Weekly Evidence Report

Health Technology Assessment Philippines

11 – 17 June 2022

Overview

The following report presents summaries of evidence the Department of Health (DOH) - Health Technology Assessment (HTA) Unit reviewed for the period of 11 -17 June 2022. The HTA Unit reviewed a total of 20 studies for the said period.

Evidence includes 2 studies on Epidemiology; 6 studies on Vaccines; 2 studies on Drugs; 1 study on Transmission; 4 studies on Equipment and Devices; 1 study on Medical and Surgical Procedures; 0 studies on Traditional Medicine; 3 studies on Preventive & Promotive Health; and 1 study on Other Health Technologies.

Sections

Evidence on Epidemiology

Local COVID-19 Case Tracker:

https://doh.gov.ph/2019-nCoV?gclid=CjwKCAjwjtOTBhAvEiwASG4bCOmLzFMQIjh8DX_VVSGA-HmO0Pt5_CscykID7xZv4zqlXG5vm9PM2xoC27QQAvD_BwE

Date	Author/s	Title	Journal/ Article Type	Summary
15 June 2022	WHO Global	Weekly epidemiological update on COVID-19 - 15 June 2022	*WHO Publications / Global Emergency Situational Updates*	• Globally, the number of new weekly cases has continued to decline since the peak in January 2022. During the week of June 6 to June 12 2022, over 3.2 million cases were reported, which was similar to the number of cases reported during the previous week. However, after 5 weeks of continued decline, the number of new weekly deaths has started to rise again, with over 8,700 deaths reported in this time period or a 4% increase compared to the previous week. • In the regional level, the Western-Pacific Region followed the global trend, with a decline in cases Overall, the Western-Pacific Region reported 970,940 cases or 30% of the new cases reported globally, which was equivalent to an 8% decline compared to the number of new cases in the previous week. Meanwhile, deaths increased by 17% compared to the previous week, equivalent to 1,882 new deaths reported. • The Omicron variant of concern remains to be the dominant variant circulating globally (97% of sequences), with 4 known lineages - BA.2 (39%), BA.2.12.1 (28%), BA.5 (6%), and BA.4 (3%). • The WHO stated that the trends should be interpreted with caution as several countries have been progressively changing COVID-19 testing strategies, resulting in lower overall numbers of tests performed and consequently lower numbers of cases detected.
13 June 2022	European CDC	Implications of the emergence and spread of the SARS-CoV-2 variants of concern BA.4 and BA.5 for the EU/EEA	*ECDC Newroom / Epidemiological update*	• The ECDC posted an update regarding the emergence and spread of the Omicron lineages BA.4 and BA.5 around Europe. Portugal was the first country to report a COVID-19 surge associated with the BA.5 variant, the currently dominant variant in Portugal. There was no observed change in severity of COVID-19 disease for BA.4 or BA.5. Severity indicators in Portugal such as hospitalization, ICU admissions, and deaths were below the numbers encountered during the previous Omicron surge. However, both BA.4 and BA.5 were reported to be associated with increasing number of cases. • According to the ECDC report, the growth advantage of both variants compared to the BA.2 variant is probably due to its ability to escape immune protection due to prior infection and/or vaccination.

Evidence on Epidemiology (cont.)

Date	Author/s	Title	Journal/ Article Type	Summary
13 June 2022	European CDC	Implications of the emergence and spread of the SARS-CoV-2 variants of concern BA.4 and BA.5 for the EU/EEA	*ECDC Newroom / Epidemiological update*	(cont.) • Based on preliminary in-vitro data from preprints, BA.4 and BA.5 are antigenically distant from the ancestral virus and, compared to BA.1 and BA.2, they are less efficiently neutralised by sera from individuals vaccinated with three doses of COVID-19 vaccines or by sera from BA.1 vaccine breakthrough infections. • Although it has been postulated that the peak of the BA.5 surge in Portugal has been reached, it is expected that the BA.4 and BA.5 will be the dominant variants in Europe in the coming weeks, and be the cause for an increase in COVID-19 cases.

