

Survey of Services for Palestinian Amputees in Lebanon

**On behalf of the International Arab Women's Council
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Background

In every population of the world, there are a number of people who will require a prosthetic limb. This may result from congenital abnormality, trauma, vascular disease, a complication of diabetes mellitus or other less common causes. In Lebanon, the incidence of these underlying causes has been greater. This subsequently resulted in a greater incidence of those requiring prostheses.

Lebanon has a sizeable Palestinian refugee population. This population has not only shared in those underlying causes, but there are additional issues which have contributed to the need for prostheses in Palestinian refugees:

❖ The number of stressors which faced refugees resulting from:

- Displacement and loss of cultural identity
- Poor living conditions and overcrowding
- Poverty
- Unemployment
- Persecution
- Absence of civil rights
- Recent wars and other conflict
- Repeated failures to resolve their situation

Response to high incidence of stress leads to such things as diabetes and hypertension – both predisposing to peripheral circulation disorders, their complications and subsequent need for amputation.

❖ The direct effects of war and civil unrest

- Ordnance
- Snipers
- Landmines
- Beatings
- Torture

❖ Traffic hazards

❖ Environmental hazards

The precise incidence of limb-loss is difficult to determine for the following reasons:

- Some agencies only deal with registered refugees (see below for definition)
- Many amputees appear in the statistics of several agencies
- There is no central documentation associated with such people (apart from UNRWA registration as special hardship cases)
- Registration as a special hardship case is related to family support rather than level of disability. If there is one son of working age in the family, registration is not possible (even if the son is not actually working, or is working abroad and not sending money home)
- NGOs are reluctant to give a true picture of their activities as the number of beneficiaries is often directly related to their level and source of assisted funding.
- There are a number of private manufacturers and providers in the country. No more than three offer a quality service. Although they run profit making businesses, they are not unsympathetic to the financial constraints placed on clients.

Before setting out the results of the survey, we have included a comprehensive narrative on the background to the issue of Palestinian refugees in Lebanon. The survey itself derived information from various sources: UNRWA, International and National Red Crescent Societies and other NGOs, a private supplier, and from accounts of those who have used these agencies to acquire prosthetic limbs (case histories from a cross section of users of services). We have, in all cases, corroborated information from more than one source. The information has been analysed to determine needs and to strategically target any proposed project to improve capacity, quality and access. Other related issues such as preventative measures and the quality of amputation surgical technique have been highlighted but not fully addressed.

Historical Background - Palestinian Refugees in Lebanon

On 29th November 1947, the United Nations announced a Partition Plan for Palestine. This caused a breakout of violent conflict between Palestinians and the Israeli-British alliance. The Arab Palestinians were driven away from their homes from 15th May, 1948. Groups of Palestinian refugees moved to Lebanon in several phases.

1947

In the summer of 1947, individual families had gone to Lebanon for vacation. They extended their vacation with the outbreak of conflict, but expected to return when it was all over. However, they remained in Lebanon as refugees. This group has a legitimate right of residence and therefore they have special identity cards and travel documents. In the winter of 1947, at least 100,000 Palestinian refugees went to the south of Lebanon. They gathered in the Tyre district and used Bourj El Shamali and Rashedeyya Camps as transit from which they went to camps elsewhere in Lebanon.

1948

After a short period of allowing entry of the Palestinian refugees who were running away from Israeli attacks in the summer of 1948, the Lebanese government closed the southern Lebanese borders and considered all new Palestinian refugees as illegal entrants. The conditions imposed by the Lebanese forced many refugees to go back to their villages in order to regain their possessions so as to provide for their families. However, the migration of northern village inhabitants continued because they were continuously exposed to attacks, in spite of a cease-fire declaration.

1949

The United Nations Relief and Works Agency for Palestine Refugees in the Near East (UNRWA) was established by the UN General Assembly – Resolution 302(V) – in December 1949. It is the primary international body mandated to provide assistance to Palestinian refugees. In May 1950, the Agency officially took over the humanitarian relief operations in the Jordanian-controlled West Bank, Egyptian-controlled Gaza Strip, Jordan, Lebanon and Syria.

1956

In 1956, Britain, France and Israel launched a combined attack on Egypt. The Israeli military forces occupied Gaza (which was then under Egyptian control) and killed many Palestinians. As a result, a number of inhabitants migrated to Egypt and Syria; and about 5,000 refugees went to Lebanon by sea. The Lebanese government granted them a white residence card issued by the Lebanese General Security. However, UNRWA did not agree to transfer their names from Gaza to Lebanon and therefore they were prevented from using its services. They obtained laissez-passer documents which enable them to move and travel. Later they were given the right of family

reunification, but this was only rarely carried out by the Department of Refugee Affairs.

