Journal of Food Research; Vol. 5, No. 3; 2016
ISSN 1927-0887 E-ISSN 1927-0895
Published by Canadian Center of Science and Education

# Health Status and Quality of Health Care Services of Congolese Refugees in Nakivale, Uganda

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Received: March 15, 2016 Accepted: April 13, 2016 Online Published: May 16, 2016

doi:10.5539/jfr.v5n3p39 URL: http://dx.doi.org/10.5539/jfr.v5n3p39

**Abstract**

Physical and emotional wellness, as well as access to healthcare, are foundations for successful resettlement. Without feeling healthy, it is difficult to work, to go school, or take care of a family. Many factors can affect refugee health, including geographic origin and refugee camp conditions. Refugees may face a wide variety of acute or chronic health issues (Office of Refugee Resettlement, ORR Annual Report to Congress 2014; http://www.acf.hhs.gov). Resettlement of refugees in Uganda is usually supported by concerted efforts of UNHCR, Governments through the Office of the Prime Minister, OPM with support from host communities, local and international Non-Governmental Organizations. Due to resource constraints and local factors, immigrants are often subjected to poor living conditions which coupled with inadequacy inessential medical supplies might significantly affects quality of care and health service delivery and hence, rendering refugees to poor health status. This study was conducted from 2013-2014 to assess the determinants of health status of Congolese refugees living in Nakivale refugee settlement, in Isingiro district- South Western Uganda. A cross-sectional study design was used involving mixed techniques of both qualitative and quantitative KAP survey. The study focussed on Congolese refugee population in Nakivale Refugee settlement. 2401 key informants' interviews and 8 focus group discussions respectively were conducted targeting service providers and beneficiaries/Congolese refugees in this case. The data was analysed using SPSS ver.20, 2011. Although majority (97%) of respondents sought medical services from established health facilities, findings confirm a high level of ill health prevalence among Congolese refugees in Nakivale camp, however, the difference in health services and perceived health status in camp versus the one in DRcongo is insignificant ( p=0.000) with respondents perceiving their health status as worse than when they were their own Country before the resettlement. Identified key challenges affecting access & uptake of available health services includes: language barrier; inadequate drugs; and the long distances to access health facilities. The health status of refugees could be improved by addressing the challenges related to language, drug supplies in addition to humanising conditions of shelter, providing appropriate waste disposal facilities while proving adequate food rations and clean & safe drinking water.

**Keywords:** self-perceived health status, disease, health care, congolese refugees

## 1. Introduction and Background

### *1.1 Introduction*

Physical and emotional wellness, as well as access to healthcare, are foundations for successful resettlement. Without feeling healthy, it is difficult to work, to go school, or take care of a family. Many factors can affect refugee health, including geographic origin and refugee camp conditions. Refugees may face a wide variety of acute or chronic health issues (Office of Refugee Resettlement, ORR Annual Report to Congress 2014; http://www.acf.hhs.gov)

Since January 2013, UNHCR reports that more than 400,000 Congolese nationals have sought refuge outside of DRC. Although Congolese refugees reside in many different countries in sub-Saharan Africa, the 4 primary host countries providing asylum to Congolese refugees are Uganda (113,000), Rwanda (68,000), Tanzania (59,000), and Burundi (38,000). There are several large refugee camps or settlement areas within each host country, with

Nakivale (Uganda) and Nyarugusu (Tanzania) holding the largest number of Congolese refugees in the "Great Lakes" region of central/eastern Africa (http://www.cdc.gov/immigrantrefugeehealth/profile/congolese)

*1.2 Background*

Nakivale Refugee Settlement on Uganda's border with Rwanda is one of Africa's oldest refugee camps. Rwandans first fled to this acmp following the 'Hutu Revolution' of 1957 and it now contains approximately 100,000 Rwandans, Congolese and Somalis along with many other nationalities.The recent influx of Congolese into Nakivale started in August 2008 following intense fighting between Congolese groups CNDP and FARDC. This war resulted into the internal displacement of a quarter million residents of North Kivu and led 40,000 Congolese to flee into Uganda. On arrival to Uganda, they were relocated to settlements gazetted by the government. However besides food problems facing the refugees, they are also faced with numerous health problems and in this resettlement camps, the refugees rely mainly on efforts by the Government of Uganda and United Nation High Commissioner for Refugees (UNHCR) for protection and assistance with relief food provided by the World Food Program (WFP) through its cooperating partners in coordination and collaboration with UNHCR and its implementing partners which included Germany Technical Cooperation (GTZ) and other Non-Governmental Organizations (NGOs) to address their health service delivery challenges. It's of common understanding, however, that given the resource constraints and prevailing local context, assistance provided may be insufficient to address the needs of the high number of immigrants including the Congolese refugees in Nakivale camp.

*1.3 Problem Statement*

Nakivale refugees' settlement was formed in 1960 to host refugees who fled the Rwandan genocide of 1959.Today, the settlement hosts over 100,000 refugees and asylum seekers from Rwanda, Somalia, Burundi, DRC, Ethiopia, Eritrea, Kenyan and South Sudan (UNHCR, 2014). With such big numbers, like elsewhere in the world, challenges of resettlement become eminent. Some of the problems faced by refugees in Nakivale have been demonstrated by studies carried out by GTZ among the older Somali refugees, which found out that that traumatic experiences of refugees canlead to excessive consumption of alcohol, abuse of use drugs and substance aggravating incidences of violence such as rape, defilement of girls and exacerbate infections like STDs including HIV/AIDS (GTZ, 2005). In addition to violence, a large part of this settlement is located in a dry corridor where rains are below average, water supplies are inadequate and most refugees walk an average of 7km to access safe water or fetch water from Lake Nakivale. Lack of safe water and use of alternative unsafe water sources has led to the high prevalence of water borne diseases (UNHCR, 1994). There are only two health centres, Nakivale health centre III and Rubondo health centre II which serve a population of over 40,000 refugees and over 12,000 locals (UNCHR, 2009). This population is too high for the two facilities. It is likely that some refugees may have limited access to health services.