Evidence on Vaccines

Bloomberg Vaccine Tracker: https://www.bloomberg.com/graphics/covid-vaccine-tracker-global-distribution/

WHO COVID-19 Vaccine Tracker:
https://www.who.int/publications/m/item/draft-landscape-of-covid-19-candidate-vaccines

WHO SAGE Vaccine Recommendations:
https://www.who.int/groups/strategic-advisory-group-of-experts-on-immunization

Local COVID-19 Vaccine Updates: https://doh.gov.ph/vaccines

Date	Author/s	Title	Journal/ Article Type	Summary
06 June 2022	WHO Strategic Advisory Group of Experts on Immunization (SAGE)	Interim recommendations for the use of the Janssen Ad26.COV2.S (COVID-19) vaccine	*WHO Publications / Interim guidance*	• The June 2022 update of the WHO interim recommendations for the use of the Janssen COVID-19 vaccine still recommend 2 doses, 2-6 months apart. The recommendation was made based on the results of the ENSEMBLE 2 study which were presented to the US FDA Vaccines and Related Biological Products Advisory Committee, and the results from the Sisonke trial in South Africa which were reported by Gray et al., 2022. • The update also reflected longer storage duration at 2 to 8°C for 11 months, which was previously 4.5 months. • The updated review also considered post-marketing safety surveillance data up to 27 April 2022. The safety concerns for Janssen COVID-19 vaccine are still thrombosis with thrombocytopenia syndrome (TTS) and Guillain-Barre Syndrome. • The need for, and timing of, additional doses of Janssen COVID-19 vaccine beyond two doses still remains to be determined. • Lastly, the interval between antibody therapy and COVID-19 vaccination is no longer recommended in this version of the WHO recommendation for Janssen.

Evidence on Vaccines (cont.)

Date	Author/s	Title	Journal/ Article Type	Summary
17 June 2022	US FDA	FDA Authorizes Moderna and Pfizer-BioNTech COVID-19 Vaccines for Children Down to 6 Months of Age	*US FDA / Press Release and Meeting Materials*	• In their meeting on 14-15 June 2022, the US FDA authorized the use of the Moderna and the Pfizer-BioNTech COVID-19 Vaccines as primary series among individuals ages 6 months and above. • In this amendment, Moderna is now authorized for use among individuals below 18 years down to 6 months of age, while Pfizer-BioNTech is now authorized for 6 months to less than 5 years old. • The effectiveness and safety data evaluated and analyzed by the US FDA for the use of Pfizer-BioNTech COVID-19 Vaccine among children 6 months to 4 years of age were generated in an ongoing, randomized, blinded, placebo-controlled clinical trial in the United States and internationally (Study C4591007). • Meanwhile, effectiveness and safety data evaluated and analyzed by the FDA for the Moderna COVID-19 Vaccine to support the EUA for these pediatric populations were generated in two ongoing, randomized, blinded, placebo-controlled clinical trials in the United States and Canada which enrolled infants, children and adolescents (Study P203 and Study P204).
11 June 2022	Li, G. et al., 2022	Safety and immunogenicity of the ChAdOx1 nCoV-19 (AZD1222) vaccine in children aged 6-17 years: a preliminary report of COV006, a phase 2 single-blind, randomised, controlled trial	*The Lancet / Randomized controlled trial*	• This phase 2, single-blind RCT evaluated the safety and immunogenicity of two standard doses of AstraZeneca COVID-19 Vaccine, 28 days or 84 days apart, among children ages 6 to 17 years. • The trial included 262 participants (150 were aged 12 to 17 years and 112 were aged 6 to 11 years) who were assigned either the vaccine [n=211 (n=105 at day 28 and n=106 at day 84)] or the meningococcal vaccine control [n=51 (n=26 at day 28 and n=25 at day 84)]. • Of the participants who received the COVID-19 vaccine, 80% (169/210) reported at least one solicited local or systemic AE after the first dose and 76% (146/193) after the second dose. There were no SAEs reported during the follow-up period. One participant in the 6 to 11 year old age group who received the vaccine reported a grade 4 fever on day 1 following the first dose, but was resolved within 24 hours.

