ANNUAL REPORT 2010
Rehabilitation of physically disabled people in developing countries

A report of activities under the Cooperative Agreement provided by the United States Agency for International Development (USAID) to the International Society for Prosthetics and Orthotics

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Dan Blocka ISPO, Chair; John Fisk ISPO; Rob Horvath USAID; Bryan Malas ISPO;
Samantha Rens ISPO; Sandra Sexton ISPO; Mel Stills USAID; Mindy Thorpe ISPO.
Program Goal

The goal of this program is to facilitate the rehabilitation of persons with physical disabilities in developing countries. This will be accomplished through the following objectives:

Objectives for the grant period 2008-2013

1. To award Scholarships for professional training for prosthetists/orthotists and orthopaedic technologists. 35 scholarships to be awarded for prosthetist/orthotist training (ISPO Category I professionals) and 78 for orthopaedic technologist training (ISPO category II professionals)

2. To assess the impact of Category I and II training on:
   - the end user of prosthetic and orthotic devices
   - the quality of prosthetic/orthotic treatment
   - service provision systems

3. To form a partnership with WHO to foster the integration of prosthetics and orthotics with community based rehabilitation and gain agreement for this through a consensus conference.
Executive summary

Our work in supporting rehabilitation of persons in developing countries in 2010 under this agreement has meant that we have been able to progress a program of activities supporting the education and follow up of rehabilitation personnel, namely prosthetists/orthotists and orthopaedic technologists.

An upward trend in the allocation of scholarships shows interest from people wishing to have a career in the field of prosthetic and orthotic rehabilitation, and at the end of 2010 we had awarded a total of 44 scholarships to students from 19 countries. This increase in scholarship awards was needed because the scholarship allocations started with a one year delay in relation to the agreement. Despite this, we will need to apply for a no cost extension as the scholarships are of at least 3 years duration in order to fulfill both the aims of the program and achieve the original vision for scholarship allocations. In turn these will support rehabilitation services in developing countries through the training of clinical personnel.

In 2010 we developed some new monitoring processes which had evolved from our past experiences of following up graduates in the field. We successfully applied these in Vietnam to review a number of graduates from the Vietnamese Centre for Orthopaedic Technology enabling us to determine if their clinical and professional skills were appropriate for their work with patients requiring rehabilitation. An evaluation team consisting of one orthopaedic surgeon and four prosthetic/orthotic educators conducted a field visit to Vietnam in late October and early November 2010 with the following aims:

1. to evaluate the effectiveness of the education of Vietnamese Centre for Orthopaedic Technology (VIETCOT) graduates
2. to look at end user services in Vietnam
3. to develop an efficient evaluation process for future missions in other countries

Seven centers were visited. Thirty-two graduates and their work with 39 clients were evaluated and were in general found to be providing appropriate care, with some areas for improvement.

During 2010 we had a significant change in administration of our organization with the ISPO head office moving from Copenhagen to Brussels. In October we also saw a handover of ISPO Grant Manager for this agreement from Dr Steen Jensen to Mrs Sandra Sexton and the appointment of ISPO Grant Administrator Miss Samantha Rens. The year also saw the restructuring of the ISPO/USAID steering committee for this program of work. Despite the inevitable upheaval, the transition was successful.

Our priorities in 2011 are to ensure that policies, procedures and program reporting are streamlined, that the scholarship scheme and graduate follow up are progressed and that we review and move forward the community based rehabilitation aspects of the agreement.

Dan Blocka, B.Sc., C.O.(c), F.C.B.C.,
Immediate Past President, ISPO
Chair, USAID-ISPO Steering Committee
Status of activities  
The goal of this program is to facilitate the rehabilitation of persons with physical disabilities in developing countries. Objective 1 relating to scholarship provision cannot be met within the current grant period. This is because the scholarship training period is at least 3 years and we have received fewer applications for scholarships than expected. Objectives 2 relating to impact assessment and Objective 3 relating to community based rehabilitation can be met within the grant period.

Progress against objectives in 2010  
In 2010 progress was made against the scholarship program and assessing the impact of the training (Objectives 1 and 2). Minimal activity was shown for Objective 3, Community Based Rehabilitation. Further detail is provided to follow:

OBJECTIVE 1: Scholarships  
In the last year we committed to 25 new scholarship applications. This brings the total number of scholarships awarded under the program so far to 44. From the chart opposite, it can be seen that there is a year on year increasing trend for scholarship awards and this relates to increasing awareness of the profession plus an increasing number of sponsor programs this is likely to continue.

Despite this trend, our scholarship allocations are behind schedule and we intend to apply for a no cost extension so that the collaborative award can extend to 2016 enabling new students to embark on training towards a career in prosthetics and orthotics. Objective 1 cannot be met within the grant period without a no cost extension.

By the end of 2010, 44 students who were supported by the program came from 19 different countries and their geographical spread is shown in the map on page 4. Seven programs from 6 countries (Cambodia, India, Pakistan, Tanzania, Togo, and Vietnam) are attended by the scholarship students. The pie chart on the left shows student numbers for each program and the map...
shows the home countries of students funded under this program.

