IDI COVID-19 Science Summary Compiled by Dr Andrew Mujugira (23rd to 29th August 2020)

23rd August 2020

A person is a person because of other persons ~ South Sotho proverb

SARS-CoV-2 in Prisons

- 1) Crowded living conditions, limited ability to isolate or practice distancing, and inadequate hygiene facilitate spread of SARS-CoV-2 in prisons.
- 2) Nearly half (154/318) of COVID cases announced Saturday occurred in Amuru prisons, highlighting the vulnerability of prisoners.
- 3) SARS-CoV-2 transmission from prisons to the community and vice versa may be facilitated by staff members, suppliers, visitors, and new or released prisoners.

24th August 2020

The nose smells food but the mouth does the eating ~ African Proverb

SARS-CoV-2 Nasal Vaccination

- 1) Vaccines given through the nose could protect against SARS-CoV-2 infection, and be more effective than an injected form of the same vaccine.
- 2) Mice injected with a candidate vaccine and then exposed to SARS-CoV-2 showed no infectious virus in their lungs, but their lungs had small amounts of viral RNA. By contrast, mice that had nasal vaccination before exposure had no measurable viral RNA in their lungs, suggesting that the nasal vaccine blocked infection.
- 3) Nasal vaccines might allow people to vaccinate themselves.

Cell (2020)

25th August 2020

One brave man does not fight two cowards ~ Runyoro Proverb

SARS-CoV-2 Reinfection

- 1) A second case of COVID-19 infection has been diagnosed in a 33-year-old man in Hong Kong, 4.5 months after the first infection.
- 2) Genome sequencing showed that the second infection was caused by a new virus acquired in Spain rather than prolonged viral shedding.
- 3) This is the first confirmed case of reinfection with SARS-CoV-2. Immunity to the coronavirus may last only a few months in some people.

A person with food to eat does not appreciate the severity of a famine ~ Yoruba Proverb

- 1) Suicide rates per 100,000 population are higher in Uganda (9.90) than Rwanda (6.70), DRC (5.70), Tanzania (5.40) or Kenya (3.20). Police reports indicate that suicide cases increased after the lockdown.
- 2) Uganda faced substantial challenges in meeting demand for mental health care even before COVID-19. Nearly 90% of people with mental health conditions receive no treatment.
- 3) To avoid a mental health crisis, the UN recommends:
 - a) A whole-of-society approach to promote, protect, and care for mental health.
 - b) Ensure widespread availability of emergency mental health and psychosocial support.
 - c) Support recovery from COVID-19 by developing mental health services for the future.

The Lancet Psychiatry, August 23, 2020

27th August 2020

The ears don't suffer hunger. They are always open ~ Luganda Proverb

- 1) Lockdowns intended to control COVID-19 may impair socioeconomic wellbeing and mental health, and exacerbate risk of food insecurity and intimate partner violence.
- 2) An interrupted time series of 2,424 women in rural Bangladesh found that median monthly family income fell from US\$212 at baseline to \$59 during lockdown. The proportion of families experiencing food insecurity increased by 51.7%. Maternal mental health deteriorated (increased depression, anxiety symptoms, emotional and physical violence).
- 3) COVID-19 lockdowns present significant economic, psychosocial, and physical risks to the wellbeing of women and their families.

The Lancet Global Health, 25th August 2020

28th August 2020

The pestle lives longer than the mortar ~ Luganda Proverb

- 1) Sex differences in the COVID-19 immune response might explain why men are more likely to be hospitalized and die of COVID-19 than women.
- 2) Among 98 men and women with moderate COVID-19, female patients mounted significantly more robust T cell activation than male patients. Worse disease outcomes were associated with poor T cell responses in males but not females. Higher innate immune cytokines in females, but not males, associated with worse disease progression.
- 3) These data suggest that sex differences in immune responses may underlie COVID-19 disease outcomes.

Takahashi, T et al. Nature (2020)

He who lives alone is eaten by the lion ~ Runyankore proverb

Physically Distant but Socially Connected

- 1) Social connectedness has significant and positive influences on psychological, emotional and physical well-being and overall longevity.
- 2) Social isolation and loneliness are detrimental to physical and mental health and significantly increase the risk of premature death. In a meta-analysis, living alone, social isolation and loneliness increased the likelihood of early mortality by 32%, 29%, and 26%, respectively.
- 3) Lack of social connection is as risky to health as smoking 15 cigarettes a day or having an alcohol use disorder. Loneliness and social isolation are twice as harmful to physical and mental health as obesity.

Perspect Psychol Sci. 2015 Mar;10(2):227-37