Evidence on Vaccines (cont.)

Date	Author/s	Title	Journal/ Article Type	Summary
11 June 2022	Li, G. et al., 2022	Safety and immunogenicity of the ChAdOx1 nCoV-19 (AZD1222) vaccine in children aged 6-17 years: a preliminary report of COV006, a phase 2 single-blind, randomised, controlled trial	*The Lancet / Randomized controlled trial*	(cont.) • Among participants who were seronegative at baseline, anti-SARS-CoV-2 IgG and pseudoneutralizing antibodies were higher in the 12 to 17 year old age group with a longer dosing interval at day 28 after the COVID-19 vaccine compared to the same age group with a shorter dosing interval. Humoral responses were higher in the 6 to 11 year old age group with a longer dosing interval compared to the older age group with the same dosing interval. Cellular responses peaked after the first dose of the COVID-19 vaccine across all age and dosing interval groups, and remained above the baseline after the second dose.
11 June 2022	Wong, H.L. et al., 2022	Risk of myocarditis and pericarditis after the COVID-19 mRNA vaccination in the USA: a cohort study in claims databases	*The Lancet / Retrospective cohort study*	• This cohort study used active surveillance databases in the US to directly compare the risk of myocarditis and/or pericarditis after Moderna or Pfizer-BioNTech vaccination among individuals ages 18 to 64 years. • A total of 411 myocarditis and/or pericarditis events were recorded among 15,148,369 adults who received 16,912,716 doses of Pfizer-BioNTech or 10,631,554 doses of Moderna. Among males ages 18 to 25 years, the pooled incidence rate was highest after the second dose, at 1.71 (95%CI: 1.31 to 2.23) per 100,000 person-days for Pfizer-BioNTech and 2.17 (95%CI: 1.55 to 3.04) per 100,000 person-days for Moderna. Head-to-head comparison of the two mRNA vaccines saw an excess risk of 27.80 per million doses (95%CI: -21.88 to 77.48) in Moderna recipients. The study noted that the results did not indicate a statistically significant risk difference between Moderna and Pfizer-BioNTech but it should not be ruled out that difference might exist. The study was funded by the US FDA.

Evidence on Vaccines (cont.)

Date	Author/s	Title	Journal/ Article Type	Summary
13 June 2022	Hitchings, M.D. et al., 2022	Change in covid-19 risk over time following vaccination with CoronaVac: test negative case-control study	*British Medical Journal / Test-negative case-control study*	• This TNCC study conducted in Brazil included adults ages 18 years and above who received two doses of the CoronaVac COVID-19 vaccine. A total of 43,257 matched sets were formed from 52,170 cases and 69,115 controls. • The adjusted odds ratios of symptomatic COVID-19 increased with time since completion of the primary series for all age groups, except the 40 to 64 year old age group who were non-healthcare workers. However, the observed no increase in odds ratio among this cohort was not explained by the study. • In addition, the adjusted odds ratios of COVID-19 hospitalization or death compared with the odds at 14-41 days significantly increased from 1.25 (95%CI: 1.04 to 1.51) at 70-97 days after the primary series to 1.94 (95%CI: 1.41 to 2.67) from 182 days onwards.
13 June 2022	Siedner, M.J., et al.	Cost-effectiveness of COVID-19 vaccines in low-and-middle income countries	*The Journal of Infectious Diseases / Cost-Effectiveness Study*	• The study projected the health benefits and donor costs of delivering vaccines for up to 60% of the population in 91 low-and-middle-income countries (LMICs), including the Philippines. The study used a validated model that included the susceptible, exposed, infectious, recovered and deceased states. Two epidemic scenarios were used - one with a transmissibility and infection-to-fatality ratio (IFR) similar to the Omicron variant, and one with a a transmissibility similar to the Omicron variant but with a higher IFR. • The study found that increasing the current vaccination coverage (median 32%, range 0-86% as of May 2022) to at least 15% in each of the 91 LMICs would prevent 11M new infections and 120,000 deaths at a cost of 950M USD, for an incremental cost-effectiveness ratio (ICER) of 670 USD per year of life saved. Achieving 60% vaccination coverage in each LMIC would result in the prevention of 68M new infections and 160,000 deaths for an ICER of <8,000 USD per year of life saved.

