Vision of Takeo Eye Hospital is to be an agent in reducing poverty by providing compassionate, quality, tertiary care with efficiently trained staff and equipped with appropriate ophthalmic equipment, instruments and medicines.

Mission: To provide quality diagnostic, curative and rehabilitative eye care in order to eliminate preventable and treatable blindness, train eye personnel in provision of quality eye care and conduct research relevant to eye conditions in Cambodia and neighbouring countries.

Goal: Quality services with compassion and gentleness is accessible to the patients especially those who are in need.

I. Specific Objectives for 2009 – 2011

Objective 1: To develop, test and implement a Gender and Disability Inclusive Approach to Community Eye Health (DIACEH) Program (model, manual, guidelines) with appropriate/adequate referral pathways (diagnosis – treatment – reintegration – rehabilitation) in collaboration with the Cambodian Development Mission for Disability (CDMD) in Kiri Vong Operational Districts (OD) and Takeo Province by Dec, 2011.

Achievement within the year:
1. Completion of KAP (Knowledge-Aptitude-Practice) survey - KAP survey results compiled and analysed
2. TEH Co-project director and Takeo Deputy Provincial Health Director, awarded an AusAID Australian Leadership Awards Fellowship to attend a workshop in Australia on developing disability inclusive policy and practice (Aug-Sept)
3. DIACEH manual developed and presented to Govt, ICEE, FHF, CDMD and TEH at workshop (November)
4. 30 KV Health Workers (5 female) trained on DIACEH manual (December)
   - Implementation of DIACEH manual at TEH and KVC

Objective 2: To strengthen Takeo Provincial Eye Hospital (TEH) and Kiri Vong Referral Hospital to upscale their capacity to provide essential Community Eye Health services to reduce Avoidable Blindness by Dec. 2011.

Achievements within the year:
2.1. Training
   o 8 resident doctors (3 female) trained in the national resident programme for ophthalmologist under the umbrella of NPEH (National Program for Eye Health) and the University of Sciences, Faculty of Medicine, Phnom Penh
   o 3 doctors (all male) upgrading of diploma in ophthalmology to be fully qualified ophthalmologist
   o 20 secondary nurses (4 female) Diploma in Ophthalmic Nursing (Jan-Feb 12 nurses and July- Dec 8
   o 31 nurses (8 female) CME for Cambodian Ophthalmic Nurse Society (Dec)
   o 17 TEH staff (5 female) trained in leadership skills (July)
   o 15 TEH staff training on using new HMIS (August)
   o 2 doctors from TEH attend APAO Conference in Beijing, China (Sept)
   o 55 people (12 female) (TEH, KV, CDMD, ICEE, FHF, Min. Health) DIACEH manual training (Nov)
2.2. Information Systems
- HMIS operational in October

2.3. Surgery/Corrections/Outreach
- Consultations TEH 25,323 (11,889 female/1,566 girls)
- Consultations KVC 1,410 (712 female/55 girls)
- 2180 cataract surgeries (1,346 female/23 girls) 23% increase compared to 2009 and 29% increase compared to 2008: Cataract outcome: At discharge 51% good, 39.9% borderline, 9.1% poor outcome – 1st follow-up after 2 weeks (62% presented for follow-up) with best VA 75.4% good, 19.3% borderline, 5.2% poor outcome. Total complication 5.3% (3% vitreous loss, 1.2% capsule rupture without vitreous loss). Complication rate for ophthalmologists 4.3%, for resident 7.9%.
- Cataract surgery rate 1,366 (2008:1,203;2009:1,257)
- 1714 spectacles dispensed by TEH (825 female/51 girls) (267% increase compared to 2009)
- 202 spectacles dispensed (98 female/1 girl) KVC
- 49 Takeo primary school teachers (10 female) trained in low vision screening (Oct)
- 3,109 primary school students screened (1,405 girls - prevalence of refractive error: 0.39% (0.47% for boys, 0.28% for girls)
- TEH outreach: consultations 3,045 (1,971 female/36 girls), vision screenings: 1,011 (669 female/8 girls) – Outreach referral attendance at TEH was 30% in 2009, in 2010 37%. This could be due to an organized pick-up service for poor patients.
- KVC outreach: consultations 1,400 (971 female/14 girls), vision screenings: 627 (421 female)
- 28 village health workers (12 female) attended monthly follow up training for corneal ulcer intervention