1967 onwards

This phase started with the fall of the West Bank and Gaza Strip under the Israeli occupational force in 1967 and with the establishment of the Palestinian resistance movement. A number of the movement's members and leaders went to Lebanon, whether in camps or bases of the movement. Their number increased after the campaigns in Jordan including 'Black September (Aylool) in **1970** and Jerash in **1971**, which drove the resistance movement away from Jordan. As a result, many of the movement's leaders and fighters went to the south of Lebanon. Subsequently their number increased after the outbreak of civil war in Lebanon in **1975**. However, due to the Israeli invasion of the south of Lebanon in **1982**, many of these Palestinians (about 14,000 refugees) fled to Tunis, Libya, Sudan, Yemen and Syria. Some stayed in the north and Beq'a district and some of those who left have since returned to Lebanon. Due to the conflict between FATEH factions in **1983**, many of these movement members (about 5,000 refugees) moved again with their families. But, at the same time, the camps in Beirut and Tyre were attacked and therefore many families were forced to leave either within or outside Lebanon. Persecution, detention and torture were common at this time. In Shatilla and Sabra camps in Beirut, thousands were massacred. Those in this latter group, in addition to all the Palestinians who were expelled later, were not registered in the official records, were not given any identification documents and were not included in any statistics. Their residence is considered illegal by the Lebanese government.

Current Situation

Of the original 16 official camps in Lebanon, three were destroyed during the years of conflict and were never rebuilt or replaced: Nabatieh camp in south Lebanon, and Dikwaneh and Jisr el-Basha camps in the Beirut area. Most of the displaced refugees in Lebanon, approximately 6,000 families, are originally from these three camps. A fourth camp, Gouraud in Baalbeck, was evacuated many years ago and its inhabitants were transferred to Rashidieh camp in the Tyre area.

The number of Palestine refugees registered with UNRWA in Lebanon is currently **394,532**, or an estimated 10% of the population of Lebanon. Of these, **223,956** actually live in the 12 remaining camps. The rest live in and around Lebanon's major urban centres, often in the environs of official camps. While all of UNRWA's services are available to both camp and non-camp residents, the latter receive no public services and often suffer from their isolation. Lebanon has the highest percentage of Palestine refugees who are living in abject poverty and who are registered with UNRWA's "special hardship" programme (12% of the total): the most disadvantaged and vulnerable refugees, such as women whose husbands have died or whose husbands have divorced or abandoned them, the elderly, the chronically ill, refugees with disabilities, or the very young, are provided with direct material and financial assistance under this programme.

Palestine refugees in Lebanon face specific problems. They do not have social and civil rights, and have very limited access to the government's public health or educational facilities and no access to public social services. The majority rely entirely on UNRWA (supported by local and international NGOs) as the sole provider of education, health and relief and social services. Considered as foreigners, Palestine

refugees are prohibited by law from working in more than 70 trades and professions. This has led to a very high rate of unemployment amongst the refugee population.

All 12 official refugee camps in the Lebanon Field suffer from serious problems - living conditions are characterized by high population densities and inadequate basic infrastructure, with open sewers, limited supplies of clean water and unsatisfactory drainage systems which make flooding commonplace in the often harsh winters. In addition, the years of conflict and hostilities, and the feeling of an insecure future all affect the health of the refugees. Non-communicable diseases such as diabetes, hypertension, cardiovascular diseases and cancer are all on the increase. Birth rates are among the highest in the world and intervals between births are short, thus affecting women's health. Diarrhoea and intestinal parasites, particularly affecting children, are highly prevalent due to poor environmental conditions in the camps. UNRWA remains the main provider of basic health care, and provides assistance towards the cost of secondary medical care at a variety of public, non-governmental and private hospitals. However, with the rise in hospital costs in the 1990s, and a reduction in the Agency's budget, UNRWA has been forced to increase the percentage of cost sharing by the refugees themselves to between 12-40 per cent of treatment costs, as well as limit the number of referrals and discontinue reimbursements for certain treatments. This has caused particular problems in Lebanon, where most of the refugees are unable to cover their share and so cannot get the treatment they need.