A short study conducted by GTZ on refugee health in Uganda based on health centre records with limited consultation with the service providers- the health workers and- the primary users, the refugees themselves. This approach indeed gives an indication of health problems the refugee experience but not the prevalence of diseases and the perceived health conditions or status of the refugees. Documented evidence on refugees' self-assessed health problems therefore remains scarce. This study investigated the self-perceived health status and utilization of health care service among the Congolese refugees in Nakivale in comparison with self-perceived health status in Congo. This approach is supported by the studies conducted by LaRue et al. (1979) which showed that self-perceived health status is an objective measure of health and predicts morbidity better than either medical records or physician generated data. Perceived health evaluation is also a significant predictor of morbidity even when physical health is controlled via the research design (Idler et al., 1995).

*1.4 Study Objective(s)*

The main objective was to determine the health status of Congolese refugees living in Nakivale Refugee camp with specific focus on perceived health status and the level of utilization of health care services compared with that in DRC.

1.4.1 Research Question

This study examined what common illnesses affecting Congolese refugees in Nakivale Camp? How does the self-perceived health status of respondents in the resettlement camp compare with their health status while in Congo? What type of health services are utilised by Congolese refugees in Nakivale camp and DRC?

## 2. Methodology

### *2.1 Study Population*

The target population comprised of Congolese refugees who arrived at the settlement camp between November 2008 and2013. All male and female refugee adults of 18 years and above were eligible for the study.

### *2.2 Study Design*

The study employed a cross-sectional survey. Information on health status and health service utilization was gathered from systematically selected individuals of 18 years and above using the available UNHCR registration list for the Congolese refugees in Nakivale. A comparative study on illness and health service utilization amongst the refugees for two time frames, one before being a refugee and the other after acquiring refugee status was used.

The sample size, n was calculated using:

$$\text{Sample Size (n)} = \frac{t^2 \, x \, P x \, Q}{d^2}$$

Where,

n = estimate of the sample size

t = confidence interval (used 1.96 for 95%C.I)

d = precision (0.02 was used)

P = proportion of the target population with characteristics being measured (since prevalence was not known, 0.5 was used) and therefore Q is 1-P.

Hence, $n = t^2 \times p \times q / d^2 \rightarrow 1.96 \times 1.96 \times 0.5 \times 0.5 / 0.02 \times 0.02 = 2377$

Since 2377 is the minimum acceptable sample size, 2401 respondents were considered for the study.

Selection criteria: Only individuals who were 18 years or above were eligible for the study. Using the official UNHCR registration for refugees in Nakivale camp, a systematic sampling technique was employed to select eligible respondents.

### *2.3 Data Collection*

Data for the study was collected in June 2014. The translated study tools (i.e. questionnaires into local languages (Swahili, Lingala and French) were systematically administered to eligible and selected adults. Quantitative data was collected using structured questionnaires including perceived illnesses data collection form; health care service utilization questionnaire form; household health information access to health; and access to safe water form. Qualitative data was collected using Focus Group Discussions (FGD's). Members of focus groups were selected by the village leaders and they included camp leaders, village health teams (VHTs) and those providing health care services in Nakivale camp.

Upon consent, respondents were personally interviewed by trained enumerators. To optimize rapport, interviewers were matched to all respondents based on gender. The interviewers conducted the interview using a general standardized open-ended approaches. The initial domains in the tools included perceived health conditions of the refugee, health care access, health promotion, and the presence/absence of water sources for drinking respectively.

### *2.4 Data Analysis*

The data analysed using Statistical Package for the Social Scientists SPSS Ver. 2011. The results were summarized by running the analysis for the descriptive and Analytical statistics such as frequency, mean, standard deviation, standard error and the level of significance (p-value) ascertain used for interpretation and inference for the study.

### *2.5 Ethical Consideration*

Permission to conduct the study was obtained from the Office of the Prime Minister (OPM) and the United Nation High Commission for Refugees (UNHCR). There was an informed consent obtained from respondents and confidentiality of the health information was guaranteed to be observed. In addition consent of those whose photographs appeared were sought.

### *2.6 Study Limitations*

The major limitation to the data quality was social discomfort regarding disclosure of health conditions. Other

minor limitations were controlled for by use of trained interviewers and translation of questionnaires in simplistic terms for easy understanding.

## 3. Results of the Study

### *3.1 Socio-demographic Summary of Participants*

Table 1 and Figure 1 show demographic characteristics distribution of respondents by age and sex. Majority of the refugees interviewed were between 18 and 30years (41.7%), followed by those between 30 to 40years (26.3%) and 40 to 50 years (14.4%). Those above 50years constituted only 17.6% of total respondents. There were more females than males with sex ratio 1.17($p<0.05$).

