

Weekly Evidence Report



Health Technology Assessment Philippines

02 May – 06 May 2022

Overview

The following report presents summaries of evidence the Department of Health (DOH) - Health Technology Assessment (HTA) Unit reviewed for the period of 02 May – 06 May 2022. The HTA Unit reviewed a total of **16** studies for the said period.

Evidence includes **3** studies on Epidemiology; **7** studies on Vaccines; **2** study on Drugs; **0** studies on Transmission; **1** studies on Equipment and Devices; **0** studies on Medical and Surgical Procedures; **0** study on Traditional Medicine; **2** study on Preventive & Promotive Health; and **1** studies on Other Health Technologies.



Sections

Epidemiology

Vaccines

Drugs

Transmission

Equipment & Devices

Medical & Surgical Procedures

Traditional Medicine

Preventive & Promotive Health

Other Health Technologies

Evidence on Epidemiology

Local COVID-19 Case Tracker:

https://doh.gov.ph/2019-nCoV?qclid=CjwKCAjwjtOTBhAvEiwASG4bCOmLzFMQljh8DX_VVSGA-HmO0Pt5_CscykID7xZv4zqIXG5vm9PM2xoC27QQAvD_BwE

Date	Author/s	Title	Journal/ Article Type	Summary
04 May 2022	WHO Global	Weekly epidemiological update on COVID-19 - 27 April 2022	<i>WHO Global Situation Report</i>	<ul style="list-style-type: none"> Globally, the number of new COVID-19 cases and deaths has continued to decline since the end of March 2022. over 3.8 million cases and over 15 000 deaths were reported, decreases of 17% and 3% respectively, as compared to the previous week. The Omicron VOC remains the dominant variant circulating globally. WHO continues to closely monitor the BA.4, BA.5, and BA.2.12.1 variants as part of Omicron VOC and provide further updates as more evidence on severity becomes available. At the country level, the highest number of new weekly cases were reported from Germany (558 958 new cases; - 24%), Italy (384 825 new cases; -8%), France (382 208 new cases; -30%), the Republic of Korea (380 455 new cases; - 35%), and the United States of America (372 167 new cases; +27%). The highest number of new weekly deaths were reported from the United States of America (2 199 new deaths; - 5%), India (1 650 new deaths; +273%), the Russian Federation (1 129 new deaths; -19%), France (900 new deaths; +2%), and Italy (898 new deaths; -11%) In the Western Pacific Region, new weekly cases have continued to decline since March 2022. Over 1.1 million new cases were reported, a 20% decrease as compared to the previous week. However, nine (29%) countries in the Region reported an increase of 20% or greater, with some of the largest increases observed in the Solomon Islands, Fiji and New Caledonia. The highest numbers of new cases were reported from the Republic of Korea, Australia, and Japan.
02 May 2022	Harris, J. E.	Timely epidemic monitoring in the presence of reporting delays: anticipating the COVID-19 surge in New York City, September 2020	<i>BMC Public Health/</i> nonparametric statistical method	<ul style="list-style-type: none"> The projected estimate of recently diagnosed cases could have had an impact on timely policy decisions to tighten social distancing measures. While the recent advent of widespread rapid antigen testing has changed the diagnostic testing landscape considerably, delays in public reporting of SARS-CoV-2 case counts remain an important barrier to effective public health policy.

Evidence on Epidemiology (Cont.)

Date	Author/s	Title	Journal/ Article Type	Summary
02 May 2022	McClymont et al.	Association of SARS-CoV-2 Infection During Pregnancy With Maternal and Perinatal Outcomes	<i>JAMA Network Open</i> / observational surveillance analysis	<ul style="list-style-type: none"> This Canadian surveillance study included 6012 completed pregnancies between March 2020 and October 2021. Among cases of infection during pregnancy compared with cases of infection among the general Canadian population of reproductive-age female individuals, there was a significantly increased risk of SARS-CoV-2–related hospitalization (relative risk, 2.65) and intensive care unit admission (relative risk, 5.46). Among cases of infection during pregnancy compared with pregnant individuals without SARS-CoV-2 infection, there was a significantly increased risk of preterm birth (relative risk, 1.63). In this exploratory surveillance study conducted in Canada from March 2020 to October 2021, SARS-CoV-2 infection during pregnancy was significantly associated with increased risk of adverse maternal outcomes and preterm birth.