Map to show the twelve official Palestinian refugee camps in Lebanon



The Twelve Camps

TYRE

1. Rashidieh

- There are 25, 580 registered refugees
- 830 families (3,980 persons) are registered as “special hardship cases (SHCs)”
- One UNRWA health centre with an average of 235 patients per day
- Three UNRWA elementary/preparatory schools and one secondary school for 2,805 enrolled pupils 2003/2004
- One community managed women's programme centre that runs skill-training courses, organizes awareness raising sessions on health, social, legal, human rights and gender issues and coordinates with local NGOs to respond to community needs.

A number of NGOs are active in Rashidieh, including Al-Najda, Beit Atfal Al-Soumoud, Naba', Al-Quds, Abou Jihad Alwazeer Handicapped Foundation, General Palestinian Women's Union and Red Crescent. The services they provide include cash assistance to orphans, kindergartens, a training centre and a rehabilitation centre for refugees with disabilities.

2. Burj El-Shemali

- There are 18, 659 registered refugees
- 833 families (3,961 persons) are registered as SHCs
- One UNRWA health centre with an average of 289 patients per day
- Four UNRWA elementary/preparatory schools for 2,263 enrolled pupils in 2003/2004
- One community managed women's programme centre that runs skill-training courses, organizes awareness raising sessions on health, social, legal, human rights and gender issues and coordinates with local NGOs to respond to community needs.

A number of NGOs are active in Burj el-Shemali, including Al-Najda, Beit Atfal Al-Soumoud, the General Palestinian Women's Union, Ahmad Rahyal, Palestinian Martyrs' Association and the Palestinian Red Crescent Society. The services they provide include cash and medical assistance and hospitalization, kindergartens and training centres.

3. El-Buss

- There are 10, 107 registered refugees
- 292 families (1,265 persons) are registered as SHCs
- One UNRWA health centre with an average of 305 patients per day
- Four UNRWA elementary/preparatory schools for 1,950 enrolled pupils in 2003/2004
- One community managed women's programme centre that runs skill-training courses, organizes awareness raising sessions on health, social, legal, human rights and gender issues and coordinates with local NGOs to respond to community needs
- Mainstreaming for visually impaired students programme

A number of NGOs are active in El-Buss, including Al-Najda, Beit Atfal Al-Soumoud, Naba', Tyre Public Hospital, the Palestinian Red Crescent Society, Nabil

Badran Association for the Disabled, Community Rehabilitation Development Centre for Disabled Children. The services they provide include medical assistance and hospitalization, kindergartens, training centres, rehabilitation centres for refugees with disabilities and cultural clubs.

SIDON

4. Ein El-Hilweh

- There are 45,337 registered refugees
- 1,728 families (6,976 persons) are registered as SHCs
- Two UNRWA health centres with an average of 589 patients per day
- Nine UNRWA elementary/preparatory schools and one secondary school for 7,544 enrolled pupils in 2003/2004. The secondary school was constructed by UNRWA with funds from the Government of Japan and was opened in 1997; a second is under construction
- One community managed women's programme centre that runs skill-training courses, literacy for women and tutoring classes for students, organizes awareness raising sessions on health, social, legal, human rights and gender issues and coordinates with local NGOs to respond to community needs
- Mainstreaming for visually impaired students programme

A number of NGOs are active in Ein el-Hilweh, including Al-Najda, Beit Atfal Al-Soumoud, Ghassan Kanafani Cultural Foundation, the Palestinian Women's Union, Terre des Hommes, Naba', the YMCA, Al Karameh Association For Disabled, Al-Hamshari Hospital, and Vocational and Technical Training Committee. The services they provide include literacy courses, vocational training and rehabilitation for refugees with disabilities, summer camps, medical services and kindergartens.

5. Mieh Mieh

- There are 5,037 registered refugees
- 113 families (396 persons) are registered as SHCs
- One part-time UNRWA health centre (three days a week) with an average of 112 patients per day
- Two UNRWA elementary/preparatory schools for 1,020 enrolled pupils in 2003/2004

Al-Najdeh Al-Sha'bieh is the only NGO active in Mieh Mieh and provides house decorating courses for Palestinian youths.

BEIRUT

6. Burj El-Barajneh

- There are 20,405 registered refugees
- 500 families (1,630 persons) are registered as SHCs
- One UNRWA health centre with an average of 168 patients per day
- Seven UNRWA elementary/preparatory schools for 2,511 enrolled pupils in 2003/2004
- One community managed women's programme centre that runs skill-training courses, literacy for women and tutoring classes for students, organizes awareness raising sessions on health, social, legal, human rights and gender issues and coordinates with local NGOs to respond to community needs.