2.4. Surveys
- ICEE quality survey of TEH optical shop and KVC optical shop (November)

Objective 3: To enable the target populace districts to access a quality affordable continuum of care (diagnosis – treatment – reintegration - rehabilitation) in Kiri Vong Operational Health District and Takeo Province by Dec. 2011.

Achievement within the year:
- 11 kinds of eye health education materials prepared, printed and distributed in the villages, schools and at the hospital.
- Basic eye care and health education given to out patients daily at TEH waiting area (25,629 patients and companions).
- World Sight Day celebrations at TEH attracted over 500 participants who came for free eye examinations (including 150 surgeries), attended by the director of the PHD (provincial health department) and CDMD and Handicap International
- KVC provided primary eye care training for 13 VHVs (village health volunteers) sent by CDMD (4 female).

II. Sustainability Strategies

TEH has 59 local staff and 25 of them are government staff designated to work at TEH. Most of them will stay at TEH since they are from Takeo except for some who might move to Phnom Penh due to more lucrative offers or opportunities given by other NGOs. Additionally the Provincial Health Department provides support with TEH’s electricity and water supply and some medicines. TEH’s vision is that the project will encourage the government to take over and be more responsible for eye care services in Cambodia. Therefore it is hoped that additional training and capacity building for human resources together with improved infrastructure will encourage more patients to use the service. Quality of service is also crucial, as this will convince patients and other stakeholders of the government to use and feel responsible for the service. However without adequate payment to staff, human resources will not improve.
Cambodia has a shortage of qualified and well-trained staff in the field of ophthalmology, health administration, community based rehabilitation etc. Therefore, the project aims to contribute to various training courses aimed to empower local staff in the field of ophthalmology capable of increasing the quality of service provided to the eye patients in the country, e.g. residency ophthalmologists, diploma in ophthalmic nursing nurses, nurse upgrade from basic eye nurse to diploma in ophthalmic nursing nurses, low vision nurses, refraction nurses, spectacle technicians, primary school teachers on vision screening, CDMD field workers and village health workers trained in community eye health.

Cost recovery is also a strategy aimed to aid sustainability. Currently TEH has 4 beds reserved for full fee paying patients and at the optical shop 48.8% of patients/customer paid the full price for their glasses ($2-6) and at KVC 71.8% pay the full price ($1-2) 99.5% of the dispensed sunglasses are fully paid ($0.5-4).

III. Cross cutting issue: Gender

The number of both women and girls patients has increased (female/male ratio increased from 1.06 in 2008 to 1.1 in 2009 and 1.39 in 2010). The higher percentage of female patients (53% of TEH consultations) highlights the fact that avoidable blindness in Cambodia is significantly higher in females than males (prevalence of blindness in Takeo Province: female =3.5%, male=2.1%). Results from a prevention of traumatic corneal ulcer intervention in two districts in Takeo province suggested an unusual high percentage (54%) of women suffering from traumatic corneal abrasion which also may contribute to a higher prevalence of female blindness.

While the percentage of female patients at TEH is only slightly higher than male patients (53%) the picture is different at KVC: 63% are female patients. Even more so for outreach screenings by TEH: 66% are female patients. More emphasis on community ophthalmology appears to be one keystone to improved accessibility for female patients.

Additionally 63% of all cataract surgeries have been performed on female patients and girls, however this percentage was already high in 2008 (61%) and 2009 (63%). If there has been an actual impact on the prevalence on blindness for females this needs to be verified by the RAAB at the end of 2011.

