

Weekly Evidence Report



Health Technology Assessment Philippines

11 – 17 April 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 April 2022. The HTA Unit reviewed a total of **10** studies for the said period.

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

The following report notes that **0** study have not been peer-reviewed.



Sections

Epidemiology

Vaccines

Drugs

Transmission

Equipment & Devices

Medical & Surgical Procedures

Traditional Medicine

Preventive & Promotive Health

Other Health Technologies

Evidence on Epidemiology

Local COVID-19 Tracker: <https://www.doh.gov.ph/covid19tracker>

Local COVID-19 Case Tracker: <https://www.doh.gov.ph/covid-19/case-tracker>

Date	Author/s	Title	Journal/ Article Type	Summary
12 Apr 2022	WHO Global	Weekly epidemiological update on COVID-19 – 12 Apr 2022	<i>WHO Global Situation Report</i>	<ul style="list-style-type: none"> Over 7 million cases and over 22,000 deaths were reported globally the past week. New weekly cases of COVID-19 in the European regions were reported to increase while the South-East Asian and Eastern Mediterranean regions reported a decrease in new cases. The Western Pacific Region and the Region of Americas reported an increase in the cases of deaths while the African and South-East Asian regions reported a decrease in new weekly deaths.
13 Apr 2022	Muller et al.	Seroprevalence and risk factors of COVID-19 in healthcare workers from 11 African countries: a scoping review and appraisal of existing evidence	<i>Pubmed / Scoping review and appraisal of existing evidence</i>	<ul style="list-style-type: none"> Muller et al. reviewed and appraised the evidence of COVID-19 seroprevalence as well as its risk factors among HCWs in Africa to be able to create preparedness strategies during the pandemic. A total of 16 articles were included which contain seroprevalence data on 9,223 HCWs from 11 countries across Africa. The results reported that seroprevalence varied widely and ranged from 0% to 45.1%. Furthermore, seropositivity was associated with older age, lower education, working as a nurse/non-clinical HCW or in gynecology, emergency, outpatient or surgery departments.
14 Apr 2022	European Centre for Disease Prevention and Control (ECDC)	Weekly COVID-19 surveillance report	<i>Situation Report</i>	<ul style="list-style-type: none"> At the end of week 14 (10 Apr 2022), the recent resurgence observed in the EU/EEA was observed to have slowed down despite the continued expansion of BA.2 and the widespread lifting of public health measures.

Evidence on Vaccines (*Part 1 of 2*)

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>

Date	Author/s	Title	Journal/ Article Type	Summary
11 Apr 2022	Ling et al.	Myopericarditis following COVID-19 vaccination and non-COVID-19 vaccination: a systematic review and meta-analysis	<i>Pubmed/ Systematic review and meta-analyses</i>	<ul style="list-style-type: none"> The objectives of the review were to characterize the incidence of myopericarditis following COVID-19 vaccination and compare the results with non-COVID-19 vaccination. The authors reported that the incidence of myopericarditis did not differ significantly among people who receive COVID-19 vaccines (18.2 [10.9-30.3], 11 studies [395,361,933 doses], high certainty) and those who received non-COVID-19 vaccines (56.0 [10.7-293.7], 11 studies [9,910,788 doses], moderate certainty, p=0.20). Furthermore, it was noted that compared with COVID-19 vaccination, the incidence of myopericarditis was significantly higher following smallpox vaccinations (132.1 [81.3-214.6], p<0.0001) but was not significantly different after influenza vaccinations (1.3 [0.0-884.1], p=0.43) or in studies reporting on various other non-smallpox vaccinations (57.0 [1.1-3036.6], p=0.58).
12 Apr 2022	Teh et al.	Immunogenicity of COVID-19 vaccines in patients with hematologic malignancies: a systematic review and meta-analysis	<i>Pubmed/ Systematic review and meta-analyses</i>	<ul style="list-style-type: none"> The review aimed to assess the immunogenicity and safety of COVID-19 vaccines in patients with hematologic malignancies through an SRMA of studies from January 1, 2021, to August 31, 2021. Overall, pooled seropositivity rates in patients with hematologic malignancies were 62% in single-arm studies and 66% in comparator studies after 2 doses of COVID-19 vaccination. Meanwhile, after a single dose, the pooled seropositivity rates were 51% in single-arm studies and 37% in comparator studies. The study also reported that compared with healthy or older matched controls, patients with hematologic malignancies were less likely to achieve seropositivity after two doses (OR 0.04 [95% CI, 0.02-0.08; P < .01]), and after a single dose (OR 0.10 [95% CI, 0.04-0.29; P < .01]).