Income generation loans and group guaranteed lending are also provided to women

In addition to the facilities UNRWA provides, a number of NGOs are active in Burj el-Barajneh, including the Palestinian Martyrs' Association, Ghassan Kanafani Cultural Foundation, Najdeh, Al-Ina'sh, Beit Atfal Al-Soumoud, the Palestinian Red Crescent Society, Women's Humanitarian Organization and Brotherhood Institution for Social Education.

7. Mar Elias

- There are 1, 411 registered refugees
- 23 families (77 persons) are registered as SHCs
- One UNRWA health centre with an average of 62 patients per day
- One UNRWA elementary/preparatory school for 443 pupils in 2003/2004

In addition to the services provided by UNRWA, a number of NGOs are active in Mar Elias, including Beit Atfal Al-Soumoud, Norwegian Popular Aid, Palestinian Martyrs' Association, Ghassan Kanafani Cultural Foundation, Vocational and Technical Training Committee, Al Inaach and the Palestinian Red Crescent Society. The services they provide include cash assistance to martyrs' families and orphans, rehabilitation and vocational training for refugees with disabilities, training in craft work and kindergartens.

8. Shatila

- There are 12, 235 registered refugees
- 293 families (1,068 persons) are registered as SHCs
- One UNRWA health centre with an average of 79 patients per day
- Two UNRWA elementary school for 1,056 enrolled pupils in 2003/2004

In addition, a number of NGOs are active in Shatila, including Al-Najda, Beit Atfal Al-Soumoud, Norwegian Popular Aid and the Palestinian Red Crescent Society, Children and Youth Centre. The services they provide include health clinics, cash assistance, summer activities, kindergartens and rehabilitation centres. The inhabitants of the camp have access to skills training and services provided by Sabra WPC.

9. Dbayeh

- There are 4,211 registered refugees
- 67 families (162 persons) are registered as SHCs
- One part-time UNRWA health centre (two days per week) with an average of 57 patients per day
- The camp's 144 pupils attend UNRWA's Carmel Elementary/Preparatory School in Burj Hammoud, East Beirut for the year 2003/2004

In addition to the facilities UNRWA provides, a number of NGOs are active in Dbayeh, including Mar Mansour Association, the Little Sisters of Nazareth, and the Pontifical Mission, Popular Aid for Relief and Development (PARD). The services they provide include social and medical services and a kindergarten. Special care is provided for the young and elderly.

BEQ'AA

10. Wavel

- There are 7, 553 registered refugees

- 230 families (981 persons) are registered as SHCs
- One UNRWA health centre with an average of 65 patients per day
- Two UNRWA elementary/preparatory schools with 833 enrolled pupils in 2003/2004
- One community managed women's programme centre that runs skill-training courses, organizes awareness raising sessions on health, social, legal, human rights and gender issues and coordinates with local NGOs to respond to community needs. Income generation loans and group guaranteed lending are also provided to women.

In addition to the facilities UNRWA provides there are a number of NGOs active in Wavell, including Al-Najda Al-Ijtimayia, Ina'ash and Beit Atfal Al-Soumoud, Bilal Bin Rabah Centre. The services they provide include cash assistance to orphans, kindergartens and a training centre.

TRIPOLI

11. Beddawi

- There are 16,198 registered refugees
- 644 families (2,993 persons) are registered as SHCs
- One UNRWA health centre with an average of 254 patients per day
- Six UNRWA elementary/preparatory schools and one secondary school for 3,468 enrolled pupils in 2003/2004
- One community managed women's programme centre that runs skill-training courses, apprenticeship and tutoring classes, organizes awareness raising sessions on health, social, legal, human rights and gender issues and coordinates with local NGOs to respond to community needs. Income generation loans and group guaranteed lending are also provided to women
- Community-Based Rehabilitation Programme for Disabled (CBR)
- One kindergarten teaching French for 46 enrolled pupils in 2003/2004

A number of NGOs are active in Beddawi, including Al-Najda, Beit Atfal Al-Soumoud, Ghassan Kanafani Cultural Foundation, Lina Nabulsi National Association and the Palestinian Red Crescent Society. The services they provide include sponsorship programmes for orphans, vocational training, medical services and hospitalization and kindergartens.

