REPORT

ON

SITUATIONAL ANALYSIS OF MEDICAL SERVICES FOR LAND MINE VICTIMS RESULTING IN AMPUTATONS IN THE DISTRICTS OF ADJUMANI, BUNDIBUGYO, KASESE AND MOYO

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LIST OF TABLES

ABBREVIATIONS

COMBRA	-	Community Based Rehabilitation Alliance
UN	-	United Nations
PWDs	-	Persons with Disabilities
AVSI	-	International Service Volunteers' Association
UNICEF	-	United Nations International Children's Education Fund
ICRC	-	International Cooperation for Red Cross
NGO	-	Non-Governmental Organisation
USDC	-	Uganda Society for Disabled Children
DDHS	-	District Director of Health Services
HIV	-	Human Immune Virus
UPDF	-	Uganda People's Defence Forces
ADF	-	Allied Democratic Front
SPLA	-	Sudan's People Liberation Army
A - K	-	Above Knee
B – K	-	Below Knee
IGA	-	Income Generating Activity

EXECUTIVE SUMMARY

A base line survey was carried to ascertain the situation of medical services for landmine victims resulting in amputations in Adjumani, Bundibugyo, Kasese and Moyo districts. The purpose of the study was to assess the medical services available for amputees and to identify the gaps in service delivery. The medical services under the study included pre-hospital care, hospital services, rehabilitation and how accessible these services are to amputees.

The Disability and Rehabilitation section, Ministry of health undertook the study as part of its effort to address the global call for increased action on assisting land mine victims which constitute the section's five year plan on intervention in injury.

Qualitative and quantitative methods were used to collect data. The participatory process included: 86 amputees who responded to the questionnaire and focus group discussions and key informant interviews were carried out with members of the disabled peoples' district unions; selected local council leaders representing people with disabilities in the local government; physiotherapy unit staff; Orthopaedic workshops staff; selected personnel working in casuality units; hospital managers and district leaders.

Summary of findings.

- The study group proportions by sex were 19% female and 81% male. The distribution by age was as follows;1-18 years were 9.3% 19-48 years were 65.4% , 49 years and above constituted 25.3%. This was indicative that the majority of the amputees in the study were in the most productive age bracket.

- The causes of amputations among the respondents were: land mines 50%, gunshots 20%, road traffic accidents 5 % Osteomyelitis 2%, snake bites 1%, and others 22%. The highest cause of amputation in the study group was land mine and gunshots, which are war related.

- Most respondents (99%) affirmed that they had received some form of medical intervention. However, there were gaps in service delivery particularly in continued access to these services. Reasons given were that distances to regional hospitals were long and expensive, the hospitals lacked equipment and some specialised staff, all hospitals lacked casuality units and there were no resources to follow up amputees in the communities.

- Amputees reported that they were facing a number of difficulties in the communities. These included lack of funds to travel long distances to regional hospitals for prosthesis fitting and maintenance, being abandoned by their spouses after getting disabilities and inability to sustain themselves economically. There was a general concurrence that Government should improve medical rehabilitation services for amputees. The services should be provided free of charge to land mine victims who should also be followed up in their communities on a regular basis.

- The amputees strongly recommended that government should provide them with seed money to enable them improve their economic livelihood.

- The Ministry of Health should consider recommendations in this report to improve medical care and rehabilitation services for land mine victims.

Section one

1.0 INTRODUCTION

1.1 Background

This study is a base line survey on medical rehabilitation needs of landmine victims resulting in the loss of limbs in four selected districts of west and northwestern Uganda. The disability and rehabilitation section of Ministry of Health contracted COMBRA, the Community Based Rehabilitation Alliance an organisation that is actively participating in rehabilitation of people with disabilities in Uganda to undertake the study. COMBRA is an indigenous non- governmental organisation that is committed to: *"empower and advocate for persons with disabilities for sustainable development through community based rehabilitation."* Ministry of health contracted COMBRA because of its professional experience with participatory rural and urban appraisal, training grassroot community based rehabilitation (CBR) workers and providing them support supervision services.

1.2 The Disability and Rehabilitation Section

In line with the UN Standard Rule 2 which states that:
"States should ensure the provision of effective medical care to persons with disabilities"[1], the Ministry of Health established a disability and rehabilitation section in March 1996 to develop medical rehabilitation services that cater for needs of persons with disabilities in Uganda.
Since inception of the section, it has developed the following;

- ***Making a difference for persons with disabilities,*** a booklet for sensitising policy makers, service providers and communities on disability issues. The booklet was launched in 1999 with a photo exhibition, which attracted many service providers and collaborators.

The essential rehabilitation package that has the following objectives;

- *To build district capacity for the implementation of comprehensive rehabilitative health care services for people with chronic non- communicable diseases, movement, communication, visual impairments and mental disabilities.*
- *To increase public awareness of the availability of rehabilitation services in the district.*
- *To include within the existing health information system and operational research a user friendly data system that recognises issues of disability at community and district levels.*

The disability and rehabilitation section has developed standards and guidelines on hearing impairment, visual impairment, epilepsy, mental health among adults, mental health among children, orthopaedic appliances and aids, polio and mobility impairment,

[1] UN (1994). The Standard Rules of equalisation of opportunities for persons with disabilities. NewYork. United Nations department of public in formation R (2) pp18.

cerebral palsy and non-communicable diseases. Training materials for continuous education of health workers at various levels and capacity building of community resource persons to ensure standards are met have been developed.

- The rehabilitation section has also been involved in the sensitisation process of district policy makers including councillors representing people with disabilities to embrace the essential rehabilitation package.

1.3 Concerted effort to intervene in landmines

In response to the United Nations Secretary-General's report on " ***Renewing the United Nations: A Programme for Reform (A/51/950)"*** a UN policy on land mine action was developed.[2] The Ottawa Convention has also set strategies and programmes for stopping production, stock piling and use of anti-personnel mines. The UN Charter on human rights and the Ottawa convention lay out rights of land mine victims in the affected countries. The Swiss Government, WHO, ICRC and UNICEF drafted the "Bern Manifesto" which appeals for assistance to land mine victims.[3]

A meeting was held in Kampala in September 1998 that culminated in a Kampala declaration, which calls on member states to ratify the Ottawa treaty. The declaration recommended a multi-sectoral approach to land mine victims with the Ministry of Health taking on the lead. Consequently, a five-year injury intervention plan was developed targeting on; surveillance; pre-hospital; hospital care; rehabilitation and integration of land mine victims.

The disability and rehabilitation section, in its effort to address the global call for increased action on assisting land mine victims sought to carry out a situational analysis of medical services for land mine victims resulting in the loss of limbs. This is in line with Ministry of Health's five-year plan on intervention in injury.

[2] UNICEF(1999) Portfolio of land mine-related victims. Mine action: Advocacy, mine awareness and victim assistance.

[3] Nganwa A(1999) Ministry of Health Report on Land mines victims

Section Two

2.0 The study

The Ministry of Health Disability and Rehabilitation section contracted COMBRA to carry out a study on the situation of medical services for land mine victims resulting in amputations in the districts of Adjumani, Bundibugyo, Kasese and Moyo.

2.1 Objectives of the study

- ***To assess the medical care needs of people affected by landmines.***
- ***To evaluate the gaps in health care of people affected by land mines.***
- ***To develop recommendations for improving services of people affected by land mines.***

2.2 Interpretation of terms of reference

The terms of reference were developed by the Disability and Rehabilitation section of Ministry of Health and the World Health Organisation (WHO) to enable the consultants carry out the tasks of gathering information from consumers: amputees who are direct beneficiaries of medical services. The services included: pre-hospital; hospital services which include surgical and rehabilitative services; accessibility to these services and gaps in service provision.

2.3 Methodology

Qualitative and quantitative methods were used to collect data. The sources of information included district officials, health workers in hospitals, local council leaders representing persons with disabilities at various levels of local Government and amputees who are direct beneficiaries of the services. Interviews were held with key informants and in focus group discussions.

The study was designed to conduct interviews with individuals and groups who included: amputees, members of the disabled peoples unions in the respective districts, physiotherapy units staff, personnel working in the Orthopaedic workshops, selected personnel working in casuality departments in respective hospitals, managers of health units and relevant district leaders.

2.3.1 Data collection

The consultants were two Senior Physiotherapists who collected data between December 1999 and January 2000. Amputees were mobilised by COMBRA ex.students and LCIII and LCV Councillors representing persons with disabilities. Interviews of amputees' and local Councillors representing people with disabilities were conducted in local languages

while those of health workers and district authorities were carried out in English language.

Secondary data was collected from reports, hospital and workshop records, which were duly analysed for the report. Photographs were taken to give the realities of the situation.

Data was collected using the following methods;

- Questionnaires for amputees.
- Focus group discussions with health workers and local council leaders representing persons with disabilities.
- Key informant interviews with district leaders.
- Observation of health facilities.
- Records review.

2.3.2 The Questionnaire

A Questionnaire with closed and open-ended questions was used to interview amputees. It was administered to 86 amputees in the four districts mentioned above. The questionnaire focused on five areas namely;

- The characteristics of sampled amputees.
- Assessment of causes and levels of amputations.
- Health care services received.
- Health care needs and access to medical care services.
- Rehabilitation needs of amputees.

2.3.3 Interviews

In-depth interviews were carried out with key informants at the district levels and Mulago hospital-casuality unit. Interview guides that addressed key areas of the study were developed.

2.3.4 Focus group discussions

Focus group discussions were held with the following categories of medical staff and community leaders;

- Emergency staff: this involved the nursing Officer in charge of casuality, records officer, nursing officer in charge of theatre, nursing officer in charge of surgical ward clinical officers, anaesthetic officers and medical superintendents/surgeons.
- Rehabilitation staff included: Physiotherapists, Orthopaedic technicians and Orthopaedic clinical officers.
- Local leaders who included LC III and LCV councillors representing people with disabilities and district Unions of persons with disabilities officials.

Data collected using focus group discussions included information on care during emergency, nursing care during hospitalisation, resources available, rehabilitation in the hospital, follow up and gaps in medical rehabilitation.

2.3.4 Records Review

Records were reviewed from the following areas;

- **Casuality**

Where casualties came from, sex, type of injury, causes of injury, equipment/facilities, use of triage system and action taken.

- **Wards**:

Treatments, operations done, follow up of clients, periods of stay in hospitals and Physiotherapy services on the wards.

- **Workshop:**

Number of amputees provided with assistive devices, duration of rehabilitation, types of Prostheses and their costs. Follow up of clients.

- **Physiotherapy**

Number of amputees who received physiotherapy, state of stumps, number of cases with contractures, how they were managed and followed up.

2.4 Source of Data and Sampling

The study was undertaken in four districts of Adjumani, Bundibugyo, Kasese and Moyo. These districts were selected basing on their history of insurgency at different periods in which victims were either hit by land mines, gunshots or other war weapons resulting in loss of limbs.