Table 1. Age distribution of respondents

| AGE GROUPS (YEARS) | FREQUENCY (N) | PERCENTAGE |
|---|---|---|
| 18-30 | 1002 | 41.74 |
| 30-40 | 631 | 26.27 |
| 40-50 | 345 | 14.38 |
| 50-60 | 237 | 9.88 |
| 60-70 | 141 | 5.87 |
| 70-80 | 29 | 1.19 |
| 80 AND ABOVE | 16 | 0.67 |
| TOTAL | 2401 | 100.00 |
| MEAN =36.81<br>STD. DEV =13.46<br>STD. ERROR =0.2747 | | |

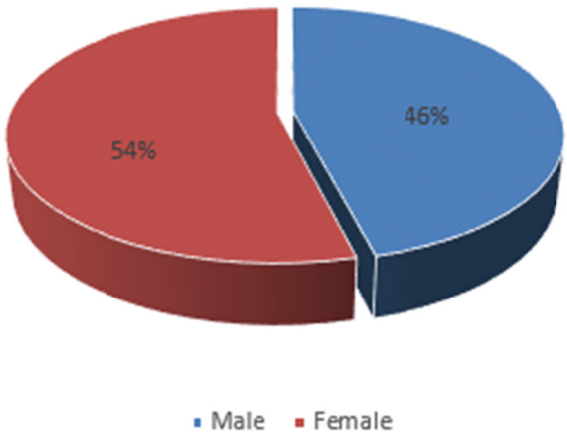


Figure 1. Distribution of respondents by gender

Figure 1 shows that 54% of the respondents were female while 46% of the respondents were male.

### *3.2 Major Health Problems*

Table 2 provides a summary of the perceived health concerns as enumerated by respondents. Perceived pain from the back or chest accounted for 14.13% (dominant ill health among adults) and malnutrition (8.3%) were the most predominant health concerns among children <5yrs. Other major health conditions mentioned in order of importance included eye problems (6.0%), stomach problem (5.5%), skin rash (5.4%), depression (5.3%), cough (4.5%), urinary problems (3.1%), nightmares (2.9%), anxiety (2.6%), malaria (2.0%), pressure (2.1%), suicidal tendencies (0.8%), STI (0.7%), trauma by rape (0.8%) and TB (0.4%).

Table 2. Ranked distribution of self-perceived illnesses

| Disease | Freq (n) | % | Disease | Freq (n) | % |
|---|---|---|---|---|---|
| Malnutrition | 807 | 8.29 | Ear discharge | 161 | 1.65 |
| Back pain | 786 | 8.07 | Pain | 148 | 1.52 |
| Chest pain | 590 | 6.06 | Limb pain | 147 | 1.51 |
| Vision | 582 | 5.98 | Throat | 127 | 1.30 |
| Stomach ache | 537 | 5.51 | Heart Problem | 122 | 1.25 |
| Skin rash | 525 | 5.39 | Seizures | 116 | 1.19 |
| Depression | 513 | 5.27 | Diarrhea | 92 | 0.94 |
| Cough | 435 | 4.47 | Suicide | 79 | 0.81 |
| Weight Problem | 380 | 3.90 | Rape Incidences | 76 | 0.78 |
| Urinary Problem | 304 | 3.12 | STI | 70 | 0.72 |
| Heart Pain | 294 | 3.02 | Bleeding | 61 | 0.63 |
| Fever | 284 | 2.92 | Scabies | 58 | 0.60 |
| Night mares | 284 | 2.92 | Swellings | 46 | 0.47 |
| Anxiety | 252 | 2.59 | Tuberculosis | 43 | 0.44 |
| Skin Scars | 245 | 2.52 | Palpitation | 42 | 0.43 |
| Wounds | 233 | 2.39 | Typhoid | 37 | 0.38 |
| Hernia | 220 | 2.26 | Gu discharge | 32 | 0.33 |
| Cholera | 204 | 2.09 | Meningitis | 20 | 0.21 |
| Pressure | 200 | 2.05 | Others | 14 | 0.14 |
| Malaria | 197 | 2.02 | Kidney | 9 | 0.09 |
| Hearing Problem | 193 | 1.98 | Asthma | 7 | 0.07 |
| Ulcers | 166 | 1.70 | TOTAL | 9738 | 100 |
| MEAN =17.71STD. DEV =13.84STD. ERROR =0.140 | | | | | |

3.2.1 The Underlying Cause of Major Perceived Health Problems

***Inadequate food intake***

Most of the respondent inadequate intake of food which often leads to body weakness and loss of weight as being one of the major health problems faced by the new Congolese refugees population in Nakivale settlement.

***Mental health disorder (depression, nightmares, anxiety and suicidal tendencies)***

The following health conditions, depression, night mare, anxiety and suicidal tendencies which can be characterized as mental health disorders are commonly perceived health problems by the majority of the refugees interviewed. These conditions can be expected given the hardship, violence and stress experienced by the refugees in the past and resulting from displacement from their home country.

***Eye problems***

Figure 2 shows a Congolese refugee girl with red eye infection. This could be attributed to the unhygienic conditions under these refugees live mostly arising from inadequate water for bathing and limited access to disinfectants fore washing hands and body. All these might have a drastic health effects on the refugees visual and skin health

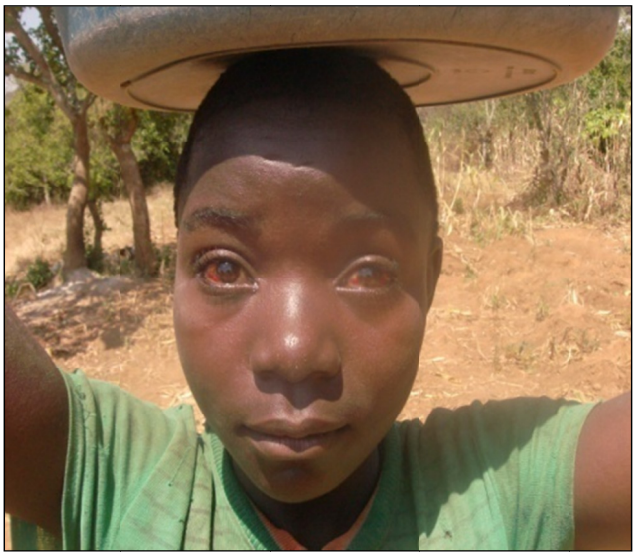

Figure 2. Red eye infection: Up to 6.1% of the respondents has experienced some form of eye infections, the most common being trachoma and red eye disease

***Hearing problems***

The perceived preference of hearing among Congolese refugees was recorded at 1.7% of those interviewed mentioned. Some of these hearing problems could be attributed to the infections resulting from unhygienic practices and lack of adequate and clean water. Insect entry into ears during night sleep on the ground resulting into ear pain was also commonly mentioned.

