# Weekly Evidence Report

Health Technology Assessment Philippines

14 Feb 2022 to 20 Feb 2022

#### **Overview**

The following report presents summaries of evidence the Department of Health (DOH) - Health Technology Assessment (HTA) Unit reviewed for the period of 14 Feb to 20 Feb 2022. The HTA Unit reviewed a total of 14 studies for the said period.

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



#### **Sections**

Epidemiology
Transmission
Drugs
Vaccines
Equipment & Devices
Medical & Surgical Procedures
Traditional Medicine
Preventive & Promotive Health



### **Evidence on Epidemiology**

## Local COVID-19 Tracker: <u>https://www.doh.gov.ph/covid19tracker</u> Local COVID-19 Case Tracker: <u>https://www.doh.gov.ph/covid-19/case-tracker</u>

Date	Author/s	Title	Journal/ Article Type	Summary
15 Feb 2022	WHO Global	HO Global Weekly epidemiological update on COVID-19	WHO Global (Situation Report)	<ul> <li>Globally, during the week of 7 to 13 February 2022, the number of new COVID-19 cases decreased by 19% as compared to the previous week, while the number of new deaths remained similar to that of the previous week.</li> <li>As of 13 February 2022, over 409 million confirmed cases and over 5.8 million deaths have been reported globally.</li> </ul>
			WHO Global (Situation Report – <i>Regional</i> <i>Updates</i> )	<ul> <li>The Western Pacific Region reported an increase of 19% in the number of new weekly cases while all other regions reported decreases: South-East Asia Region (37%), Region of the Americas (32%), African Region (30%), European Region (16%) and Eastern Mediterranean Region (12%).</li> <li>The number of new weekly deaths increased in the Eastern Mediterranean Region (38%), Western Pacific Region (27%), African Region (14%) and Region of the Americas (5%), while it remained similar to that of the previous week in the European Region and decreased in the South-East Asia Region (9%).</li> </ul>
			WHO Global (Situation Report – SARS-CoV-2 variants of interest and variants of concern)	<ul> <li>The current global epidemiology of SARS-CoV-2 is characterized by the global dominance of the Omicron variant. All other variants, including VOCs (Alpha, Beta, Gamma and Delta) and VOIs (Lambda and Mu) continue to decline in all six WHO regions.</li> <li>Among the 432, 470 sequences uploaded to GISAID with specimens collected in the last 30 days, 425, 227 (98.3%) were Omicron, 7, 191 (1.7%) were Delta and one (&lt;0.1%) was Lambda.</li> <li>There were no Alpha, Beta, Gamma or Mu sequences reported. To note, global VOCs and VOIs distribution should be interpreted with due consideration of surveillance</li> </ul>

limitations.

# **Evidence on Epidemiology (continued)**

Date	Author/s	Title	Journal/ Article Type	Summary
18 Feb 2022	European Centre for Disease Prevention and Control (ECDC)	Weekly COVID-19 Surveillance Report	ECDC Data Set / Weekly report	<ul> <li>At the end of week 6 2022 (week ending Sunday, 13 February), the overall epidemiological situation in the EU/EEA was characterized by a very high overall case notification rate, although this has been decreasing for two weeks.</li> <li>The overall EU/EEA death rate remained elevated but stable. Case notification rates are forecast to decrease over the next two weeks, hospital admissions to remain stable and death rates to increase.</li> <li>The Omicron variant of concern is now dominant in all EU/EEA countries.</li> </ul>

# **Evidence on Vulnerable Population Epidemiology**

Date	Author/s	Title	Journal/ Article Type	Summary
14 Feb 2022	Kayaaslan,B., Kalem,A.K., Asilturk, D., et al.	Incidence and Risk Factors for COVID-19 Associated Candidemia (CAC) in ICU Patients	Mycoses / Prospective study	• The study investigated the incidence of candidemia in critically COVID-19 patients, and the independent risk factors for candidemia. Of the 1,229 COVID-19 ICU patients included in the study, 63 developed candidemia. Candidemia incidence rate was 4.4 episodes per 1000 ICU days. The most common species was Candida albicans (52.3%). The presence of central venous catheter, multifocal candida colonization, a prolonged ICU stay (≥14 days), the absence of chronic lung disease and the absence of corticosteroid use were significantly associated with candidemia.