The scope of this study in western Uganda was limited to the districts of Kasese and Bundibugyo. However, records in Fort Portal Hospital revealed that there are bigger numbers of amputees in Kabarole district as compared to Bundibugyo where the war has been intensive. Fort Portal hospital was visited because it is a regional referral hospital with a surgeon and an Orthopaedic workshop.

2.5 Triangulation

Data collected during interviews was triangulated with records' review and observations to confirm validity.

2.6 Limitations of the study

During the process of collecting data a number of limitations were encountered:

- Due to the remoteness of the districts under study and the on-going civil strife, respondents were called on local radios. The messages were not clear which led to those with foreign bodies in the limbs, nerve injuries and those with amputated ears turning up for the interviews. Due to the fact that they were invited by the Ministry

of health, there was speculation that the Government was registering them for support and compensation.(This could have biased the way they responded to questions)

- Gulu regional hospital offering similar services in the north as Fort Portal hospital in the west was not part of the terms of reference. Hence, Gulu hospital was not covered in the study yet a number of issues concerning service delivery were raised in Moyo and Adjumani districts but could not be verified.

- Local leaders were creating a situation that there were more amputees that could not come for interviews due to insecurity. On triangulation with hospitals and Orthopaedic workshops records this information could not be verified.

- The districts of Kasese and Bundibugyo were characterised by fresh insecurity, with a big number of internally displaced people living in camps, which limited movements of both the amputees and the consultants.

- Hospital equipment was only mentioned in focus group discussions and no physical check up was done to verify the information.

- During the time of the study, there were many activities/workshops that involved district leaders in Bundibugyo District, hence it was difficult to interview district leaders.

In spite of these limitations, the consultants feel that the data collected was adequate to fulfill the purpose of the needs assessment.

Section three

3.0 Study Findings

3.1 Overview of findings

This section gives details of findings using both qualitative and quantitative methods. The data collection process was done between December, 1999 and January 2000. It was however, not possible to do an inventory of hospital equipment. The information on equipment was therefore gathered in interviews with health personnel. Despite the insecurity in some of the areas, a number of people turned up for focus group discussions. The cooperation exhibited by the medical workers in participating in the focus group discussion was a sign that they took disability issues seriously.

3.2 Quantitative results

This section constitutes findings of quantitative data collected using the questionnaire and analysed in three sections namely;

I. The characteristics of sampled amputees.
II. Assessment of causes of amputation and rehabilitation needs of amputees.
III. Health care needs and access to medical care services.

3.2.1 Data analysis and interpretation of findings.

In this section, consultants discuss main findings of the needs' assessment as the characteristics of sampled amputees.

The characteristics of sampled amputees

Table1: Distribution of amputees by sex

Sex	Number of respondents	Percentage
Female	16	19
Male	70	81
Total	**86**	**100**

The predominance of men over women could be due to a number of factors. Firstly, it could be that women are less mobile hence not prone to trauma. Secondly, many of the

respondents were war veterans hence the vulnerability of men, as they are the majority in armed forces. Thirdly, it could be that since interviews were held at the district headquarters, some women might have found difficulties to travel from their homes due to domestic responsibilities.

Table 2: Distribution of amputees by age

Age	No of respondents	Percentage
1 - 5	-	-
6 - 18	8	9.3
19- 28	8	9.3
29 – 38	25	29.1
39- 48	23	27
49- 58	14	16
59+	8	9.3
Total	**86**	**100**

Table 2 indicates that of those interviewed, the majority were in the age range of 29 and 48 years. This could be contributed to being in their most active age and hence vulnerability to trauma outside their homes. Findings indicate that there were no children in the age bracket of 1-5 years. This could be because that age bracket is confined in homes hence less prone to trauma.

Table 3: Matrix of age distribution by district

Age	Adjumani	Bundibugyo	Kasese	Moyo	Total
1-5	-	-	-	-	-
6-18	1	-	7	-	8
19-28	-	2	5	1	8
29-38	4	1	17	3	25
39-48	3	1	15	4	23
49-58	1	3	9	1	14
59+	1	2	3	3	8
Total	**9**	**9**	**56**	**12**	**86**

Table 3 shows that the largest number of respondents was from Kasese district. The age bracket of 29 to 48 years contributed 57% of victims in Kasese.

Table 4: Distribution of amputees by religion

Religion	No of respondents	Percentage
Muslim	8	9
Catholic	34	40
Protestant	38	44
Seventh-day Adventist	4	5
Others	2	2
Total	**86**	**100**

Table 4 shows that the majority of respondents are Christians. Respondents in the districts of Moyo and Adjumani are predominantly Catholics.

Table 5 (a) Distribution of amputees by marital status and sex.(actual or observed data)

Marital Status	Female	Male	Total	Percentage
Single	7	10	17	19.8
Married	5	51	56	65.1
Widowed	3	6	9	10.5
Separate	1	3	4	4.7
Total	**16**	**70**	**86**	**100**

Table 5 indicates that 65% the majority of respondents are married. Although the number of females was small as compared to males, we sought to test whether there is a relationship between sex and getting married given that they were all amputated. From the table above which was used as the actual or observed data the following hypothesis was formulated;

Null: Women and men with disabilities have equal opportunities of getting married.

Alternative: Women and men with disabilities do not have equal opportunities of getting married.

Test Procedure:

95% level of confidence was used to test the above hypothesis or a critical (rejection) value of alpha 0.05 from the Chi-square tables. This gave the tabulated Chi-square value of 7.815 with 3 degrees of freedom.

To come to a meaningful conclusion a computed Chi-square value was obtained and was compared with the tabulated value as follows. The expected observations using the formula that gave a sum of differences between the observed and expected values over the expected values were first obtained.

The expected values were obtained by finding the product between the total of a single sex in question and the total of the marital status in question over the total number of respondents. For example the expected value for females who were single was got by the product of 16 and 17 over 86 to give 3. The same applied for the other values.

Table5 (b): Distribution of amputees by marital status and sex (expected values)

Marital Status	**Female**	**Male**	**Total**
Single	3	14	17
Married	10	46	56
Widowed	2	7	9
Separated	1	3	4
Total	**16**	**70**	**86**

From the above table the computed Chi square value of 10.162 was obtained.

Decision rule

Reject the null hypothesis if the computed value is greater than the tabulated value and accept the alternative hypothesis i.e. 10.162>7.815
This proves the common belief that women with disabilities have less opportunity for marriage as compared to their male counterparts.

Table 6: Distribution of amputees according to educational level.

Level	**No.of respondents**	**Percentage**
Non-formal education	20	23
P1-P5	36	42
P6-P7	17	20
S1-S4	11	13
S5-S6	-	-
Tertiary education	2	2
Total	**86**	**100**

Table 6 shows a situation of 65% respondents being in a category of non-formal education. Only 2 % have employable skills. This leaves 98% of whom the majority were peasants and despite loss of limbs have to till the land on insecure fields.

Assessment of causes of amputation and rehabilitation needs of amputees

Table 7: Periods when respondents of districts of Kasese and Bundibugyo lost their limbs.

Year	Bundibugyo	%	Kasese	%	Total	%
1995 and before	3	33	16	29	19	29
1995	-	-	2	4	2	3
1996	-	-	4	7	4	6
1997	1	11	23	41	24	37
1998 and above	5	56	10	18	15	23
Not stated	-	-	1	1	1	2
Total	**9**	**100**	**56**	**100**	**65**	**100**

Table 8: When respondents of Adjumani and Moyo districts lost their limbs.

Year	Adjumani	%	Moyo	%	Total	%
Before 1995	6	67	9	75	15	71.5
1995	-	-	-	-	-	-
1996	1	11	1	17	2	9.5
1997	1	11	1		2	9.5
1998 and above	1	11	1	8	2	9.5
Total	**9**	**100**	**12**	**100**	**21**	**100**

Table 7& 8: Shows that 71.5% respondents in Moyo and Adjumani lost their limbs before 1995 as compared to Bundibugyo and Kasese where 29% respondents lost their limbs. This is reflective of the corresponding political insurgencies in the areas. It further reflects that while in Adjumani and Moyo there are less people getting amputated after 1995 the trend in Kasese and Bundibugyo is on the increase.

Table 9: Trends of occurrence of amputation in the four districts

Year	Bundibugyo		Kasese		Adjumani		Moyo		Total	
	No.	%	No.	%	No.	%	No.	%	No.	%
≤ 95	3	33	16	29	6	67	9	67	34	39.5
95			2	4					2	2.3
96			4	7	1	11	2	17	7	8.1
97	1	11	23	41	1	11			25	29
≥ 98	**5**	**56**	**10**	**18**	**1**	**11**	**1**	**8**	**17**	**20**
Not stated			**1**	**1**					**1**	**1.1**
Total	**9**	**100**	**56**	**100**	**9**	**100**	**12**	**100**	**86**	**100**

Table 10: Causes of Amputations

Cause	Bundibugyo		Kasese		Adjumani		Moyo		Total	
	No.	%	No.	%	No.	%	No.	%	No.	%
Land mines	1	11	37	66	3	33	2	17	43	50
Gun shots	2	22	7	13	1	11	7	58	17	20
Snake bite	-	-	4	7	-	-	1	8	1	1.1
Osteomylitis	1	11	-	-	1	11	-	-	2	2.3
RTA	-	-	3	5	1	11	-	-	4	4.6
Others	**5**	**56**	**9**	**16**	**3**	**33**	**2**	**17**	**19**	**22.9**
Total	**9**	**100**	**56**	**100**	**9**	**99**	**12**	**100**	**86**	**100**

Table 10 analyses the causes/distribution of amputation in the four districts of the study. Notable is that in Kasese, the highest cause 79% is by landmines and gunshots followed by Moyo 75%, Adjumani 44% and Bundibugyo with 33%. In summary it can be noted that in the four districts landmines are the highest cause of amputation as evidenced by 50% and followed by gunshots with 20%. A further study could be carried out in a district without insurgencies for comparison.

Other causes of amputation included hippopotamus bites, snakebite, machine crash, congenital, cancer, osteomylitis, panga cuts and leprosy.

These causes, particularly hippo bites, snake and machine crash is indicative of occupational hazards.

Table 11: Types of Amputations

Type	Bundibugyo		Kasese		Adjumani		Moyo		Total	
	No.	%	No.	%	No.	%	N0.	%	No.	%
Upper limb amputee	3	33	9	16	-	-	6	50	18	21
Lower limb amputee	4	45	45	80	9	100	6	50	64	74
Bilateral upper limb amputee	1	11	-	-	-	-	-	-	1	1
Bilateral lower limb amputee	1	11	2	4	-	-	-	-	3	34
Total	**9**	**100**	**56**	**100**	**9**	**100**	**12**	**100**	**86**	**100**

The table shows that the majority of amputations in the four districts were lower limb amputations with a total percentage of 74%.
Upper limb amputations were 21% and only from Bundibugyo, Kasese and Moyo. These were a result of gunshot wounds and panga cuts. Adjumani had no upper limb amputations among the study group. Respondents with bilateral amputations were only from the districts of Bundibugyo and Kasese.

