# Summary for Overseas Travel
# WENDI 2018-2019

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| Name | Seera Georgina |
| School | Graduate School of Asian And African Area Studies (ASAFAS) |
| Grade | 3 |
| Supervisor's name | Associate Professor Shuichi Oyama |
| Travel period | February 1, 2019 – March 25, 2019 |
| UN agencies / International organization visited | Uganda Non-Communicable Diseases Alliance (UNCDA) – Danish NCD Alliance Partner |
| Theme of overseas travel | Obesity and the Cardiovascular Disease Risk of Women in Uganda |

## Outline of the activities (4 pages including photos, figures, etc.)

(1) Global leadership

I had the opportunity to participate in the preliminary stages of the writing of the concept for the development "People's charter" on Non-Communicable Diseases (NCDs). This is an operational document on NCDs that will be based on the ideas and experiences of people who are living with, or those who have lived with and survived any of the three commonest NCDs globally and in Uganda, namely Cancer, Diabetes and Cardiovascular disease. Through this experience, I came to understand the relevance of involving the population targeted for intervention in the process of developing interventions for addressing global problems, as a global leader. I also had the opportunity to review the report on the "capacity of health centers iii and iv to manage non-communicable diseases in Uganda, an assessment report on a study conducted by the UNCDA with funding from the Danish Civil Society fund (CISU), through the Danish Non-Communicable Diseases Alliance (DNCDA). Using the fund, UNCDA conducted a survey to assess the capacity of lower-level health facilities (HC III & HC IV) to offer support to NCD patients in Uganda. Through this opportunity, I had the chance to apply my report writing skills in a real working environment under the supervision of seasoned program officers who emphasized to me the relevance of time keeping in development projects.

(2) Scientific significance

The UNCDA further implemented an assessment on the prevalence of NCDs in Nakasongola district during my stay with them. I had the opportunity of joining this study. I was able to assess for myself the situation in one of the health centers and understand the dire need of emphasizing NCD screening and treatment in Uganda and other developed countries. I was tasked with the writing of the report for this field visit which I was able to complete in time.

(3) Originality/Universality

In collaboration with the UNCDA, the student conducted a survey on the relationship between obesity and the Cardiovascular disease risk of women in Uganda. This study which was conducted in Mukono, is the first of its kind in Uganda. The study which included 460 women collected information on the sociodemographic characteristics of women and an assessment of body composition using the Body Mass Index, Total body fat percentage, abdominal fat level, waist circumference and waist hip ratio which were used as the indicators for obesity and central obesity respectively. The latter 3 also doubled as indicators of cardiovascular disease risk in addition to a measure of systolic blood pressure.

The mean age of the women in the study was 30.5 years. The mean number of years completed at

school was 9 years. The mean number of children was 2. And the mean expenditure per day was 8428UGX approximately 2.3USD (1USD= 3700UGX). The mean length of urban residence was 13 years and the mean household size was 4.   56% of the women in the study were of the Ganda ethnic group which dominates the Central region of Uganda,73.9% of the women in the study were married, divorced or widowed and 51.1% of the women in the study were employed.

According to the body mass index classification, 21% of the women in the study were obese. However, according to the total body fat percentage classification of body size, up to 42.2% of the women in the study were obese. According to abdominal fat, only 5.8% of the population had excessive abdominal fat level. However, according to the rest of the indicators, a significant proportion of the women had a high level of abdominal fat and was at increased risk for cardiovascular disease. For instance, according to waist circumference, up to 57.4% of the women in the study were categorized as having central obesity and at increased risk of cardiovascular disease. (27.7% at increased risk and 29.7% at substantially increased risk). According to the waist hip ratio indicator, up to 32.3% of the women in the study were categorized as having central obesity and being at a substantially increased risk for cardiovascular disease. However, the proportion of women with a systolic blood pressure classified as raised was 9.1% while those with a diastolic blood pressure classified as raised was 23.3% of the women had raised diastolic blood pressure.

The prevalence of raised systolic blood pressure in the group of women categorized as having an obese BMI was 24.7% while that in the group of women categorized as having normal BMI was 5%. The prevalence of raised systolic blood pressure in the group categorized as obese according to the total body fat percentage was 16.7% while that in the group categorized as having a healthy level of total body fat percentage was 5.3%. The prevalence of raised systolic blood pressure in the group categorized as having excessive abdominal fat level was 62.5% while that in the group categorized as having a healthy abdominal fat level was 7.8%. The prevalence of raised systolic blood pressure in the group categorized as having a waist circumference indicative of substantially increased cardiovascular risk was 22.2% while that in the group categorized as having a waist circumference indicative of a low risk for cardiovascular disease was 3.9%. Lastly the prevalence of a raised systolic blood pressure in the group with a waist hip ratio categorized as indicative of a substantially increased risk for cardiovascular disease was 24.3% while that in the group categorized as having a waist hip ratio indicative of a low risk for cardiovascular disease was 4.2%.

The indicator of obesity that remained significantly associated with a raised systolic blood pressure following a multinomial logistic regression was an abdominal fat level classified as excessive.

Obesity is associated with an increased risk for cardiovascular disease as measured by the incidence of raised blood pressure among women in Uganda. Central obesity indicated by a high proportion of abdominal fat poses the highest risk. This underscores the need for developing agencies such as those of the UN and other international organizations to restructure their malnutrition elimination efforts to include the prevention and treatment of obesity. This is an indispensable step towards the achievement of the sustainable development goal to reduce premature mortality from Non communicable Diseases (NCDs)

(4) Reasons and motivations for visiting UN agencies / International organizations

My main reason and motivation for visiting UNCDA was to get exposure to the international perspective and approach to obesity and NCDs. As a person that is conducting research on the Double burden of malnutrition in Uganda, I was surprised to find that although there were many UN agencies and International organizations tackling undernutrition, it was very difficult to identify an organization tackling obesity and overweight, otherwise known as overnutrition. This situation has persisted despite the increasing number of researches pointing to an emerging double burden of malnutrition in developing countries, characterized by the coexistence of any form or undernutrition with obesity and the associated diet related non communicable diseases in the same individual, group or population. The UNCDA is the only organization that has so far been vocal on the need to integrate the assessment for and management of diet related NCDs in routine medical care. I was thus interested in visiting them, to understand their motivations for focusing on a problem that has been neglected by most 'development' agencies and organizations.

Photos and Figures



Photo 1: UNCDA survey at Nabiswera Health Center in Nakasongola District Uganda



Photo 2: Explanation of assessment results and recording of results in the UNCDA survey at Nabiswera Health Center in Nakasongola District

Photo 3: Explanation of assessment results and recording of results in the UNCDA survey at Nabiswera Health Center in Nakasongola District
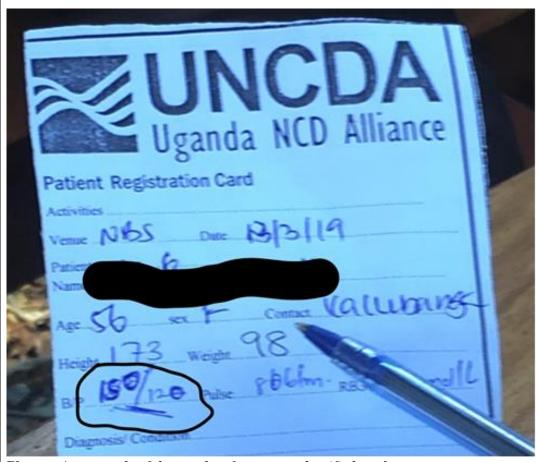


Photo 4: An example of the results of a woman classified as obese