By the end of 2010, 8 ISPO Category I scholarship students were training to be prosthetist/orthotists. In addition to this, 36 ISPO Category II scholarship students were training at orthopaedic technologist, lower limb orthotic technologist or lower limb prosthetic technologist level.

### Monitoring of scholarship candidates

**Conclusion**

Our scholarship program has shown increased activity, but the number of scholarships awarded are lower than anticipated at this stage of the agreement when compared to the original plan, despite the extensive need for trained clinicians. A no cost extension is needed to ensure the program objective for scholarship awards is met and this should be accompanied by ISPO activity to raise awareness.

Data relating to year-on-year student performance has been collected and this data will be combined with data from scholarship candidates under this program for analysis towards the end of 2011 and will be reported in the 2011 annual report.
OBJECTIVE 2: Impact of training

ISPO has for some time been assessing the impact of training. In 2010 it was decided to revisit and further refine the process and tools used to evaluate the impact of training for the program funded scholarship graduates. The USAID/ISPO steering group identified a field visit team who developed the outcome measurement tools and then tested them in the field in Vietnam.

Aims relating to graduate follow up (As stated in the agreement)

1. “Evaluate the impact on its society of the P&O education program in the country visited”
2. “Conduct a graduate feedback questionnaire”
3. “Assess the impact on the end-user in the country evaluated”
4. “Conduct a field follow-up by community rehabilitation workers (CBR)”

Vietnam field visit

A field visit to evaluate the graduates of the ISPO Category II program attending the Vietnamese Centre for Orthopaedic Technology (VIETCOT) was conducted from 24 October – 4 November, 2010. Specifically the agreement suggested comparing work performed by ISPO Category I and ISPO Category II graduates, assessing the impact of the Prosthetics & Orthotics educational curriculum on the needs of the disabled in Vietnam as a whole, collecting feedback from Disabled Peoples Organizations (DPO), and providing feedback for VIETCOT in order to facilitate improvement in their educational programs. The visiting team also gave a critical assessment of the evaluation process and data gathering forms and provided suggestions for the future. A full report of the visit was provided to the steering committee and is summarized here.

Current Prosthetics & Orthotics Situation in Vietnam. Vietnam, with a population of 88 million people, has a high number of amputations caused by trauma (more than 50%). By rough estimation they have around 60 -70 amputations per 100,000 inhabitants and about 57,000 new amputees each year. It is estimated that there is a greater need for orthotic services; reportedly representing 60 -70% of the volume of prosthetic/orthotic services, resulting in an anticipated annual need of 94,000 orthotic devices. The Rehabilitation Hospital in Ho Chi Minh City was the only facility reporting more prosthetic services than orthotic needs. This was considered to be due to their emphasis on former combatants from the south.

The School – VIETCOT (shown right) graduated its first students who completed a three year program in 1997 and to date has turned out 135 graduates. (78 Cat II - 25 USAID scholarships, 14 Modular, 43 Single discipline - 30 USAID scholarships).

USAID has given a number of scholarships to non-nationals and recently to Vietnamese students. In 2008 the school began instruction in English language for foreign students.

Graduate Assessment. The team undertaking the field visit were Dr. John Fisk MD. ISPO; Bengt Soderberg ISPO; Heinz Trebbin ISPO; Helen Cochrane ISPO; Nguyen Hai Thanh VIETCOT Director Mel Stills LWVF/USAID. The number of evaluators was perhaps
higher than would be required for a routine evaluation once the process is refined, but on this occasion that number served well to evaluate and modify what was happening on a daily basis.

Prior to the visit previous evaluation instruments were reviewed for their relevancy and effectiveness. A new data sheet was developed by a group having experience of evaluations in the field, goals and practices for the team were discussed in advance and modified as necessary throughout the two week project. There was a daily debrief which included experiences the team encountered and discussions of the lessons learned. Suggestions were solicited and shared for modifying procedures to be implemented the next day. At the conclusion of the mission the team worked together to reach a consensus of what had been learned and what should be suggested for the future.

The team sought to evaluate the behaviors of the graduates in a global sense and developed a new methodology. The graduate was asked to assess the patient/client and report findings, clarify needs, and make recommendations while describing the services that they have provided. The ISPO team observed this process, verified findings, listened to discussions and made a determination of the graduate’s technical and professional abilities relating to two questions:

**Has the graduate acquired the necessary knowledge and skills in order to deliver the best lower limb orthotics and/or prosthetics?**

**If deficiencies were identified, are they related to teaching methodologies, available material, or were they beyond what is expected of a Category II training program?**

The evaluation team visited seven prosthetic/orthotic service centers having clinical workshops representing facilities managed by the Ministry of Health (MOH) and the Ministry of Labor, Invalids and Social Affairs (MOLISA) also based on geographic spread representing the North, Central and South of Vietnam:

- VIETCOT, Hanoi, Clinical Facilities
- Bach Mai Hospital, Hanoi, Ministry of Health
- National Institute of Pediatrics (NIP), Hanoi, Ministry of Health
- Thai Binh Rehabilitation Hospital, Thai Binh, Ministry of Health
- DaNang Rehabilitation Center, DaNang, MOLISA
- Orthopaedic Rehabilitation Center of Ho Chi Minh City (MOLISA)
- CanTho Orthopaedic and Rehabilitation Center (MOLISA)

Each visit began meeting administrators and learning about the region, the populations served, the methods for service delivery and funding resources. The workshops were then inspected. Following this each graduate being evaluated was asked to present a client for whom they had fabricated a device. At the beginning of each session it was made clear that this was not to be an examination of the graduate but rather an evaluation of how well their education had served them since leaving VIETCOT. Thirty-two graduates and 39 clients were seen for assessment. Evaluation forms were completed for each client presentation.
**Observation Data**

The graduates evaluated were as follows: ISPO Category I \( (n = 1) \), ISPO Category II \( (n = 25) \), ISPO Category II Single discipline \( (n = 3) \) and Bachelor, Vietnam \( = 3 \). 27 graduates were male and 5 were female.

The graduates were evaluated with 39 clients (26 male and 15 female clients with an age range 8 – 31 years old, 19 clients used prostheses (9 trans-tibial and 10 trans-femoral) and of these 3 had residual limb problems and 2 malrotated prosthetic feet. 28 clients use orthoses (14 ankle foot orthoses and 14 knee ankle foot orthoses). The orthotic client diagnosis was post-polio \( (n = 7) \), neurological \( (n = 11) \), cerebral palsy \( (n = 5) \) and club foot \( (n = 2) \).

Materials used were polypropylene and the components were from ICRC and made in country.

Recommendations relating to the Vietnam field visit were received by the USAID-ISPO Steering Committee.

**Conclusion**

Graduates of VIETCOT were almost universally well trained, provided safe and effective care and sound prosthetic and orthotic services in their communities. Their services were limited primarily by available materials and components. There are a number of areas, largely relating to practice management and record keeping, which need to be improved and might be addressed by specific educational programs at VIETCOT.

**OBJECTIVE 3: COMMUNITY BASED REHABILITATION**

Very limited activity took place in 2010 against this objective. The collaborative agreement had originally proposed funding for a consensus conference on Community Based Rehabilitation (CBR), however the global position has changed for CBR and publication of the Guidelines for Community-based Rehabilitation by the World Health Organization [www.who.int/disabilities/publications/cbr/en/index.html](http://www.who.int/disabilities/publications/cbr/en/index.html) has changed the CBR landscape. The Grant Manager circulated the WHO guideline via the Global Community of Practice for Rehabilitation because their community focus has been CBR, and also through the ISPO network to promote it.

**Deviations from the work plan:**

- **Scholarships:**
  
  The uptake of scholarship provision was slower than anticipated. This is due to a number of different factors including candidate suitability, insufficient candidate information and certification, non-acceptance of scholarships by candidates when awarded and limited awareness of the continued availability of scholarships in the field. Guarantees of employment were sought from the home countries of the scholarship candidates and greater collaboration with non government and international organisations was realised.

- **Impact of training:**

  Outcome measures were suggested in the original agreement such as the World Health Organization Quality of Life instrument, but as this appears to be more emotionally/psychology based, it was not felt to
measure important functional outcomes for those persons with disability having received service; the SF-36 was thought to be more appropriate by the steering group, but has not been validated for Vietnam. Neither instrument tests graduate competence. The earlier ISPO device evaluation instruments looked at the device as an outcome of the practitioners activities. The steering group therefore agreed that the evaluation process be changed to have a greater focus on the graduate working with their patient and that more information should be collected about the context of service provision.

- **Community Based Rehabilitation:**
  In the original grant a Consensus Conference on Community Based Rehabilitation was envisaged to be delivered in 2009. This has not yet been delivered due to 2009 activities being postponed as the CBR issues were awaiting publication of the WHO report. This work stream is under review by the program steering committee.

**Problems and associated recommendations**

- **Scholarships**
  The scholarship allocations are behind schedule and this program activity is the largest anticipated activity in the grant. In order to fulfil the objectives of the program, a no cost extension is recommended to extend the award period in the first instance to December 2016. This would allow 3 year Category II programs with intakes up until January 2013 to apply so that the candidates can graduate within the extended period. 4 year programs with entry in 2012 could also apply.
  In addition to this, an action plan to disseminate information about the scholarship program to other organisations working within rehabilitation services in developing countries should be actioned.

- **Impact of training**
  Our Vietnam field visit highlighted a number of challenges and recommendations were made as suggestions for improvements in each of the three areas: the evaluation process; VIETCOT; and future ISPO considerations.

- **Community Based Rehabilitation:**
  The Grant Manager should conduct a scoping exercise to determine the next steps to progress CBR activity under the agreement.

**Financial Report**

**Appendices**

A  Expenditures  
B  Accrual information  
C  A comparison of expenditures within budget