12. Nahr El-Bared

- There are 31,023 registered refugees
- 1,598 families (8,627 persons) are registered as SHCs
- One UNRWA health centre with an average of 494 patients per day
- Ten UNRWA elementary/preparatory schools for 5,686 enrolled pupils in 2003/2004
- One community managed women's programme centre that runs skill-training courses and apprenticeship, organizes awareness raising sessions on health, social, legal, human rights and gender issues and coordinates with local NGOs to respond to community needs. Income generation loans and group guaranteed lending are also provided to women.
- Mainstreaming programme run in partnership with CBR and Ghassan Kanafani kindergarten
- One Youth Centre

- One kindergarten teaching French for 22 enrolled pupils in 2003/2004
- Two community run rehabilitation centres provide facilities for 64 refugees with disabilities

A number of NGOs are active in Nahr el-Bared, including Al-Najda, Beit Atfal Al-Soumoud, Ghassan Kanafani Cultural Foundation and the Khaldieh National Association, and Community-Based Rehabilitation Programme (CBR) for Disabled. The services they provide include sponsorship programmes for orphans, vocational training and kindergartens.

Previous Studies With Regard To Palestinian Amputees in Lebanon

The situation is complex, and made more so by the absence of any comprehensive and reliable data. In 2004, Al Karameh Association for Disabled (a Palestinian NGO, established in 2000 and based in Ein el-Hilweh camp) conducted a needs assessment of disabled Palestinian refugees, amputees in particular. The assessment was based on data collected from UNRWA and other agencies, bolstered by a postal questionnaire. They also used reports from their own social workers, medical records, and records of those refugees registered as disabled with the Palestinian Disability Forum (of which they are a member). They also held workshops involving disabled refugees themselves. In their report they claimed that “Amputees are seen by many foundations and associations. The precise numbers vary with time. The known numbers for the key organisations (May 2004) are as follows:”

Al Karameh Association for Disabled	30
Movement for Peace Disarmament and Liberty (MPDL) – Spanish NGO	232
Al Nahda Disabled Association	76
Norwegian Popular Aid	29
Abou Jihad Alwazeer Handicapped Foundation	150
Total	517

Additional key findings of the Al Karameh assessment are summarised below:

- The number of disabled refugees was higher than predicted, with two thirds living in the south of the country.
- The two main groups of amputees are traumatic amputations (landmines etc.) and patients with diabetic complications. Almost all need to repair or replace their prostheses every 6-12 months.
- There are an estimated 15 new patients requiring prostheses every month (predominantly patients with diabetes).
- There is no standardized or coordinated medical treatment available for the limbless in any area.
- Limited services are available in both UNRWA and NGO supported community rehabilitation centres.
- There are commercial centres, but very few refugees can afford them.

- Some financial aid is available to patients from UNRWA, PLO, MAP and Norwegian Popular Aid, leaving the patients and their families to meet any shortfall.

Our Survey

The Al Karameh data had not been substantiated by other agencies and failed to provide any insight into the existing capacity of UNRWA and the relevant NGOs to support Palestinian amputees in Lebanon. We have attempted to address these concerns, and key findings are as follows:

- Al Karameh, Abou Jihad Alwazeer Handicapped Foundation and Al Nahda Disabled Association do not manufacture or supply prostheses. Clients go to these organisations in order to arrange PLO funding and are then referred to suppliers. Each of these NGOs sees clients from all over the country.
- Many clients seek help from more than one NGO and this serves to distort the figures which they provide.
- The users of prostheses are fairly evenly distributed throughout Lebanon.
- From 1998-2003, MPDL funded the manufacture and supply of prostheses for all Palestinians who required them during that time. This accounts for the large number in the table above. However, the number quoted was the number of beneficiaries predicted for funding purposes. The actual number manufactured and supplied in the five year period was 125 (an average of 25 per year). They did not directly manufacture prostheses but contracted private companies and NGOs. Most were polypropylene based prostheses with a few carbon fibre ones for those beneficiaries who could afford the extra cost. This project has now ended. We were informed that there are no ongoing arrangements for either rehabilitative therapy, the maintenance, repair and replacement of existing prostheses or the manufacture and supply of new prostheses.
- The MPDL figure provided by Al Karameh served to enhance the perceived need for their own project. It is unclear whether this was intentional or inadvertent.
- Since camps are fairly closed communities, it was possible to speak to key contacts in each camp who are familiar with the disabled population. This tended to confirm the total figure of around 125 limbless Palestinian refugees in the 12 official camps. We did not extend our remit to those living in other gatherings and those living in predominantly Lebanese neighbourhoods.
- Al Karameh made no mention of Dar Reayat AlYateem even though this organisation is in Sidon, only a short distance away from them.

