

COVID-19 Global Trends & Analyses: May Update 5

Period 9-13 May

Focus on the impact of COVID-19 on essential health services in Low- and Middle-Income Countries

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Observations with policy implications for Australia

Lessons from the relaxation of restrictions internationally

- Cautionary news from South Korea, Germany and China
 - The 99 new cases reported in South Korea since May 8 were equivalent to the number of cases recorded in the country over the previous two weeks. Most of the new cases were linked to an outbreak at several Seoul nightclubs and bars. Authorities have tested 4,000 people who had patronised the nightspots, but were still trying to track down approximately 3,000 more. The mayor of Seoul has **closed all bars and nightclubs** in and around the city.
 - Germany reported a spike of 4,436 new cases in the five days between May 5 and May 9. All 16 federal states have agreed to reimpose lockdowns **if new cases hit 50 per 100,000** people over seven days, and four have now passed that threshold and are reversing relaxations. Outbreaks in abattoirs and food processing plants have been reported in three states and in nursing homes in a fourth. **Should Australia also establish thresholds?**
 - China has reported six new cases in Wuhan, where restrictions have been gradually eased over the past month. The cases were **asymptomatic contacts** from the residential apartment block of the index case. Local authorities plan to test the entire population of 11 million over the next ten days.
- Other countries that have recently reimposed restrictions after spikes in new cases include Ghana, Iran and Lebanon.
- Austria has not identified any resurgence in new cases since restrictions were first eased in mid-April, allowing hardware and clothing stores and garden centres to open.
- Spain is easing restrictions based on classifying regions as red or green based on incidence of new cases, as is France
 - Madrid and Barcelona will not lift restrictions
- In several US states that have reopened restaurants, attendance by in-house diners has been tiny. According to the database OpenTable, attendance at restaurants in Georgia on May 11 was -94% compared with the same date in 2019, down only slightly from -100% on April 26¹. A number of restaurants, particularly in Atlanta, have closed again.

¹ <https://www.opentable.com/state-of-industry>

Global trends^{2 3}

- Russia now has the third highest number of reported cases (232,243) in the world. The country has reported more than 10,000 new cases daily for ten consecutive days.
- Brazil, India and Mexico continue to have exponential trends in reported cases.
- Saudi Arabia has reported more than 1,500 new daily cases for ten consecutive days. More than 75% of cases are among non-residents working in the country⁴. Other countries with large migrant worker populations (Qatar, UAE, Singapore, and Kuwait) continue to have expanding outbreaks.
- The total number of new cases in the US is flattening; however, if New York State is excluded from the figures, the rate of new daily cases continues to increase.
- India has doubled its reported number of cases in ten days. Other Asian countries with escalating epidemics are Pakistan, Bangladesh and Indonesia.
- No new cases have been reported in Fiji since April 20 and Papua New Guinea since April 22.
- The global case-fatality ratio among reported cases is 6.7%.
- Brazil became the sixth country to report more than 10,000 deaths (12,404) and Canada became the 11th country to report more than 5,000 deaths (5,169), which is more than China.
- Australia's testing rate has increased significantly to 3,443 per 100,000, which is now ranked #15 in the world (among countries with more than 5,000 cases).

Impact of COVID-19 on essential health programs in Low and Middle Income Countries (LMICs)

