.05			
		BA	SELINE	SURVE	Y	EN	IDLINE S	SURVEY	
		Foster		Rieker		Foster		Rieker	
		Ν	%	Ν	%	Ν	%	Ν	%
Do your work use safety	Yes	4	1.0	10	2.5	26	7.2	29	8.2
goggles?	No	396	99.0	390	97.5	335	92.8	326	91.8
If yes. does	Yes	4	100.0	8	80.0	25	96.1	28	96.6
factory give you safety goggles to use?	No	0	0.0	2	20.0	1	3.9	1	3.4
How often do you use safety goggles when	Never	0	0.0	1	10.0	0	0.0	0	0.0
	Always	3	75.0	3	30.0	11	42.3	6	20.7
you work?	Sometimes	1	25.0	6	60.0	15	57.7	23	79.3

#### Table 8: Using the safety goggles in factories

Source: Baseline survey in August 2018 and endline survey in September 2019

e. The percentage of workers who practiced some eye protection measures at work: such as resting when their eyes are tired, changing their posture of working when needed.



			IE SURVEY	ENDLINE		
		N	%	Ν	%	_
Rest in place when	Yes	493	61.9	594	83.3	
eyes strain	No	304	38.1	119	16.7	p<0.05
Change	Yes	445	55.6	527	73.8	
standing/sitting position when work by needs	No	355	44.4	187	26.2	

#### Table 9. Workers practice eye protection

Source: Baseline survey in August 2018 and endline survey in September 2019

*g. Using the shortened visual acuity chart:* The shortened visual acuity chart were supplied by the project for two companies and installed at convenient locations in the workshop and company's clinic where workers can easily use them for testing their vision regularly. At the endline survey, the percentage of workers who use the shortened visual acuity chart in Foster is 71.5% and at Rieker is 64.5%. The percentage of workers at the two companies who know about the shortened visual acuity chart is about 90.4% and the percentage of workers often use the shortened vision test board at Foster and Rieker is 93.8% and 86.5%, respectively. There is no difference between the frequency of using the shortened vision board between workers having or not having eye disease in the past three years.

#### Table 10: Using the shortened visual acuity chart in two factories

		ENDLINE SURVEY								
			Foster	Rie	ker					
		N	%	Ν	%					
	Yes	258	71.5	229	64.5					
Know shortened	No	103	28.5	126	35.5					
vision board.	Total	361	100	355	100					
	Never use	16	6.2	31	13.5					
Using the shortened	sometimes, usually	242	93.8	198	86.5					
vision board	Total	258	100	229	100					

Source: Endline survey in September 2019

*h.* Workers actively seeking information related to eye health are extremely important because they contribute to changing attitudes and lead to changes in behaviour. The percentage of workers actively seeking information related to eye diseases increased from 40.3% at the baseline survey to 63.5% at the endline survey. At the baseline survey, there was no difference between the two companies, but at the endline survey, the percentage of workers actively seeking information on eye health care was different, at Foster was 72.0% and at Rieker was only 54.9%. At the endline survey, workers seeking information related to eye health focused on two channels: 1) Company health staff and 2) internet / social networks; Other channels account for a smaller proportion, while at the baseline survey: social networks / internet; friends



and relatives; central television; doctors of all levels. It shows that workers have more trust in company health staff and are willing to share and receive information from this source.

#### 3.2.4. Correlation of knowledge, attitude and practices with the prevalence of eye diseases

**Knowledge**: According to T-test results, there is no difference in the average knowledge score among workers with eye diseases and other group without eye diseases within three years in the endline survey. Specifically, the group suffering from eye diseases has a knowledge score of 6.1 points; meanwhile, the score of the non-eye disease group was 6.0 so it is not possible to assess the knowledge that affects workers' eye diseases at the two companies. This is similar to the conclusions in the survey at the baseline survey. (Table 31, Appendix 8).

**Attitude**: The importance of vision at work and the importance of periodic eye examinations mentioned above show that most workers have the right attitude on the assessment. However, the statistical test results did not show any difference in attitude between the group with eye disease and the group without eye disease within three years. So, the association between workers' attitude towards eye care and the incidence of eye diseases cannot be determined.

**Practices**: There is no correlation between periodic eye examinations and applying preventive eye solutions to reduce the incidence of eye diseases in the survey. Chi-Square test results showed that there was no statistically significant difference between periodic eye examinations and the incidence of eye diseases within three years (Table 11).

		HAVING EYE DISEASES IN PAST THREE YEARS (p>0.05)						
ETES CHECK		٢	/es	No				
		Ν	%	Ν	%			
Rasolino survov	Yes	46	21.5	100	17.1			
Daseline survey	No	168	78.5	486	82.9			
Endline survey	Yes	110	49.8	248	50.1			
	No	111	50.2	247	49.9			

#### Table 11: The Correlation between eyes check up and having eyes diseases in past three years

Source: Baseline survey in August 2018 and endline survey in September 2019

#### 3.3. Content and forms of communication

#### Table 12: Received information about eyes health care in the past six months

		BASELINE	SURVEY	ENDLINI	ESURVEY
		p<0	.05	p<0.05	
		Ν	%	Ν	%
Received information related eye health	Never	601	80.3	32	4.5
care/eye health in past six months	Ever	147	19.7	672	95.5



**a.** Increased accessibility to information on eye care: The table above show that the percentage of workers who have listened to / received / looked / read information related to eye care / eye health at the two companies has increased in the last six months, from 19.7% in the baseline survey to 95.5% in the endline survey. The content that workers received were: how to prevent eye diseases / errors (80.4%), signs / symptoms of eye diseases/errors, causes of eye diseases / errors (64.0%), eye care / protection methods (61.7%), initial treatment for eye diseases / errors (56.8%).

