The Challenges of "*Walking Free*" from Disability

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ABSTRACT

The functional independence of persons with disabilities will be achieved through provision of affordable, appropriate and accessible prosthetic devices. The Physicians for Peace "Walking Free" Program, through the Departments of Rehabilitation Medicine and Orthopedics, Philippine General Hospital, rose up to the six challenges of ensuring sustainable delivery of high technology, low cost prostheses to indigent Filipino amputees that not only provide community reintegration but economic empowerment as well.

Key Words: Prosthesis, lower extremity amputation, prosthetic rehabilitation

Introduction

The World Health Organization – International Society for Prosthetics and Orthotics Guidelines for Training Personnel in Developing Countries for Prosthetics and Orthotics Services states that with appropriate rehabilitation services, the majority of people with disabilities (PWDs) can become important contributors to society.[1] Assistive devices such as prostheses will provide them upward mobility from poverty and render their families and caregivers burden-free. Dy Ching Bing et al., in their study on amputation, cited the 1990 Profile and Manpower data which revealed that 30.5% PWDs can have gainful employment if provided the appropriate services and the right opportunities.[2] What challenges then await the delivery of prosthetics services towards its quest for economic empowerment of Filipino PWDs?

The Six Challenges

The Philippines is an archipelago of 7,107 islands of which only 3,144 are accessible and have been named. With a land area of 300,000 square kilometers, it has a vast coastline of 36,289 kilometers and is 40% mountainous. With this topography, provision of prosthetics services to the outlying rural areas is rendered difficult, thus making accessibility the ***1st*** challenge.

The ***2nd*** challenge, perceived as the root cause, is the cost of prosthetic devices which is not affordable to the average-income Filipino, who earns US$266 monthly. According to the 2006 report of the National Statistics Coordinating Board, in order to be above the poverty threshold for a family of five, the Filipino has to earn US$135 monthly, and to have food on the table, US$90 monthly.[3] Currently, the most affordable functional below knee prosthesis (Jaipur) costs US$109 and above knee prosthesis (fiberglass) costs US$652.

How many Filipinos need prostheses? According to Dy Ching Bing et al., there have been an average of 193 elective amputations performed per year at the Philippine General Hospital (PGH) in patients aged 21 to 60 years old, with 83.2% undergoing lower extremity amputations.[2] The PGH is a tertiary government hospital in Metro Manila that provides comprehensive, multidisciplinary, in-patient and out-patient rehabilitation medicine services, including prosthetics rehabilitation for amputees. Based on the 2008 patient census of the Brace Clinic of the PGH Department of Rehabilitation Medicine, four out of 10 patients were referred for lower extremity prosthesis fabrication.

The ***3rd*** challenge is obtaining direct data regarding the number of Filipinos needing artificial limbs. Until now, there has been no exact data on the number of Filipino PWDs (Table 1), despite several attempts because of inconsistencies in methodology and definitions.[4,5,6] The 2002 Japan International Cooperation Agency report of 6.0% to 7.0% prevalence of PWDs based on surveys is the closest approximate to the World Health Organization's estimate of 10% in developing countries.[7] However, data on amputees needing prostheses are grouped with all other physical disabilities or mobility disorders.

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Table 1. Philippine Disability Census (1983 – 2002) [4,5,6]

YEAR	AGENCIES	% of Persons with Disabilities	Physical Disability or Mobility Disorder
1983	National Commission Concerning Disabled Persons, Department of Health, UP-PGH Department of Rehabilitation Medicine	4. 40%	-
1990	National Council for the Welfare of Disabled Persons, National Statistics Office	1.0 %	-
1995	National Council for the Welfare of Disabled Persons, National Statistics Office	1.30%	15.0%
1997	Department of Health National Registration	0.60%	-
2000	National Council for the Welfare of Disabled Persons, National Statistics Office	1.23%	-
2002	Japan International Cooperation Agency Report 2002: Community Based Rehabilitation Surveys	6.0 – 7.0%	30.0%
2002	Department of Health, University of the Philippines Manila	2.90 %	1.50%

Inspired by the economic upliftment that PWDs experience once they have functional prostheses and motivated by the aforementioned challenges towards the delivery of prosthetics services, the Department of Rehabilitation Medicine and Department of Orthopedics of the Philippine General Hospital launched the Walking Free Program in cooperation with the Physicians for Peace and the Mahaveer Foundation in 2005, with the Mission of *"Functional return through all walks of life"* and the Vision of *"Local applicability, Global acceptability."*

Based on the Asian Development Bank 2005 Disabled People and Development Country Report stating that the poverty incidence of 39.5% is mainly experienced in the rural areas and that 70% of PWDs reside in the rural areas,[8] the Walking Free Program implemented in 2005-2006 its Phase I: *Assessment, Identification and Feasibility* through amputee screening missions in 13 key rural areas (Figure 1).

