

IDI COVID-19 Science Summary Compiled by Dr Andrew Mujugira (20th Sept to 26th Sept 2020)

20th September 2020

He who longs too much for a child will marry a pregnant woman ~ Bambara Proverb

COVID-19 and Stillbirths

The proportion of pregnancies ending in stillbirths, in which babies die in the womb, has significantly increased since the COVID pandemic began.

A study of 20,354 women in Nepal found a 50% increase in the stillbirth rate, from 14 per 1000 total births before lockdown to 21 per 1000 total births during lockdown ($p=0.0002$). At St George's Hospital in London, a nearly fourfold increase in the incidence of stillbirths was observed (9.31 vs. 2.38 per 1,000 births).

These data link disrupted pregnancy services to increases in stillbirths.

JAMA. 2020;324(7):705-706: Lancet Glob Health. 2020 Aug 10

21st September 2020

If you plant grass, you won't get rice ~ Malaysian Proverb

Physical Distancing Impacts Other Infectious Diseases

- Diagnoses of 12 common pediatric infectious diseases declined significantly in the weeks after COVID-19 physical distancing was enacted in Massachusetts, USA.
- Influenza, croup, and bronchiolitis essentially disappeared. Rates of acute otitis media, streptococcal pharyngitis, and pneumonia were 85, 31 and 14 diagnoses per 100,000 patients per day lower, respectively.
- Physical distancing appears to have had a dramatic impact on the transmission of common childhood infectious diseases, especially respiratory viral pathogens.

Pediatrics. 2020 Sep 2; e2020006460

22nd September 2020

From success to failure is one step; from failure to success is a long road ~ Yiddish Proverb

Convalescent Plasma for COVID-19

Convalescent plasma is obtained from individuals who have recovered from COVID-19 and have generated an immune response.

Meta-analysis showed no evidence of a difference between convalescent plasma versus standard care on all-cause mortality (RR 0.60; 95% CI 0.33-1.10; $p = 0.10$; 2 trials). Limited evidence suggests improved outcomes in hospitalized individuals with severe COVID-19 (requiring supplemental oxygen) if it is given early in the disease course.

Other uses of convalescent plasma such as post-exposure prophylaxis and treatment of early disease are under investigation.

23rd September 2020

Wisdom does not come overnight ~ Somali Proverb

In-Flight Transmission of SARS-CoV-2

Genetic evidence strongly suggests that at least one member of a married couple flying from Boston to Hong Kong in early March infected two flight attendants during the trip. At the time, use of face masks was not mandatory.

Viral genomes of the couple and both flight attendants were 100% identical and phylogenetically grouped to clade G (North America) and not the SARS-CoV-2 prevalent in Hong Kong.

This suggests that one or both passengers transmitted the virus to the crew members during the flight. No previous reports of in-flight SARS-CoV-2 transmission have been supported by genetic evidence.

Emerg Infect Dis. 2020 Nov

24th September 2020

Two eyes help each other ~ South African Proverb

COVID-19 Contact Tracing

'Successful SARS-CoV-2 contact tracing requires timeliness and community engagement to encourage participation and cooperation'.

During periods of high COVID-19 incidence in North Carolina, USA, 35%-48% of COVID-19 patients reported no contacts, and 25%-48% of contacts were not reached. Median interval from index patient specimen collection to contact notification was 6 days. '

'Despite aggressive efforts by health departments, many COVID-19 patients do not report contacts, and many contacts cannot be reached. Improved timeliness of contact tracing, community engagement, and community-wide mitigation are needed to reduce SARS-CoV-2 transmission'.

MMWR Morb Mortal Wkly Rep. ePub: 22 September 2020

25th September 2020

A river is filled by tributaries ~ South African Proverb

SARS-CoV-2 Has Low Genetic Diversity

- 'Genetic analysis of sequences from individuals infected with SARS-CoV-2 has revealed that the virus has mutated minimally since December 2019'.
- 'Analysis of 18,514 independent virus genome sequences from 84 countries revealed low estimates of genetic differentiation following the initial outbreak. This suggests the SARS-CoV-2 genome has evolved through a mostly random process rather than through adaptation to human hosts.'

- 'SARS-CoV-2 appears to have a low level of genetic variation, suggesting that a vaccine could be equally effective against all currently circulating strains'.

PNAS September 22, 2020 117 (38) 23652-23662

26th September 2020

Shyness killed the tortoise ~ Lugbara Proverb

'The US Food and Drug Administration has approved the first point-of-care antibody test for COVID-19, under an emergency use authorization'.

'The Assure COVID-19 IgG/IgM Rapid Test uses fingerstick blood samples and eliminates the need to send samples to a central laboratory for testing'.

'SARS-CoV-2 serology tests can't diagnose an active infection, because they only detect antibodies that the immune system develops in response to the virus — not the virus itself. '

Medscape Infectious Diseases