The Current Situation Regarding Prostheses

Only two organisations supply, fit and maintain prostheses which are affordable by most Palestinians: Norwegian Popular Aid (in Beirut) and Dar Reayat AlYateem (in Sidon).

Norwegian Popular Aid (NPA) have an office at the entrance to Mar Elias camp and a workshop about half a kilometre away. There is one technician employed at the workshop. He is almost exclusively employed in repairing and re-fitting existing prostheses. There are only a very small number of new clients per year needing complete prostheses of any kind. Prostheses are of good quality but low-tech polypropylene, there being insufficient funding or expertise to manufacture high-tech

prostheses with electronic or hydraulic components. Funding is 60% PLO, 20% UNRWA, 10% NPA and 10% by the client. Only the PLO funding is guaranteed. UNRWA and NPA have fixed budgets which are often insufficient for all needs.

Dar Reayat AlYateem operates from premises in the precincts of the Lebanese University campus in Sidon. There is a manager, secretary, a senior technician and four other technicians. Their workload is similar to that at NPA and they manufacture prostheses of similar style and quality (polypropylene-based). Their work is funded by the International Committee of the Red Cross. They offer a free service to all Palestinians on production of a doctor's letter and UNRWA registration card.

Technicians in both of these organisations claim to be able to make and supply the full range of prostheses, including those involving advanced technology. However, the type of prosthesis supplied is constrained by the financial resources available. It is more accurate to say that the technicians may have the potential to construct and supply high tech prostheses. What is lacking is effective training as professional health workers, involving holistic assessment and interpersonal skills, together with equipment adaptations and the necessary technological training. Neither have they developed any working relationships with surgeons who perform amputations. In the past, during times of conflict, this was unavoidable, since many amputations were performed under crude emergency conditions.

Following discussion with the staff of these organisations it is obvious that there are very few new clients (registered Palestinian refugees) requiring prostheses today, perhaps as few as 4 per month across the country. This may be due to:

- There no longer being any wars or internal conflict.
- The comprehensive monitoring and early detection of diabetic complications and vascular disease in medical clinics serving discrete camp communities.
- Palestinian camps are not situated near areas that have been mined.
- Car ownership levels are less than the indigenous population and many camps do not have roads that can bear motor vehicles, thus reducing the incidence of serious road traffic accidents in refugees.
- The recent intensive programme supported by MPDL.

There was no evidence of a prosthetics service being directly linked to the surgical department of a hospital. Neither was there evidence of patients requiring amputation having any link with a prosthetist prior to surgery. There was anecdotal evidence of referral from prosthetics technicians back to operating surgeons when problems arose.

Private Manufacture and Supply of Prostheses

Youssef Salam of Orthocare – Biomechanical Concepts, Beirut, trained and worked in the United States and graduated in orthotics and prosthetics. He subsequently taught biomechanics at the American University of Beirut. He described his holistic approach, the relationship he has developed with surgeons and his input into preventative campaigns on foot health. He sees some Palestinians who wish, and are able to afford, more expensive prostheses.

He uses carbon fibre and other materials, but not polypropylene. He claims that polypropylene is probably the material of choice only in war-time or when large

numbers of people need limbs at low cost in a short time. This may have been the case in wars and other conflicts in Lebanon, but is not justified today. Whereas the NGOs can make below knee prostheses for around \$800 and above knee for around \$1,700, his prostheses start at around \$2,000 for below knee and probably \$4,000 for above knee (basic and acceptable standard with shock absorbers etc.). Using additional new technology (muscle-stimulators, hydraulic joints, prosthetic skin etc.), prices escalate considerably above this baseline.

For rehabilitative therapy, he either uses his own unit, or those of other organisations in Beirut and Sidon (Mohamed Khalid Foundation for Social Care in Ouzai, Beirut; Dar Reayat AlYateem in Sidon). He has a branch in Tripoli where there are no other rehabilitative services available to the Lebanese community, although the Community Based Rehabilitation (CBR) Units in Nahr El Bared and Beddawi camps claim to have the capability to give such rehabilitation to Palestinians.

He claimed that the standard for re-fitting of limbs is based on a prosthesis lasting for at least 2 years without need for further attention other than tightening loose bolts etc. The poorer the quality of material, the greater the need for repair and replacement within that 2 year period. If people were funded for the supply of a better quality product, it may turn out cheaper in the long run, as fewer replacements would be required. They would also be more likely to actually use and benefit from them. He was involved in a World Rehabilitation Fund project where he visited the homes of those known to have been supplied with prostheses. Many were not wearing them, or had several prostheses supplied by well-meaning projects every few years.