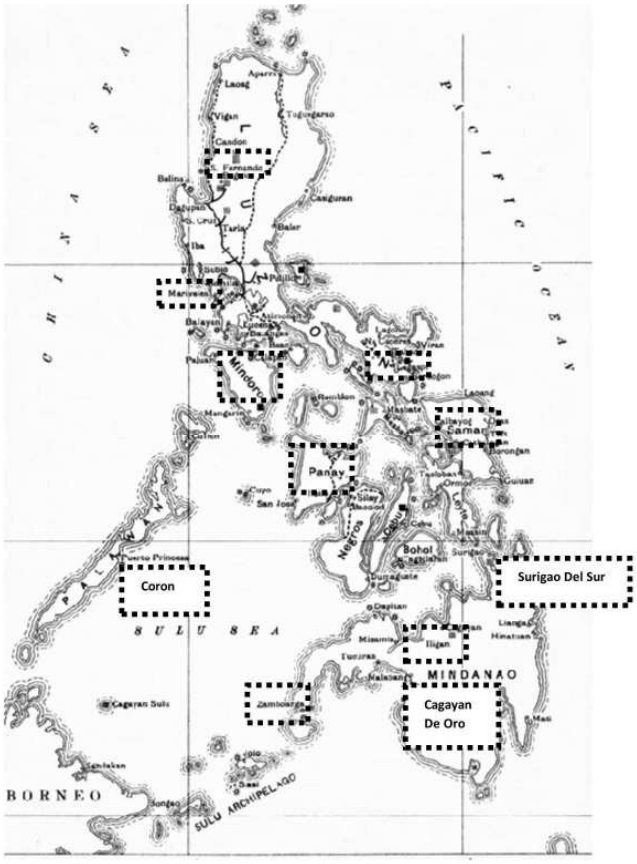

Figure 1. Amputee Screening Mission Sites of Phase 1

The results of Phase I showed that only 122 out of 1,494 amputees (8.2%) evaluated had or used prostheses. The average number of years it took the 122 prosthesis users to acquire prostheses after amputation was four years. On the other hand, 1,371 out of the 1,494 (91.8%) amputees evaluated never had prostheses. The average number of years the 1,371 amputees were without prostheses was 12 years. The 1,371 amputees who were non-prosthesis users stated that the cost and inaccessibility of and lack of awareness about prosthetics services as reasons for not procuring prostheses. The 122 prosthesis users participated in the amputee screening missions to have their current prostheses adjusted or replaced for reasons of poor quality and fit. The service providers (prosthetics team members) cited the imported equipment and supplies, inadequate services, limited number of prosthetics technicians with inadequate technical skills as the reasons for low prosthesis utilization. These Phase I findings revealed the ***4***th and ***5***th challenges: prosthetics training course and local raw material utilization, respectively.

Phase II: *Solution, Innovation, Adaptation* was then initiated in 2007 to respond to the aforementioned challenges. The task of affordable, available and appropriate prosthesis delivery on the grassroots level was undertaken

by providing in-house and community-based training of the PGH prosthetics technicians twice a year from three Physicians for Peace Certified Prosthetist volunteers. Simultaneously, research focused on developing and evaluating the feasibility of local raw materials was initiated. The Amputee Screening via Cellular Networking (ASCENT) program was launched as an innovative method for creating a national amputee registry.

From 2007 to 2009, the Walking Free Program Team performed screening on the first island trip and casted the residual limbs of amputees who were evaluated as "prosthesis ready." Once the prostheses had been fabricated at the PGH workshop, a second island trip was scheduled for prosthesis fitting and mobility training. The team approach utilized in the hospital setting is translated to the grassroots level with the endpoint of providing functional prostheses that will allow community reintegration. Anecdotal feedback from the beneficiaries of the prostheses including returning to school, finding employment, resumption of work or becoming prosthetics service providers themselves served as proof that, indeed, the Walking Free Program has made a breakthrough in transcending the challenges of prosthesis service delivery.

