Building Prosthetics & Orthotics Capacity in the Balkans

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DR. Any other comments, quotes or important issues you would like to add to the discussion on capacity-building and mine action that you would like to share with readers?

SS: There has been a common understanding worldwide that the mine problem can be solved and will be solved within a foreseeable future and is the responsibility of affected countries to do so. Having concluded by consensus—strong consensus—that is the case, capacity development is a must. We will not solve the mine problem without capacity development. During the program managers’ meeting in Geneva [22–27 March 2007], there was an overall understanding amongst donors and practitioners that capacity development is key to solving the mine problem in a responsible way that addresses both efficiency and effectiveness. We have to balance the mine problem vis-à-vis other challenges that many of the affected countries face and acknowledge that mine action doesn’t necessarily have the exclusive right to be priority number one. While this does not negate the obligations under the Anti-personnel Mine Ban Convention, we need priority-setting and mainstreaming to ensure that the areas affected communities are the most dealt with as a matter of priority. We need to ensure that we clear the right minefields first and we also need to be aware of other, perhaps larger-er, problems such as HIV/AIDS, malaria or even deadly traffic environments that need to be addressed. That’s what I mean by effectiveness: addressing mine action in terms of the overall goal of development.

SS: Endnote, Page

**Building Prosthetics & Orthotics Capacity in the Balkans**

The government of Bosnia and Herzegovina (BiH) has been working with the Northwestern University Prosthetics/Orthotics Center in developing the Center for International Rehabilitation’s distance learning program to provide formal training to experienced prosthetic technicians since 2003. In January 2006, the program’s first students graduated with an International Society of Prosthetics and Orthotics Category II certificate. The efforts of the CIR have led to the formation of the BiH Association of Orthopedic Technology, which is in the process of creating an ISPO regional center.

by Nikola Prvulov, Justyna Przyjocka and Dr. William K. Smith (Center for International Rehabilitation)

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**The CIR students discussing modifications to a plaster mold before making a**

**test socket.**

**T**he 1992–1995 war in BiH left the country heavily contami- nated with landmines and unexploded ordnance. During the conflict, landmines and UXO were used to protect the front lines. After the war, these devices were set next to roads and around houses to prevent people from returning to their homes. As a result, BiH is among the most mine-affected countries in the world, with the largest and most complex landmine-contamination problem in Europe. Unreliable information on minefield locations and a lack of minefiled records make this situation extremely dangerous. Since the beginning of the war, there have been 4,921 mine/UXO casualties. As a result, there is a tremendous need for specialists who are able to provide high-quality prosthetic services quickly and efficiently. To address the demand for more trained prosthetic practitioners, the Center for International Rehabilitation introduced a Distance-Learning Program in prosthetics in BiH in early 2003. The CIR is establishing a regional hub in Bosnia to provide distance learning upgrades to technicians working in rehabilitation centers throughout the Balkan region.

**Implementation of the CIR’s Distance Learning Program**

In June 2002, the CIR conducted a program assessment as the first step toward establishing a distance learning program in the Balkans. Based on this assessment, the CIR selected a group of centers to participate in network activities. A few of the activities were distance-learning data collection and reporting, technology development and clinical consultation.

The CIR Distance Learning Program was launched in January 2003 and is headquartered in the Prosthetics Department at the University of BiH in Tuzla. The CIR is working with the International Society of Orthotics and Prosthetics (ISPO) to develop the capacity of the prosthetic services and staff at the UKC. Four local individuals were employed in support roles as a prosthetics assistant, IT specialist, translator and regional administrator.

The CIR’s program was designed for prosthetic technicians who had three to five years of experience providing prosthetic services but had not received any formal training. This innovative education program stresses collaborative, interactive learning and is designed to be adapted to different cultures, learning styles and technologi- cal resources. The primary function of the program is supplemented with hands-on instruction, periodic evaluations, weekly quizzes and theoretical and practical examinations. The content incorporates text, graphics, photographs, case presentations, videos and hybrid CD-ROMs. To facilitate online communication and interaction, the CIR initiated a cooperative agreement with WebGUT, an enterprise...
software and services company serving the education industry, to develop the first ever Serbo-Croatian (Bosnian dialect) language plug-in for WebCT’s Campus Edition 3.8 software. The CIR later switched its online platform to a system called Moodle, an open-source distance-education platform that offers over 50 language packages, offline course-delivery options, and customizable communication and assessment tools.