***Skin rash***

Those interviewed who mentioned skin conditions were 5.1%. The most common skin problems that the Congolese refugees presented, included scabies and ring worms. Body lice and head lice are also common and cause irritating skin bites which leads to damaged skin due to scratches.

***Sexually transmitted diseases (STIs)***

Generally, sexually transmitted infections (STIs) among women (84%) were more mentioned during the assessment than STIs among men (16%). Infections affecting the reproductive health of the refugees mentioned by the participants were as follows: private part bleeding, syphilis, HIV, and gonorrhoea. STI transmission was believed to be caused by the following reasons as mentioned by the focus group discussions included lack of preventive care, rampant unprotected sex, broken families and cultural linkages such as inheriting widows.

***Stomach problems***

Stomach ache and pains accounted for 5.5% of those interviewed. Most common stomach problems include diarrhoea, worms and unexplained pains in the stomach.

***Cough***

Respiratory infection amongst the refugee population stands at 4.5% of those interviewed. This is to be expected given the living conditions such as bad housing facilities, overcrowding and smoke from fire wood used for cooking and warming in those houses without ventilation. Some of the conditions were caused while staying under trees and in the open while fleeing Congo.

***Urinary problem***

3.1% of those interviewed had problems of urinary infection. Urinary infection was explained as bleeding, undefined discharges and also included hernia which was mentioned by 2.3% of those interviewed.

***Trauma after rape***

Rape cases reported by those interviewed was only at 0.4%.Rape cases resulted from family breakdown, loss of one of the partners, use of drugs by youth and men, mass accommodation at reception centres and leading jobless lifestyle.

***Tuberculosis (TB)***

Tuberculosis was identified by 0.4% of the interviewees as a chronic disease affecting refugees in Nakivale settlement. Those having TB cases either came with the disease from Congo or acquired it due to overcrowding while in the camp. It has to be mentioned that quite a number of the TB victims have not sought medication and could act as source of new infection.

***Hypertension***

High blood pressure or hypertension was mentioned by 2.1% of the respondents and this possibly as an aggravating factor due to the stress common among the refugee community.

***Malaria***

Though malaria is considered to be a common disease in Nakivale, out of the age group interviewed only 2.1% made a mention of a malarial episode. This could probably be attributed to an immunity built by the older age group compared to children who have not built these immunity.

***General body pain***

General body pain is thought to include fever, headaches, back pain and also includes pains related to torture or trauma such as broken bones, burns, muscles and hand injuries. The general body pain was mentioned by 20.1% of the respondents.

***Wounds and scars***

Wounds and scars accounted for 4.9% of the total of ill health problems perceived by the Congolese refugees. Most wounds and scars were a result of injuries during fleeing through jungles, of torture and bullets. Figure 3shows an example of bullet wound scar.

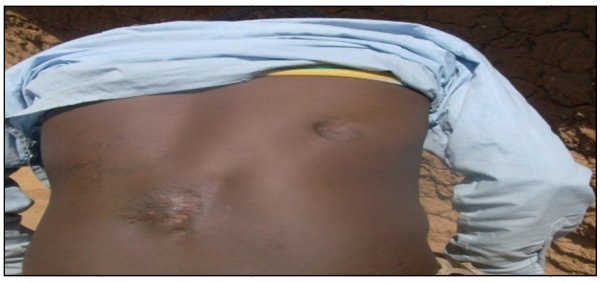

Figure 3. A Congolese man with bullet scars

Wounds and scars according to those interviewed during focus group discursion are also a source of trauma. According to them it reminds the refugee population of their past experiences.

3.2.2 Summary of Self-Perceived Ailments

Upon categorization (Table 3) general body pain (20.7%), nutrition related disorders (19.4), psychological problems (18.6), poor skin conditions (10.9) and reproductive health related concerns (7.05%) topped the list. Other complains like related to respiration, sanitation, ear, nose and throat (ENT) or infectious diseases though important comprised only 23.3% of refugees' complains.

Table 3. Grouped Summary of self-perceived ailments

| Category | Freq (n) | Prop (%) | Cum. Prop (%) |
|---|---|---|---|
| General Body Pain | 2015 | 20.69 | 20.69 |
| Nutrition related | 1890 | 19.41 | 40.10 |
| Psychological/Mental disorders | 1814 | 18.63 | 58.73 |
| Dermatological | 1061 | 10.90 | 69.62 |
| Reproductive | 687 | 7.05 | 76.68 |
| Vision | 582 | 5.98 | 82.66 |
| Respiratory | 527 | 5.41 | 88.07 |
| ENT | 481 | 4.94 | 93.01 |
| Sanitary Related | 296 | 3.04 | 96.05 |
| Infectious Diseases | 254 | 2.61 | 98.65 |
| Internal Organ related | 131 | 1.35 | 100.00 |

*3.3 Health Status by Gender*

Table 4 shows the most common health complains of refugees by gender. Accordingly, findings indicate women had more health problems than men. The only health condition which affected men more were vision problems, scabies and ulcers. Upon categorization (Table 4), women dominated the most prevalent poor health conditions with 56.46% on average compared to the male. Considering this (Table 5). Further shows that there was a significant difference based on ones gander to have a health problem (p=0.00).