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
05 May 2022	WHO and International Vaccine Access Center, Johns Hopkins Bloomberg School of Public Health	https://view-hub.org/sites/default/files/2022-05/Duration_of_Protection_Table_20220506.pdf	<i>WHO / Results of COVID-19 Vaccine Effectiveness Studies: An Ongoing Systematic Review</i>	<p>[Notations]</p> <ul style="list-style-type: none"> Countries have implemented different dose intervals and vaccination strategies that can make comparisons across studies challenging. Persons who are vaccinated early in a program are different than those who are vaccinated later. For example, many who were vaccinated early were those at highest risk, and this could confound the results. Some of the older individuals also might have some degree of immunosenescence

Evidence on Vaccines (Cont.)

Date	Author/s	Title	Journal/ Article Type	Summary
05 May 2022	Bar On et al.	Protection by a Fourth Dose of BNT162b2 against Omicron in Israel	<i>The New England Journal of Medicine/ Observational Study</i>	<ul style="list-style-type: none"> Protection against severe illness did not wane during the 6 weeks after receipt of the fourth dose. The number of cases of confirmed infection per 100,000 person-days (unadjusted rate) was 177 in the aggregated four-dose groups, 361 in the three-dose group, and 388 in the internal control group. In the quasi-Poisson analysis, the adjusted rate of confirmed infection in the fourth week after receipt of the fourth dose was lower than that in the three-dose group by a factor of 2.0 (95% CI, 1.9 to 2.1) and was lower than that in the internal control group by a factor of 1.8 (95% CI, 1.7 to 1.9). However, this protection waned in later weeks. Rates of confirmed SARS-CoV-2 infection and severe Covid-19 were lower after a fourth dose of BNT162b2 vaccine than after only three doses. Protection against confirmed infection appeared short-lived, whereas protection against severe illness did not wane during the study period.
04 May 2022	Hager et al.	Efficacy and Safety of a Recombinant Plant-Based Adjuvanted Covid-19 Vaccine	<i>The New England Journal of Medicine/ Randomized Controlled Trial</i>	<ul style="list-style-type: none"> Vaccine efficacy was 69.5% (95% confidence interval [CI], 56.7 to 78.8) against any symptomatic Covid-19 caused by five variants that were identified by sequencing. No severe cases of Covid-19 occurred in the vaccine group, in which the median viral load for breakthrough cases was lower than that in the placebo group by a factor of more than 100. The CoVLP+AS03 vaccine was effective in preventing Covid-19 caused by a spectrum of variants, with efficacy ranging from 69.5% against symptomatic infection to 78.8% against moderate-to-severe disease.
04 May 2022	Dai et al.	Efficacy and Safety of the RBD-Dimer-Based Covid-19 Vaccine ZF2001 in Adults	<i>The New England Journal of Medicine/ Randomized Controlled Trial</i>	<ul style="list-style-type: none"> Primary end-point cases were reported in 158 of 12,625 participants in the ZF2001 group and in 580 of 12,568 participants in the placebo group, for a vaccine efficacy of 75.7% (95% confidence interval [CI], 71.0 to 79.8). Severe-to-critical Covid-19 occurred in 6 participants in the ZF2001 group and in 43 in the placebo group, for a vaccine efficacy of 87.6% (95% CI, 70.6 to 95.7); Covid-19-related death occurred in 2 and 12 participants, respectively, for a vaccine efficacy of 86.5% (95% CI, 38.9 to 98.5). The incidence of adverse events and serious adverse events was balanced in the two groups, and there were no vaccine-related deaths. Most adverse reactions (98.5%) were of grade 1 or 2. In a large cohort of adults, the ZF2001 vaccine was shown to be safe and effective against symptomatic and severe-to-critical Covid-19 for at least 6 months after full vaccination.

Evidence on Vaccines (Cont.)