**b.** Communication content and forms are suitable for workers: 100% of workers think that the information provided by the project is completely suitable for themselves and not only useful for themselves but also for their family members.

The endline survey results show that knowledge of workers of the two companies has significantly improved as described above. This is due to the effectiveness of the project communication activities carried out in two companies. In addition to the gathering talking session, workers want to receive information through companies / worker's leaders / company's clinic / health staff with the highest rate of communication (55.6%). This is also is the communication channel provided by the company most appropriate with the desire of workers.

The communication through the worker's leaders are also proposed by workers with the advantage of friendly, easy to communicate with workers. "*The leader understands the workers and the workers understand the leader, if workers have a question they will ask immediately*" [Worker received subsidized glasses 3]. In the same point of view, the female worker's leader [Worker leader 4] said: "*The leaders, 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*".

The results of structural questionnaires' interviews are similar to IDI:

"After learning about eye care [eye relaxing exercises, how to deal with eye injuries at work] I myself understand about my eyes as other people may be OK with self - treated like using eye drops but visiting health clinic or company's clinic, there will have someone taking care my eyes better. Besides that they also care about limit the type of direct lighting beam that make the eyes tired" [Worker's leader 1].

The second highest preferred communication channel is via internet / social networks (51.7%) and the third is the desire to receive information via doctors from district/ provincial hospital and communal health stations (20.3%). Other sources of information such as leaflets, posters or posters are negligible.

*c.* The need for continued content and form of communication of eye diseases: The project uses communication channels through: company health staff, hospital doctors and this is the most preferred channel that workers assess and want to receive. Specifically, the percentage of workers who want to continue receiving information through the company/company's clinic / company health officer (69.6%); training courses by company (54.3%). Besides, some communication channels are also interested by workers: internet / social networks (28.9%); leaflets (22.2%). 95.5% of workers have heard about eye care / eye health information through the mentioned above channels. The most common eye diseases of interest are: cataracts (45.5%), myopia (39.4%), presbyopia (28.2%), trachoma (27.8%) and eye injury (27.0%). There are also other eye diseases to be concerned about such as: reduced vision, eye strain, blurred vision, astigmatism, trachoma, dacryadenitis and glaucoma.

#### 3.4. Accessibility to eye care services

a. Increased accessibility to eye care services at the company's clinic: During the implementation of the eye care model at the two companies, the company's clinic has demonstrated its capacity in worker health care in general and eye health care in particular, so that more and more workers having eye



problems visited the company's clinic to use services. This percentage of workers informed using the eye health care service in company's clinic increased from 5.1% at the baseline survey to 49.0% at the endline survey. The result is also consistent with the increase in the percentage of workers satisfied with the attitude of health staff providing services at the endline survey of 85.3% comparison with baseline survey is 77.5%.

Workers who visited other health facilities at the commune, district and provincial levels were all lower than at the baseline survey and only accounted for about 10.0% in both surveys. It is noted that there is still a proportion of workers saying that they do not need medical facilities and do not have any treatment/ to be self-recovered on their own (6.8%). It is notably that there is still a gap of knowledge about the care and treatment of eye diseases among workers in two companies.



#### Figure3: Health facilities that workers choose to check up and treat eyes diseases

Source: Baseline survey in August 2018 and endline survey in September 2019

The percentage of worker trust in the capacity of the company's clinic to cure eye-related diseases has increased from 21.0% in baseline survey to 31.7% in endline survey and the percentage of workers trust of eye care services provided by the company's clinic has increased from 36.4% in the baseline survey to 50.6% in endline survey.



		BASELINI	E SURVEY	ENDLINE	SURVEY
		N	%	Ν	%
According to you.	Yes	168	21.0	227	31.7
the company's clinic	No	508	63.5	440	61.5
can cure eyes diseases.	Don't know	124	15.5	49	6.8
	Total	800	100	716	100
The level of trust	Don't trust	193	24.1	26	3.6
with eyes health	Normal	316	39.5	328	45.8
care services	Trust	291	36.4	362	50.6
company's clinic	Total	800	100	716	100
The level of	Not very satisfied	26	3.5	2	0.4
satisfaction with	Normal	139	19.0	77	14.3
medical staff	Satisfy	567	77.5	457	85.3
	Total	732	100	716	100

## Table 13: The percentage of workers' assessment on eyes diseases treatment, trust and satisfaction with medical staff in the company' clinic

#### Source: Endline survey in September 2019

Training and applying the first aid model in place for workers is one of the important activities of the eye care model. The company use staff who have had basic medical training (nurses, midwives, etc.) for the training to improve their capacity in first aid for eye diseases/eye injuries. So that in severe cases, workers are also given first aid at the company, reducing the possibility of becoming blind before transferring to higher levels.

"Training on eye care? Yes, trained on first aids that consist of providing first aid for emergency of injuries including eye care... [Worker 2].

**b.** The rate of workers accessed to general medical examination services of company's clinics increased. According to a report from the health clinic of two companies, the average number of people visit clinic for general health examination increases each year <sup>2</sup>. At Foster: in 2017: 0.44 times / month; in 2018: 0.79 times / month; The first 7 months of 2019: 0.61 times / month. At Rieker: 2016: 0.14 times / month; in 2017: 0.17 times / month; in 2018: 0.19 times / month; The first 7 months of 2019: 0.61 times / month; of 2019: 0.18 times / month.

<sup>&</sup>lt;sup>2</sup> The percentage of company's clinic use for medical examination: the ratio of total number turns of workers using the company's clinic for medical examination during the year/total number of factory workers/12 months.