Table 4. Categorized health complains of refugees by gender

| Category | Frequency (n) | Prop of Male (n) | Prop of Female (n) | % Female |
|---|---|---|---|---|
| General Body Pain | 2015 | 931 | 1084 | 53.80 |
| Nutrition related | 1890 | 874 | 1016 | 53.76 |
| Psychological | 1814 | 793 | 1021 | 56.28 |
| Dermatological | 1061 | 209 | 852 | 80.30 |
| Reproductive | 687 | 307 | 380 | 55.31 |
| Vision | 582 | 304 | 278 | 47.77 |
| Respiratory Infections | 527 | 234 | 293 | 55.60 |
| ENT | 481 | 228 | 253 | 52.60 |
| Sanitary Related | 296 | 129 | 167 | 56.42 |
| Infectious Diseases | 254 | 120 | 134 | 52.76 |
| Internal Organ related | 131 | 57 | 74 | 56.49 |
| MEAN PRECENTAGEFOR WOMEN=56.46 | | | | |

Table 5. Health status of refugees by gender

| Disease | Female | | Male | | Disease | Female | | Male | |
|---|---|---|---|---|---|---|---|---|---|
| | % | Freq/n | % | Freq/n | | % | Freq/n | % | Freq/n |
| Malnutrition | 52 | 421 | 48 | 386 | Limb pain | 44 | 65 | 56 | 82 |
| Weight Problem | 56 | 213 | 44 | 167 | Pain | 57 | 84 | 43 | 64 |
| Fever | 58 | 165 | 42 | 119 | Swellings | 48 | 22 | 52 | 24 |
| Skin rash | 55 | 288 | 45 | 237 | Back pain | 57 | 445 | 43 | 341 |
| Skin Scars | 47 | 115 | 53 | 130 | Depression | 52 | 267 | 48 | 246 |
| Wounds | 54 | 126 | 46 | 107 | Anxiety | 56 | 142 | 44 | 110 |
| Seizures | 60 | 70 | 40 | 46 | Night mares | 52 | 147 | 48 | 137 |
| Vision | 48 | 278 | 52 | 304 | Suicide | 54 | 43 | 46 | 36 |
| Hearing Problem | 56 | 109 | 44 | 84 | Rape Incidences | 84 | 64 | 16 | 12 |
| Throat | 53 | 67 | 47 | 60 | Tuberculosis | 42 | 18 | 58 | 25 |
| Ear discharge | 48 | 77 | 52 | 84 | Cholera | 56 | 115 | 44 | 89 |
| Cough | 56 | 242 | 44 | 193 | Meningitis | 50 | 10 | 50 | 10 |
| Chest pain | 50 | 297 | 50 | 293 | Malaria | 51 | 100 | 49 | 97 |
| Heart Problem | 57 | 70 | 43 | 52 | Pressure | 58 | 116 | 42 | 84 |
| Heart Pain | 59 | 172 | 41 | 122 | Ulcers | 49 | 81 | 51 | 85 |
| Stomach ache | 56 | 301 | 44 | 236 | Palpitation | 64 | 27 | 36 | 15 |
| Hernia | 35 | 76 | 65 | 144 | Scabies | 40 | 23 | 60 | 35 |
| Urinary Problem | 59 | 179 | 41 | 125 | Diarrhea | 57 | 52 | 43 | 40 |
| Kidney | 44 | 4 | 56 | 5 | Typhoid | 65 | 24 | 35 | 13 |
| Gu discharge | 50 | 16 | 50 | 16 | Asthma | 86 | 6 | 14 | 1 |
| Bleeding | 82 | 50 | 18 | 11 | Others | 42 | 6 | 58 | 8 |
| STI | 84 | 59 | 16 | 11 | TOTAL | | 5252 | | 4486 |

CHI-SQUARE TESTS

| | Value | Degrees of freedom | Asymp. Sig. (2-sided) |
|---|---|---|---|
| Pearson Chi-Square | 172.472 | 46 | .000 |
| Likelihood Ratio | 182.102 | 46 | .000 |
| Linear-by-Linear Association | 1.684 | 1 | .194 |
| Valid cases | 9738 | | |

*3.4 Health Status by Location*

Table 6 shows perceived ailments as reported by respondents and their frequency by location whereas Table 7 shows categorized health conditions by location. Refugees perceived their health status to have been better while at home than in the camp. The perceived health condition by location is significant ($p<0.05$). There is week positive correlation between diseases and the camp (0.053). The results show that there is statistically significant relationship ($p=0.000$). Results indicate that on average more than 80% of perceived ill health occurred upon migration.