However, Phase II brought to focus the ***6th*** and the most vital challenge of sustainability. Traveling to the outlying islands for a minimum of two trips per mission site started to take its toll financially and physically. Mission trips were climate- and fund-dependent such that the team would be able to accomplish the second island trip as early as two months or as late as eight months after the first island trip. The time lag between the residual limb casting and the prosthesis fitting caused fitting and alignment problems that consequently led to material wastage. Disappointment on the part of stakeholders, particularly the amputees who did not meet the "prosthesis ready" criteria on the first trip due to residual limb or energy expenditure problems caused low morale and poor compliance to pre-prosthetics rehabilitation intervention. Manpower shortage together with fabrication backlog became issues at the PGH workshop as the same technicians who fabricate prostheses for PGH patients were also the ones providing prosthetics services for the Walking Free Program missions.

The steps taken to resolve the Phase II issues were the creation of a four-bed amputee ward, and the Walking Assistance and Learning Key Unit in the Department of Rehabilitation Medicine, PGH and the establishment of satellite centers (Clark Polytechnic School in Pampanga and Tzu-Chi Rehabilitation Center in Zamboanga) which improved efficiency of the services for amputees requiring intensive pre- and post-prosthesis surgery and/or rehabilitation. However, the team did not foresee that two years after the Walking Free Program distributed the prostheses, demands for unscheduled island missions for adjustments and repairs would arise because the prosthesis recipients are not able to travel to the PGH and there are no capable local prosthetics technicians to provide prosthetics services in the communities.

Phase III : *Empowerment* was then set into motion to respond to the challenge of sustainability. Indeed, continuous empowerment of the beneficiaries of the prostheses as economic contributors through functional independence and community reintegration can only be permanently attained if the service providers, particularly the prosthetics technicians, are also sustainably empowered.

The Walking Free Program proponents cited the following as critical factors towards Phase III implementation:

1. Prioritization of Magna Carta for Persons with Disabilities' provisions for Health and Rehabilitation Services under Rule 4 and 5 by the Department of Health, Department of Social Welfare and Local Government Units.
2. Establishment of a Category 2 and/or upgrading to Category 3 Prosthetics and Orthotics Course by the Commission on Higher Education and Technical Education and the Skills Development Authority.
3. Inclusion of prosthetic devices in the reimbursement package by the Philippine Health Insurance Commission.

The following events have proved favorable towards attainment of Phase III:

1. Senate Bill 3560 or the proposed act establishing the institutional mechanism to ensure the implementation of programs and services for PWDs was approved on December 16, 2009 in order to legislatively strengthen the implementation of and compliance with the Magna Carta for PWDs. The Department of Health has identified key hospitals in the archipelago as prosthetics and orthotics centers and the Department of Social Welfare has committed to upgrade their National Vocational Rehabilitation Centers in terms of prosthetics services. To date, three Local Government Units have prepared budgetary provisions for the prosthetics services of their constituents.
2. Two Filipino technicians, one of them a hip disarticulation prosthesis user, are undergoing the three-year Category 2 Prosthetics and Orthotics Course as International Society of Prosthetics and Orthotics scholars at the Cambodia School of Prosthetics and Orthotics to become the Filipino faculty at the pioneering Category 2 course sponsored by the Cambodia Trust and the Nippon Foundation. The new training facility is targeted to start training its first batch of 15 students in June

2011. Both the Commission on Higher Education and Technical Education and the Skills Development Authority have favorably endorsed the three- to five-year curriculum.

3. The Philippine Health Insurance Commission had initiated round table discussions to explore the inclusion of prosthetic devices in their 2010 Proposed Benefits Package on March 10, 2010. There are now regular meetings to determine the extent and the scope of the terms of reimbursement.

Conclusion

The Walking Free Program marked the success of Phase I through the 1st National Prostheses Walkathon in 2008. The 1st Amputee Climb in 2009 celebrated the fruits of Phase II. The Walkathon and Amputee Climb reflect the continually unfolding challenges that await the provision of prosthetics services in the Philippines. Just when we think we have reached the finish line, we realize that we still have a mountain to climb.

The challenges of offering prosthetics services will be dynamic and responsive to the political scenario, economic status and health priorities of the Philippines. The Walking Free Program will definitely rise up to each new set of challenges because there is no greater call to arms than the battle cry of amputees who have walked and climbed for this cause— *"We gave up our limbs but not our spirits !"*

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