INTRODUCTION

The proportion of students with visual impairment due to refractive error in recent years has increased in Vietnam from an estimated 2.5% in 2002 to 10% in 2007 (The national survey on blindness by the Central Eye Hospital conducted). According to a recent study conducted by the Institute of Sciences and Education in 2008, the rate of refractive error in students increased dramatically as students progressed through school stages with rates of 18.67% in primary, 23.47% in secondary and 32.68% in high school.

In an effort to comprehensively reinforce eye care services, toward the 2020 optical goal and also to meet the needs of the Department of Health Hanoi and Eye Hospital in Hanoi, The Fred Hollows Foundation (FHF) Viet Nam has conducted several projects that provided education and free glasses to school age students.

The Research and Training Centre for Community Development (RTCCD) was contracted by FHF to design and implement a research study entitled 'Attitudes of parents, students and teachers towards glasses use in Hanoi and Ho Chi Minh City'. This research aims to provide information, contributing to the improvement of services for early detection and care of refractive error in children and the development of community-based communication strategies. It specifically focuses on parents and students in the FHF’s project areas, (Hanoi and Ho Chi Minh city).

OBJECTIVES

• Measure parents and students attitudes about student use of glasses for refractive error.
• Specify factors which impact parents’ decisions about buying glasses for their children.
• Measure risky behavior leading to refractive errors in students.
• Determine barriers of glasses use in students.
• Propose suggestions to the communication program and intervention strategy of FHF in the future.

METHODS

The research was designed following principles of cross-sectional research, including 2 components:
(1). A quantitative survey of structured questionnaires for primary, secondary students and parents.
(2). A qualitative study of a semi-structured interview, and focus group discussions between representative of School Management Board, School nurse and Head teacher of class, students and parents.

The study was conducted in 16 schools in inner city and outskirts areas of 2 cities - Hanoi and Ho Chi Minh City - with the sample size of 8,481 students and 2,677 parents in 2011.
KEY FINDINGS

STUDENTS AND PARENTS’ PERSPECTIVES OF GLASSES USE:

The results showed that only 6% of parents answered that they wouldn't let their children wear glasses even if recommended by doctors, mostly due to inconvenience (41.9%).

The rate of students disliking having to wear them was quite high in both primary and secondary students. This rate was more than 80%. The main reason for secondary students being inconvenience (46.4%) and aesthetics for primary students (32%).

The 3 most important factors when buying glasses for both students and parents emphasized were: glasses are suitable with the eye condition (79%), ‘following doctor recommendation’ (68.3%), and ‘good quality’ (63.9%). In actuality, the result analysis showed that there may be up to 57% of students receiving free glasses that do not wear them due to disliking the appearance, especially in inner city areas.

OBSTACLES TO EARLY DETECTION, SERVICE ACCESS AND GLASSES USE:

Despite pain, such as headache, eye pain, or strain, and/or blurred vision after learning, reading, or playing, nearly 30% of students would not inform their parents. The majority of secondary school students responded that this is a normal problem (51.8%), while primary school students feared the possibility of having to wear glasses (31.3%).

Most concerning, one out of five parents does not do anything after being informed of their child’s visual problems (Primary: 23.1%, junior secondary: 20.3%). The reasons given include: (1) 42.8% think that it's normal; (2) 40% are too busy; (3) 13.2% think that the medical expense is too high; and (4) 6.7% say the hospital is too far away.

Qualitative interviews with students also demonstrated that students often persist with blurred vision until they cannot see some objects at all. Then they will tell their parents first and next their head class teacher – indicating programs need to improve communication efforts to enhance knowledge as well as confidence in students to be able to share their problems.
INFLUENCING FACTORS TO DECISION MAKING IN EYE CARE SERVICE USE:

Although 59% of parents revealed that they choose to bring their children to hospitals for eye examinations, the qualitative research showed that the majority feel confused when choosing eye care services, due to lack of knowledge about the quality.

Periodic re-examination and adjustment of glasses strength are the issues that need to be communicated to Vietnamese parents. The study results show that 15% of parents do not take their children to have their eyes re-checked and only 23% do take them within 6 - 12 months from the previous check-up.

The average price that parents could afford for a pair of glasses was around VND 450.000 (exchange rate: USD 1 = VND 20,000). The lowest price stated was VND 20.000 and the highest was VND 20.000.000 (contact lenses). There was no statistically significant difference between primary and junior secondary students, Hanoi and HCMC, and...

HABITUAL BEHAVIORS OF STUDENTS MAY IMPACT THEIR EYESIGHT:

How to prevent RE for Vietnamese students? This is a question that parents, head class teacher and school health staff all feel confused about. Most interviewed head class teachers and school health staff commented that students lack sufficient time for eye rest and blame high levels of work involving close focused vision; worsened by pressure to perform, computer usage, and lack of outdoor activity (averaged at only 1.5 hours per day).

Available light in classrooms and homes also needs to be considered. Observation of the research team during data collections indicate that students usually sit to learn with their heads nodding near the tables, some schools had insufficient light, especially the schools inside street. The percentage of students feeling uncomfortable with their studying area at home increased across grades. Study desks at home may not appropriate to their height, especially for secondary students, who need new or adjusted desks.

SCHOOL HEALTH SYSTEM AND REFRACTIVE ERROR PREVENTION:

The precaution function of refractive error for student needs to stay focused on whom: family, school healthcare or national policy? It is confirmed that there does not exist any single solution for this outstanding issue. The research results showed that school nurses are not only still limited in their own capacities, but students also find it uncomfortable to share and offer information for advisory. Refinement check and communication activities about refractive error at schools often are implemented in appearance without any backup. As a result, the function of precaution and early detection should be the responsibility of family and national policy, in order to be more efficient.
RECOMMENDATIONS

1. Enhancing the community awareness of RE:
   Generate education programs through media outlets to promote positive attitudes about glasses use communication activities should be focused on parents, targeting mothers and head class teachers of primary education especially of the 1st and 2nd grades.

2. Increase time for eye resting in students:
   - Take the effort of extra-class elimination more seriously; remove the policy of bonus score (if child attends non-obligated subjects, which increase their score for the High School entrance exam).
   - Increase outdoor playing time: decrease daily exercises which is only a school formality and not a valuable physical activity, while increasing outdoor playing time.

3. Provision of free glasses:
   - Appearance of glasses should be given more attention to meet the needs of students.
   - Free glasses should be provided only to poor students with RE, which is generally below 20% in many countries.

   In addition, the research team proposes some policy applications for the Ministry of Education and Training:

4. Regulation on class light: regulation on national school standards needs to modify the criteria of class lighting ‘airy classroom, enough light, and safe’. This indicator must be measurable and be assessed more specifically by the supervision group of the Ministry and the Department. Moreover, it should be supervised by the Department of Education with a clear reward and punishment system.

5. Recommendations for further research
   - It is necessary to conduct further research to evaluate the effectiveness of IEC program in schools in order to find out the most optimal approach for different settings (city vs. rural) and different school ages (primary vs. secondary vs. high school).
   - There is a need for formative studies to assess the current system of eye care services in Vietnam at city and provincial levels.
   - It is vital to implement experimental research studies to measure the nature of work involving close focus of eyesight in order to recommend policy to a more appropriate studying and living schedule for students.