Evidence on Vaccines (*Part 2 of 2*)

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>

Date	Author/s	Title	Journal/ Article Type	Summary
15 Apr 2022	Cordero et al.	Myocarditis after RNA-based vaccines for coronavirus	<i>Pubmed/ Meta-analysis</i>	<ul style="list-style-type: none"> • Cordero et al. performed an intention-to-treat meta-analysis of seven (7) studies that included 17,704,413 subjects and 627 cases of confirmed myocarditis. • The study reported a 0.0035% incidence of myocarditis (95% CI 0.0034-0.0035) and mean incidence rate of 10.69 per 100,000 persons-year. • The authors concluded that myocarditis incidence after RNA vaccines is very rare and has a very favorable clinical course.

Evidence on Drugs

Date	Author/s	Title	Journal/ Article Type	Summary
14 Apr 2022	Hammond et al.	Oral Nirmatrelvir for High-Risk, Nonhospitalized Adults with Covid-19	<i>Pubmed/ Randomized Control Trial</i>	<ul style="list-style-type: none"> • The study aimed to evaluate the efficacy and safety of Nirmatrelvir plus ritonavir among symptomatic, unvaccinated, nonhospitalized adults at high risk for progression to severe COVID-19. • Among 774 ITT population, the incidence of COVID-19 hospitalization or death by day 28 was lower in the nirmatrelvir group than in the placebo group by 6.32 percentage points (RR: 89.1 [95% CI: -9.04 to -3.59; P<0.001). • No deaths occurred in the nirmatrelvir group while all 13 deaths occurred in the placebo group. The viral load was lower with nirmaltrelvir plus ritonavir than with placebo at day 5 of treatment • No significant difference in the incidence of adverse events were observed between the two groups: any adverse event (22.6% nirmatrelvir plus ritonavir vs. 23.9% placebo); serious adverse events (1.6% vs. 6.6%); and adverse events leading to discontinuation of the drugs or placebo (2.1% vs. 4.2%).

Evidence on Transmission

Date	Author/s	Title	Journal/ Article Type	Summary
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Evidence on Equipment and Devices

Date	Author/s	Title	Journal/ Article Type	Summary
13 Apr 2022	Ghasemi et al.	Diagnostic utility of antigen detection rapid diagnostic tests for Covid-19: a systematic review and meta-analysis	<i>Pubmed/ Systematic review and meta-analysis</i>	<ul style="list-style-type: none"> Ghasemi et al. investigated 20 eligible studies (with 33 different tests) for the sensitivity and specificity of rapid tests. The group also explored the factors that influence the result to help better diagnose COVID-19 infection. The authors did not disclose the results of the pooling of sensitivity and specificity of the tests. However, the study mentioned that rapid detection of antibodies is less sensitive to rapid diagnostic tests (RDTs) and is associated with many false positives. In conclusion, low sensitivity in RDTs depends on various factors such as specimen, the timing of sampling, type of assay, and viral load.

Evidence on Medical and Surgical Procedures

Date	Author/s	Title	Journal/ Article Type	Summary
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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
13 Apr 2022	Denford et al.	Feasibility and acceptability of daily testing at school as an alternative to self-isolation following close contact with a confirmed case of COVID-19: a qualitative analysis	<i>Pubmed/ Randomized Control Trial (Qualitative analysis)</i>	<ul style="list-style-type: none"> The qualitative analysis aimed to compare daily contact testing (DCT) in schools and self-isolation due to close contact. The results of the surveys showed that participants recognized that daily testing may allow students to remain in school which was deemed necessary for both education and social needs. Although some felt safer with DCT, others were still concerned about its safety. The authors also noted that not all times do participants understand how to interpret and respond to test results. Hence, improved communications are required for proper implementation.

Evidence on Personal Measures

Date	Author/s	Title	Journal/ Article Type	Summary
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Evidence on Other Health Technologies

Date	Author/s	Title	Journal/ Article Type	Summary
11 Apr 2022	Gunasekeran et al.	The Impact and Applications of Social Media Platforms for Public Health Responses Before and During the COVID-19 Pandemic: Systematic Literature Review	<i>Pubmed/ Systematic Literature Review</i>	<ul style="list-style-type: none"> The review aimed to highlight the potential negative and positive public health impacts of social media. Gunasekeran et al. reported that the COVID-19 pandemic has exposed the public health risks of unchecked health information-sharing on social media. Although applications of social media for communication were effectively used in amplifying public health messages during the pandemic, some people also use the platform to spread misinformation, hence negating its positive impact. In conclusion, the review highlighted existing and developing applications of social media for public health communication, monitoring, and predictions which will likely help increase prominence in responses to future public health threats.