Evidence on Drugs

Date	Author/s	Title	Journal/ Article Type	Summary
13 June 2022	Kramer, A. et al., 2022	Janus kinase inhibitors for the treatment of COVID- 19	*Cochrane Library / Systematic Review*	• This systematic review included 6 RCTs with 11,145 participants investigating the effectiveness of Janus kinase (JAK) inhibitors (baricitinib, tofacitinib or ruxolitinib) plus standard of care compared to SOC alone (with or without placebo). • In hospitalized individuals with moderate to severe COVID-19, JAK inhibitors decrease all-cause mortality at up to day 28 [RR: 0.72, 95%CI: 0.57 to 0.92] based on moderate certainty of evidence, and up to day 60 [RR: 0.69, 95%CI: 0.56 to 0.86] based on high certainty of evidence. • They make little to no difference in improvement of clinical status (discharged alive or hospitalised, but no longer requiring ongoing medical care) [RR: 1.03, 95%CI: 1.00 to 1.06), and probably decrease the risk of worsening of clinical status (new need for invasive mechanical ventilation or death at day 28) [RR: 0.90, 95%CI: 0.82 to 0.98], based on moderate certainty of evidence.
17 June 2022	Hirsch, C. et al., 2022	SARS- CoV- 2 - neutralising monoclonal antibodies to prevent COVID- 19	*Cochrane Library / Systematic Review*	• This systematic review included 4 RCTs with 9,749 participants to assess the effectiveness of SARS-CoV-2 neutralising mAbs (Tixagevimab, Cilgavimab, Casivirimab, Imdevimab, Bamlanivimab) as pre-exposure prophylaxis (PrEP) and post-exposure prophylaxis (PEP) for COVID-19 compared to placebo. • For PrEP, within 6 months, Tixagevimab / Cilgavimab probably decreases SARS-CoV-2 infection [RR: 0.45, 95%CI: 0.29 to 0.70, moderate certainty of evidence], decreases development of clinical COVID- 19 symptoms [RR: 0.18, 95%CI: 0.09 to 0.35, high certainty of evidence], and may decrease admission to hospital [RR: 0.03, 95%CI: 0.00 to 0.59, low certainty of evidence]. The drug combination may result in little to no difference on mortality within six months, all- grade AEs, and SAEs, based on low certainty of evidence. • Meanwhile, Casirivimab/Imdevimab as PrEP may decrease SARS-CoV-2 infection [RR: 0.01, 95%CI: 0.00 to 0.14] and development of clinical COVID-19 symptoms [RR: 0.02, 95%CI: 0.00 to 0.27], based on low certainty of evidence. The evidence is uncertain on the risk for Grade 3 to 4 AEs and SAEs. .

Evidence on Drugs (cont.)

Date	Author/s	Title	Journal/ Article Type	Summary
17 June 2022	Hirsch, C. et al., 2022	SARS- CoV- 2 - neutralising monoclonal antibodies to prevent COVID- 19	*Cochrane Library / Systematic Review*	(cont.) • As PEP, Bamlanivimab probably decreases SARS-CoV-2 infection by day 29 after exposure to the virus [RR: 0.76, 95%CI: 0.59 to 0.98, moderate certainty of evidence], may result in little to no difference on all cause mortality by day 60 [RR: 0.83, 95%CI: 0.25 to 2.70, low certainty of evidence]. As for safety, it may increase all-grade AEs by week eight [RR: 1.12, 95%CI: 0.86 to 1.46] and may slightly increase SAEs [RR: 1.46, 95%CI: 0.73 to 2.91], based on low certainty of evidence. • Casirivimab/Imdevimab as PEP decreases SARS-CoV-2 infection [RR: 0.34, 95%CI: 0.23 to 0.48] and decrease development of clinical COVID-19 symptoms [RR: 0.19, 95%CI: 0.10 to 0.35] based on high certainty of evidence. As for safety, the drug combination may slightly decrease grade 3 to 4 AEs [RR 0.50, 95% CI 0.24 to 1.02, low certainty of evidence], decreases allgrade AEs [RR 0.70, 95% CI 0.61 to 0.80, high certainty evidence], and may result in little to no difference on SAEs in participants regardless of SARS-CoV-2 antibody serostatus.