Date	Author/s	Title	Journal/ Article Type	Summary
04 May 2022	Gray et al	Effectiveness of Ad26.COV2.S and BNT162b2 Vaccines against Omicron Variant in South Africa	<i>The New England Journal of Medicine/ Correspondence</i>	<ul style="list-style-type: none"> After two doses, both vaccines were equally effective against severe disease caused by the omicron variant. These estimates of vaccine effectiveness were calculated in a South African population with a high background prevalence of SARS-CoV-2 exposure during the Covid-19 pandemic.⁵ These data provide reassurance about the continued value of the national Covid-19 vaccine program during a surge in the omicron variant.
03 May 2022	Zahradka et al	Association Between SARS-CoV-2 Messenger RNA Vaccines and Lower Infection Rates in Kidney Transplant Recipients	<i>Annals of Internal Medicine / Retrospective observational cohort study</i>	<ul style="list-style-type: none"> The incidence rate in the vaccinated group was 0.474 per 1000 person-days (33 cases in 69 672 days at risk). The incidence rate in the unvaccinated group was 1.370 per 1000 person-days (79 cases in 57 658 days at risk). The unadjusted incidence rate ratio (IRR; incidence rate of vaccinated/incidence rate of unvaccinated) for KTRs was 0.346 (95% CI, 0.227 to 0.514). The multivariable adjusted IRR for KTRs was 0.544 (CI, 0.324 to 0.876). Vaccination of KTRs is associated with lower risk for SARS-CoV-2 infection.
02 May 2022	Romozzi et al.	Impact of COVID-19 vaccine on epilepsy in adult subjects: an Italian multicentric experience	<i>Nature Public Health Emergency Collection/ multicentric observational cohort study</i>	<ul style="list-style-type: none"> Post-vaccine seizures occurred mainly in the 7 days following the administration of the vaccine. Patients in the WORSE-group were treated with a mean higher number of anti-seizure medication (ASMs) ($p = 0.003$) and had a higher pre-vaccine seizure frequency ($p = 0.009$) compared with patients in the STABLE-group. Drug-resistant epilepsy was also associated with seizure worsening ($p = 0.01$). In our cohort of vaccinated people with epilepsy (PwE), only a little percentage had a transient short-term increase of seizure frequency. The present study demonstrates that COVID-19 vaccines have a good safety and tolerability profile in the short term in PwE.

Evidence on Drugs

Date	Author/s	Title	Journal/ Article Type	Summary
02 May 2022	WHO Solidarity Trial Consortium	Remdesivir and three other drugs for hospitalised patients with COVID-19: final results of the WHO Solidarity randomised trial and updated meta-analyses	<i>The Lancet/ Randomized Controlled Trial</i>	<ul style="list-style-type: none"> Between March 22, 2020, and Jan 29, 2021, 14 304 potentially eligible patients were recruited from 454 hospitals in 35 countries in all six WHO regions. Overall, 602 (14.5%) of 4146 patients assigned to remdesivir died versus 643 (15.6%) of 4129 assigned to control (mortality rate ratio [RR] 0.91 [95% CI 0.82–1.02], p=0.12). Of those already ventilated, 151 (42.1%) of 359 assigned to remdesivir died versus 134 (38.6%) of 347 assigned to control (RR 1.13 [0.89–1.42], p=0.32). Of those not ventilated but on oxygen, 14.6% assigned to remdesivir died versus 16.3% assigned to control (RR 0.87 [0.76–0.99], p=0.03). Of 1730 not on oxygen initially, 2.9% assigned to remdesivir died versus 3.8% assigned to control (RR 0.76 [0.46–1.28], p=0.30). Combining all those not ventilated initially, 11.9% assigned to remdesivir died versus 13.5% assigned to control (RR 0.86 [0.76–0.98], p=0.02) and 14.1% versus 15.7% progressed to ventilation (RR 0.88 [0.77–1.00], p=0.04). Remdesivir has no significant effect on patients with COVID-19 who are already being ventilated. Among other hospitalised patients, it has a small effect against death or progression to ventilation (or both).
05 May 2022	Reis et al	Effect of Early Treatment with Ivermectin among Patients with Covid-19	<i>The New England Journal of Medicine/ Randomized Controlled Trial</i>	<ul style="list-style-type: none"> Overall, 100 patients (14.7%) in the ivermectin group had a primary-outcome event, as compared with 111 (16.3%) in the placebo group (relative risk, 0.90; 95% Bayesian credible interval, 0.70 to 1.16). Of the 211 primary-outcome events, 171 (81.0%) were hospital admissions. Findings were similar to the primary analysis in a modified intention-to-treat analysis that included only patients who received at least one dose of ivermectin or placebo (relative risk, 0.89; 95% Bayesian credible interval, 0.69 to 1.15) and in a per-protocol analysis that included only patients who reported 100% adherence to the assigned regimen (relative risk, 0.94; 95% Bayesian credible interval, 0.67 to 1.35). There were no significant effects of ivermectin use on secondary outcomes or adverse events. Treatment with ivermectin did not result in a lower incidence of medical admission to a hospital due to progression of Covid-19 or of prolonged emergency department observation among outpatients with an early diagnosis of Covid-19.

