

16<sup>th</sup> May 2020

*“The hands that make mistakes belong to those who work” - Sotho proverb*

### **COVID-19 and BCG vaccination**

Bacille Calmette-Guerin (BCG) vaccination decreases risk of acute lower respiratory infection in children <5 years, and enhances immunogenicity of the influenza vaccine [Pediatrics. 2014 Jan;133(1): e73-81].

Prior studies have suggested that universal BCG vaccination reduces COVID-19 morbidity and mortality [medRxiv 2020.03.24.20042937; medRxiv 2020.04.05.20054163].

An Israeli population-based analysis of 72,060 SARS-CoV-2 PCR tests found no significant difference in positive test results in the BCG-vaccinated group vs. unvaccinated group (11.7% vs. 10.4%;  $p=0.09$ ). Positivity rates were similar (121 vs 100 per 100,000;  $p=0.15$ ). In this study, childhood BCG vaccination did not protect against COVID-19 in adulthood [JAMA. 2020 May 13].

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17<sup>th</sup> May 2020

*“No matter how good you are to a goat it will still eat your yams” - Nigerian proverb*

### **COVID-19 lockdowns in Africa**

To date, 53 African countries have reported 75,498 cases (12,739 in South Africa) and 2,561 deaths. Africa's younger population is an advantage but her fragile health systems may buckle under the strain.

Stringent public health measures may have slowed the spread of COVID-19 in Africa. However, lives lost to lockdown may exceed those saved from COVID-19. Unintended lockdown consequences include economic disruption, food insecurity, interruptions in HIV, TB and NCD treatment, and adverse mental health outcomes (anxiety, depression, PTSD and violence).

The ethical principle of Beneficence - maximize benefits, minimize harms - requires careful calibration of COVID-19 containment measures.

*Lancet. 2020 May 12*

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18<sup>th</sup> May 2020

*“Death don't see no difference 'tween the big house and the cabin” - African American proverb*

COVID-19 autopsy studies reveal that pneumonia, deep venous thrombosis and pulmonary embolism are common, particularly among elderly obese men with cardiovascular disease, hypertension and diabetes mellitus.

Primary cause of death was respiratory failure with exudative diffuse alveolar damage, massive capillary congestion and microthrombi despite anticoagulation.

Lung histology showed diffuse alveolar damage consistent with early acute respiratory distress syndrome, and inflammatory infiltrates consistent with viral or bacterial pneumonitis.

19<sup>th</sup> May 2020

*"A bird that flies from the ground onto an anthill does not know that it is still on the ground"* ~

Nigerian Proverb

### COVID-19 Hotspots in Africa

**Nigeria:** 'Dozens of doctors are infected and gravediggers are overwhelmed in Kano, Nigeria's second-largest city. A presidential task force reported that 80% of COVID-19 tests in Kano are positive. At least 42 doctors and 28 nurses have tested positive, and one doctor has died, according to Dr. Sanusi Bala, chairman of the Kano branch of the Nigerian Medical Association. Musa Abubakar used to dig two or three graves a day at the main cemetery. Then overnight it became 40. I have never witnessed mass deaths like this, he said.

**Tanzania:** The government has not released any data on COVID in Tanzania since April 29. According to a US embassy health alert, the risk of contracting COVID-19 in Dar es Salaam is extremely high. All evidence points to exponential growth of the epidemic in Dar and other locations in Tanzania. Many hospitals in Dar es Salaam have been overwhelmed in recent weeks. According to media reports, COVID-19 testing is on hold and night burials are frequent.

**Somalia:** >1,200 'people have tested positive and, officially, 53 have died. But doctors, officials and humanitarian workers think this is an underestimate. In Mogadishu, officials say that burials have tripled'.

Sources: The New York Times; US Embassy; The Guardian

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20<sup>th</sup> May 2020

*"Count not only my blessings but also count my worries and struggles as well"* ~ Ghanaian Proverb

### I can't turn my brain off: COVID-19 and Mental Health

The COVID-19 pandemic is a physical health crisis as well as a mental health crisis.

Healthcare workers are at high risk of burnout and post-traumatic stress disorder plus traumatic distress (35%), depression (15%), anxiety (12%) and insomnia (8%). Asking for help is not easy for those trained to care for others.

Female nurses bear the heaviest burden: I can't turn my brain off. I have nightmares that I won't have P.P.E. I worry about my patients, my co-workers, my family, myself (ICU nurse). Stressors include high workload, frequent exposure to death, and fear of infecting family members.

JAMA Netw Open. 2020;3(3): e203976

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21<sup>st</sup> May 2020

*"No matter how big a child is; he cannot deny that he was once carried on the back of a woman" ~ African Proverb*

### **Women leaders respond effectively to COVID-19**

1) A global natural experiment reveals that countries with the largest number of COVID-19 cases - USA, Russia, Brazil, UK - are led by alpha males who did not (or do not) take the pandemic seriously.

2) Countries with the best coronavirus responses include Denmark, Finland, Germany, Iceland, New Zealand, Norway and Taiwan which are led by women.

3) Lessons learned from women leaders:

- Tell the truth: Angela Merkel told Germans that SARS-Cov-2 could infect up to 70% of the population. "It's serious," she said, "take it seriously".
- Be decisive: Jacinda Ardern in New Zealand was quick to lockdown the country and crystal clear on why and how it was done. NZ was the first country to eliminate COVID-19.
- Use technology: Sanna Marin, the world's youngest head of state, uses social media influencers to battle the coronavirus in Finland. Katrín Jakobsdóttir is offering free coronavirus testing to all Icelanders.
- Show empathy: Effective leaders establish an emotional connection with their followers. Erna Solberg of Norway used television to hold a dedicated press conference for children. She responded to kids' questions from across the country, and said it was OK to feel scared. Moral: reach the kids, influence the parents.

Source: Forbes

MMWR Morb Mortal Wkly Rep. ePub: 12 May 2020

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22<sup>nd</sup> May 2020

*" He who is afraid of the sun: does not become a chief" ~ Ganda proverb*

### **The Sunshine Vitamin (vitamin D) and COVID-19**

Vitamin D deficiency may be associated with COVID-19 mortality, according to European cross-sectional data.

Vitamin D supports production of antimicrobial peptides in the respiratory epithelium, decreasing susceptibility to SARS-CoV-2. Whereas SARS-CoV-2 downregulates expression of angiotensin-converting enzyme 2 (ACE2), vitamin D promotes expression of ACE2 and might decrease the inflammatory response to SARS-CoV-2 infection.

Does vitamin D supplementation protect against COVID? COVIDENCE UK, a large 12,000-person study, aims to investigate how diet and lifestyle factors might influence COVID-19 clinical outcomes.

Source: Michell F, The Lancet Diabetes & Endocrinology, May 20, 2020

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