	BASELINE SURVEY								E	NDLINE	SURV	EY	
p<0.05							p>0.05						
	Fos	ster	Rie	eker	Tc	otal		Fos	ster	Riek	er	То	tal
	Ν	%	Ν	%	Ν	%		Ν	%	Ν	%	Ν	%
No	23	5.8	45	11.3	68	8.5		81	22.4	94	26.5	175	24.4
Yes	377	94.3	355	88.8	732	91.5		280	77.6	261	73.5	541	75.6
Total	400	100	400	100	800	100		361	100	355	100	716	100

#### Table 14: Worker use the company's' clinic in two factories

Source: Baseline survey in August 2018 and endline survey in September 2019

Among the workers participating in the baseline survey, 91.5% said that they had used medical treatment services at the company's clinic in which in Foster the percentage of clinic use is significantly higher than in Rieker (94.3% and 88.8%, respectively). The rate of clinic use in the endline survey has decreased to 77.6% in Foster and 73.5% in Rieker. The reason for workers not using medical examination and treatment services in the company's clinic in the endline survey is that 20.8% of interviewed workers said they had no health problems. Other reasons accounted for a very small proportion, such as the company's clinic has not enough equipment (0.6%), unknown answer (0.5%), self-managed treatment (0.3%).

#### c. No barrier to access eye care services in company's clinic:

In the endline survey, the reason why workers did not use health services at the company's clinic is mainly they did not have any problems with eye health. In addition, the companies also provided a comprehensive health examinations for workers at the company including eye examinations so they do not need to go to other places.

**Working time of the company's clinics**: There are always available health staff on duty during the working time of the companies to consult and provide first aid to the workers. Foster company has two pharmacists who are on duty with working shifts, while at Rieker company there are nine general physicians working in two clinics.

In order to meet the needs of workers' eye care, the professional capacity of the company's health staff has improved: 100% of health staff in the two companies have been trained in a course of three days to improve the capacity in eye care and treatment, trained by a specialist doctor at level I of Quang Nam Regional General Hospital. Otherwise, the company's clinics were also equipped basic ophthalmic kits such as anatomical pick-up tool, light visual acuity, magnifying glass so that health workers can promptly handle cases of eye problems at the company without transferring or referring to higher levels. In addition, the medical staff of company's clinic of Rieker has been trained for three months in refractive errors measurement to become refractor and has provided RE service right at factory.

#### 3.5. Improvement of working conditions and increased productivity

#### 3.5.1 Improvement of working conditions

**a.** The working conditions have been improved: After the assessment report of the Institute of Occupational Health and Environment in the 2017 survey at the baseline survey, two companies made a lot of effort to improve the working conditions in all production sections including productive lines and units. The evidence of their improvement has been shown in the endline survey (2019) when most workers at



Foster and Rieker said that the current working environment has improved a lot more than in 2017 (96.7% and 90.7% respectively).

**b.** Reduction of the risk of eye diseases: The endline survey results showed that common symptoms after work such as eye strain and headache decreased significantly (only 10.8% and 11.6%). The rate in the baseline survey report is 53.9% and 30.4%. To gain the mentioned results, Foster and Rieker companies have conducted some improvements and installation of additional related systems such as LED light bulbs, ventilation pipes, chemical suction devices to improve the working environment at the workshops and ensure the working environment of workers according to the standards allowed and reduce the risk of eye diseases. Moreover, according to the annual environmental monitoring report (2018, 2019), all environmental indicators at the two companies have met the allowed standards better than in 2017.

*c. Most of workers are satisfied with the current working conditions* of the Foster company and Rieker company (99.4% and 98.0% respectively), the percentage at baseline survey as 90.7% and 96.7%.

#### 3.5.2. Increased labor productivity

**a. Increased the workers' productivity:** Better eye care contributes a part in increasing labor productivity. According to Rieker company's leader, the productivity of Rieker company has increased as shown by the percentage of average production in 2019 increased more than in 2018 and 2017 (respectively 91.2%, 86.6% and 87.6%). The Foster company has no data. The endline survey results also confirmed this result: up to 54.1% of workers at the two companies thought that the average number of products a month now (2019) increased in comparision with to 2017 and backward. Specifically, the average of products by months in 2017 was 60,439 and increased to 62,721 products in 2019.

Looking over to the data in the baseline survey, the average number of days off in the group with eye diseases in the endline survey has declined by 0.5 day in Foster (from 1.2 days to 0.7 day) and still remained at Rieker (0.3 days). The overall assessment of the proportion of defective products caused by eyes at the endline survey, in the group with eye disease during three years is higher than the group without disease in both companies, particularly in the Cable workshop in Foster company, the rate of the group with eye disease is lower than the group without disease. The percentage of defective products by eye diseases in both groups of with and without eye diseases increased at the two companies in the endline survey compared to the baseline survey. Specifically, the group with eye disease in the past three years (2017-2019) in Foster and Rieker (respectively from 8.4% to 24%, 6.9% to 20.3%) and the group without eye disease in the past three years (7.3% to 12.6%, 5.7% to 9.8%, respectively).



#### Figure 4: The average days off in eyes diseases group

Unit: Day

Source: Baseline survey in August 2018 and endline survey in September 2019



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#### 3.5.3. Situation of symptoms and eye disease of workers

#### a. According to the comprehensive health examination

**Rieker company**: The results of comprehensive eye examination in 2017 and 2018 at Rieker company, show that the incidence of eye diseases is rather high. In 2017, there were 2,740 workers suffering from eye diseases (accounting for 18%), of which the number of refractive vision accounted for 34.6%, numbers with other eye problems accounted for 65.4%, the highest rate is in A, B and F workshops. In 2018, there were 2,701 workers that had eye diseases (accounted 22.6%), the percentage of workers with refractive errors increased slightly, accounting for 35.7% (964 workers), while workers had problems with other eye diseases accounted for a higher rate of 64.3% (1,737 workers), concentrated in A, B, E, F and workshops. Workers in Rieker had other eye diseases as: conjunctivitis, glaucoma, pterygium, presbyopia.