Analysis

To structure the analysis of the prosthetics service for Palestinian refugees in Lebanon, we will make reference to the guidance given to the NHS for England and Wales (Audit Commission 2002). Whilst recognising the vast differences in social structure, culture, geography, politics and economics between the two populations, the standards used to evaluate the service in England and Wales raise important issues which are applicable to such a service in any situation.

(Guidance on the commissioning of prosthetics services. Prepared in response to a report published by the Audit Commission, June 2002, Assisting Independence – Fully Equipped 2002)

Issue	Analysis
“In view of the small number of prosthetics users, the best approach is likely to be as a specialist service”	This is equally true in the case of Palestinian refugees. Ideally Palestinians would use the same specialist service as indigenous Lebanese. However, as with most infrastructural provision, Palestinians continue to depend on health care which is provided cheaply as a result of aid via the UN or grant-aided NGOs.
“Close links between the surgical team and specialist rehabilitation team should be established pre-operatively to ensure the best outcome.”	Such links are lacking. Palestinians who have amputations, for whatever reason, are operated on in Lebanese or PRCS hospitals. Prosthetic technicians who are

	working in projects funded/supported by Palestinian agencies and organisations have no opportunity to have any input pre-operatively.
“The service offers specialist assessment and review; prescription; provision; maintenance of prosthetic limbs and also a rehabilitative facility for more complex cases.”	The quality of these services is a function of the training and preparation of technicians and financial constraints. None employed would meet the standards set by the International Society of Prosthetists and Orthotists. Rehabilitation, where it exists and is accessible, is undertaken by other NGOs for the disabled, working within the camps. There is no systematic recall system for servicing or evaluating prostheses. It may be that there are a number of clients who have unused prostheses who have not returned to address problems.
The multi-disciplinary team includes a Consultant in Rehabilitative Medicine with a specialist interest in prosthetics, prosthetists, specialist therapists and nurses, clinical counsellors and engineering personnel.”	Teams are not headed by a specialist medical consultant and consist of technicians with varying levels of training and little support from other disciplines. A “blame culture” prevails where surgeons blame prosthetists and vice versa. Clients blame both.
“Meeting the needs of people of all ages, including children, and responding whenever changes in their type of level of disability occurs.”	Provision caters for all ages. Children requiring prostheses are rare. We found no evidence of prostheses being supplied to children with congenital absence of limbs
“The aim of the prosthetics service is to: Provide suitable prostheses for all people who have lost a limb or part of a limb”	The current service does not provide a range of prostheses suitable or acceptable for all users. Provision is available in country.
Provide a comprehensive service that includes consideration of comfort, posture, function, pressure relief and cosmetics.	Interviews with users show that these issues are largely abandoned as affordability is the overwhelming criterion when it comes to choice.
Respond to changing medical and social needs of prosthetics users with provision of new artificial limbs when necessary.	Provision of prostheses is not coordinated with other care needs as there is no medical or nursing input into the prosthetics team.
Effective commissioning requires a baseline audit and analysis to establish an understanding of:	

<p>The number of people currently needing services, and the likely future trends; the type of services they require; the type, volume and quality of existing services; the gaps (in service) and plans to fill those gaps.</p>	<p>There is little coordination or cooperation between agencies (UN or NGO). This makes data collection and analysis problematic. No single agency is responsible for monitoring changing trends, evaluation or cost-benefit analysis.</p>
<p>Involve users and carers in planning the service and monitoring its activity.</p>	<p>There is no evidence of involvement of users in planning prosthetics services. Indeed, it may be that limbs are supplied which are inappropriate to some of the living conditions faced by users in refugee camps and gatherings.</p>
<p>Integrating prosthetics services into wider rehabilitative services.</p>	<p>There is no integrated service where the prosthetics service is involved in rehabilitation. NGOs work with the disabled in some camps with varying levels of provision. There is no formal referral system from prosthetics technicians to these NGOs.</p>
<p>Future service demands: increasingly elderly population; improvements in medical techniques and treatment resulting in the survival of many severely disabled people; improvements in access for disabled people; changing attitudes towards disability by the general public; and greater expectations of prosthetics users.</p>	<p>The specific issues mentioned in the report will impact on future demand. The populations of most camps consist of a high proportion of young people. Factors which increase the survival rate of the disabled do not necessarily apply in the harsh environment faced by refugees. Attitudes towards disability change very slowly. In general, refugees' hopes are dashed so often that their expectations are kept low.</p>
<p>Providing support for carers: Relatives and friends are the major deliverers of care and act as partners with service providers, whilst also monitoring the quality of services.</p>	<p>There is little evidence of any agency offering support for carers.</p>
<p>Providing individuals with choice.</p>	<p>Because of the financial and other factors mentioned above, most Palestinian refugees have little or no choice in the nature of prosthetics supplied.</p>
<p>Planning for the introduction of technological improvements (materials science, ergonomics, biomechanics): production of lightweight alloy and carbon fibre frames, pressure relieving systems and interfaces; and innovations to make limbs more comfortable,</p>	<p>Prosthetics available and affordable to Palestinian refugees are generally serviceable but unsophisticated. Technicians from "competing" organisations have no contact with each other to share good practice. There is no evidence of related research in the</p>