Table 12: Distribution of upper limb amputees

Level of amputation	Adjumani	Bundibugyo	Kasese	Moyo	Total	%
Through shoulder	-	-	2	-	2	11
Above elbow	-	-	5	2	7	39
Below elbow	-	1	2	2	5	28
Hand	-	3	1	-	4	22
Total	**-**	**4**	**10**	**4**	**18**	**100**

Of the 21% that have upper limb amputation, 39% were amputated above the elbow, 28% below the elbow, 11% through the shoulder and 18% lost hands and digits. Notable is that there was no respondent with upper limb amputation in Adjumani District.

Table 13: Distribution of respondents according to lower limb amputation levels

Level of amputation	Adjumani	Bundibugyo	Kasese	Moyo	Total	%
Above knee	6	1	23	1	31	46
Below knee	3	4	25	4	36	53
Through knee	1	-	-	-	1	1
Total	**10**	**5**	**48**	**5**	**68**	**100**

Table 13 shows that 53% of the respondents were below knee amputations and 46% were above knee amputations while 1% of the respondents was through knee amputation. Planning and procurement of resources should be placed on production of lower limb Prosthesis.
Apart from amputation, some of the respondents had other complications such as nerve palsies, cut digits, epilepsy and deafness.

One conspicuous respondent who although, had no amputation of limbs, had lost both auricles and considered himself an amputee.

Another person though not included in the respondents had grenade fragments in his leg and complained of severe pains that rendered his leg non-functional. He noted that his situation was worse than that of those amputated. He appealed to the Government to come to rescue of such people.

Another respondent with an amputation through the proximal interphalangeal joint of the index finger had radial and ulnar nerve palsies of the opposite arm, which rendered him more non functional compared to the other hand with the amputated finger.

Table 14: Respondents using or not using Prosthesis

Response	Bundibugyo		Kasese		Adjumani		Moyo		Total	
	No.	%	No.	%	No.	%	No.	%	No.	%
Yes	2	22.2	42	75	5	55.6	2	16.7	51	59.3
No	7	77.8	14	25	4	44.4	10	83.3	35	40.7
Total	**9**	**100**	**56**	**100**	**9**	**100**	**12**	**100**	**86**	**100**

Table 14 shows that 59.3% of all respondents had Prosthesis. Kasese and Adjumani had the highest number of people using Prosthesis. 75% respondents in Kasese had

Prosthesis and 55.6% of those in Adjumani had Prosthesis. Moyo and Bundibugyo had the highest number of respondents without Prosthesis. In Moyo 83.3% of those interviewed had no Prosthesis and of those interviewed in Bundibugyo 77.8% had no Prosthesis.

The amputees in Kasese and Adjumani had had better communication and access to regional Orthopaedic workshops.

Bundibugyo, however, had communication problems due to difficult terrain coupled with insecurity. Services for supplying Prosthesis from Gulu workshop seemed to stop in Adjumani and not cross river Nile to Moyo district. Respondents in Moyo had received promises from Gulu workshop that never materialised.

Because of a vigilant Member of Parliament in Kasese, a programme was organised to take clients to Buluba Hospital in Iganga for Prosthesis procurement. The irony is that some of these respondents also went to the regional workshop in Fort portal and had two Prosthesis while others have none.

Table 15: The types of Prosthesis used

Prosthesis used	**Bundibugyo**		**Kasese**		**Adjumani**		**Moyo**		**Total**	
	No.	%	No.	%	No.	%	No.	%	No.	%
Pylon	-	-	1	2	1	2	-	-	2	4
A-K Prosthesis			13	24	2	4			15	28
B-K Prosthesis	2	4	30	56	2	4	2	4	36	68
Upper limb	-	-		-		-		-		-
Hand Prosthesis	-	-		-		-		-		-
Total	**2**	**4**	**44**	**82**	**5**	**10**	**2**	**4**	**53**	**100**

Table 15 shows the types of Prosthesis used. 68% of all respondents were using below knee (B-K) Prosthesis. Kasese district had the majority of respondents using B-K and those were 56% of all respondents using Prosthesis. Only 28% of respondents were using above Knee (A-K) Prosthesis of which Kasese had 24% and only 4% from each of the districts of Bundibugyo and Moyo were using Prosthesis. 2% of respondents from each district of Adjumani and Kasese were using pylons. Further probing revealed that those using pylons had made their own.

It is significant that respondents in the study group with upper limb amputations had not been provided Prosthesis. This was confirmed in Fort Portal Workshop where records revealed that they had not started manufacturing them. Noting that most amputees were

victims of insurgency, they were concerned that the government had not done much for them. Therefore, the manufacture of upper limb prosthesis needs to be addressed.

Table 16: Frequency of using Prosthesis

No. of days in a week	Adjumani	Bundibugyo	Kasese	Moyo	Total	%
Once a week	-	-	4		4	8
Three times a week	-	-	4		4	8
Four times a week	1	-	-		1	2
Five times a week	-	-	1		1	2
Every day	4	1	28	2	35	68
Not at all	-	1	5	-	6	12
Total	**5**	**2**	**42**	**2**	**51**	**100**

Table 16 reflects 68% of respondents with Prosthesis use them daily. There is however a 12% who do not use the Prosthesis at all. 20% use them sometimes. The reasons for not using the Prosthesis are indicated in table 17 below.

Table 17 Reasons why respondents do not use the Prosthesis regularly.

Problems	Frequency
It is painful	12
Get wounds	9
Prosthesis worn-out or spoiled	6
The limb is heavy	6
Stump shrunk	4
Unsuitable terrain	3
Friction on stump	2
Gets swelling	1

Respondents noted "*My movement is limited because I have two Prostheses*". "*Received Prosthesis after 17 years so it is difficult to adjust*". "*Fear using it for fear of falling due to epileptic fits.*"

In summary most respondents have friction between the stump and the prosthesis leading to pains and wounds on the stump. Others reported shrunk stumps that could be contributing to the resultant friction and pain. Those with worn out prosthesis lacked services for repair. The hilly terrain was a contributing factor to difficulties in movement. This was even more pronounced where one has to walk long distances in search of food and other services.

One respondent with bilateral Prosthesis noted that he found difficulties in moving while one with a history of epilepsy was always afraid of falling.

Respondents who were not using the Prosthesis at all gave the following reasons;

The majority from Moyo and Bundibugyo districts had not received Prosthesis for various reasons, which included lack of information on where to get the Prosthesis, lack of funds to pay for the Prosthesis, lack of transport to reach the workshops and insurgencies in the area.

Other reasons given by respondents were that the Prosthesis was heavy, too tight, old or the stumps were not well moulded.

Services available for maintaining the Prosthesis.

Most respondents from the four districts gave the following reasons:

- The services are outside the districts and not accessible 32
- Have devised self-means of repairing the Prosthesis 4
- Trained by Accord to repair own Prosthesis 1
- As I am able to make my own artificial limbs I repair them easily 1

In summary most respondents noted lack of services for repairing and maintaining the Prosthesis. Some gave reasons that it was expensive to travel to regional Orthopaedic workshops. Others feared to going to unknown land. One respondent from Adjumani noted that he always has to travel to Mulago Orthopaedic workshop because that is where he got his first prosthesis.

There were two interesting examples of survival

- In Kasese, there was a former soldier whose Prosthesis had worn out, he used the frame, stuffed it with old cloths, tied with inner bicycle rubber tubes and was able to move around.
- Another respondent in Adjumani made an artificial limb using wood. Through his own experience he has been adjusting it to suit his needs. He had put a window to let out water during rainy seasons. He also added strings to avoid friction of the stump.(See appendix I)

Health Care Needs And Access To Medical Care Services

Table 18: Respondents who received first aid before transfer to hospital.

Response	Bundibugyo and Kasese	Adjumani and Moyo	Total	%
Yes	51	16	67	78
No	12	2	14	16
Non-respondents	2	3	5	6
Total	**65**	**21**	**86**	**100**

The table shows that 78% of the respondents had received some form of first aid while 16% did not receive first aid. This is a clear indication that the 78% the majority, was given first aid. This confirms that there is basic provision for emergency treatment before patients are taken for professional medical care.

Table 19: Types of first aid respondents received:

Type of service	No.	Percentage
Cloth was tied over the injury	30	45
Taken to hospital immediately	16	24
Soldiers first aid kit	4	6
Carried out of fire and water and sugar was put on the burns	3	4.4
Tied with banana fibre	1	1.4
Straightened injured leg with sticks	1	1.4
Put native herbs on burnt area	1	1.4
Fellow fishermen made an incision and removed the fish bone	1	1.4
Not stated	10	15
Total	**67**	**100**

45% of the respondents indicated use of cloth to stop bleeding, immobilise the bone and protect the wound from dirt. This was followed by 24 % who were rushed to hospital for immediate action. It is notable that 6% received first aid from military kits. Besides using cloth for tying injured parts of the body, banana fibres, sugar on burns, incisions to remove foreign bodies and tying with sticks to stabilise injured limbs were approaches the community use for first aid.

Those who received no first aid gave the following reasons:

- Some had various sicknesses like cancers, chronic wounds, small wounds nursed at home which did not need first aid in the first instance. They went to hospitals when conditions worsened and were amputated.
- In some of the areas with insurgency, those who were injured at night did not get first aid due to curfew and fear of further danger.
- Others reported lack of funds for transport to dispensaries and therefore used local medicine but as they worsened they were taken to hospital.
- Some respondents could not recall anything because they were in coma.
- One veteran who was shot at the frontline did not receive help for two days because of the war situation and the distance to hospital.

Table 20: Mode of transport used from the site of injury

Mode of transport	**No of respondents**	**Percentage**
Vehicles	40	47
Traditional means	35	41
Others	3	3
Could not recall	2	2
Not stated	6	7
Total	**86**	**100**

The table shows that the most common mode of transport was by vehicles. Family or community members also carried many injured persons to the nearest main road where they accessed public transport, military or government vehicles. Traditional means constituted using local chairs, stretchers and carrying injured people by hands. 44% depended on manpower indicating that there was delay in taking injured persons to the hospital.

In Kasese and Bundibugyo, traditional chairs and stretchers are a common mode of transport to the hospital or to the main road to access public transport. In the northwest however, most people walked or used vehicles. No respondents were taken to hospital using stretchers in the district of Adjumani.

Table 21: Respondents who received medical rehabilitation services

Received rehabilitation services	**Adjumani**	**Bundibugyo**	**Kasese**	**Moyo**	**Total**	%
Yes	9	9	55	12	**85**	**99**
No	-	-	1	-	**1**	**1**

The table indicates that 99% of respondents received rehabilitation services and the 1% who did not get rehabilitation services had a congenital disability. This is a positive sign that respondents received rehabilitation services despite the remoteness of areas and the big distances from hospitals.