			YEA	R 2017	YEAR	2018
NO	Disease/Symptoms	Units *	Total of persons	Percentage (%)	Total of persons	Percentage (%)
1	Refractive errors	А	268	9.8	244	9
		В	294	10.7	267	9.9
		D	7	0.3	13	0.5
		E	101	3.7	68	2.5
		F	261	9.5	347	12.8
		G	17	0.6	25	0.9
	TOTAL		948	34.6	964	35.7
2	Others eyes diseases	А	640	23.4	417	15.4
		В	584	21.3	392	14.5
		D	11	0.4	85	3.1
		Е	161	5.9	293	10.8
		F	386	14.1	402	14.9
		G	10	0.4	148	5.5
	TOTAL		1,792	65.4	1.737	64.3
	TOTAL		2,740	100	2,701	100

#### Table 15: The comprehensive eyes examination result in 2017, 2018 of Rieker company

\*See appendix 6 for the main working at units: Brief description of the Rieker company Source Rieker company provided

**Foster company:** According to the results of comprehensive eye examinations at Foster company in 2017 and 2018, there were 735 workers suffering from eye disease (accounting for 27.7%), of which the number of workers with RE accounted for a large proportion of 99.0%, workers suffering from other eye problems only accounted for 1.0%. in 2018, there were 104 workers suffering eye disease (8.2%), of which the proportion of workers with RE slightly deceased, accounting for 92.3% (96 workers) and workers experiencing other problems accounted 7.7%. It should be noted that the percentage of workers with RE has a slight decrease in manufacturing units such as Cable workshop from 29.9% to 28.8% and FATP workshop from 24.8% to 24.0%.



NO	O DISEASE/ UNITS*		YEAF	R 2017	YEAR 2018		
	SYMPTOMS		Total of persons	Percentage (%)	Total of persons	Percentage (%)	
1	1 Refractive Errors	Cable	220	29.9	30	28.8	
		Conbox	141	19.2			
		FATP	182	24.8	25	24.0	
		Others	185	25.2	41	39.4	
	TOTAL		728	99.0	96	92.3	
2	Others eyes	Cable	3	0.4	3	2.9	
	diseases	Conbox	1	0.1			
		FATP	0	0.0	1	1.0	
		Others	3	0.4	4	3.8	
	TOTAL		7	1	8	7.7	
	TOTAL		735	100	104	100	

Table 16: The comprehensive eyes examination result in 2017, 2018 of Foster company

\* See appendix 7 for the main working at units: Brief description of the Foster company Source: Foster company provided

#### b. According to the report of workers

**The percentage of workers reporting eye disease** in the past three years has increased slightly from 26.8% (baseline survey) to 30.9% (endline survey), however it is not statistically significant (p-value tested> 0.05). These cases are classified according to the following specific diseases:

## Table 17: The percentage of workers got eye diseases in the past three years (self-reported) in twocompanies

NO	NAME OF DISEASES	BASELINE	SURVEY	ENDLINE	SURVEY
		N	%	Ν	%
1	Муоріа	39	18.2	59	26.7
2	Red eye/conjunctivitis/cornea	119	14.9	4	1.8
3	Reduced vision/eye strain/blurred vision	29	13.6	64	29.0
4	Hyperopia/ astigmatism/ regulation disorder	17	7.9	38	17.2
5	Eye injury	6	2.8	5	2.3
6	Others eye diseases	116	54.2	63	28.5

Source: Baseline survey in August 2018 and endline survey in September 2019

The percentage of eye diseases at endline survey such as red eye/ conjunctivitis/ cornea infection decreased significantly in comparision with the baseline survey, from 14.9% to 1.8%. In contrast, myopia, reduced vision/ eye strain/ blurred vision, hyperopia/ astigmatism/ regulation disorder increased slightly (from 18.5% to 26.7%, 13.6% to 29% and 7.9% to 17.2% respectively).

Besides reviewing the comprehensive eye examination records as well as periodic health examination records, the survey team directly assessed workers' eyesight by reading text and shortened visual acuity



chart at the time of conducting endline survey (August 2019 at the Foster company and September 2019 at the Rieker company).

		BASELINE	SURVEY	ENDLIN	IE SURVEY
		Ν	%	N	%
Reality checking by reading method	Poorly reading	41	5,1	39	5,5
	Good reading	757	94,6	672	94,4
(Hyperopia, astigmatism check)	Unable to read	2	0,3	1	0,1
Reality checking by	Unable to see	4	0,5	19	2,7
shortened visual acuity	Unclear seeing	97	12,1	132	18,5
chart (Myopia check)	Clear seeing	699	87,4	562	78,8

#### Table 18: Check up vision at the time of conducting Baseline and Endline surveys

Source: Baseline survey in August 2018 and endline survey in September 2019

Thus, the percentage of workers reading poorly and unable to read accounted for 5.6% and the proportion of workers who did not see or see unclear accounted for 21.2% in the endline survey, a slight increased in comparision with the baseline survey. Comparing the data of directly assessed with the report of workers who thought having astigmatism/ Hyperopia (17.1%) and myopia (26.7%), these two figures were not consistent. It demonstrates the need for regular eye examinations and follow-ups to find out the situation workers' diseases/ illnesses promptly.

#### 3.6. The project has met the needs of workers in eye care

*a. At the endline survey: 94.1% of workers said that the project has met the needs of workers in eye care.* The needs were met: Instruction of eye relaxing exercises (63.0%), periodic eye examinations (41.5%), communication on eye diseases related to work (46.1%). More than 90% of the workers were satisfied with the project activities to meet their needs in eye care at Foster company and Rieker company (93.2% and 95.2%, respectively).