Summary

- **MCH:** Modelling by a team at Johns Hopkins University found that their least severe scenario (program coverage reductions of 9-8–18.5% and wasting increase of 10%) over **6 months** would result in **253,500 additional child deaths** and **12,200 additional maternal deaths**. Their most severe scenario (coverage reductions of 39.3–51.9% and wasting increase of 50%) over 6 months would result in 1,157,000 additional child deaths and 56,700 additional maternal deaths.
- **Immunisation:** The WHO has stated that based on the current understanding of transmission of the SARS-CoV-2 virus and recommendations for physical distancing, **mass vaccination campaigns should be temporarily suspended.**
- GAVI has reported that immediate delays to vaccination campaigns and routine introductions of vaccines will mean at least **13.5 million people** in 13 of the world's least-developed countries will not be protected against diseases like measles, polio and human papillomavirus.
- **Sexual and reproductive health (SRH):** UNFPA has projected that some **47 million women** in 114 low- and middle-income countries will **be unable to access modern contraceptives** if the average lockdown, or COVID-19-related disruption, continues for 6 months with major disruptions to services.
- IPPF has reported that 5,633 static and mobile clinics and community-based SRH care outlets have already closed because of the outbreak, across 64 countries. They make up 14 % of the total service delivery points that IPPF members ran in 2018.
- **Polio:** The Global Polio Eradication Initiative has recommended **that polio vaccination campaigns be postponed** until the second half of the year. As of 10 May, Pakistan has reported 47 wild polio cases in 22 districts compared to 19 cases from ten districts during 2019 (same point in time). Cases of circulating vaccine-derived polio have been reported in 16 countries compared with 8 at this time last year.

² <https://coronavirus.jhu.edu/data/new-cases>

³ <https://www.worldometers.info/coronavirus/#countries>

⁴ <https://www.npr.org/sections/coronavirus-live-updates/2020/05/05/850542938/migrants-are-among-the-worst-hit-by-covid-19-in-saudi-arabia-and-gulf-countries>



- **Tuberculosis:** A survey by the Stop TB Partnership (STP) of 16 high-burden countries found that all National TB Programs (NTP) have observed a decrease in the number of people presenting/accessing services for TB. In **India, there is approximately an 80% decline in daily TB notifications** during the lockdown period compared to the average daily notifications; the only country that had real-time data to analyse.
- Modelling by the STP has suggested that globally there would be **608,400 excess TB cases and 126,100 excess deaths for every month of lockdown** and a further 420,400 excess cases and 83,200 excess deaths for every month of restoring services after lockdown.
- **Malaria:** The Global Malaria Program has modelled the impact of nine scenarios based on various levels of disruption to the distribution of insecticide treated nets (ITN) and to effective malaria treatment. If the 2020 ITN campaigns are cancelled and continuous distributions and access to effective malaria treatment are also severely disrupted (i.e., reduced by 75%) **malaria cases are estimated to increase by 23%, while deaths would increase by 102%.**
- **HIV and AIDS:** WHO and UNAIDS brought together five teams of modellers that looked at the potential impact of treatment disruptions of three months or six months on AIDS mortality and HIV incidence in sub-Saharan Africa. In **the six-month disruption** scenario, estimates of **excess AIDS-related deaths in one year ranged from 471 000 to 673 000**, making it inevitable that the world will miss the global 2020 target of fewer than 500 000 AIDS-related deaths worldwide.

Impact on other disease control programs, maternal and child health and reproductive health services

There are so far few concrete data on the impact of COVID-19 on essential health services. However, there have been a number of modelling studies, which are reported here. Most journal articles have been editorials and commentaries warning of the potential impact of COVID-19 on other disease control programs (such as TB, malaria and HIV), maternal and child health, and the management of chronic diseases. For example, in an article on the ReliefWeb website, the authors warned that even as the pandemic accelerates, governments must also protect other essential health services⁵. They note that one study estimated that a 50 percent reduction in access to services during the 2014-2015 West Africa Ebola outbreak led to an additional 10,600 deaths from malaria, HIV/AIDS and TB—almost equal to the 11,300 deaths directly caused by Ebola⁶.

Maternal and child health, including immunisation.

- A team from Johns Hopkins University modelled three scenarios in which the coverage of essential maternal and child health interventions is reduced by 9·8–51·9% and the prevalence of wasting is increased by 10–50%. The study was published in The Lancet on May 12⁷. They used the Lives Saved Tool to estimate the additional maternal and under-5 child deaths under each scenario, in 118 low-income and middle-income countries. They estimated additional deaths for a single month and extrapolated for 3 months, 6 months, and 12 months.
- Their least severe scenario (coverage reductions of 9·8–18·5% and wasting increase of 10%) over 6 months would result in 253,500 additional child deaths and 12,200 additional maternal deaths. Their most severe scenario (coverage reductions of 39·3–51·9% and wasting increase of 50%) over 6 months would result in 1,157,000 additional child deaths and 56,700 additional maternal deaths.
- These additional deaths would represent an increase of 9·8–44·7% in under-5 child deaths per month, and an 8·3–38·6% increase in maternal deaths per month, across the 118 countries.