Table 22: Types of medical services received

District/ Rehab. services	Bundibugyo	Kasese	Adjumani	Moyo	Total	Percentage
Surgery	9	54	9	10	82	23.3
Physiotherapy	3	43	8	5	59	16.8
Occupational therapy	0	1	0	0	1	0.3
Assistive aids	4	41	9	5	59	16.8
Nursing	9	54	9	12	84	23.8
Counselling	6	43	9	9	67	19
Total	**23**	**236**	**44**	**41**	**352**	**100**

Most respondents who received surgery also received nursing care and physiotherapy. There is also complementality between physiotherapy and assistive aids. Occupational therapy however is conspicuously absent in the four districts. One respondent who received occupational therapy accessed the services in Mulago hospital.

On further probing it was revealed that counselling was understood as advice for getting consent to amputate a limb, a religious leader praying for and comforting a patient. Supporting an amputee to cope with the disability was not part of the counselling given to the respondents.

The assistive devices used included walking canes, crutches, and Prosthesis. There was only one respondent with a pylon. One respondent made his own wooden limb (earlier quoted on page 15). While amputees from Moyo and Adjumani had no Prosthesis, they had crutches.

One respondent who received counselling in Lacor Hospital noted that:

'If nurses had not talked to me kindly when I lost my limb, I would have committed suicide by now"

Generally, there is a gap in counselling as it is not clear who takes on the role of counseling or whether the medical personnel are prepared with adequate skills to counsel people with disabilities.

One respondent with bilateral amputation preferred the wheel chair instead of prostheses.

Respondents were asked to state any other rehabilitation services received.

Only 3% acknowledged other services. The other services received included one respondent who received exercises and a walking stick from her mother.

Respondents from Kasese acknowledged the role played by one Member of Parliament who took them to Buluba Hospital for prosthesis fitting. Another respondent from Adjumani got a loan from "Entandikwa" scheme for an IGA that helped him to resume his business.

Table 23: Respondents' grading of the services provided

Services	**S**	**C**	**O**	**R**	**E**	**S**	
Grade	**1**	**2**	**3**	**4**	**5**	**6**	**7**
Physiotherapy	-	-	1	3	13	18	23
Surgery	-	2	1	3	4	19	48
Nursing	2	4	2	4	8	18	43
Orthopedic workshop		1	1	1	4	9	39
Counseling	-	5	6	3	9	13	32
Occupational therapy	-	-	-	-	1	-	-

The scores were rated as follows Poor 1-2, Fair3-4, Good 5-6 and Very good -7

The table indicates that respondents graded the medical services highly. One respondent who benefited from occupational therapy scored it 5.

Table 24: Ranking of services as scored by respondents.

Type of service	**Score**	**Rank**
Surgery	71	1
Nursing	69	2
Counselling	55	3
Physiotherapy	54	4
Orthopedic Workshop	52	5
Occupational therapy	1	6

The reasons given for scoring surgery highest was that if had they not received that service they would not have survived. The rest of the services were evenly appreciated except Occupational Therapy, which is not available in all the districts under the study. However, respondents had reservations on the nursing staffs' attitude.

Table25: Levels of health care where respondents received services and types of medical services

Where services were received	Physio Therapy	Surgery	Nursing	Orthopaedic workshop	Counseling	Occupational therapy	Credit/IGA	Total
Home	1	-	4	3	16	-	1	25
Health centre	-	2	4	1	-	-	-	7
District hospital	7	53	41	13	21	-	-	135
Regional	6	3	-	14	2	-	-	25
Tertiary hospital	2	2	2	5	2	1	-	16

The table indicates that the majority of services for rehabilitation are located at district hospitals. It was noted that missionary hospitals such as Kagando Hospital in Kasese, Lacor Hospital in Gulu and Buluba hospital in Iganga had greatly contributed to treatment and rehabilitation of amputees. Respondents from Kasese had had their surgery, physiotherapy, nursing and crutches from Kagando hospital. There was an interesting situation where by most of the patients from Kasese received treatment in Kagando hospital and were discharged. Then through other channels received Prosthesis from Fort Portal regional hospital and Buluba hospital and there was no clear link between the hospital, which provided the Prosthesis, and Kagando hospital that carried the initial surgery and physiotherapy.

Respondents received minimal professional services at home and at health centre. Due to non-affordability of transport funds for amputees to go to regional hospitals, the services were less used as compared to the district hospitals where most amputees received services.

In response to what problems respondents were facing in accessing services;

The most frequent problem was lack of transport to move to the regional workshop to repair the Prosthesis or get new ones. Many complained of lack of funds to repair their Prosthesis, delay in getting Prosthesis, long distances, lack of money for food and maintenance while undergoing rehabilitation at the hospital and money to buy prosthesis. A respondent noted that he had failed to get an artificial arm from the hospital.

One respondent noted that:
"I was rebuked by a drunk hospital staff while waiting for operation, I got discouraged and nearly gave up".

Another respondent noted "When I *was taken to Gulu Hospital for treatment, on return my wife hit me that I ate all the money I was given at the hospital while the family was starving."*
Police officers had specific problems and noted that they were promised compensation after injury, which was not forthcoming. Some respondents said hospital cost sharing for amputees was a nightmare.

In summary much as respondents had received medical services, the conditions under which they received services were difficult especially distance and logistics involved in going to the hospitals and their maintenance during hospitalisation.

Table26: Problems respondents have faced that are directly due to disability.

Poverty and lack of source for economic livelihood	44	51%
Mobility in mountainous terrain	9	10.5%
Persistent pain	7	8%
Prosthesis is heavy	5	6%
Deserted by spouse	4	5%
No longer able to construct a house	3	3.4%
Marginalised	2	2.3%
Difficult to access public places	2	2.3%
Ears were cut off and can not hear properly leading to being teased	2	2.3%
No problem	2	2.3%
Not stated	2	2.3%
Epilepsy and amputation combined make it difficult to do work	1	1.2%
No assistive aids	3	3.4%
Total	**86**	**100%**

51% respondents reported that they were now poorer because they could no longer work in the gardens, some are displaced, some can no longer cope with heavy work, cannot fish any more, while some solely depended on spouses.

8% respondents complained of persistent pains that made it difficult for them to engage in income generating activities. 9% respondents noted that the Prosthesis were heavy which also compounded the situation of mobility. Using Prosthesis in the mountainous terrain was a problem respondents reported, that hindered their ability to move freely.

To sum up, it can be concluded that 96% of respondents had problems related to disabilities that resulted in functional limitations and failure to generate income because of the reasons mentioned in table 26.

Table 27: Other services, which the respondents have benefited from apart from medical rehabilitation.

Services	No. of respondents	Percentage
Counseling	56	65%
Information on where to get rehabilitation services	52	60.5%
Access to credit/IGA	1	1.2%
No response	2	2.3%
Other services	2	2.3%
None	7	8.1%

The table indicates that the majority of respondents received counselling and information on where to get rehabilitation services. The quality of counselling services was however questionable as respondents understood giving information as synonymous with counselling. The table further indicates that only one respondent had access to credit/IGA.

Two of the respondents said that they received other services whereby one mentioned that a Member of Parliament of his area took him to Mulago hospital.

Table 28: Distribution of whether the family received explanation of the respondents' condition and needs.

Response	No. of respondents	Percentage
Yes	28	33%
No	46	53%
No stated	12	14%
Total	**86**	**100%**

33% of the respondents noted that their families were explained too their condition and needs. Relatives who were medical workers, in-laws, parents, siblings, local council leaders, community members, camp leaders and staff of Uganda Society of Disabled Children (USDC) often did the explanation. Some further explained that counseling the families encouraged spouses not to desert their partners. One respondent noted that the explanation helped his family to know that he had leprosy and learnt more about leprosy. One local council I representative for women counselled a wife not to leave the husband.

The table indicates that 53% of the families of respondents were not explained to the condition and needs of amputees. Three of the respondents said that they were alone so here was nobody to explain to. One further explained that his family had taken refugee in Sudan.

Respondents were asked to give two recommendations for improving medical rehabilitation services for amputees.

Their responses centered on the following;

- Amputees should be provided with free Prosthesis, crutches, tricycles, bicycles Wheelchairs as appropriate. They should also access maintenance services 62
- Amputees should be facilitated with loans/grants to start their own business as they can no longer cope with garden work. 45
- Amputees should receive free or subsidised medical care in all hospitals and that Ministry of health should recruit more health personnel. 20
- Government should stop use of land mines/wars. 6
- Children who are amputated and children of amputee parents should be provided free education at all levels. 5
- Amputees should be followed up in the communities. 5
- Amputees should be given skills to repair their Prosthesis and where possible make their own pylons. 4
- Amputees should be provided with better housing. 2
- No suggestions 2

Although respondents were asked to recommend on improving medical services, they opted to recommend improvement of their economic livelihood. Many respondents noted that if they were economically able, they would cope with their disability and related expenses.

3.3 Qualitative results

This section highlights issues raised in focus group discussions and key informant interviews. The section reflects the needs of District leaders, service providers and consumers. Their recommendations for improving medical rehabilitation services are also given. The study noted that needs were varying from district to district hence they are addressed separately in the report.

Qualitative data was collected from: casuality units, theatres, surgical wards, physiotherapy units, Orthopaedic workshops, hospital administration, personnel and management of support services. Medical services included: treatment, rehabilitation, equipment, staffing, problems related to these services and staff recommendations for improvement of services. Services outside the hospital included information from representatives of people with disabilities, district officials and their suggestion for improving services.

3.3.1 Western Uganda

Fort Portal Hospital (Regional Hospital)

This is a regional hospital that serves the districts of Kabarole, Kasese and Bundibugyo.

Medical Services

Treatment

Issues noted:

- The hospital has no casuality department therefore casualities are taken directly to theatre.
- Injured persons especially from Bundibugyo district receive First Aid from Bundibugyo Hospital and complicated cases are referred to Fort Portal hospital. Injured soldiers in transit to Mbarara for further attention from their military medical services get treatment from Fort Portal Hospital.
- Injured persons from Bundibugyo are brought to the hospital using army trucks or by good Samaritans' vehicles usually in critical condition.
- The triage method is used when they receive many patients at ago. Therefore, they are able to decide who needs urgent attention. For example the triage method was used during the Kichwamba Technical School incidence.

Problems related to medical treatment

- Patients referred are sometimes already septic.
- Management of Orthopaedic cases is not effective particularly immediately after injury, as hospitals like Bundibugyo do not have Orthopaedic officers.

- Although fluids are usually available, they get shortages during cholera epidemics.
- Injured soldiers are often neglected by their superiors. They at times go without meals yet the hospital has no resources to feed them.