#### Figure 5: Project activities are preferred by workers

Source: Baseline survey in August 2018 and endline survey in September 2019

**b.** Most workers (99.8%) said that the project on eye care is necessary for them. Some of the project's activities are appreciated and preferred by workers such as instruction of eye exercises, periodic health examinations, eyesight measurement, provide glasses, and dissemination of work-related eye diseases.

	FOSTER		RIE	KER	TÔNG		
	N	%	N	%	N	%	
Timely transfer	26	7,2	18	5,1	44	6,1	
Treat immediately when eye problems are detected	38	10,5	44	12,4	82	11,5	
Check and provision of glasses	93	25,8	72	20,3	165	23,0	
Instruction of eye exercises	217	60,1	234	65,9	451	63,0	
Periodic eye examinations	164	45,4	133	37,5	297	41,5	
Time to relax eyes for workers	0	0,0	1	0,3	1	0,1	
Communication on eye diseases related work	172	47,6	158	44,5	330	46,1	
Communication on general eye diseases	165	45,7	141	39,7	306	42,7	
Develop self – vision board test at factory	48	13,3	31	8,7	79	11,0	

Table 19: The project meet eye health care need's worker

Source: Endline survey in September 2019



## **IV. RECOMMENDATIONS**

#### 4.1. Key recommendations

## Recommendation 1: Continue to enhance communication to improve knowledge on eye care for workers

- Strongly emphasise the importance of periodic eye examinations every six months for workers with eye problems and once a year for workers with normal vision to ensure of routine eye health care.
- Continue to communicate about the necessity for frequently wearing the RE correction glasses of
  workers who need to wear glasses. Similarly, communicate about the need to wear safety goggles and
  the mandatory requirement to monitor the use of safety goggles by workers in those areas of the factory
  where their use is mandatory.
- Continue to introduce knowledge of some major eye diseases/eye disorders, such as refractive defects, cataracts, glaucoma and how workers can take care of their eyes and prevent common problems, through eye injury prevention and first aid, eating foods with vitamin A, taking regular breaks during worktime and undergoing periodic eye examinations provided by the company.
- Continue to maintain appropriate forms of communication/introductions that may include; inviting
  ophthalmologists to talk to workers and training team leaders to communicate to workers about eye
  care at the beginning or end of their working day. Regularly display video clips with contents related to
  instructions on care, treatment and prevention of eye diseases and posted on the company's
  website/Facebook/fan page/Zalo to increase the accessibility of workers to eye care information.
- Continue to print and hang shortened visual acuity charts at appropriate locations in the workshop and lodging areas so that workers can check their vision on a regular basis.
- Notify workers who are suspected of having eye problems to visit district/ provincial hospitals for eye examinations and to access early treatment.
- Update and provide workers with a list of trusted ophthalmic clinics which are open after working hours and near the worker's place of residence so that workers can easily access.

#### Recommendation 2: Continue to improve the capacity of company health staff

• Continue to train primary eye care knowledge and providing eye health counselling for company's health staff so that they can meet the needs of workers' rights to eye care at the company's clinic.

#### Recommendation 3: Continue to enhance eye care activities in the company and maintain the model

- Continue to emphasise the importance of taking breaks, relaxing eyes and changing postures during the work shift. Depending on the conditions and nature of the work of each worker and each unit, advocate that the Company Management Board allows workers to have 10 minutes breaktime per hour for workers who work continuously with the screen and 10 minutes breaktime every two hours for other workers. Continue to provide instructions and maintain practice of workers to conduct eye relaxation exercises during short breaktimes between the shifts.
- Continue to organise annual periodic health examinations that integrate eye examinations for workers
  to detect eye problems early. The company should follow up and support workers with eye problems
  such as refractive errors to ensure they have proper corrective glasses and timely interventions for
  workers with other visual disorders. At the same time, communicate about quarterly checkups for
  workers who are provided RE corrective glasses or have eye diseases; in cases of workers who are
  identified with impaired vision, the company should organise prompt referrals and intervention.
- Maintain the use of emergency eyewash bowls and eye wash facilities in an accessible locations in the work areas that use hazardous chemicals or corrosives. The company's clinic should cooperate with



occupational safety officials to plan and continue to organise regular practice on first aid for emergency eye injuries for workers.

 Continue to monitor of equipment related to eye examination and treatment in the company's clinic to be able to provide or buy new equipment to meet the needs of eye exams at the company's clinic. Maintain a record book to check and monitor the eye health of workers provided with glasses, closely follow up patients that have been referred from company's clinic to specialised eye hospitals / eye clinics in the area.

#### Recommendation 4: Advocacy for policies and model replication

- Advocacy: the company should have a policy to support workers with eye diseases / eye injuries; thereby helping to raise awareness and behaviour in seeking workers' eye care services. Bring the content of eye care for workers instructions line with occupational health and safety guidelines issued by MOLISA.
- The project management units of two companies share lessons learned with other companies having similar working conditions to replicate the eye care model for other workers.

#### 4.2. Strengths and Limitations

The survey team had many years of experience in occupational health and community health research. The team of interviewers who performed the survey and conducted the interviews were people who lived nearby the factories, this meant they were able to communicate more easily with the workers, minimising errors. The interview team were training prior to conducting the interviews and survey.

Some workers had to work in shifts, especially at the Foster factory, so it was sometimes difficult for workers to participate in the interview. The interviewers and factories staff overcome this limitation by staying afterwork to complete the interviews.



