# Scientists Call for more focused interventions to curb high cardiovascular disease levels in Mukono, Buikwe

Kampala -Tuesday, 16 May 2020 - Researchers at the Makerere University School of Public Health (MakSPH) have called for innovative strategies to reverse the trends of the growing cases of cardiovascular diseases (CVD) affecting the heart and blood vessels - in Mukono and Buikwe districts.

At least one in four of the adult population in the districts of Mukono and Buikwe reportedly has high blood pressure. This is an indicator of rising cases of high blood pressure and other CVD risk factors in Uganda.

Concerned about the high occurrence of risk behaviours responsible for causing the diseases, the researchers set out to map and describe the distribution of Cardiovascular risk factors in 20 parishes. The parishes included Buikwe, Busabaga, Kabanga, Lugala, Mawotto, Namabu, Njeru west, Nsakya and Wakisi in Buikwe district and Katoogo, Kitovu, Kyabakadde, Kyabazaala, Misindye, Mpunge, Nabalanga, Nagojje, Namuganga, Namaliga, Seeta - Nazigo in Mukono district.

The findings of this study were published by the **BioMed Central Journal (BMC)**, Cardiovascular Disorders in June, highlighting the need to innovate strategies to reverse the trends.

The specialists say the research findings act as a baseline for the analysis of trends and has potential to guide targeted intervention programmes for CVD prevention.

Results show high occurrence of smoking, alcohol consumption, physical inactivity, high blood pressure, overweight plus unhealthy diets in the districts of Mukono and Buikwe.

These risk factors that are attributable to the increasing burden of cardiovascular diseases were prominent across 80 villages in 20 parishes in both Mukono and Buikwe districts.

A total number of 4,372 adults aged between 25-70 years was drawn from 3,689 randomly selected households in the selected areas.

### High blood pressure

The study observed that overall, almost one in four persons had high blood pressure with similar proportions among males compared to females. The sub analysis however showed some parishes with higher proportion of individuals with high blood pressure more among men than in females. For instance, more men were found to have high blood pressure in parishes of Nsankya and Wakisi in Buikwe district and Seeta-Nazigo in Mukono.

In Misindye and Nabalanga parishes in Mukono however, there were higher cases of high blood pressure in women compared to men.

### Physical Inactivity (no exercises)

The study also found that most adults were physically active. Only four in a hundred (4%) were not physically active; with the proportion lower among males compared to females. Physical inactivity was highest in Njeru West at 12% but higher in men than in females and lowest in parishes of Mpunge and Mawotto.

#### **Smoking**

On smoking, the overall prevalence stood at 6.9% higher among males than females. The study reveals more smokers in Kyabakadde at (11.9%), higher in males at (17.7%) than females (7.7%). Meanwhile, Namaliga and Mpunge parishes had high numbers of smokers with the lowest smoking levels recorded in Buikwe parish. Overall, smoking was noticeably higher among males than females in the 20 parishes with exception of Mpunge Parish in Mukono.

The high rates of smoking among females in Mpunge parish, according to the study appear to be driven by pipe smoking, a behaviour attributed to underlying cultural and social drivers.

"We did not explore why smoking practices were higher among females than males in Mpunge parish, however, pipe smoking seemed common among females in this particular parish. The main driver of the practice among female could be social cultural reasons," disclosed Dr. Geofrey Musinguzi, a lead author and Research Fellow in the Department of Disease Control and Environmental Health.

#### Alcohol consumption

The overall prevalence of alcohol consumption was at 23% higher among men than women. The Parishes of Nagojje in Mukono, Lugala and Busabaga in Buikwe district had the highest proportion of adults consuming alcohol. The lowest proportion of alcohol consumption was observed in Nsakya, Buikwe, Namabu parishes in Buikwe district.

Rawlance Ndejjo, one of the researchers and a Research Fellow in the Department of Disease Control and Environmental Health observed that alcohol especially sold in small sachets are cheap and very easy to access in many of these communities littering roads and communal places. "Locally brewed beer such as *malwa* and *tonto* are also easily accessible contributing to the high numbers of alcohol consumers. We need to limit the sale of sachet alcohol as a first step as we further sensitize communities about the dangers of alcohol consumption."

#### **SPICES PROJECT**

The research was conducted under the SPICES project, an EU financed H2020 project focussing on the prevention of CVD in low and middle-income countries and vulnerable populations in Europe.

Dr. Musinguzi who is also the Principal Investigator of the SPICES Project (Scaling-up Packages of Interventions for Cardiovascular disease prevention in selected sites in Europe and Sub-Saharan) says the findings are insightful and call for an in-depth exploration of the drivers that could explain these trends.

"The study tells us that these risk factors are common in the study area and without any intervention, we are likely to see these risk factors going up. Although COVID-19 may change some of the trends due to the strict social distancing and lockdown measures, systematic interventions are needed to reverse the trends." said Dr. Musinguzi.

He argues that Uganda does not have enough resources to treat increasing numbers of Cardiovascular diseases. "We can't afford. We don't have the facilities, we don't have the equipment, and we don't have the skills especially the lower level facilities. Investing in primary prevention and promoting population level healthy lifestyle behaviours will be cost effective and a good buy," Dr Musinguzi elaborated.

Also, very few people confessed to have ever tested for their blood sugar levels, pointing to poor health seeking behaviours. Dr. Musinguzi says there is need for increased testing services for CVDs risks factors especially high blood pressure.

"From the results, we observed that people in some parishes reported more access to screening than others. Knowledge of one's risk factor for CVD is a precursor to behaviour change and high blood pressure increases likelihood of an appropriate behaviour," he says.

According to Dr. Musinguzi; "while we look at a once-size-fits-all strategy, we need to know who is exposed to what and then appropriately respond. With these differences in the populations, we need to continue hitting the drum and tell people about the dangers of these diseases."

He calls on serious investment in preventive measures that target the well-known risk factors.

"We need to raise awareness and tailor the response strategies. This is what we learn from the granular analysis of this CVD risk factors study. For example, where we find more people smoking, invest a little more in addressing smoking as a problem. But in areas where smoking may not be a big issue but maybe sedentary behaviour is common, focus more on this, say by increasing campaigns on physical activity and exercising," says Dr. Musinguzi.

Dr. Rhoda Wanyenze, Professor and Dean, School of Public Health has underscored the need to prioritise other diseases alongside efforts aimed at fighting Coronavirus -COVID-19 disease.

"We are all consumed with COVID-19 and need to note that CVD is a major risk factor for poor COVID outcomes and the burden with/without COVID is rapidly growing globally and in Africa. We need to keep this high on the agenda!" Dr. Wanyenze says.

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