⁵ <https://reliefweb.int/report/world/balancing-covid-19-response-wider-health-needs-key-decision-making-considerations-low>

⁶ https://wwwnc.cdc.gov/eid/article/22/3/15-0977_article

⁷ [https://www.thelancet.com/pdfs/journals/langlo/PIIS2214-109X\(20\)30229-1.pdf](https://www.thelancet.com/pdfs/journals/langlo/PIIS2214-109X(20)30229-1.pdf)



- Across the three scenarios, the reduced coverage of four childbirth interventions (parenteral administration of uterotonics, antibiotics, and anticonvulsants, and clean birth environments) would account for approximately 60% of additional maternal deaths. The increase in wasting prevalence would account for 18–23% of additional child deaths and reduced coverage of antibiotics for pneumonia and neonatal sepsis and of oral rehydration solution for diarrhoea would together account for around 41% of additional child deaths.
- The WHO has stated that based on the current understanding of transmission of the COVID-19 virus and recommendations for physical distancing, mass vaccination campaigns should be temporarily suspended. Countries should monitor and re-evaluate at regular intervals the necessity for delaying mass vaccination campaigns⁸.
- In early April, GAVI reported that immediate delays to vaccination campaigns and routine introductions will mean at least 13.5 million people in 13 of the world's least-developed countries will not be protected against diseases like measles, polio and human papillomavirus (HPV)⁹.
- So far, 14 major Gavi-supported vaccination campaigns against polio, measles, cholera, HPV, yellow fever and meningitis have been postponed, as have four national vaccine introductions.
- Measles outbreaks are currently ongoing in several countries, including the Democratic Republic of the Congo (DRC) and the Central African Republic. The DRC outbreak is currently the world's largest, affecting over 300,000 people since it started in 2019, with more than 6,000 deaths – nearly three times as many as resulted from the Ebola outbreak in the country.

Sexual and Reproductive health

- The COVID-19 pandemic is having a major impact on the delivery of sexual and reproductive healthcare around the world, according to a survey of its national members conducted by the International Planned Parenthood Federation (IPPF)¹⁰.
- 5,633 static and mobile clinics and community-based care outlets have already closed because of the outbreak, across 64 countries. They make up 14 % of the total service delivery points IPPF members ran in 2018. For static clinics – which provided 114 million services to clients in 2018 – the figure is even worse. More than one in five has already closed – 546 in total.
- IPPF's South Asia region has seen the largest number of closures overall, with more than 1,872 clinics and other service outlets closed.
- The Africa region has seen the largest number of mobile clinics closed, with 447 shut.
- 971 mobile clinics and community-based care outlets in the Federation's Western Hemisphere region have been shut down by the pandemic.
- Countries particularly affected by closures include Pakistan, El Salvador, Zambia, Sudan, Colombia, Malaysia, Uganda, Ghana, Germany, Zimbabwe and Sri Lanka. All have reported more than 100 closures of clinics and/or community-based service outlets.
- UNFPA, with contributions from Avenir Health, Johns Hopkins University and Victoria University (Melbourne), released a report in late April projecting widespread effects on reproductive health as a result of the COVID-19 pandemic¹¹.

⁸ https://apps.who.int/iris/bitstream/handle/10665/331590/WHO-2019-nCoV-immunization_services-2020.1-eng.pdf?ua=1

⁹ <https://www.gavi.org/news/media-room/covid-19-massive-impact-lower-income-countries-threatens-more-disease-outbreaks>

¹⁰ <https://www.ippf.org/news/covid-19-pandemic-cuts-access-sexual-and-reproductive-healthcare-women-around-world>

¹¹ <https://www.unfpa.org/resources/impact-covid-19-pandemic-family-planning-and-ending-gender-based-violence-female-genital>



- Some 47 million women in 114 low- and middle-income countries are projected to be unable to use modern contraceptives if the average lockdown, or COVID-19-related disruption, continues for 6 months with major disruptions to services.
- For every 3 months the lockdown continues, assuming high levels of disruption, up to 2 million additional women may be unable to use modern contraceptives.
- If the lockdown continues for 6 months and there are major service disruptions due to COVID-19, an additional 7 million unintended pregnancies are expected to occur.