## **APPENDIXES**

#### **APPENDIX 1: REFERENCES**

- 1. Rapid Assessment for Avoidable Blindness (RAAB) report in 2015 in Viet Nam
- 2. Nguyen Van Minh (06/2011). "Assessing the impact of industrial zones on socio-economic on surrounding areas". Journal of External Economics ,Vol. 47
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- 10. Central Eye Hospital, Ministry of Health. (2009). "National plan for preventing blindness and eye care in Vietnam, the period of 2010 2013".
- 11. International SOS Foundation. (2017). "Responsibility for health care and occupational safety in Vietnam The legal perspective and wellbeing of employers" Report.



#### APPENDIX 2: LIST OF MEMBERS OF SURVEY TEAM

NO	NAME OF THE CHD'S SURVEY TEAM	POSITION
1	Nguyễn Hoàng Yến	Leader
2	Nguyễn Thị Thu	Senior advisor
3	Nguyễn Ngọc Ngà	Senior advisor
4	Phạm Thị Hương	Researcher
5	Bùi Văn Nam	Researcher
6	Lâm Thị Quý	Researcher
7	Bùi Kiều Minh Triết	KAP Analysis advisor
8	Nguyễn Hồng Hà	Interviewer
9	Lê Phạm Ý Hải	Interviewer
10	Hồ Thị Hằng	Interviewer
11	Hoàng Hà Giang	Interviewer
12	Lê Thị Hồng Thương	Interviewer
13	Trần Thị Công	Interviewer
14	Nguyễn Khắc Hải	Interviewer
15	Nguyễn Thị Nga	Interviewer



#### APPENDIX 3: INTERVIEWER'S TRAINING PROGRAM

TIME	CONTENT	IMPLEMENTED BY
08:00 - 08:10	- Greeting and Introduction	Survey team
08:15 – 09:00	<ul> <li>Introduce about CHD and End-line survey eyes health care project</li> </ul>	Nguyen Hong Ha
9:05 – 9:30	<ul> <li>Basic information on eyes diseases: signs, symptoms, causes and ways to prevent. The words often called by localities/areas</li> </ul>	Ph.D. Nguyen Thi Thu
9:35 – 9:55	- Tea break	
10:00 – 12:00	<ul> <li>Tools and forms for indicator project collection</li> <li>Interviewers reading questionnaire and answering questions</li> </ul>	Ph.D. Nguyen Thi Thu
12H00 – 13H25	- Lunch	
13:30 – 15:30	<ul><li>Practice questionnaire via smart phone and Laptop.</li><li>Work in pair for practicing</li></ul>	Survey team
15:30 – 16:00	<ul> <li>Assign tasks/roles to each member. Agree on field plan</li> </ul>	Nguyen Hong Ha Pham Thi Huong
16:00 - 17:00	- Sign contracts with interviewers	Pham Thi Huong



#### APPENDIX 4: APPROVAL DECISION OF THE ETHICS COUNCIL

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. Ouang Nam province

•	Subjects and sample size:	712 workers from 2 factories and 46 peoples (deep interview and group interview) who are workers factors
	16 - C	union leaders, factory managers, factory/hospitals health staffs, Fred Hollows Foundation
•	Research period:	From July 2010

From July, 2019 to November, 2019

- The following documents are approved for use in the research:

NO.	Documente		
	Documents	Version	Date
1.	Study protocol and procedures		Dute
	protocol and procedures	01	August 26, 2019

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

ATTESTED BY NIHE VIÊN VÊ SINH DICH TRUNG UCH +

Trân Như Dương

DEPUTY DIRECTOR

#### IRB CHAIRMAN

Prof. Nguyen Tran Hien



#### APPENDIX 5: QUESTIONS ON KNOWLEDGE

- 1. What kind of diseases/disabilities about eyes have you known/heard?
- 2. Which of the following diseases/disabilities can cause blindness?
- 3. Do you think that some disease causes blindness can be prevented?
- 4. Could you list the main signs of eye diseases?
- 5. Could you mention causes of eye diseases?
- 6. How do you often do to protect your eyes/prevent eye diseases? (on a Daily basic and during your working time)
- 7. Could you please mention measures to treat eye diseases?
- 8. Could you please express causes of cataract?
- 9. Do you know any initial treatment of cataract?
- 10. Could you mention any signs of myopia?
- 11. Could you express causes of myopia?
- 12. Which ways of treating myopia do you know?
- 13. Do you know how to prevent myopia?
- 14. Could you please express signs of hyperopia?
- 15. Could you please express causes of hyperopia?
- 16. Do you know how to treat hyperopia?
- 17. Why do you get the above knowledge?
- 18. According to you, how long do you need for eye relax after working constantly?
- 19. According to you, how often should you check up your eyes?
- 20. According to you, what should you do if your eyes have painful symptoms/injuries while working?



#### APPENDIX 6: BRIEF DESCRIPTION OF THE RIEKER FACTORY



BRIEF DESCRIPTION OF THE RIEKER FACTORY



#### APPENDIX 7: BRIEF DESCRIPTION OF THE FOSTER FACTORY

BRIEF DESCRIPTION OF THE FOSTER FACTORY





#### **APPENDIX 8: DATA TABLES**

	BASELIN	E SURVEY	ENDLINE	SURVEY
	N	%	Ν	%
Муоріа	39	18.2	59	26.7
Hyperopia	8	3.7	20	9.0
Astigmatism	9	4.2	18	8.1

Table 20: Percentage of workers with refractive errors in the past three years (self - assessment)

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

## Table 21: Labor productivity reported by workers disaggregated by eye diseases in three years by Foster and Rieker companies