Evidence on Transmission

Date	Author/s	Title	Journal/ Article Type	Summary
13 June 2022	Elenga, N. et al., 2022	Neonatal outcomes related to maternal SARS-CoV-2 infection in French Guiana: A case-control study.	*Journal of Infection and Public Health / Nested case-control study*	• This was a nested case-control study among 974 infants were included in the study, 133 of which were born to SARS-CoV-2 positive mothers at the time of delivery. The neonates were routinely tested for COVID-19 within the first 24 hours after labor up to 20 days, with 3 newborns testing positive and in the presence of symptoms. • The study concluded little neonatal morbidity associated with maternal COVID-19, except for those born to mothers admitted to intensive care unit. However, under breastfeeding conditions with rigorous hygiene precautions and parental education, the risk of transmission of SARS-COV-2 virus to the newborn was very low.

Evidence on Equipment and Devices

Date	Author/s	Title	Journal/ Article Type	Summary
12 June 2022	Watanabe, A. et al., 2022	One-year follow-up CT findings in COVID-19 patients: A systematic review and meta-analysis	*Official Journal of the Asian Pacific Society of Respirology / SRMA*	• This SRMA included 15 studies (N=3,134) with computed tomography (CT) findings at the 1-year follow-up after recovery from COVID-19. • One year after COVID-19, 32.6% (95%CI: 24.0 to 42.6, I^2=92.9%) presented with residual CT abnormalities. Ground-glass opacity were observed in 21.2% (95% CI: 15.4 to 28.4, I^2=86.7%) while fibrotic-like changes were seen in 20.6% (95%CI: 11.0 to 35.2, I^2=91.9%) at the 1-year follow-up. While the gradual recovery was seen on CT (52.9% [4-7 months] vs. 32.6% [1 year]), the frequency of CT abnormalities was higher in the severe/critical cases than in the mild/moderate cases (37.7% vs. 20.7%). • Fibrotic changes showed little improvement between 4–7 months and 1 year after COVID-19. Pulmonary function tests at 1 year also showed the decline in diffusing capacity of the lung for carbon monoxide, especially in severe/critical cases. • The study recommended longer follow-up periods of CT findings from COVID-19 patients as these sequelae may last long.
14 June 2022	Cremades-Martinez et al., 2022	Evaluation of Diagnostic Strategies for Identifying SARS-CoV-2 Infection in Clinical Practice	*Microbiology Spectrum / Systematic Review*	• This systematic review included 23 studies that evaluated strategies for identifying SARS-CoV-2 infection before the availability of molecular test results. • The study found that diagnostic accuracy for SARS-CoV-2 infection is higher when more than one diagnostic variable is considered, mainly imaging characteristics, clinical symptoms, demographic characteristics, and lymphocyte count. • This could offer utility in identifying individuals with SARS-CoV-2 infection with high accuracy when molecular testing is not available.
16 June 2022	Carpene, G. et al., 2022	Homocysteine in coronavirus disease (COVID-19): a systematic literature review	*Diagnosis / Systematic Review*	• Homocysteine is a potential biomarker of thrombotic diseases; hence, this article aimed to provide an updated overview on the possible role played by hyperhomocysteinemia in influencing an unfavorable COVID-19 progression. • This systematic review included 3 studies with 694 hospitalized COVID-19 patients. Overall, the differences between the mean homocysteine values in non-severe vs. severe COVID-19 patients were always positive with a positive weight mean difference of 1.75 µmol/L (95%CI, 1.26-2.25 µmol/L; p=0.011. • The study suggests that homocysteine is a risk factor for unfavorable outcome which may make it a potentially useful marker for predicting the risk of unfavorable progression in patients with COVID-19.