Rehabilitation

Issues noted:

- Amputees admitted to the workshop hostel stay for an average of three weeks. During that period, measuring, and fitting for prosthesis and physiotherapy to enable the clients get accustomed to use of the artificial limb are carried out. This process also involves counselling the clients' to accept the prosthesis as a compensation for the amputated limb.

Problems related to rehabilitation:

- Some of the amputees managed outside the regional hospitals present stumps which are not well moulded making fitting difficult. The patients who do not access physiotherapy end up with contractures.
- Lack of financial allocation for allowances to follow up amputees. It was noted that finances for follow up used to come from an Italian cooperation AVSI but since the project phased out, this support has ceased.
- Some of the amputees admitted for fitting have to buy their own food. For many this is a big problem. One member of the team noted with concern that *"a hungry patient cannot have the energy to walk hence a delay in recovery."*
- The Orthopaedic workshop machines are heavy duty hence consume a lot of electric power and sometimes the hospital lacks the funds to pay bills. The workshop is not a hospital priority as compared to emergency section leading to poor resource allocation.
- Upper limb prosthesis were not being produced at the workshop due to lack of resources. Although these are purely cosmetic they improve the clients image and self-confidence.

Equipment

Issues noted

Instruments for managing soft tissue injuries in theatre were available.

Problems related with lack of equipment

- The theatre lacks bone files for amputations. Previously it had an image intensifier that facilitated the detection of foreign bodies but the former surgeon transferred with it to Mbarara hospital.
- The hospital has no ambulance therefore cannot help in transportation of injured persons.
- The hospital has no portable X-ray machine therefore taking X-rays of injured persons in theatre is not possible. The situation is exacerbated by lack of trolleys. The

only existing trolley belongs to the theatre and cannot be shared for fear of cross infection.

- The orthopeadic workshop has one vehicle allocated to it, which it shares with the rest of the hospital.
- Lack of equipment for skeletal traction.

Hospital Staffing

Issues noted:
The hospital has the following staff;
A surgeon, two physiotherapists, nurses/midwives, anaesthetic officer, clinical Officers, Orthoapedic technicians and other staffs.

Problems related to staffing

- The hospital is understaffed and the following reasons were given: -
  - No replacement for those who were retrenched.
  - Those posted fear to go because of insurgency in the area.
  - Confusing Ministry of Health policy on recruitment as there was a ban on recruitment. For example those recruited locally are paid by local schemes and yet Central government does not support it.
  - No accommodation for staff since government sold off its houses.
- Most of the staff interviewed lacked skills in handling emergencies. Only one theatre staff nurse had attended a refresher course in managing emergencies in 1985.
- Apart from the workshop manager, the technicians and the physiotherapists are not on public service pay roll and are therefore paid by ICRC.
- At the time of the study, the hospital physiotherapist was not sure of her fate as she was neither employed by the public services nor the hospital. Attempts by the hospital to pay her from local income were frustrated by the public service.

Hospital staff suggestions for improving services

- *First Aid courses for armed forces should be organised.*
- *The Central Government support should not be based on bed capacity because at times there is an influx of patients particularly during war situations leading to floor cases.*
- *Refresher courses for staff in emergency preparedness should be undertaken.*
- *The hospital should establish personnel for rehabilitation services, allocate them clear roles and functions and motivate them.*
- *Orthopaedic workshops should become autonomous, as they are not hospital priorities.*

Bundibugyo District

Bundibugyo Hospital
Bundibugyo hospital serves Bundibugyo district.

Medical services

Treatment

Issues noted:
- Injured people in the war zone are brought to the hospital by soldiers in army vehicles or on locally made stretchers by members of the community.

- The hospital has received few patients who were injured by land mines. Reasons given were that the victims could have met death before being transported to the hospital.

Problems related to treatment

- Soldiers who are transferred to Mbarara go with hospital equipment such as Steinman's pins and Thomas splints, which they do not return, rendering the hospital to lack equipment.
- The hospital which had started cost sharing had to put it to a halt because people are in camps and cannot afford to cost share.
- The Ministry of health's policy concerning bed capacity does not cater for influx of patients thus putting the hospital in financial crisis in war situations.
- Most patients do not return for reviews.
- Transport by convoy does not favour transportation of blood, which affects blood supply.

Rehabilitation

Issues noted:
- There were no established rehabilitation services in the hospital hence patients are referred to the regional hospital.

Staffing:

Issues noted
- The Hospital has one Government doctor and one volunteer doctor from Medicine without Frontiers (who handle all the caseload) nurses/midwives, nursing aides and theatre attendants.
- Most of the staff working in this hospital come from the area.

Problems related to staffing

- The hospital has the following vacant posts: anaesthetic officer, Orthopaedic officer, physiotherapist, occupational therapist, radiographer yet they are urgently needed.
- Due to lack of these services patients do not receive essential rehabilitative care services.
- The main reason for lack of personnel was that many health workers do not want to work in insurgency areas.

Staff suggestions for improvement:

- *Improve staffing by recruiting an Orthopaedic Officer, a Physiotherapist and Radiographer. Since many health workers are not willing to work in the district, efforts should be made to train local people as a long time measure.*
- *Those who accept to work in the area should be facilitated with top up, risk and hardship allowances and incentives.*
- *A vote to strengthen referral should be looked into by the central Government to facilitate patients access to services at the regional referral hospital.*

Services outside the hospital

Representatives of persons with disabilities:

Issues noted:

- Persons with disabilities were finding it difficult to run in times of insurgency. One member noted that "*one deaf person was killed by rebels thinking he was a spy since he could not speak*". In another incidence a blind man failed to run and was instantly killed. They raised a list of problems which people who have been maimed as a result of insurgency were facing. They noted that most of the people are disabled mainly as a result of gunshots and not landmines.
- Some of the people lost their limbs as a result of crude amputations by rebels using machetes. Some have lost other parts of the body such as lips and ears.
- The district disability union lack resources to follow up people who are disabled as a result of the war.
- There is little cooperation between the district Union of persons with disabilities and the medical services.
- The regional hospital is not serving PWDs adequately, as they cannot afford to buy the food when they are at Fort Portal hospital resulting in refusal to go.
- Some disabled women are divorced by their husbands after becoming disabled.

People with disabilities' suggestions for improving services:

- *Key community leaders should be trained to carry out first aid in the community.*
- *The trained first aid workers should be equipped with first aid materials.*
- *Sensitisation seminars should be carried out for health workers to sensitise them on the needs of persons with disabilities.*
- *Ministry of health should train community rehabilitation workers to follow up amputees.*
- *Insurgency has contributed to lack of funds therefore people who have become disabled as a result of the war should be given free medical treatment and rehabilitation services.*
- *Amputees should be compensated.*
- *People who have acquired disability as a result of the war are traumatised and should get counselling services.*

Kasese District

Kagando Hospital

Medical Services

Treatment

Issues noted

- The hospital has been receiving both civilians and soldiers who are injured in their gardens or at the war front. In most cases the soldiers are brought to the hospital within 12 hours while civilians take up to 24 hours.
- Civilians have improvised first aid measures by tying shattered limbs with banana fibres and use cloth for stopping bleeding.
- On arrival at the hospital they resuscitate the patient. This is followed up by amputation when the situation necessitates.
- Most wounds are dirty and are therefore left open and closed at later stages
- Most patients receive physiotherapy while in the hospital, which prevents development of contractures.
- Within a period of 2-3 weeks most stumps are healed and patients are discharged.

Problems related to medical treatment.

- Injured persons are an extra burden on resources and increase workload on the personnel. The hospital uses more fluids, a lot of antibiotic and dressings.
- The hospital noted that Ministry of health has been meeting the bills of civilians but they were experiencing difficulties with UPDF as their bills have accumulated and no efforts were being made to meet these expenses. This has stretched and strained the hospital resources.

Rehabilitation

Issues noted:

- The hospital had a fully- fledged Physiotherapy unit.
- Patients were receiving treatment as in and out patients.
- The hospital supplies crutches to patients with mobility problems.

Problems related to rehabilitation services.

- The hospital does not have the resources to follow up patients especially after they have had their artificial limbs fitted.
- Patients were being referred to Buluba and Fort portal hospitals for artificial limbs because Kagando hospital has no facilities to produce prosthesis.

Equipment:

The hospital noted that they had adequate equipment and that their records were computerised.

Problems related to equipment

No problems related to equipment were noted.

Hospital staffing

- The hospital was having one physiotherapist who has trained two assistants.
- Most posts were filled.

Problems related to staffing.

- The hospital lacks a Surgeon and an Occupational Therapist.
- The health managers reported that due to limited resources, the hospital cannot recruit the required staff.

Staff suggestions for improving services:

- *Communities should be sensitised on simple first aid techniques to enable them handle emergencies.*
- *The hospital should be facilitated with an ambulance to enable them transport-injured persons.*
- *Funds should be made available by relevant authorities to support out reach services to ensure patients are using their limbs appropriately.*
- *Ministry of health should continue providing financial support to civilians.*
- *A small workshop or support service should be established at Kagando hospital to facilitate the repair and maintenance of artificial limbs. This will improve access to maintenance and repair services.*

Services outside the hospital

Councillors representing people with disabilities

The local Councillors representing people with disabilities noted that the increased number of disabled people as a result of the insurgency challenged the disability movement.

Issues noted:

- People are injured but lack funds to meet medical care services.
- Some of the people who did not loose their limbs completely but had severe injuries live in constant pains and are equally nonfunctional.
- Those who were maimed in the war lack resources to make ends meet.
- Going to Fort Portal to get an artificial limb is cumbersome and expensive.
- Many of the people who got limbs from Buluba and Fort Portal hospitals can not afford fare to return for check up or have their prosthesis replaced. While in Fort portal Hospital they are expected to cater for their own meals. "*Noting that these people are no longer active they cannot afford to buy food so they opt not to go for artificial limbs*"

District Officials

Issues noted:

- The district had recorded a big number of amputees as a result of the insurgency with the pick of these injuries between 1997 to 1998.
- Anti personnel mines, which were planted by both fighting parties have greatly affected peasants who go to their gardens to dig.
- The district authorities noted their inability to attract health personnel because of the insecurity in the district.
- The situation was compounded by high illiteracy rate in the area.

Councillors representing people with disabilities suggestions for improvement:

- *Landmine detectors should be used to clear gardens compounds, which will protect civilians from being hit by land mines.*
- *The Government should stop producing and using anti personnel mines.*
- *When amputees are taken to hospital for rehabilitation they should also be facilitated with meals.*
- *People who are injured during the war should be compensated so that they are able to cope with daily life.*
- *Strategies for out reach services should be in place so that all amputees can be reached.*
- *Ministry of health should train resource persons at district level who can ensure that prosthesis are maintained because it is expensive for individuals to continue going for services outside the district.*
- *War victims should receive counselling services as a requirement.*

3.3.2 North Western Uganda

Adjumani District

Medical Services

Adjumani Hospital

The hospital serves Adjumani district, western parts of Gulu District and Nimule in Southern Sudan. Due to insurgency, patients come from Yumbe, Arua and eastern parts of Moyo.