<p>efficient and lifelike. Response to advances in surgical techniques: direct skeletal attachment; higher performance and lifelike external coverings; and fine movement control using microprocessors.</p>	<p>country. Prosthetic technicians are not motivated to keep track of developments and innovations as they are all too aware that they have insufficient funds to implement them.</p>
<p>Undertaking satisfaction surveys: the service provider should be required to interview service users and referrers in random samples, in order to gain their views on the service; and there should be a clear written complaints procedure and all complaints and action documented</p>	<p>There is no evidence of evaluation of services or of any mechanism for obtaining feedback or dealing with complaints by service users.</p>

Preventative Issues

Two key services which are available in the UK are absent in Palestinian communities (as in the rest of the Middle East):

- Primary preventative health care related to diabetic and vascular complications
- Professional podiatrists (chiropodists)

The lack of these services means that the main reasons for amputation today are poor foot health and late identification of circulatory and skin disorders. It also means that some patients who could have been treated more conservatively (say with toe amputation) end up with below knee or even above knee amputations.

Recommendations

- Establish pre-operative cooperation between surgeons and prosthetic services (at least in PRCS hospitals).
- Widen the choice of prostheses by co-operation between providers and financial supporters (using cost-benefit analyses linking the life-span of prostheses and maintenance costs to the range of available materials).
- A systematic recall system should be adopted using a computerised database.
- Follow-up and rehabilitation needs should be co-ordinated at a regional level as part of care pathways and with input from medical services.
- There needs to be a forum to share good practice at all levels – including the monitoring of research and trends.
- There could be organised support groups for users and their carers.
- Client involvement in planning services should be encouraged.
- There should be a comprehensive, on-going evaluation of provision.
- Prosthetic services should develop multi-professional teams with representation from medical and rehabilitation professionals.
- There should be programmed training of prosthetists to an accepted professional standard, linked to an upgrade of the workshop equipment available.

Proposal for a Funded Project

Action to improve the service falls into five areas:

- Coordination
- Communication
- Evaluation
- Equipment upgrades for existing prosthetic workshops
- Training and Professional Development

Coordination, communication and evaluation could be achieved if one agency or coordinating group (with representatives from all key agencies) took responsibility for setting up a central point of reference from which to link all concerned parties. This would involve a central referral mechanism, maintenance of a central register, systematised recall system for re-fitting, repair and maintenance of prostheses, and a comprehensive evaluation of user satisfaction. This body could also coordinate service user groups to improve such things as service user involvement and carer support. The Palestinian Disability Forum (or similar group) may have the potential to fulfil this role, but will need help in establishing the required mechanisms and creation of capacity.

Equipment upgrades for existing prosthetic workshops will enhance the choice and quality of prostheses supplied, and the maintenance and repair of those prostheses. The choice of prosthesis used could also be increased if providers cooperated on use of equipment, sharing expertise, keeping abreast of changing technologies and training. Users should also have the opportunity to obtain financial assistance towards using private suppliers, if they can arrange sufficient private funds to make up the full cost. A cost benefit analysis would probably reveal that it would be cheaper to supply better quality products that would last significantly longer without the need for replacement or repair. Equipment upgrades need to be linked to a programme of **training and professional development** for existing technicians and associated rehabilitative staff. It should not just comprise the handling of equipment and materials, but should conform, as much as possible, to internationally accepted standards for professions allied to medicine.

If agreed and financially supported by the International Arab Women's Council, we will proceed to develop a formal proposal (including an itemised budget) based on the recommendations outlined above.

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