TEH has playground equipment for children and a child friendly examination room, which aims to encourage women (who are mostly the primary child care givers in Cambodia) to be able to come to TEH and know that their children are welcomed and will have something to occupy them.

A major challenge that TEH faces with regards to gender inclusiveness is in human resources. While foreign females hold high positions within the upper management of TEH, thus ensuring there is a balanced gender perspective in the decision making process; there is still a distinct lack of local female staff in upper management and professional medical positions. This is very much a reflection of Khmer culture as males are favoured more in providing educational/career opportunities. Similarly TEH must rely on the government to select nurses/doctors to attend training courses and TEH has no input in that selection process.

### Impact of Project:

<table>
<thead>
<tr>
<th>Outcome</th>
<th>Indicators</th>
<th>Result</th>
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<tbody>
<tr>
<td>Integrated Eye Health Care</td>
<td>Number of eye health care centres providing integrated eye care</td>
<td>Two centres</td>
</tr>
<tr>
<td></td>
<td></td>
<td>1 - Takeo Eye Hospital. Comprehensive eye health care services: surgery (cataract, glaucoma, tritisiasis, laser), refractive error correction services, optical shop.</td>
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<td></td>
<td></td>
<td>2 - Kirivong Referral Hospital Vision Centre. Limited eye health care services: refractive error correction, optical shop.</td>
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<tr>
<td>Disability Eye Health Care</td>
<td>Number of people with a disability accessing eye health services.</td>
<td>A self reported question is asked of patients whether they have a disability. The answers were first recorded on registration forms for the new HMIS which began collecting data in October 2010 therefore the following figures represent only three months of data from TEH: Hearing (485), mental/intellectual (69), vision (2488), physical (193)</td>
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<td>Disease Control</td>
<td>The quality of the engagement experience with eye health services for people with disabilities</td>
<td>Results from the KAP survey conducted in January/February (Sample 599): 67% of participants reported not being able to travel to the eye institute alone 25% of participants reported having at least one impairment People with a disability are more likely: - to have not heard of cataract, cross eyed, pterygium, and eye injury/foreign body - to believe that blindness cannot be prevented - to believe that the cost of transportation (to eye health services) to be the most expensive - to have their eyes checked - to not know the best treatment for cataract - to not believe that traditional medicine and eye drops as the best treatment for cataract - A small sample (18 people) survey conducted in December revealed that people with disabilities had positive experiences with receiving eye health services. Commenting that the health staff were professional and kind and clearly explained procedures to patients and accompanying family members. They had no troubles accessing the physical facilities. One patient did comment that previous visits to TEH in 2006 were of a lower quality given that the facilities were smaller and it was more crowded. Many patients that are screened during outreach sessions are referred to TEH/KVC however they do attend appointments. The sample survey revealed that patients did not attend appointments due to work commitments or fear that surgery required a long period of convalescence, which they could not afford to take.</td>
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<td>Infrastructure Development</td>
<td>Number and type of buildings constructed/renovated (disaggregated by rural/urban and level)</td>
<td>The new TEH was officially opened in April, the new facilities included reception, diagnosis and screening area, cataract surgical theatre, optical shop, 64 in patient beds, dinning/kitchen area, children’s playground and office/meetings rooms. Building facilities are 3,389m².</td>
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<tr>
<td>Human Resource Development</td>
<td>Training of human resources</td>
<td>8 resident doctors (3 female) (from Siem Reap, Takeo, Battambang, Banteay Meanchey, Preah Sihanoukville, Kampong Chhnang, Phnom Penh) trained in the national resident programme for ophthalmologist under the umbrella of NPEH and the University of Sciences, Faculty of Medicine, Phnom Penh -3 doctors (all male) upgrading of diploma in ophthalmology to be fully qualified ophthalmologist (Kampong Thom, Phnom Penh, Takeo) -20 secondary nurses (4 female) Diploma in</td>
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ophthalmology (Mondolkiri, Battambang Kampong Cham, Phnom Penh, Odar Meanchey, Takeo, Palin, Kampong Speu)
- 17 TEH staff (5 female) (Including 6 nurses, 4 doctors, 1 optical technician) trained in leadership skills
- 15 TEH staff training on using new HMIS
- 2 doctors from TEH attend APAO Conference in Beijing, China
- 55 people (12 female) (including consortium members who are in Cambodia and CBM Vietnam, TEH, KVC, NGOs working with disability, government officials from PBL and Provincial/District Health level of Takeo province) trained on DIACEH manual (including 12 doctors, 1 optometrist, 9 nurses)
- 49 Takeo primary school teachers (10 female) trained in low vision screening
- 31 nurses (8 female) CME for Cambodian Ophthalmic Nurse Society
- 28 village health workers (12 female) follow up training for corneal ulcer intervention
- 30 KVC Health Workers (5 female) training on DIACEH manual
- KVC provided primary eye care training for 13 VHVs (village health volunteers) sent by CDMD (4 female)
- 1 TEH co-project director and doctor (Takeo Deputy Provincial Health Director), attend a workshop in Australia on developing disability inclusive policy and practice