Treatment

Issues noted:

- Injured persons are brought to hospital by military and NGO vehicles especially from the Sudan boarder.

Problems related to treatment

- The hospital is modern but lacks specific units such as casuality thus a need for modification.
- The hospital has a link with Gulu blood bank but with the insurgency in the area, there are sometimes communication difficulties.

- North Western Uganda has a high prevalence of hepatitis B, but sets for testing hepatitis and HIV are only available in Gulu.

Rehabilitation

- Amputees are given physiotherapy treatment, moulding of stumps and are mobilised before being discharged.
- Simple repairs of assistive aids are done at the hospital Orthopaedic workshops. At the time of the study, officials from Ministry of Health, Disability and Rehabilitation section were training local artisans from Moyo and Adjumani districts.
- The Orthopaedic workshop is financially supported by ACCORD and USDC.

Problems related to rehabilitation.

- The hospital has only one ambulance therefore it is difficult to follow up discharged patients.

Staffing

The hospital has a Surgeon (who doubles as the DDHS), Medical Officer, hospital Managers, Nurses and Midwives, two Physiotherapists, Orthopaedic clinical officer, Clinical officers and other support staff.

Problems related to staffing.

- The staff lack emergency preparedness and counselling skills.
- The hospital has no Radiographer and anaesthetic Officers.

Equipment.

- An X-ray machine was installed.
- The theatre has a sucker that is not in a good working condition.

Problems related to equipment

- The hospital lacks movable beds, cradles and stretchers.
- Lacks traction beds, Thomas splints, Steinmans's pins, and Orthopaedic surgery instruments e.g. saws. This makes management of Orthopaedic cases difficult.
- Lack of sets for checking HIV and Hepatitis.
- Wards lack instruments for dressing.
- The hospital lacks suction machines and a portable X-ray machine.

Staff suggestions for improving services:

- *Create a casualty unit and equip the Physiotherapy unit. Ensure the Orthopaedic unit is equipped with Thomas splints, Steinmans's pins, traction beds and weights for traction. The Portable X-ray and wheel chairs should also be provided.*
- *Ministry of health should review the equipment policy in a participatory manner to cater for rural hospitals.*
- *The bed capacity policy needs to be reviewed, as it does not favour emergency situations.*
- *Two Physiotherapists, two Orthopaedic technicians, two Orthopaedic clinical officers, one Radiographer, one Dispenser and one Anaesthetic officer should be in place.*

<u>*Services outside hospital*</u>

Representatives of persons with disabilities.

Issues noted:

- The disability movement has integrated amputees in the district union.
- The disability movement mobilised amputees along with Ministry of Health who were subsequently taken to Gulu for prosthesis fitting.
- They also participated in information dissemination and advocacy.

Persons with disabilities suggestions for improvement of services:

- *Regular supply of prosthesis and other assistive devices.*
- *Hospital beds should be low and accessible to PWDs*
- *Amputees should get medical and psychosocial rehabilitation.*
- *Train district union members in counselling skills.*
- *Economic rehabilitation to facilitate amputees become self-reliant.*

Moyo District

Moyo Hospital

Medical services

Treatment
Issues noted

- Patients are brought to hospitals by vehicles and others in locally made chairs or beds made out of bamboo or bicycles.
- The hospital manufactures its own fluids. When there is scarcity of blood the relatives have to donate. International Aid Sweden and ACCORD donated screening kits for HIV and hepatitis.

Problems related to medical treatment

- Landmine victims need a lot of dressing materials and antibiotics, which are sometimes not enough or are out of stock.
- Sudanese People's Liberation Army (SPLA) patients when admitted run away before discharge taking hospital property.
- Blood received from Arua regional blood bank sometimes expire due to low demand. Although the hospital has equipment for screening blood for HIV and hepatitis, it lacks materials for packing and preservation.

Rehabilitation services
Issues noted:
The hospital has an Orthopaedic workshop, physiotherapy and Orthopaedic units.

Problems related to rehabilitation services

- There is no supply of artificial limbs. In 1998 a group of technicians from the regional Orthopaedic workshop in Gulu came to assess the situation of amputees. The physiotherapist who was present at that time was asked to send a list of amputees and follow up the programme.
- Unfortunately the referral system for clients from Moyo to Gulu never materialised.

Equipment

An X-ray machine had been installed.

Issues noted

- The physiotherapy unit was fully packed with mobility aids.
- Orthopaedic instruments for amputations are available.
- The hospital has received many types of equipment from friends' abroad.
- The hospital has a fridge to store blood.

Problems related to equipment

- The Orthopaedic workshop in the hospital lacks an oven to mould the materials, a bender and a drilling machine.
- The hospital has an X-ray machine but no Radiographer therefore patients are usually sent Adjumani hospital.

Staffing

Issues noted

- Moyo has no Physiotherapist but were expecting one who is currently undergoing training at Mulago school of physiotherapy.

Problems related to staffing

The hospital lacks a physiotherapist and a radiographer.

Staff suggestions for improving services.

- *Moyo hospital should be provided with packing bags and antigens for preservation of blood to enable the hospital have a functional blood bank.*
- *There is need to establish a functional emergency unit/department and train staff in handling emergencies.*
- *Moyo Orthopaedic workshop should be equipped with hand tools to be able to do the simple repairs. There is need to strengthen the skills of those able to do repairs or the pylons in the community.*
- *The workshop should be equipped with necessary equipment to enable the technician make simple appliances and repairs. Particularly noted were: a bender and a drilling machine.*
- *Sensitisation of focal people in the communities to support amputees in the communities.*
- *The DDHS should recruit two physiotherapists to follow up amputees in the communities.*
- *Psychosocial counselling should be emphasised and the psychiatric nursing officers can carry out these services.*

Services outside the hospital

Representatives of people with disabilities

Issues noted

- Although Moyo was a war zone, landmines were not used as war weapons and the majority of injured persons were as a result of gunshots and accidents.
- Despite the fact that the district union of persons with disabilities is aware of services at Gulu Orthopaedic workshop, facilitation for amputees to travel to Gulu is not available.

Disabled peoples' suggestions for improving services

- *Provision of artificial limbs, financial support for economic rehabilitation and training in skills were urgent needs for amputees.*
- *Moyo should get a Rehabilitation Officer.*
- *Amputees should get free treatment in hospitals.*
- *Amputees should be reviewed quarterly or six monthly (particularly landmines and gun shot victims).*
- *The first artificial limb should be given free of charge.*
- *The Orthopaedic workshop should be equipped.*
- *Government should help amputees affected by landmines and gun shots with transport to go for medical rehabilitation services.*
- *Amputees should be given skills to be able to repair their own prostheses.*

3.3.3 Mulago Hospital casualty Department

The team found it necessary to compare information collected from district hospitals with that of casualty department Mulago Hospital.
Issues noted:

- The department uses the triage method[4] for handling casualities.
  The clinical writers do the triage for medical cases and some of the surgical cases. A nurse is then in position to refer a patient to appropriate cubicles.
- Injured persons or those brought in by good Samaritans get charges for x-rays waved off.
- The casualty department is well equipped.

[4] Patients are selected and labeled accordingly Red -very urgent, Green-urgent and Blue -Can wait

Casuality staff suggestions for improving emergency services for landmine victims and rehabilitation of amputees:

- *Government should come to the aid of amputees affected by war for example by supplying the amputees with assistive devices*
- *Equal opportunities to all landmine victims.*
- *A rehabilitation policy should be developed for amputees affected by landmines.*
- *Amputees should be followed up in the communities.*
- *Staff working in casualty and emergency departments should be remunerated since they work long hours and under stress.*
- *A national policy on emergencies should be developed.*

3.4 Records' Review

Table29: Amputees who received prostheses from Fort Portal Orthopaedic workshop August 1998 – October 1999.

Sex	Above knee	Above knee bilateral	Through knee	Below knee	Total	Percentage
Male	37	1	5	47	90	82%
Female	6	1	2	11	20	18%
Total	**43**	**2**	**7**	**58**	**110**	**100%**

The table shows that the majority of amputees who received prosthesis from Fort Portal Orthopaedic workshop were male.

A total of 112 prosthesis were given out during the period indicated (15months). Although the total no of amputees was110, two people received bilateral prosthesis.

Table 30: Amputees who received physiotherapy treatment from Fort Portal Hospital March 1998 – December 1999.

Sex	Above knee	Through the knee	Below knee	Others	Total
Male	15	1	7	1	24
Female	4	-	3	1	8
Total	**19**	**1**	**10**	**2**	**32**

The table shows that the majority of Amputees who received physiotherapy were male as compared to women. A total of 32 amputees received the physiotherapy with 19 of them being above the knee. Others included disarticulation through the hip and one with an amputated finger.

Table31: Distribution *of amputees who received prosthesis from Fort Portal Orthopaedic workshop August 1998 – October 1999 by district.*

District	No of Amputees
Kabalore	44
Kasese	42
Bundibugyo	8
Other districts	16
Total	**110**

The table indicates that majority of amputees who received prosthesis were from Kabalore while Bundibugyo the least cases. This could be due to accessibility since the workshop is within Kabalore. It could also be that Kabalore had a larger number of amputees but since the district was not part of the terms of reference the issue could not be probed further.

Table 32: Amputees as identified by the Orthopaedic technician in Adjumani

Sex	Upper limb	Lower limb	Total	Percentage
Male	5	4	9	56
Female	2	5	7	44
Total	7	**9**	**16**	**100**

The table indicates that of the amputees identified by the Orthopaedic technician 56% were male and 44% were female. During interviews no upper limb amputee turned up, but records indicate that 44% of amputees in Adjumani had upper limb amputation.

Table33: Amputees in Adjumani who received prostheses from Gulu Orthopaedic workshop in April 1999.

Sex	Number	Percentage
Male	7	78%
Female	2	22%
Total	**9**	**100%**

It should be noted that all those who received prosthesis were for lower limb amputations but whether below knee or above knee was not indicated in the records reviewed. Of the amputees who received prosthesis from Gulu 78% were male while 22% were female.

Table 34: Number of amputations done in Moyo Hospital –1997 –1999

Year	Number of amputees
1997	7
1998	2
1999	4
Total	**13**

Section four

4.0 DISCUSSION, CONCLUSIONS AND RECOMMENDATIONS

4.1 Discussion

Amputees, representatives of persons with disabilities, district officials and hospital staff gave information on a number of issues related to medical rehabilitation services for amputees in four districts. The information provided by most respondents was common in all districts mentioned. Amputees from Kasese and Bundibugyo discussed their trauma with strong emotions. There was a general feeling among amputees that the Government failed to protect them and had not provided adequate support for their rehabilitation.