## **Evidence on Transmission**

Date	Author/s	Title	Journal/ Article Type	Summary
18 Feb 2022	Sami,S., Horter, L., Valencia, D., et al.	Investigation of SARS-CoV-2 Transmission Associated With a Large Indoor Convention	CDC/ MMWR weekly report	<ul> <li>An indoor convention in NYC with approximately 53,000 attendees was held during November 19–21, 2021. The facility was equipped with HEPA filters, and attendees were required to have documented receipt of at least 1 dose of COVID-19 vaccine and to use face masks while indoors. The investigation identified 119 event-associated COVID-19 cases, including one hospitalization. A parallel epidemiologic investigation describing a cluster of attendees with social links revealed that at least seven U.Sbased persons potentially attended the event during their infectious period.</li> <li>Despite these potential exposures and multiple introductions as evidenced by genomic identification of at least three different SARS-CoV-2 variants and sublineages, findings from surveillance and survey data from a portion of attendees suggest that this large event did not lead to widespread transmission.</li> </ul>

## **Evidence on Drugs**

Date	Author/s	Title	Journal/ Article Type	Summary
16 Feb 2022	Hammond, J. , Leister-Tebbe, H., Gardner, A. et al.	Oral Nirmatrelvir for High-Risk, Nonhospitalized Adults with Covid-19	The New England Journal of Medicine / Randomized Clinical Trial	<ul> <li>This clinical trial aimed to assess the efficacy of Nirmatrelvir plus ritonavir as compared with placebo among symptomatic, unvaccinated, non-hospitalized adults at high risk for progression to severe COVID-19. COVID-19 related hospitalization or death, viral load, and safety were evaluated.</li> <li>A total of 2,246 patients were enrolled at 343 sites worldwide with 1,120 patients received Nirmatrelvir plus ritonavir and 1,126 received placebo.</li> <li>Treatment of symptomatic COVID-19 with Nirmatrelvir plus ritonavir resulted in a risk of progression to severe Covid-19 that was 89% lower than the risk with placebo, without evident safety concerns.</li> </ul>
18 Feb 2022	Cannata-Andía, J.B., Díaz-Sottolano A.,Fernández, P., et al.	A single-oral bolus of 100.000 IU of cholecalciferol at hospital admission did not improve outcomes in the COVID-19 disease: the COVID-VIT-D	BMC Medicine / Randomized Clinical Trial	<ul> <li>Vitamin D status has been implicated in COVID-19 disease. The objective of the trial was to investigate if an oral bolus of cholecalciferol (100,000 IU) administered at hospital admission influences the outcomes of moderate-severe COVID-19 disease.</li> <li>The COVID-VIT-D is a multicenter, international, randomized, open label, clinical trial conducted throughout a year. It was conducted among patients older than 18 years with moderate-severe COVID-19 disease requiring hospitalization. 274 Patients received single oral bolus of cholecalciferol and 269 served as control with no treatment given. Length of hospitalization, admission to intensive care unit (ICU) and mortality were assessed.</li> <li>The randomized clinical trial showed the administration of an oral bolus of 100,000 IU of cholecalciferol at hospital admission did not improve the outcomes of the COVID-19 disease.</li> </ul>

#### **Evidence on Vaccines**

Date	Author/s	Title	Journal/ Article Type	Summary
14 Feb 2022	Tartof, S.Y., Slezak,J.M., Puzniak, L. , et al.	Effectiveness of a third dose of BNT162b2 mRNA COVID-19 vaccine in a large US health system: A retrospective cohort study	The Lancet Regional Health - Americas / Retrospective cohort	<ul> <li>In this retrospective cohort study, electronic health records were analyzed to assess vaccine effectiveness (VE) of two and three doses of BNT162b2 against SARS-CoV-2 infections and COVID-19-related hospital admission.</li> <li>After only two doses, VE against infection declined from 85% during the first month to 49% ≥ 7 months following vaccination. Overall VE against hospitalization was 90% within one month and did not wane, however, effectiveness against hospitalization appeared to wane among immunocompromised individuals but was not statistically significant. Three-dose VE was 88% against infection and 97% against hospitalization. Effectiveness after three doses was higher than that seen one month after receiving only two doses for both outcomes.</li> </ul>

NYT Coronavirus Vaccine Tracker: https://www.nytimes.com/interactive/2020/science/coronavirus-vaccine-tracker.html

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

London School of Hygiene and Tropical Medicine Vaccine Trial Mapper and Tracker: <u>https://vac-lshtm.shinyapps.io/ncov\_vaccine\_landscape/</u>

ACIP Files: https://drive.google.com/drive/u/0/folders/1v-jd66qIIxnUkfzXWKqiD0mkVvqy\_VvJ?pli=1