Table 6. Health status comparison by location

| S/N | Disease | LocationFreq | | Total | S/N | Disease | LocationFreq | | Total |
|---|---|---|---|---|---|---|---|---|---|
| | | Camp | DRC | | | | Camp | DRC | |
| 1 | Malnutrition | 782 | 25 | 807 | 25 | Pain | 131 | 17 | 148 |
| 2 | Weight Problem | 374 | 6 | 380 | 26 | swellings | 42 | 4 | 46 |
| 3 | Fever | 251 | 33 | 284 | 27 | back pain | 665 | 121 | 786 |
| 4 | Skin rash | 478 | 47 | 525 | 28 | depression | 494 | 19 | 513 |
| 5 | Skin Scars | 203 | 42 | 245 | 29 | Anxiety | 232 | 20 | 252 |
| 6 | Wounds | 199 | 34 | 233 | 30 | Night mares | 219 | 65 | 284 |
| 7 | Seizures | 101 | 15 | 116 | 31 | Suicide | 66 | 13 | 79 |
| 8 | Vision | 505 | 77 | 582 | 32 | Rape | 35 | 41 | 76 |
| 9 | Hearing disorder | 157 | 36 | 193 | 33 | Tuberculosis | 36 | 7 | 43 |
| 10 | Throat | 107 | 20 | 127 | 34 | Cholera | 187 | 17 | 204 |
| 11 | ear discharge | 115 | 46 | 161 | 35 | Meningitis | 18 | 2 | 20 |
| 12 | Cough | 387 | 48 | 435 | 36 | Malaria | 150 | 47 | 197 |
| 13 | chest pain | 513 | 77 | 590 | 37 | Pressure | 162 | 38 | 200 |
| 14 | Heart Problem | 101 | 21 | 122 | 38 | Ulcers | 150 | 16 | 166 |
| 15 | Heart Pain | 268 | 26 | 294 | 39 | Chicken pox | 2 | 0 | 2 |
| 16 | Stomach ache | 480 | 57 | 537 | 40 | Nausea | 1 | 0 | 1 |
| 17 | Hernia | 185 | 35 | 220 | 41 | Palpitation | 39 | 3 | 42 |
| 18 | Urinary Problem | 276 | 28 | 304 | 42 | Scabies | 57 | 1 | 58 |
| 19 | Kidney | 9 | 0 | 9 | 43 | Diarrhea | 87 | 5 | 92 |
| 20 | Gu discharge | 25 | 7 | 32 | 44 | Typhoid | 29 | 8 | 37 |
| 21 | Bleeding | 47 | 14 | 61 | 45 | Vomiting | 3 | 0 | 3 |
| 22 | STI | 60 | 10 | 70 | 46 | Tooth Problems | 1 | 0 | 1 |
| 23 | Limb pain | 127 | 20 | 147 | 47 | Asthma | 4 | 3 | 7 |
| 24 | Other | 7 | 0 | 7 | | TOTAL | 8567 | 1171 | 9738 |

| | Symmetric Measures | | |
|---|---|---|---|
| | Value | Asymp. Standard Error | Approx. Sig. |
| Interval by IntervalPearson's R | .053 | .010 | .000 |
| Ordinal by Ordinal | .070 | .009 | .000 |
| Valid Cases | 9738 | | |

Table 7. Categorised health status comparison by location

| Category | Total | DRC/n | Camp/n | % of Camp Prop. |
|---|---|---|---|---|
| General Body Pain | 2015 | 277 | 1738 | 86.25 |
| Nutrition related | 1890 | 104 | 1786 | 94.50 |
| Psychological/ Mental Disorder | 1814 | 237 | 1577 | 86.93 |
| Dermatological | 1061 | 124 | 937 | 88.31 |
| Reproductive | 687 | 94 | 593 | 86.32 |
| Vision | 582 | 77 | 505 | 86.77 |
| Respiratory | 527 | 61 | 466 | 88.43 |
| ENT | 481 | 102 | 379 | 78.79 |
| Sanitary Related | 296 | 22 | 274 | 92.57 |
| Infectious Diseases | 254 | 57 | 197 | 77.56 |
| Internal Organ related | 131 | 23 | 108 | 82.44 |

*3.5 Health Care Service Utilization*

Respondents sought healthcare from several alternatives ranging including designated health facilities, traditional healers, prayer groups and others, with the first option being by far the most common (Table 8). A similar pattern of health service seeking behaviour was practiced in the settlement and in Congo. The difference in the health seeking behaviour in the settlement and the one in Congo in terms of frequency distribution was at significant ( $p=0.03$; $p <0.05$).

Table 8. Health care facilities utilised in Congo and Nakivale

| SITE | HEALTH CARE FACILITIES | | | | |
|---|---|---|---|---|---|
| | Health facility | Traditional healers | Prayer group | Others | Total |
| CAMP | 1452(97%) | 32(2.1%) | 2(0.1%) | 17(1.1%) | 1503 |
| CONGO | 1131(98%) | 20(2%) | 2(0.2%) | 1(0.1%) | 1154 |
| Total | 2583(97.2%) | 52(2%) | 4(0.2%) | 18(0.6%) | 2657 |
| Fisher's Exact Test | 12.77 | | | | |
| P-VALUE | 0.003* | | | | |

Most of the people interviewed had access to health facilities. A high (97%) proportion of households obtain health services from government and NGO health centres. Traditional healers were also found to provide a contribution (2.1%) to health services among the refugees. Notably, very few individuals reported seeking health services from prayer groups and others. Despite the high percentage of access to health services from formal health facilities, the results also showed that most centres have inadequate drugs and very few trained personnel. Comparative analysis showed slightly higher (98%) of the respondents obtained health care service from designated health facilities in Congo compared to 97% in Nakivale, however in general, the pattern of utilization of health care services did not show significant differences.

*3.6 Comparison of Health and Health Service Delivery*

Table 9 compared respondents' satisfaction with health service delivery in Congo and Uganda. According to the Congolese interviewed, health care in Congo was by far better than the one received in Camp. However, the difference in service delivery is very weak and insignificant association ($p=0.000$).