Pre-hospital

There is no system to reduce injury during transfer of patients to hospital. Injured persons arrive in hospitals in traditional ambulance system, army and good Samaritan vehicles. A number of hospitals lack ambulances making it difficult to reach injured persons early enough. Although there are no formal pre hospital services, the communities have devised means for those injured. However, some of the improvisations for stopping bleeding are unhygienic and no prevention of infections such as tetanus is considered.

Hospital care

Treatment

Many of the respondents noted that they had received hospital care. The study identified a number of gaps in hospital care namely;

- Casuality departments were absent in all the hospitals visited that serve landmine areas.
- Shortage of staff due to the ban on recruitment: a new policy of the government and remoteness and insecurity in the areas.
- Staff lack skills to handle emergencies.
- Lack of equipment for example saws for amputation, steinman's pins, portable X-ray machines etc.
- Regional blood banks are at times unreliable because of insecurity on the roads.
- Inadequate supply of antibiotics and sundries.

Rehabilitation

Amputees reported that they had received rehabilitation support from the hospital.

The study identified gaps in rehabilitation services namely;

- Lack of Orthopaedic workshops at the district hospitals to maintain the prosthesis and other assistive devices.
- Lack of trained Counsellors and Occupational therapists in all the hospitals under the study yet these professionals are necessary for enabling amputees to adapt to a new environment and cope with disability.
- Recruitment of rehabilitation staff seemed to be a problem in most hospitals under the study. Even those in place were not sure of their continued stay. Notable were workshop staff and physiotherapy in Fort Portal hospital that were not on Government pay roll.
- Regional Orthopaedic workshops were long distances away from amputees leading to failure to reach them. This was conspicuous in Bundibugyo and Moyo districts.
- The two examples of amputees making their own prosthesis are indicative that communities have devised indigenous technology and if tapped communities can share skills locally and seek professional support when necessary. Given this example there is need to tap indigenous technology.
- The negative attitude of medical staff toward persons with disabilities needs to be checked.
- Lack of follow up once an amputee had received prosthesis.
- The injured war victims with other types of amputations such as cut lips, ears or other types of injuries do not receive adequate attention
- There is a general lack of information on rehabilitation services to both the health workers and people with disabilities.

Integration of land mine victims

Amputees were facing a number of difficulties in the communities namely;

- Means of transport to referral centers was a big problem. This led to failure to receive or replace prosthesis or any other assistive devices. While in the hospital amputees needs funds for sustenance, which is not always there. This discourages amputees from seeking rehabilitation services outside their districts.
- Breadwinners were getting challenges of going to hospital for training in using prosthesis at the same time maintain their families.

4.3 Recommendations

Community level

Artisans who are innovative should be given skills to make simple repairs at the community level to increase access to these services and minimise expenses for travelling to regional hospitals.
Community workers particularly those already involved in community based rehabilitation should be trained to handle amputees. Families should be counselled to accept their member with amputation. Amputees should be followed up on a regular basis until the family and the amputees can cope with the situation. For example most amputees were finding problems in adjusting to a new situation particularly digging. They could benefit from loan schemes accessible to other community members. However, community leaders need to be sensitised to integrate the amputees in these services.

There is already a spirit of harambee (helping ones neighbour) when there is a crisis and means of transport depending on a particular community. There is need to train community resource persons in sterile techniques so that those injured do not get their open wounds contaminated by dirty cloths and plants. First Aid training of community resource persons should be carried out on a regular basis to ensure continuity.

The health centre levels staff should be trained in handling emergencies so that they are able to arrest bleeding, remove debris and refer accordingly. Health centers should be stocked with adequate supplies of dressings, dressing instruments, splints to support injured limbs and resuscitation fluids. Transportation and handling of injured persons to the health facilities should be improved by training community volunteers.

District level

District hospitals are responsible for carrying out amputations.

The following is the recommended staffing:

- Surgeons, Nursing Officers, Clinical Officers, Physiotherapists, Occupational therapists, Clinical Orthopaedic Officers, Orthopaedic technicians, Anaesthetic Officers and Radiographers. The gap of Occupational therapy services should be addressed as these professionals carry out an important task of training in activities of daily living and adaptation to the environment. The lack of psychosocial support to amputees needs to be addressed. The district hospitals could employ a social worker to provide counselling support during pre and postoperative care. In the event where hospitals cannot afford the services of a social worker they could identify one rehabilitation staff and train her/him in counselling skills. Even then, all staff in the hospital should undergo refresher training in counselling so that they can continuously give psychological support to amputees at different stages of rehabilitation.

- District hospitals should be equipped with adequate theatre instruments, portable X-ray machines, sundries and emergency fluids. Moyo hospital required parking bags and antigens for parking and preservation of blood, which should be effected. There is also need to establish emergency units to handle casualities and training all hospital staff particularly those handling emergencies.

- The strategy of regional Orthopaedic workshops is good, however most amputees were finding difficulties in accessing these services. Therefore, district hospitals should be equipped with mini workshops to deal with repairs, referral and follow up of amputees in the communities. These district workshops should also be able to produce simple assistive aids. Training of local artisans should continue so that they are able to support amputees in the communities

- The gaps in following up amputees in their communities need to be seriously addressed to ensure amputees get regular support. Arrangements should be made by health authorities at central and local level to ensure that amputees are reached in their communities.

Regional Hospital

- Regional workshops should regularly adjust the prosthesis models to meet the clients' needs as amputees were finding them heavy and cumbersome. Considering that this is a predominantly agricultural country and that many amputees are peasants, Orthopaedic workshops need to consider the production of pylons for use in the gardens. Upper limb prosthesis production should be started.

- The budget for the Regional Orthopaedic workshops should get a clear vote that is adhered to by hospital administrators. The rehabilitation team should carry out support supervision together with the district team to ensure that services are reaching the community. There is also need to link with government and private hospitals at district level to avoid information gaps and a better follow up process.

Ministry of health

- The Ministry should be flexible in allocating resources on the basis of bed capacity for districts in insurgency areas. The Ministry should also identify alternate funding to these hospitals.
- A policy on accidents and emergencies should be developed and the staff dealing with emergencies should get special incentives.
- The Ministry should consider developing a policy that hospitals to give free treatment to all war victims as they have functional limitations and cannot economically compete with those who are able- bodied.
- The proposed staff and equipment need specific attention.
- The Ministry of health needs to give continued support to missionary hospitals who are doing a commendable job.

- The Ministry should ensure smooth coordination of medical rehabilitation of amputees,appropriate staffing of rehabilitation services: Surgeons, Physiotherapists, Occupational Therapists and consider using rehabilitation assistants to bridge the gaps in the communities.
- Ensure regular training and support supervision of health workers involved in the rehabilitation, community resource persons and artisans.
- Address counselling services in integrated care of land mine victims.
- Establish casuality units that have trained personnel and equipment.
- Mobilise resources to ensure standards are met.
- Improve transportation to regional hospitals.
- Ensure regular supply of materials for production and repair of prosthesis.
- Coordinate and collaborate with other service providers to address the issues of accessing credit/grant facilities to land mine victims. Multi-sectoral committee should be formed to address the total needs of landmine victims.
- Efforts should be made to tap and document indigenous technology.
- Sensitise the disability movement at different levels to take on board land mine victims as they are still marginalised.
- The amputees strongly recommended that government should provide them seed money to enable them improve their economic livelihood.

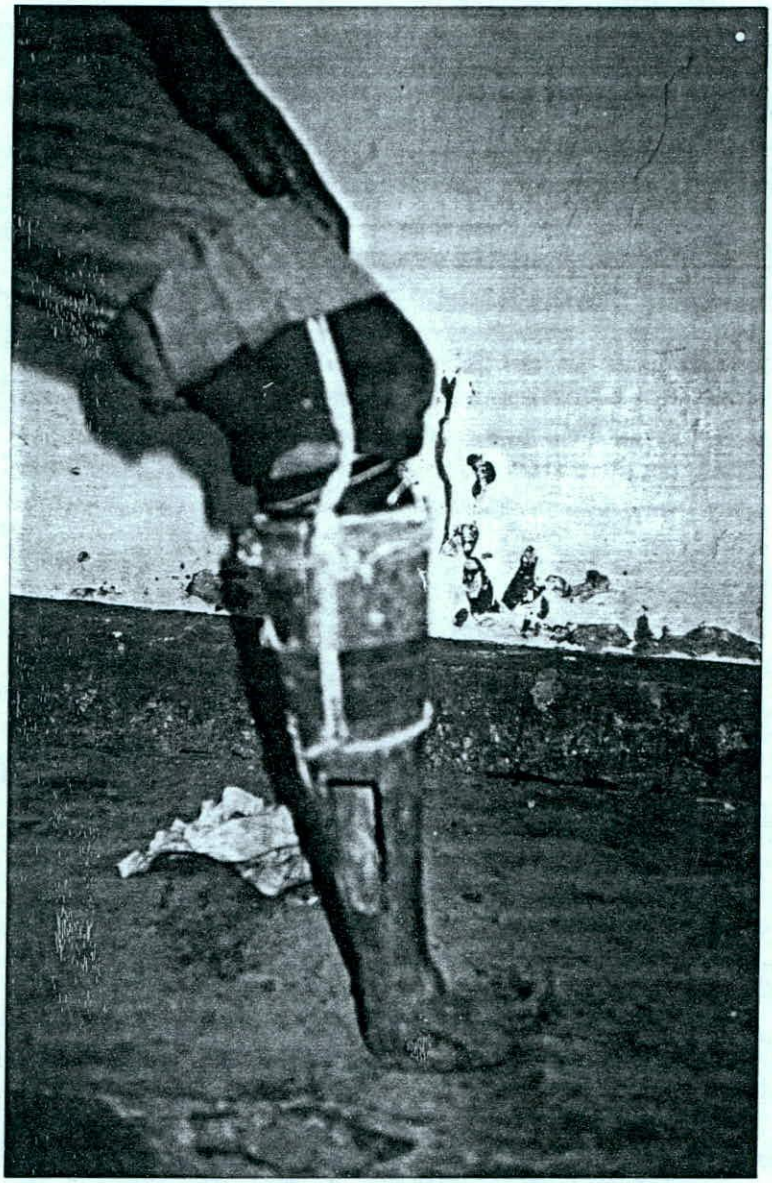
At all levels there is need to sustain medical staff motivation through continued medical education, incentives, promotions and support supervision.

APPENDICES

APPENDIX I: PHOTOGRAGHS
(a)

One respondent with a stuffed old prosthesis to enable him continue moving

(b)



Home made pylon. Note the window for letting out water

(c)

Respondent riding with a home made pylon

APPENDIX II: QUESTIONNAIRE

NEEDS ASSESSMENT INTERVIEW SCHEDULE FOR AMPUTEES.