Evidence on Transmission

Date	Author/s	Title	Journal/ Article Type	Summary
-	-	-	-	-

Evidence on Equipment and Devices

Date	Author/s	Title	Journal/ Article Type	Summary
06 May 2022	Papenburg et al	Adequacy of Serial Self-performed SARS-CoV-2 Rapid Antigen Detection Testing for Longitudinal Mass Screening in the Workplace	<i>JAMA Network Open / Cross Sectional Study</i>	<ul style="list-style-type: none"> In this cross-sectional study of 278 participants self-performing SARS-CoV-2 RADT in an intended-use setting, the accuracy of RADT interpretation was poor when the manufacturer's instructions were used. A modified quick reference guide was associated with significantly better user performance. These findings suggest that longitudinal mass RADT testing for SARS-CoV-2 could be accurately self-performed in an intended-use setting but there are potential interventions to optimize performance.

Evidence on Preventive & Promotive Health

Evidence on Screening

Date	Author/s	Title	Journal/ Article Type	Summary
--	--	--	--	--

Evidence on Personal Measures

Date	Author/s	Title	Journal/ Article Type	Summary
--	--	--	--	--

Evidence on Preventive & Promotive Health (Cont.)

Evidence on Community Measures

Date	Author/s	Title	Journal/ Article Type	Summary
05 May 2022	Dempster et al.	Non-adherence to COVID-19 containment behaviours: results from an all-Ireland telephone survey	<i>BMC Public Health / Cross Sectional Study</i>	<ul style="list-style-type: none"> 3011 participants were surveyed. Handwashing non-adherers were more likely to be male, to have higher levels of loneliness, and higher perceptions of handwashing costs. Those reporting rarely engaging in social distancing were more likely to be members of lower socioeconomic groups, to be younger, male, healthcare workers, to report lower mood, were less likely to live in households with people aged under-18, and to have lower fear of COVID-19. Non-adherers to handwashing differ to social distancing non-adherers. Public health messages should target specific demographic groups and different messages are necessary to improve adherence to each behaviour.
05 May 2022	Durowaye et al.	Public health perinatal promotion during COVID-19 pandemic: a social media analysis	<i>BMC Public Health / Social Media Analysis</i>	<ul style="list-style-type: none"> Major Facebook perinatal health promotion themes included breastfeeding, infant care, labor/delivery, parenting support and healthy pregnancy. Facebook COVID-19-themed perinatal health promotion peaked in the second quarter of 2020. Websites emphasized COVID-19 transmission routes, disease severity and need for infection control during pregnancy/infant care, whereas Facebook posts focussed on changes to local health services including visitor restrictions. NGO perinatal health promotion reflected organizations' individual mandates. Canadian government use of Facebook to disseminate perinatal health promotion during the COVID-19 pandemic varied in terms of breadth of topics and frequency of posts. There were missed opportunities to nuance transmission/severity risks during pregnancy, thereby proactively countering the spread of misinformation.

Evidence on Other Health Technologies

Date	Author/s	Title	Journal/ Article Type	Summary
05 May 2022	Sullivan et al	Early Outpatient Treatment for Covid-19 with Convalescent Plasma	<i>The New England Journal of Medicine / Randomized Controlled Trial</i>	<ul style="list-style-type: none"> In the prespecified modified intention-to-treat analysis that included only participants who received a transfusion, the primary outcome occurred in 17 of 592 participants (2.9%) who received convalescent plasma and 37 of 589 participants (6.3%) who received control plasma (absolute risk reduction, 3.4 percentage points; 95% confidence interval, 1.0 to 5.8; P=0.005), which corresponded to a relative risk reduction of 54%. A total of 16 grade 3 or 4 adverse events (7 in the convalescent-plasma group and 9 in the control-plasma group) occurred in participants who were not hospitalized.