Evidence on Equipment and Devices

Date	Author/s	Title	Journal/ Article Type	Summary
15 June 2022	Alenquer, M. et al., 2022	Saliva molecular testing bypassing RNA extraction is suitable for monitoring and diagnosing SARS-CoV-2 infection in children	PLOS One / Primary study	• This primary study investigated if saliva is an effective sample for detecting SARS-CoV-2 RNA and antibodies in 85 children 10 years and below, and the associated viral RNA levels to infectivity in children. • Compared to nasopharyngeal RT-PCR testing, the sensitivity of saliva RT-PCR testing with RNA extraction is 84.8% (71.8% to 92.4%), specificity is 100% (91.0% to 100%) and accuracy is 91.8% (84.0% to 96.6%) among children ages 10 years and below. Without RNA extraction, saliva RT-PCR testing compared to nasopharyngeal RT-PCR has a sensitivity of 81.8% (68.0% to 90.5%), a specificity of 100% (91.0% to 100%), and an accuracy of 90.4% (82.1% to 95.0%).Rescue of infectious particles from saliva was limited to CT values below 26. • The study concluded that saliva, with or without RNA extraction. is a suitable sample for RT-PCR testing for SARS-CoV-2 in children ages 10 years and below, including infants less than 1 year.

Evidence on Medical and Surgical Procedures

Date	Author/s	Title	Journal/ Article Type	Summary
13 June 2022	Qin, J. et al., 2022	Benefits of plasma exchange on mortality in patients with COVID-19: a systematic review and meta-analysis	International Journal of Infectious Diseases / Systematic review and meta-analysis	• This systematic review included 6 controlled clinical trials (N=343, 173 assigned to the intervention and 170 assigned to control) that evaluated the effectiveness of therapeutic plasma exchange (TPE) as treatment for COVID-19, compared to standard of care alone. • Therapeutic plasma exchange showed significant effect on the reduction of mortality (RR: 0.41, 95% CI: 0.24 to 0.69; P = 0.0008). Heterogeneity was significant (I^2 = 48%; P = 0.09). Begg's test (P = 0.091) did not show evidence of publication bias. Results did not change significantly after excluding two trials with lower quality (RR: 0.46, 95%CI: 0.27 to 0.80; P = 0.005). • The outcome *length of ICU stay,* which was reported by 3 studies, was significantly shorter in the standard of care groups (weighted mean difference: 7.44 days, 95%CI: 4.24 to 10.64 days; P < 0.00001). There was no significant heterogeneity (I^2 = 0%; P = 0.84). Begg's test (P = 0.602) did not show evidence of publication bias. • Meanwhile, there was no significant difference in the duration of invasive mechanical ventilation between the two groups, which was reported by 3 studies (weighted mean difference: 1.14 days, 95%CI:-4.36 to 6.64 days; P = 0.68). There was significant heterogeneity (I^2 = 66%; P = 0.05). Begg's test (P = 0.602) did not show evidence of publication bias.

Evidence on Traditional Medicine

Date	Author/s	Title	Journal/ Article Type	Summary
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Evidence on Preventive & Promotive Health

Evidence on Screening

Date	Author/s	Title	Journal/ Article Type	Summary
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Evidence on Personal Measures