			BASE - LINE SURVEY						р		END – LINE SURVEY				р	
				Yes		No		Total		Yes		No		Total		
			N	Mean	N	Mean	N	Mean		N	Mean	N	Mean	N	Mean	
F	Product by	Cable	34	115568,9	56	117884,2	90	117009,5	p>0,0	12	69783,3	46	108202,2	58	100253,4	p>0,05
0	month	Conbox	22	119372,7	40	142546,6	62	134323,6	5	7	93785,7	20	102340.0	27	100122.2	
S	(Product/mo	FATP	45	91144	108	94425,3	153	93460,2		40	94003,0	101	130148,7	141	114465,3	
T F	nth)	Total	101	105515,1	204	110300,5	305	108715,8		59	89051,2	167	120773,2	226	109080,6	
R	The rate of defective products due to eyes on total number of defective products (%/month)	Cable	34	14,3	56	6,9	90	9,7		12	13,1	47	18,7	59	17,6	
		Conbox	22	1,4	40	5	62	3,7		7	27,9	22	5,1	29	10,6	
		FATP	45	7,3	108	8,4	153	8		40	26,6	107	11,4	147	15,5	
		Total	101	8,4	204	7,3	305	7,7		59	24,0	176	12,6	235	15,4	
	Number of day	ys leave due isease	129	1,2	271	0,1	400	0,5		106	0,7	255	0,1	361	0,3	p<0,05
	(days/y	ears)	40	05.0	400	04.0	044	00	- 0.0	445	40470.0	0.40	40000.0	055	40740.4	- 0.05
R I E	(%/month –	by month base line uct/month –	48	85,8	196	94,8	244	93	p<0,0 5	115	12172,8	240	19002,8	355	16749,4	p<0,05
К	end line	survey)														
E R	The rate of products due total number products (9	defective to eyes on of defective %/month)	48	6,9	196	5,7	244	5,9	p>0,0 5	109	20,3	228	9,8	337	13,2	p<0,05
	Number of day	ys leave due e (days/year)	85	0,3	315	0	400	0,1	p<0,0 5	115	0,3	240	0,1	355	0,2	p>0,05



	FOSTER	RIEKER	TOTAL
	Average score	Average score	Average score
Signs of cataracts	0,8	1,2	1,0
Causes of cataracts	0,6	1,0	0,8
Treatment of cataracts	1,7	2,4	2,1
Signs of myopia	5,4	5,4	5,4
Causes of myopia	2,6	2,4	2,5
Treatment of myopia	5,5	5,4	5,5
Signs of hyperopia	1,9	2,2	2,0
Causes of hyperopia	0,8	1,3	1,1
Treatment of hyperopia	2,1	2,4	2,2

#### Table 22: The average knowledge score of workers for three main diseases

Source: Endline survey in September 2019

#### Table 23: Correlation between eyes periodic examination and age of workers

		DISAGGREGATE BY AGE										
		From 22 to 30	under	From 30	to 40	From 41 above						
		N	%	Ν	%	Ν	%					
Periodic Eyes	Yes	56	15,8	68	18,4	22	28,9					
examination or	No	298	84,2	302	81,6	54	71,1					
not?	Total	354	100,0	370	100,0	76	100,0					

Source: Endline survey in September 2019

#### Table 24: Assessment of working conditions affecting the eyesight

NO	WOKING CONDITIONS	BASE SUR	LINE VEY	END LINE SURVEY		
		N	%	Ν	%	
1	Harsh light, lack of light	323	40,0	579	80,9	
2	Work required to look closely	129	16,1	301	42	
3	Dusty, debris, hot, noise,	283	35,4	342	47,8	
4	Look at small items	182	22,6	272	38	
5	Time for rest	103	12,9	240	33,5	
6	Contact with chemicals	108	13,5	150	20,9	



Table 25: workers' assessment of their eyesight from the time they worked for factories											
		BA	SE LINE	SURVE	Y	E	p>0,05				
		Foster		Rieł	Rieker		Foster		ker		
		Ν	%	Ν	%	Ν	%	Ν	%		
Workers' assessment of their	Better	3	0,8	3	0,8	9	2,5	5	1,4		
	Constant	255	63,7	271	67,7	238	66,3	203	57,2		
	Poorer	142	35,5	126	31,5	112	31,2	146	41,1		
since they've worked for factories	Don't know	0	0,0	0	0,0	0	0,0	1	0,3		

#### Table 05. W/ e ... . : ... In 4 . C. 41-. ... 41. .... .ı c

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

	SURVEY											
			Ba	seline su Factory	rvey			En	dline sur Factory	vey		
		Foster Rieker			p>0,05	Foster	Rieker			p<0,05		
		N	%	Ν	%		Ν	%	Ν	%		
Do you often search for	Yes	161	40,3	161	40,3		260	72,0	195	54,9		
information about eyes health care?	No	239	59,7	239	59,7		101	28,0	160	45,1		
	Poster	5	1,9	4	1,4		7	1,9	2	1,8		
	Doctors, private clinic	1	0.4	3	1.1		0	0,0	0	0,0		
	Doctors in hospital district/provinc e/ward/commu ne	29	11.2	25	8,9		42	11,6	9	8,1		
How to find	Friend and relatives	37	14,3	51	18,1		45	12,5	17	15,3		
information	Video, movie	0	0,0	0	0,0		6	1,7	1	0.9		
	Medical staff in village, commune	0	0,0	3	1,1		6	1,7	0	0,0		
	Radio	2	0,8	1	0,4		5	1,4	1	0,9		
	Call 1080 switchboard operator	0	0,0	1	0,4		0	0,0	0	0,0		
	Loud speaker in commune	1	0,4	1	0,4		4	1,1	0	0,0		
	Internet, Social media	128	49,4	113	40,2		75	20,8	28	25,2		