District----------Sub county---------- Parish ----------

Date of interview ----------

SECTION A: BACKGROUND INFORMATION

Please tick the relevant box

1. *Sex:* Male ☐ Female ☐

2. ***Age:*** Tick appropriately.

1-5	
6-18	
19-28	
29-38	
39-48	
49-58	
59+ or over	

3 ***Religion:*** Tick appropriately

a)

Muslim	
Catholic	
Protestant	
Seventh-day Adventist	

b) Other religion, please specify ----------

4. Marital status: Tick appropriately

Single	
Married	
Widowed	
Separated	

5. ***Education background:*** Tick appropriately

P 1- P 5	
P 6- P 7	
S I – S 4	
S 5 – S6	
Tertiary Education	
No formal Education	

SECTION B: ASSESSMENT OF AMPUTEES

6. When did you loose your limb?

Before 1995	
1995	
1996	
1997	
1998	
1999	

7. **Cause of amputation:** ***Tick*** appropriately

a)

Land mines	
Gun shot	
Snake bites	
Osteomyelitis	
RTA	

b) Other causes, specify ----------

8. ***Type of disability:*** Tick appropriately

a)Upper limb amputee	
Lower limb amputee	
Bilateral upper limb amputee	
Bilateral lower limb amputee	

b) Any other disability, please specify.....

9. ***Upper limb amputee***: Tick appropriately

a)

Through shoulder	
Above elbow	
Below elbow	
Hand	

b) Others specify----------

10. ***Lower limb amputee***: Tick appropriately

a)

Above knee	
Below knee	
Through knee	

b) Others specify----------

11.a) Do you use a prosthesis? Yes ☐ No ☐

b) If yes, what type of prosthesis are you using? : Tick appropriately

Pylon	
A-K Prosthesis	
B- K Prosthesis	
Upper limb Prosthesis	
Hand Prosthesis	

c) How often do you use the prosthesis?

Once a week	
Three times a week	
Five times a week	
Every day	

d) Others specify----------

e) What problems do you encounter using your prosthesis? ----------

---

---

f) What services are available for maintaining your prosthesis?

_____

_____

_____

_____

g) If you do not use your prosthesis, give reasons----------

SECTION C: HEALTH CARE NEEDS AND ACCESS TO SERVICES

12 a) Did you receive any First Aid? Yes ☐ No ☐

b) If yes, specify the service ----------

---

d) How were you transported from the site of injury to the hospital?----------

_____

---

d) If no, specify reason ----------

---

13. a) Have you received any medical rehabilitation services? Yes ☐ No ☐

b) If yes, specify type of service (you can tick more options)

Surgery	
Physiotherapy	
Occupation therapy	
Provision of assistive devices	
Nursing care	
Counselling	

c) Others services, please specify ----------
---

d) If no, specify reason ----------

---

14. Basing on the rehabilitation services you have received, how would you score the most beneficial using the highest score of 7 and the least as 1.

Service	1	2	3	4	5	6	7
Physiotherapy							
Surgery							
Nursing							
Orthopaedic workshop							
Counselling							
Occupation Therapy							
Credit/IGA							

15. Of the above services, which did you receive from your;

Home----------

Health centre----------

District Hospital----------

Regional Hospital----------

16. What problems do you face in accessing to these services?

---

17. A part from medical rehabilitation, what other services have you benefited from?

a) ***Tick appropriately***

Counselling	
Access to credit / IGA	
Information on where to get rehabilitation services	

b) Others services, please specify ----------

---

18. Was your family explained your condition and needs?----------

---

---

19. What problems do you have that are directly due to your disability?

20.Please give two recommendations in which medical rehabilitation services for amputees can be improved.

THANK YOU FOR YOUR COOPERATION

APPENDIX III: GUIDE FOR FOCUS GROUP DISCUSSIONS

Casualty staff:

- Nursing Officer, Casuality
- Records Officer,
- Clinical Officer,
- Surgeon,
- Nursing officer in charge Theatre
- Nursing Officer in charge Surgical Ward.

1. Have you received landmines casualities?
2. How are patients brought to causality?
3. What first aid are they given before reaching the hospital?
4. What facilities doe the hospital has for blood transfusion?
5. What facilities does the hospital have for emergencies for landmine victims?
6. What type of equipment does the hospital have for emergencies for landmine victims?
7. What are the common types of amputations?
8. What problems do you face in caring for landmine victims?
9. How are these problems being solved?
10. What are your recommendations for improving medical services for people affected by landmine resulting in loss of limbs?

REHABILITATION STAFF

- Physiotherapists
- Occupational therapists
- Orthopaedic technicians
- Red Cross Representative

1. What are the common amputation cases as a result of landmines?
2. How are the stumps maintained?
3. How do clients accept use of artificial limbs?
4. Do clients get adequate time for rehabilitation?
5. What problems do you face when rehabilitating amputees?
6. How do you solve these problems
7. Are there special problems for land mines amputees?
8. How do you follow up clients after they have left the hospital?
9. What are your recommendations for improving medical services for people affected by Landmine resulting in loss of limbs?

LOCAL COUNCIL LEADERS

- LC V. representatives for PWDs
- LC III Representatives for PWDs
- NUDIPU

1. What is the disability movement doing for people affected by land mines?
2. What problems do you face in supporting them?
3. How are you solving these problems?
4. What are your recommendations for improving medical services for people affected by Landmine resulting in loss of limbs?

APPENDIX IV: RECORDS REVIEW CHECKLIST

Casuality:

- Where casualties came from
- Sex
- Age
- Type of injury
- Causes of injury
- Equipment/ facilities
- Use of triage system
- Action taken

Wards:

- Treatment given
- Operations done
- Follow up of client
- Periods of stay in the hospital
- Operations per person
- Physiotherapy services on the ward

Workshop:

- Number of amputees provides with assistive devices
- Duration of rehabilitation
- Types of prosthesis
- Cost of devices

Physiotherapy:

- Number of amputees received physiotherapy
- State of stumps
- Number of cases with contactures and how were they managed
- Follow up of clients

APPENDIX V: *FORT PORTAL HOSPITAL STAFF.*

	Name	Tittle
1)	Dr. Shaban	Acting Medical Superintendent/Surgeon
2)	Sister Burihwandi	Sister in charge, Surgery
3)	Sister Rose Rwabwogo	Sister in charge, Theatre
4)	Mr. Kisembo	Senior Assistant Anaesthetist.
5)	Mr. Kiyimba	Orthopeadic Technician/Manager
6)	Mr. Charles Siminyu	Orthopaedic Technician
7)	Mr. Patrick Oidi	Orthopaedic Technician
8)	Mrs. Catherine B Nzaireki	Hospital Physiotherapist
9)	Mr. Vincent Mbazira	Workshop Physiotherapist

BUNDIBUGYO HOSPITAL STAFF

	Name	Title
1)	Dr. Ssesanga-Kaddu	Medical Superintendent
2)	Sister Rose Balimpikya	Senior Nursing Officer

PERSONS WITH DISABILITIE,BUNDIBUGYO

	Name	Title
1)	Ms. Sarah Kagenyi	LCV Councillor representing PWDS
2)	Mr. John Baguma	Town Councillor representing PWDS
3)	Mr. Bonny Mumbere	LC3 Councillor representing PWDs/ CBR worker
4)	Mr. Kule David	District Chairman Deaf Association
5)	Ms. Kemigisa Cissy	Secretary for Women District Union
6)	Ms.Pridas Nyakato	Chairperson for Deaf women
7)	Ms. Mbambu Idah	Vice Chairperson District Union
8)	Mr. Ssemaula Yusuf	Treasurer District Union
9)	Mr. Mugenyi Japheth	Chairperson District Union

PERSONS WITH DISABILITIES,KASESE.

	Name	Tittle
1)	Ms. Mary Yalala Biira	LCV Councillor representing people with disabilities.
2)	Mr. Maseruka Banjo	LCV Councillor representing people with disabilities.
3)	Mr. Peter Baluku	Secretary disability Union
4)	Mr. Lazeri Kabugho	LC III Councillor representing people with disabilities
5)	Mr. Jenson Basaliza	LC III Councillor representing people with disabilities
6)	Mr. Pascal Byaruhanga	LC III Councillor representing people with disabilities
7)	Mr. Jacob Muhindo	LC III Councillor representing people with disabilities
8)	Mr. Peter Ssali	Chairman of the blind

KAGANDO HOSPITAL STAFF.

	Name	Title
1)	Dr F Asiimwe	Medical Superintendent Kagando Hospital.
2)	Sister Molly Moore	Senior Nursing Officer Kagando Hospital
3)	Ms Stella Baruga	Public Health Nurse Kagando Hospital

ADJUMANI HOSPITAL STAFF

4	*Name*	*Title*
1.	Idia Pauline	Registered Nurse- Female ward
2.	Ujeo Jilda	Enrolled Nurse- Male ward
3.	Guma Charles. E	Physiotherapist
4.	Pony Baga	Orthopaedic Clinical Officer
5.	Nkomo V. George	Orthopaedic Clinical Officer
6.	Aliruku Caesar	Physiotherapist
7	Jangwa C.	Orthopaedic Technician
8.	Andiru Felemina	Nursing Officer
9.	Dr. Opar B.T	Medical Superintendent

PERSONS WITH DISABILITIES, ADJUMANI

Name		Title
1.	Idda Calvin	Chairman Adpu (PWD)
2.	Ayia Palma Lily Gerry	DLC 5 for PWD
3.	Ali Bangi F.	General Secretary
4.	Rosemary	Clerk
5.	Saul Anyama	DCL 5 (PWD)
6.	Zam Umar	Vice Chairman
7.	Malia Alice	Treasurer
8.	Vuzara Richard	ATC Chairman
9.	Grace Baru	Odu Chairman
10.	Dramani Michael	Secretary sub-county
11.	Ojjalik Arulino	Secretary Drapi
12.	Enzo constanzio	Chairman

MOYO HOSPITAL STAFF.

Name		Title
1.	Rosemary A. Okello	Nursing Officer Grade II
2.	Mr. Muroga William	Enrolled Nurse
3.	Mr. Ajulogi Julius	Records Assistant
4.	Sr. Clera Ejoru	PNO Ag. Medical Superintendent
5.	Mr. Abiriga Simon	Orthopaedic Technologist

PERSONS WITH DISABILITIES, MOYO.

	Name	Title
1.	Adrari C. Olego	Chairperson disability Union
2.	Ambamua Augustine	Treasurer disability Union
3.	Idro Robert	Secretary disability Union
4.	Agovule Cecily	Councillor representing people with disabilities
5.	Ippe V. Basil	Councillor representing people with disabilities
6.	Anyanzo Bosco	Councillor representing people with disabilities
7.	Tivule Veronica	Councillor representing people with disabilities
8.	Mindfa Emilia	Councillor representing people with disabilities