Date	Author/s	Title	Journal/ Article Type	Summary
16 June 2022	Taylor, J. et al., 2022	Impact of local mask mandates upon COVID-19 case rates in Oklahoma	*PLOS ONE / Ecological study*	• This study examined the impact of local mask mandates in a state where a a state-wide mask mandate was not imposed but numerous municipalities within the state did. • Prior to adopting mask mandates, the municipalities that eventually adopted mask mandates had higher transmission rates than the rest of the state, with the mean case rate difference per 100,000 people increasing by 0.32 cases per day as compared to the rest of the state (slope of difference = 0.32; 95% CI 0.13 to 0.51). • For the post-mask mandate time period, the difference per 100,000 people were decreasing, with 0.24 cases per 100,000 lower in communities that adopted mandates as compared to the rest of the state (slope of -0.24; 95% CI -0.32 to -0.15). The pre- and post-mandate slopes differed significantly ($p<0.001$). The change in slope direction (-0.59; 95% CI -0.80 to -0.37) shows a move toward reconvergence in new case diagnoses between the two populations. • Compared to rates in communities without mask mandates, transmission rates of SARS-CoV-2 slowed notably in those communities that adopted a mask mandate. The study concluded that government-imposed mask mandates play a role in reducing transmission of SARS-CoV-2 and other respiratory conditions.

Evidence on Preventive & Promotive Health

Evidence on Community Measures

Date	Author/s	Title	Journal/ Article Type	Summary
17 June 2022	Yu, C.C. et al., 2022	Influencing Factors for the Persistence of SARS-Cov-2 (Covid-19) exposed in Environmental Matrices and Disinfection Methods: Systematic Review	*medRxiv / Systematic review*	• This systematic review included 51 studies that examined the persistence of SARS-CoV-2 in environmental matrices and effectiveness of disinfection methods. • The review found that SARS-CoV-2 persisted for less than 4 hours on aluminum, 4 hours on copper, 24 hours on cardboard, 44 hours on glass, 48 hours on stainless steel, 72 hours on plastic, 92 hours on polystyrene plastic, 1.1-1.2 hours in the air, and 3 to 7 days in wastewater. • Virus decay was noted to be 5-10 times faster at 27°C compared to 10°C, and 2-5 times faster with 65% relative humidity (RH) compared to 40% and 100% RH. • Virus infectivity was reduced by far-UVC-(222 nm) light for 90% in 8 minutes, 95% in 11 minutes, 99% in 16 minutes and 99.99% in 25 minutes. • Sodium hypochlorite (800 g/m^3) and ammonium-based detergents were remarkably effective for preliminary disinfection.
17 June 2022	Smyth, B.	The fading impact of lockdowns: A data analysis of the effectiveness of Covid-19 travel restrictions during different pandemic phases	*PLOS ONE / Modeling study*	• This modeling study aimed to evaluate the strength of the relationship between restrictions and the mobility drop over time. The study analysed adherence during periods of increasing and decreasing restrictions in 125 countries during the early (March—June 2020), middle (July—October 2020), and late (November 2020—February 2021) phases of the first year of the pandemic, and prior to significant population-wide vaccination. • The study saw a significant decrease in adherence to restrictions during the middle and late phases of the pandemic, compared with the early phase. It was suggested that this decrease in adherence is due to changes in mobility rather than changes in restrictions. • The study concluded that that restrictions have become less effective at curbing non-essential travel, which may alter the cost-benefit analysis of restrictions and lockdowns, thus highlighting the need for governments to reconsider large-scale restrictions as a containment strategy in the future, in favour of more focused or flexible mitigation approaches.

Evidence on Other Health Technologies

Date	Author/s	Title	Journal/ Article Type	Summary
14 June 2022	Hatami, H. et al., 2022	Tele-medicine and improvement of mental health problems in COVID-19 pandemic: A systematic review	*International Journal of Methods in Psychiatric Research / Systematic Review*	• This systematic review included 12 relevant studies - 9 were RCTs, 2 were quasi-experimental studies, and 1 was a multicenter retrospective cohort study. A total of 1,900 adults 18 years and above who were prone to mental illnesses due to COVID-19 were included. • Eleven out of the 12 studies represented the significant effect of telemedicine such as thru telephone, messaging platforms, videoconferencing, and online applications, on different aspects of mental health like emotional distress, depression, anxiety, etc. • However, heterogeneity among the included studies in terms of sample size, target population, telecommunication methods, measurements and outcomes made it difficult to determine the obvious effect of a specific telemedicine tool on a specific mental disorder. Further, the study found that patients still preferred face to face therapy.