The CIR’s distance education courses were developed in collaboration with the Northwestern University Prosthetics/Orthotics Center. To date, four courses have been developed: Lower Extremity Prosthetics, Upper Extremity Prosthetics, Lower Extremity Orthotics and Upper Extremity Orthotics. Relevant topics within each course are designed based on module sets, which are comprised of individual modules covering specific topics. For example, the Lower Extremity Prosthetics course is comprised of the transtibial module set, the transfemoral module set, the ischial module set and the other two students were given the opportunity to successfully complete the exam at a later date. This marked the first time that this certification was awarded to students in the region.

Federal Health and Education in BiH: Incorporating the Distance Learning Program

Creation of a learning environment. Since the program’s inception, the CIR has been engaged in a dialogue with the Federal Ministries of Health and Education of the Federation of BiH and the Republic of Srpska to facilitate a process for formal government accreditation of prosthetic and orthotic training programs. As a result of these discussions, the Ministry of Education appointed a liaison to the CIR and review its curriculum for possible incorporation into a national curriculum for P&O.

The CIR is working in close collaboration with Tuula UKC and the Cantonal Ministry of Education to explore ways of increasing local recognition and integrating the CIR’s program into the higher-education system in BiH. In 2006 the CIR participated in a roundtable discussion with the UKC, representatives of ISPO, the president of the Association of Orthopedic Technology in BiH, and the Federal Ministries of Health and Education (Tuula cantonal and federal) of both the Federation of Bosnia and Herzegovina and the Republika Srpska. All parties engaged in a positive dialogue regarding the future of P&O education in the region and agreed to work towards recognition of practicing technicians.

Institutional development. Following the ISPO accreditation in January 2006, the CIR began to formally transfer its distance learning program to the UKC. The CIR is licensing the course content and materials to the UKC while continuing to assist in the delivery of the online portions of the training and in the planning and implementation of all hands-on practical evaluations.

The CIR will provide program development support and assist the UKC in securing human and financial resources to develop new educational content in other areas of rehabilitation. The CIR and the UKC have been working with the Federal Ministry of Health of Bosnia and Herzegovina to leverage funding from the International Trust Fund for Bosnia for support to implement a distance learning program for a new generation of prosthetic technicians and an additional orthotics course for the CIR’s recent graduates. When the process is complete, the UKC will be in the position to train local and foreign technicians from neighboring countries. It will charge tuition to recover all costs.

The CIR, in partnership with the UKC, is in the process of developing efforts to provide assistance to Iraqi prosthetists. They are currently working with the Iraqi Ministry of Health to negotiate the launch of an Emergency Disability Project that would provide upgraded training to Iraqi prosthetists. Furthermore, the CIR, in partnership with the UKC, is currently negotiating with the Ministry of Health of the World Bank to provide technical support and strengthen the number of Iraqi professionals in the Rehabilitation sector in Bosnia. The proposal calls for short courses lasting up to six weeks to be taught to professionals in three different disciplines including physicians, physical therapists and prosthetists/orthotists.

Community participation. Another positive outcome of the CIR’s distance learning program activities in the region was the formation of the BiH Association of Orthopedic Technology, which acts as a representative body for prosthetic technicians working in BiH. One of the association’s tasks is to create a regional chapter of the International Society of Prosthetics and Orthotics. Once a regional chapter is established, members will be able to participate in ISPO activities and hold regional conferences. An affiliation with ISPO will give local prosthetists access to ISPO resources, including important professional contacts and networks.

Strengthening management and human resources. While running its distance learning program in BiH, the CIR worked closely with administrators from collaborating clinics and centers to discuss management issues, established a guidance on effective management strategies for prosthetic and orthotic workshops and laboratories.

The prosthetic assistant the CIR hired was an employee of the UKC who had prior experience in provision of prosthetic services. He provided guidance and instruction to students and assisted with logistics and asset management efforts, and on completion of the program he continues to work for the UKC and now has the advanced program management skills to assist the UKC in the implementation of future programs.

The UKC will participate in the CIR’s Train-the-Trainer program, designed to transfer advanced technical and management skills. Through this program, the UKC lead prosthetics instructor will travel to the United States for further training at the CIR and Northwestern University.

Summary

From 2003–2006, the CIR successfully ran an innovative distance learning program in prosthetics in BiH. Of the initial cohort of 19 students, 17 received ISPO Category II certification upon completion of their studies. The CIR also worked with local and governmental ministries to begin the process for national adaptation of its prosthetics curriculum and made strides toward securing professional recognition for prosthetic technicians in BiH. Going forward, the CIR will continue to build capacity in the region by developing new collaborative initiatives with the UKC and government officials. The CIR will provide technical assistance to the UKC to support the development of a PKS training program and will support the expansion of professional resources and networks such as the Association of Orthopedic Technology. Ultimately, these efforts will improve the services available to landmine survivors throughout the region and strengthen the rehabilitative care infrastructure in BiH.

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