#### Table 26: Search information related to eyes and channel



Factory/depart ment of health/medical staff communication	5	1,9	5	1,8	118	32,7	42	37,8	
Panel/banner	0	0,0	0	0,0	4	1,1	0	0,0	
Asked the pharmacy	0	0,0	1	0,4	0	0,0	0	0,0	
Book, news paper	8	3,1	16	5,7	0	0,0	0	0,0	
Traditional doctor	0	0,0	0	0,0	5	1,4	0	0,0	
Leaflet	3	1.2	5	1,8	14	3,9	2	1,8	
Flip chart	0	0,0	2	0.7	6	1,7	0	0,0	
Provincial television	14	5,4	20	7,1	24	6,6	9	8,1	
National television	26	10,0	30	10,7	0	0,0	0	0,0	



			RATE OF EYES DISEASE FOR THREE YEAR (SELF-ASSESSMENT						IENT)	p>0,05					
				Муоріа			Hyperopia			Astigmatism					
			Bas	seline	En	dline	Ba	Baseline Endline		Baseline Er		En	dline		
	I.		N	%	Ν	%	Ν	%	Ν	%	Ν	%	Ν	%	
FOSTER Gla	Glass	Yes	11	42,3	24	80,0	4	80,0	7	87,5	1	50,0	3	50,0	
	wearing	No	15	57,7	6	20,0	1	20,0	1	12,5	1	50,0	3	50,0	
	Frequency	Never	0	0,0	0	0,0	0	0,0	0	0,0	0	0,0	0	0,0	
	of using	Always	1	9,1	0	0,0	0	0,0	0	0,0	0	0,0	1	33,3	
glasses	Very rarely	2	18,2	2	8,3	0	0,0	1	14,3	0	0,0	0	0,0		
	Sometime	5	45,4	15	62,5	2	50,0	5	71,4	1	100,0	2	66,7		
		Usually	3	27,3	7	29,2	2	50,0	1	14,3	0	0,0	0	0,0	
RIEKER	Glass	Yes	6	46,2	28	96,6	3	100,0	11	91,7	5	71,4	11	91,7	
	wearing	No	7	53,8	1	3,4	0	0,0	1	8,3	2	28,6	1	8,3	
Frequency of using glasses	Frequency	Never	0	0,0	0	0,0	0	0,0	1	9,1	0	0,0	1	9,0	
	of using	Always	0	0,0	2	7,1	0	0,0	1	9,1	0	0,0	0	0,0	
	Very rarely	0	0,0	9	32,2	0	0,0	0	0,0	0	0,0	3	27,3		
		Sometime	3	50,0	11	39,3	2	66,7	3	27,3	4	80,0	4	36,4	
		Usually	3	50,0	6	21,4	1	33,3	6	54,5	1	20,0	3	27,3	

#### Table 27: Glasses wearing behavior of workers with refractive errors

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

Table 28: Eyes diseases that workers want to find out	
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		BASEL	INE	ENDL	INE
		N	%	Ν	%
	Муоріа	570	71,3	282	39,4
	Pinkeye/conjunctivitis	524	65,5	136	19,0
	Cataract	516	64,5	326	45,5
	Hyperopia	497	62,1	202	28,2
	Decreased vision, eye strain, blurred vision	490	61,3	163	22,8
	Astigmatism	464	58,0	142	19,8
<b>F</b> iles	Trachoma	445	55,6	199	27,8
Eyes diseases that workers want to find out	Eyes injury/eyes damage/foreign object	437	54,6	193	27,0
	Glaucoma (glaucoma, celestial system)	408	51,0	182	25,4
	Eyes disease due to complications of diabetes	396	49,5	170	23,7
	Pigmentation disorder/color blindness	379	47,4	127	17,7
	Ocular obstruction	348	43,5	144	20,1
	Cross – eyed, strabismus	300	37,5	72	10,1
	Others	9	1,1	165	23,0



			,			
		FOSTER			RIEKER	
	2017	2018	7/2019	2017	2018	7/2019
Total of staff and workers	5,609	1,519	1,402	14,289	14,588	14,378
Total of staff	818	267	285	1,179	1,185	1,172
Total of workers	4,491	1,252	1,117	13,110	13,403	13,206

#### Table 29: Number of staff, workers by company

Source: Foster and Rieker provided

#### Table 30: Workers have had eye diseases the past three years and knowledge on eye protection

EYE DISEASES THE PA	ST THREE YEARS	Ν	AVERAGE SCORE	
How do you usually	Yes	435	3,34	p<0,05
protect your eyes?	No	1.081	2.90	

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

#### Table 31: Average knowledge on eye health care and eye diseases

EYE DISEASES THE PAS	ST THREE YEARS	N	AVERAGE SCORE	
Average score on Eye	Yes	221	6,1	p>0.05
health care knowledge	No	495	6,0	1 - 7





Figure 6: Forms of communication suitable for workers

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









Figure 8: Percentage of workers with eye recommendations to their companies

Source: Survey in September 2019



Figure 9: Reasons for workers' failure to check – up their eyes regularly



### APPENDIX 9: TERMS OF REFERENCE EVALUATION TERMS OF REFERENCE (TOR)

Project title: Improving Vision to Empower Female Factory Workers

Country: Vietnam

Date: 21<sup>st</sup> 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. 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 refractive errors. 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 occupational health and 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: Utilisation of eye care services is increased.** Firstly, vision corners – with a visual acuity (VA) chart and VA check guidelines were set up at small spaces inside the factories for workers to selfcheck 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 refractive error 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 occupational health safety 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:

#### 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?



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 refractive error) 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, monitoring and evaluation 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	2 days (Sep 2019)	Evaluation Team Leader



Activities	Duration	Person in charge
FHFVN staff and consultant of data and information collecting methods.		
Field review and consultations, excluding travelling days (discussion, interview, meeting with stakeholders, project partners and projects' beneficiaries)	9 days (Sep 2019)	The Evaluation Team
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.



# **THANK YOU**

## Contact

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The **Fred Hollows** Foundation