Tuberculosis

- A survey by the Stop TB Partnership of 16 high-burden countries found that all National TB Programs (NTP) have observed a decrease in the number of people presenting/accessing services for TB. In India, there has been approximately an 80% decline in daily TB notifications during the lockdown period compared to the average daily notifications; the only country that had real-time data to analyse¹².
- NTPs reported disruption of planned activities, including activities included in Global Fund grants, due to restrictions, lockdown and curfew - training, supervision, reaching vulnerable groups - including migrants, development and endorsement of National Strategic Plans and development of next funding requests. Enrolments and work in large TB research studies have stopped.
- No NTP expressed significant disruption on commodities and supplies. However, two NTPs are worried about future availability of some products.
- Building on work for the 2019 Lancet Commission on TB, **modelling by the Stop TB Partnership** focused on three high burden settings: India, Kenya and Ukraine¹³. Estimates from these countries were also extrapolated to create global estimates, for the impact of COVID-19 on TB.
- It was assumed that disruptions would be in effect over the course of a 2-month lockdown, after which there would be a gradual recovery to normal TB services, over a given 2-month 'restoration period'.
- By extrapolating from the three countries, the model suggested that globally there would be 608,400 excess TB cases and 126,100 excess deaths for every month of lockdown.
- The model also found that the duration of the restorative phase was critical. For every month of restoration, the model predicted a further 420,400 excess cases and 83,200 excess deaths.
- The authors suggest that in addition to the restoration of normal TB services, supplementary measures are required, with a focus on reducing the prevalent pool of TB. Such measures may involve a combination of intensive community engagement, maintaining awareness of the importance of TB services while emerging from the COVID-19 response, and ramped-up active case-finding, including rapid scale-up of contact tracing to compensate for missed diagnoses during the lockdown period.

Polio eradication

- The COVID-19 pandemic is imperilling the worldwide, 3-decade drive to wipe out polio. On March 24, the Global Polio Eradication Initiative, or GPEI, recommended that polio vaccination campaigns be postponed until the second half of the year and that countries responding to outbreaks of polio suspend those efforts until June 1, and then re-evaluate the situation¹⁴.
- The GPEI said it will make available all of its assets — technical expertise, surveillance and community networks and logistic capacity — to support the global response to COVID-19 for the next 4 to 6 months. It also is making its financial management systems available to help channel COVID-19 funding for the response, if needed.

¹² http://www.stoptb.org/news/stories/2020/ns20_014.html

¹³ http://www.stoptb.org/assets/documents/news/Modeling%20Report_1%20May%202020_FINAL.pdf

¹⁴ <https://www.healio.com/pediatrics/vaccine-preventable-diseases/news/online/%7B08d59f65-9071-452a-9bb4-f434f7b7a33b%7D/gpei-recommends-postponing-polio-eradication-efforts-due-to-covid-19>



- It may be too early to evaluate the impact that suspending mass vaccination campaigns will have on the incidence of new polio cases. However, as of 10 May, Pakistan has reported 47 wild polio cases in 22 districts compared to 19 cases from ten districts during 2019 (same point in time)¹⁵. A total of 44 circulating vaccine derived cases (cVDP) have been reported from 12 districts in 2020.
- Afghanistan has reported 11 WPV cases in 2020 compared to nine at the same time in 2019.
- Cases of cVDP have been reported so far in 16 countries (all in Africa except Pakistan, Afghanistan and the Philippines) compared to 8 at this time last year.