Plans for 2011:

Trainings:
1. Ophthalmology Residency Program
2. Upgrade DOs to Ophthalmology
3. Diploma in Ophthalmic Nursing Class 2010
4. Diploma in Ophthalmic Nursing Class 2011
5. Orthoptist Training, 6 months in India
6. Pediatric Nurse Training, 3 month in India
7. Support the Continuing Medical Education of CONS
8. Gender/Disability Inclusive Approach in Community Eye Health /Primary Eye Care for Kirivong Health Center staff, Takeo Eye Hospital staff
9. Low Vision screening training for Secondary School Teachers
10. Follow Up of Low Vision screening training for Primary school teachers

Others:
1. INGO Forum
2. Strategic Planning and Project Cycle Management Workshop
3. Follow Up Workshop on the implementation of the Child Protection Policy at TEHo
4. World Sight Day
5. Optometry Congress
6. APAO Congress
7. Expand the HIS
8. Evaluation of ABI Project
9. RAAB for Takeo Province
10. Establish new vision center
11. Start the turnover of Takeo Eye Hospital to local staff
12. Upgrade the existing ophthalmic equipment: phaco machine, fundus camera
13. Expand the corneal ulcer intervention project in another district
14. Health promotion and education through radio broadcast
15. Develop the fund raising capacity

Leakena Oeun is a 6 years old girl who live at Boeung village Leaybo commune Tramkok district Takeo province. She is a 1st daughter of Mr. and Mrs. SA EM. Now she is on her 1st grade at Leaybo primary school. According to her mother, she has difficulty of seeing in far distance, since she was 3 years old but she thinks her daughter can manage and she is busy also, she could not bring her to see a doctor at hospital. The Takeo eye hospital conducts training for primary school teacher to check the visual acuity of the children at different schools in Takeo province, so when they find out the student that have eye problem or low vision they refer to Takeo Eye Hospital.

On 30th December 2010 one teacher from Leaybo primary school and young lady accompanies 12 students to Takeo Eye Hospital. Leakena is one of them who has eye problem. The teacher advice her mother that Leakena has an eye problem she wanted to bring them to the hospital to have a proper check up. The mother of Leakena agrees and she accompanies her to the hospital. Upon checking her vision she could see only 10%, after the correction of eye glass, her vision improved to 40%. She was examine by Dr. Manfred Morchen, she has also a genetic problem (Albinism) after the examination of Dr. Manfred, she was sent for refraction and low vision test. She was check by Mrs. Pring Kimny refractionist nurse of Takeo Eye Hospital, she has Astigmatism and she need to wear a corrective eye glasses. She was prescribed. The mother brought to the optical shop to have the eye glass. Leakena leaves the hospital happily with her new pair of eye glass, she able to see clearly. Now she feels confident in participating school activity.

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