Table 9. Health service satisfactions in Congo and Nakivale

| SITE | HEALTH SERVICE SATISFACTION | | | | | |
|---|---|---|---|---|---|---|
| | Poor | Fair | Fairly good | Good | Very good | Total |
| Camp | 1013(66%) | 219 | 57(4%) | 233(15.2%) | 15(1%) | 1537 |
| Congo | 47(4.1%) | 42 | 17(1.5%) | 401(35%) | 649(56.1%) | 1156 |
| Total | 1060(39.4%) | 261(9.7%) | 74(2.7%) | 634(23.5%) | 664(24.7%) | 2693 |
| Chi-Square Tests | 1651.008(df=4) | | | | | |
| P-VALUE | 0.000 | | | | | |

The majority of those interviewed expressed dissatisfaction with the health care delivery in Nakivale and saw themselves as not having access to the best healthcare possible. Health care service delivery in Nakivale was ranked worse than in Congo. Impediments to health care access centred on limited drugs, use of uncommon language by health care providers and long distance covered to access health service (Figure 4).

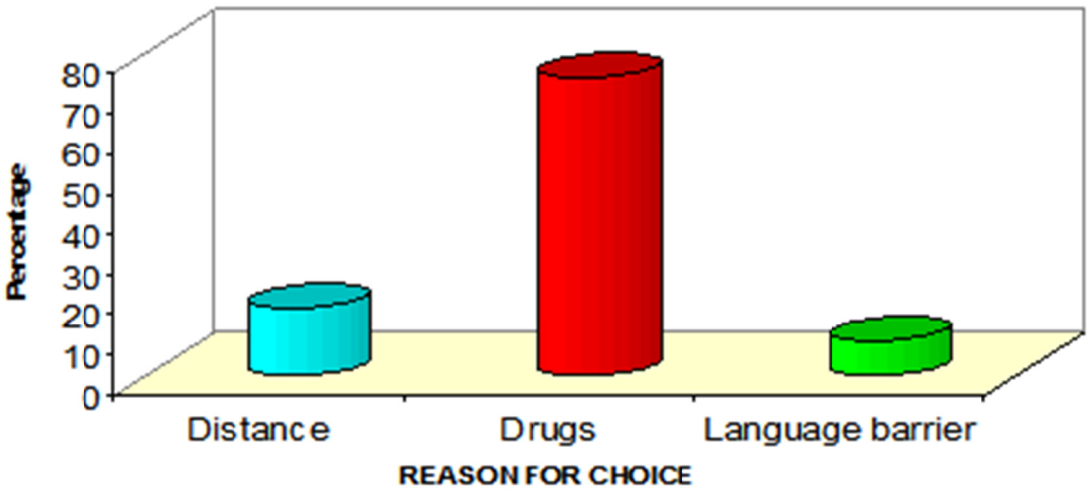


Figure 4. Barriers to health service access

*3.7 Access to Safe Water*

Another challenge that was commonly identified was water accessibility. Water for consumption is reported as one of the major problems facing refugees. Most of the refugees are unable to get the daily requirement for the water needed for their use. Generally, access to protected water sources was estimated at 56.1%, and the one from unprotected source stands at 26% for Lake Nakivale, 9% for stagnant water and 4% for springs. The boreholes which are the main source of protected water are few and a “nightmare” for the refugees. For one to obtain 20litres of water, it takes sometimes a whole day as the number of persons trying to access water is incalculable. Access to potable water was well below the set target of more than 65% by the Millennium Development Goal (MDG).

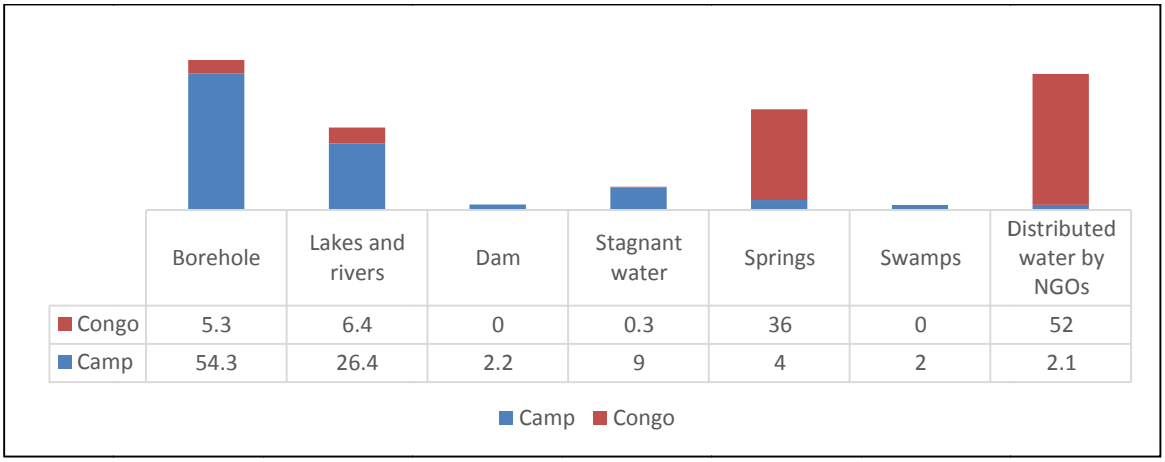


Figure 5. Summary of water sourcesin Nakivale refugee settlement and Congo

Figure 6. Refugees getting water from Lake Nakivale for drinking

Figure 7. Refugees scrambling to get water

## 4. Discussions

Many factors can affect refugee health, including geographic origin and refugee camp conditions. Refugees may face a wide variety of acute or chronic health issues (Office of Refugee Resettlement, ORR Annual Report to Congress 2014). Majority, more than 80% of the Congolese refugees interviewed were between 18 and 50years of age with numbers decreasing as age advanced. This could be attributed to the small number of elderly who managed to escape the conflict, given the long distances and hard conditions in the course of travel. Females comprised up to 54% of the respondents, it is believed that numerous men died in war, remained behind fighting

or were held captive in Congo. All respondents had some of sort of multiple self-perceived ailments. The most commonly mentioned complaints being general body pain (20.7%), nutrition disorders (19.4), psychological torture (18.6), poor skin conditions (10.9) and reproductive health related concerns (7.05%). The general body pain experienced by refugees could be attributed due to fatigue from the long distances travelled between their displacement sites and Nakivale refugee settlements. Moreover, these long journeys are made while carrying huge baggage and some basic necessities.