Malaria

- The recent Ebola outbreak in West Africa demonstrated that a sudden increase in demand for disease-specific health services can lead to substantial increases in morbidity and mortality from other diseases, including malaria. In response to this threat, WHO's Global Malaria Program (GMP) has recently released guidance to help countries ensure the maintenance of their malaria services in the context of the COVID-19 pandemic¹⁶.
- GMP has been working with several modelling teams to analyse the potential impact on malaria burden of different service disruption scenarios. The outputs of these modelling exercises reinforce the message that country programs and ministries of health must ensure the continuity of malaria prevention and treatment services during the response to COVID-19. The impact of nine different scenarios based on different degrees of disruption to insecticide treated nets (ITN) distribution and malaria treatment were analysed.
- In 2020, 26 out of 46 countries in SSA that were included in the analysis are due for national universal ITN campaigns. If ITN campaigns are not implemented this year, malaria cases and deaths will increase by up to 10%, even if access to effective malaria treatment is maintained at current levels (Scenario 3). It is estimated that there would be between 5 and 17 million additional cases (Scenarios 1-3) and up to 30 000 lives would be lost to malaria compared to the 2018 baseline. About 70% of these additional deaths would be of children under the age of 5.
- If the 2020 ITN campaigns are cancelled and continuous distributions and access to effective malaria treatment are also severely disrupted (i.e., reduced by 75%) in these countries (Scenario 9), the consequences will be devastating. Malaria cases are estimated to increase by 23%, while deaths would increase by 102%. There would be an estimated 225 million cases and 656 000 deaths, with 70% of deaths among children under the age of 5.
- For the 15 countries included in this analysis where ITN campaigns are not scheduled in 2020, if continuous distributions are reduced by 25% and access to effective malaria treatment is maintained at current levels (Scenario 1), there will be no significant increases in cases and deaths, and estimates are in line with the expected normal trends in malaria morbidity and mortality. However, even with ITN coverage at expected levels, severe disruptions in case management would result in dramatic increases in the malaria burden in these countries (Scenario 6). The number of malaria cases is estimated to rise from 32 million to 37 million, representing a 14% increase. Malaria deaths will also rise to an estimated 112 000, an increase of 82%.

¹⁵ Pakistan polio eradication report; Week No.19, May 09, 2020

¹⁶ Tailoring malaria interventions in the COVID-19 response. Geneva: World Health Organization; 2019 (<https://www.who.int/malaria/publications/atoz/tailoring-malaria-interventions-covid-19.pdf>, 20 April 2020).



HIV and AIDS

- In sub-Saharan Africa, an estimated 25.7 million people were living with HIV and 16.4 million (64%) were taking antiretroviral therapy in 2018. Those people now risk having their treatment interrupted because HIV services are closed or are unable to supply antiretroviral therapy because of disruptions to the supply chain or because services simply become overwhelmed due to competing needs to support the COVID-19 response.
- WHO and UNAIDS brought together five teams of modellers using different mathematical models to analyse the effects of various possible disruptions to HIV testing, prevention and treatment services caused by COVID-19¹⁷.
- Each model looked at the potential impact of treatment disruptions of three months or six months on AIDS mortality and HIV incidence in sub-Saharan Africa. In the six-month disruption scenario, estimates of excess AIDS-related deaths in one year ranged from 471 000 to 673 000, making it inevitable that the world will miss the global 2020 target of fewer than 500 000 AIDS-related deaths worldwide.
- Shorter disruptions of three months would see a reduced but still significant impact on HIV deaths. More sporadic interruptions of antiretroviral therapy supply would lead to sporadic adherence to treatment, leading to the spread of HIV drug resistance, with long-term consequences for future treatment success in the region.
- Disrupted services could also reverse gains made in preventing mother-to-child transmission of HIV. Since 2010, new HIV infections among children in sub-Saharan Africa have declined by 43%, from 250 000 in 2010 to 140 000 in 2018, owing to the high coverage of HIV services for mothers and their children in the African region. Curtailment of these services by COVID-19 for six months could see new child HIV infections rise drastically, by as much as 37% in Mozambique, 78% in Malawi, 78% in Zimbabwe and 104% in Uganda.

¹⁷ <https://www.who.int/news-room/detail/11-05-2020-the-cost-of-inaction-covid-19-related-service-disruptions-could-cause-hundreds-of-thousands-of-extra-deaths-from-hiv>