Self-perceived undernourishment and related disorders were also highly recorded. This could have arisen from change in food habits following forced migration. Although Doocy et al. (2011) commended feeding programs for reduction in the incidence and prevalence of malnutrition, the diets provided in such programs may not suit the original taste and food preferences of the refugees. Also whether the food rations provide by humanitarian agencies during resettlements meets the nutritional requirements of migrant remains to be investigated.

Psychological problems characterized by nightmares, anxiety, depression, aggression or suicidal tendencies among others could have arisen from traumatic experiences like loss of dear ones and witness of violence. According to Onyut et al. (2009) and Kolassa et al. (2010), mental health consequences remain long after conflict and worsen with additional exposure.

Reproductive health are big concerns and greatly contribute to perceived ill health. Such concerns included bleeding, UTIs, STIs and incidences of rape. At individual level, rape occurred more in DRC than in the Nakivale camp, this is could be attributed to high incidences of lawlessness in conflict areas. Smith-Khan et al. (2015) confirmed a high incidence of sexual violence despite formal obligations to uphold rights of refugees and propose conceptualization of justice for disadvantaged groups through the lens of international law. Women continue to remain a more vulnerable group given the cultural context in most developing countries. According to a study by Peterman et al. (2011) approximately 1.69 to 1.80 million women had been raped in their lifetime and 3.07 to 3.37 million women had experienced sexual partner violence in Kinshasa. Culture and protracted political unrest could further expose particularly women to incidences of sexual and domestic violence.

More than 90% of all nutrition and sanitary related health concerns arose from the camps, possibly due to food shortages and difficulty in accessing clean and safe water supplies. This is congruent with studies of Anderson (1999) according to whom long term displacement raises new health needs. However, individual responses in this study found a higher prevalence of sexual violence and rape in DR Congo compared to Nakivale. Frequent incidences of rape and sexual violence in DR Congo have previously been reported by Wakabi (2008) and Johnson et al. (2010)

Respondents who sought health care services from several alternatives ranging including designated health facilities, traditional healers, prayer groups and others with no marked differences before and after migration. Majority of Congolese refugees interviewed had access to a health facility. This is could be attributed to the continuous health promotion activities by health partners including the UN agencies, national and International NGOs, government on the importance of timely health seeking for skilled care from trained health workers. Although majority obtained services from a designate health facility, health services in DR Congo was consistently ranked better in Nakivale, with very weak significance level ( $p=0.000$).

Health care service access constrained by language barrier, poor infrastructure and inadequate drugs at designated health centres. Similar studies which highlighted language barrier as an impediment for access to health services were carried out in the west Nile region of Uganda. Findings indicated that Sudanese refugees did not seek health services from proper health centres where most of the health workers did not speak Sudanese native languages. It was also revealed that provision of translators at health service points did not improve access to health care due to potential loss of confidentiality. In cases where patients had to communicate through translators, they either concealed their actual sickness or sought health services from traditional healers (Makerere Health Dept., 2007). It is likely that patients who are confronted with language barrier might seek health services from alternative, in this case traditional healers, house of prayers or witch doctors. In similar studies (Mudzingwa, 2011) found that the diverse inhabitants of Nakivale lacked of a common language which could create mistrust, tension, animosity and proposed that Swahili be promoted a common language.

In similar studies by Whelan and Blogg (2007) which investigated views of refugees on reproductive health services, poor perceived health of refugees was attributed to ill equipped health care units characterized by inadequate drugs (antibiotics), low staff numbers and high staff turnover. Poor infrastructure also mentioned in this study continues to remain a major service delivery impediment in most developing countries

## 5. Recommendations and Conclusions

### *5.1 Recommendations*

This investigation confirms high prevalence of ill health among Congolese refugees in Nakivale. The most predominant complaints included general body pain (20.7%), nutrition disorders (19.4), psychological torture (18.6), poor skin conditions (10.9) and reproductive health related concerns (7.05%). Based on these findings, the study recommended integrated community based health delivery & system strengthening activities to increase access of preventive medicine to the refugee population; training and employing ethnic community members in health promotion and health service delivery as well as creating platforms to learn the most commonly spoken language for community harmony; there is need to identify and design mechanisms in which key hindrances to health seeking behaviour are addressed; there is need to create new services such as mobile clinics to address the health needs of the refugees population; and finally clean and adequate water provision should be priority of those in charge of the refugee's welfare.

### *5.2 Conclusions*

Post conflict refugee populations relocated to another third world country have a higher prevalence of diseases than when there were in their own country but the level of significance in difference in quality of perceived health care on health status in camp compared with while in their home of origin is very weak or actually insignificant ( p=0.000). To manage this level of self-perceived ailments, common health access barriers like language, drug inadequacies and long distances traversed to the health care facilities which often had a negative effect on the utilization of health care services should be addressed. The health of Congolese refugees could further be improved by humanising conditions of shelter, providing adequate toilet facilities, clean water, and adequate nutritious food. Immediate and urgent establishment of psychosocial support services will also go a long way in reducing post-traumatic stress and disintegrating violence patterns.

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