# **Evidence on Vaccines (continued)**

Date	Author/s	Title	Journal/ Article Type	Summary
15 Feb 2022	Filon, F.L., Rui, F., Ronchese,F. , De Michieli, P., Negro, C.	Incidence of COVID-19 infection in hospital workers from March 1, 2020 to May 31, 2021 routinely tested, before and after vaccination with BNT162B2	Nature Portfolio / Retrospective cohort	• The study reported data on the incidence of COVID-19 infection among 4251 health care workers (HCWs) regularly screened with PCR from April 2020 in the Friuli Venezia Giulia Region (NE, Italy) until the end of May 2021. Among HCWs, vaccination with BNT162b2 was associated with a sharp decline in the incidence of COVID-19 infection, with an IRR of 0.05 in vaccinate compared to non-vaccinated workers. The study confirmed an estimated vaccine effectiveness of 95% in health care workers routinely tested.
16 Feb 2022	Hall, V., Foulkes, S., Insalata,F., et al.	Protection against SARS-CoV-2 after Covid-19 Vaccination and Previous Infection	The New England Journal of Medicine / Prospective Cohort	<ul> <li>This study investigated the duration and effectiveness of immunity in a prospective cohort of asymptomatic health care workers in the United Kingdom who underwent routine polymerase-chain-reaction (PCR) testing.</li> <li>Vaccine effectiveness and infection-acquired immunity were assessed by comparing the time to PCR-confirmed infection in vaccinated persons with that in unvaccinated persons.</li> <li>Two doses of BNT162b2 vaccine were associated with high short-term protection against SARS-CoV-2 infection; this protection waned considerably after 6 months. Infection-acquired immunity boosted with vaccination remained high more than 1 year after infection.</li> </ul>

<b>Evidence on</b>	Vaccines	(continued)
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Date	Author/s	Title	Journal/ Article Type	Summary
18 Feb 2022	Halasa, N.B., Olson, S.M., Staat, M.A., et al.	Effectiveness of Maternal Vaccination with mRNA COVID-19 Vaccine During Pregnancy Against COVID-19–Associat ed Hospitalization in Infants Aged <6 Months	CDC / MMWR weekly report	<ul> <li>COVID-19 vaccination is recommended for persons who are pregnant, breastfeeding, or who might become pregnant in the future. In this study, vaccine performance was assessed by comparing the odds of having completed a 2-dose primary mRNA COVID-19 vaccination series during pregnancy among mothers of case-infants and control-infants.</li> <li>Among 176 infants aged &lt;6 months hospitalized with COVID-19, 148 (84%) were born to mothers who were not vaccinated during pregnancy.</li> <li>Receipt of COVID-19 vaccination during pregnancy is associated with detectable maternal antibodies in maternal sera at delivery, breast milk, and infant sera indicating transfer of maternal antibodies.</li> </ul>

# **Evidence on Medical and Surgical Procedures**

Date	Author/s	Title	Journal/ Article Type	Summary
17 Feb 2022	Kebria,M.M., Milan, P.B., Peyravian, N., Kiani, J., Khatibi, S., Mozafari, M	Stem cell therapy for COVID-19 pneumonia	Molecular Biomedicine / Review	<ul> <li>SARS-CoV-2 virus is a highly contagious microorganism, and despite substantial investigation, no progress has been achieved in treating post-COVID complications.</li> <li>This review addresses the latest trends and rapid progress in stem cell treatment for Acute Respiratory Distress Syndrome (ARDS) following COVID-19. In the past, many researchers have conducted various studies on the immunomodulatory properties of stem cells. This property of stem cells led them to modulate the immune system of autoimmune diseases. Because of their immunomodulatory properties, stem cell-based therapy employing mesenchymal or hematopoietic stem cells may be a viable alternative treatment option in some patients.</li> </ul>

# **Evidence on Equipment & Devices**

Date	Author/s	Title	Journal/ Article Type	Summary
14 Feb 2022	Patriquin, G., LeBlanc, J.J., Williams, C. , Hatchette, T.F., Ross,J. , Barrett, L., Davidson, R.	Comparison between Nasal and Nasopharyngeal Swabs for SARS-CoV-2 Rapid Antigen Detection in an Asymptomatic Population, and Direct Confirmation by RT-PCR from the Residual Buffer	Microbiology Spectrum / Comparative study	<ul> <li>Bilateral nasal (NA) swabs applied to a commercial antigen-based rapid diagnostic test (Ag-RDT) offer a simpler and more comfortable alternative to nasopharyngeal (NP) collection. However, little is known about the sensitivity of this method in an asymptomatic population.</li> <li>Participants in community-based asymptomatic testing sites were screened for SARS-CoV-2 using an Ag-RDT with NP sampling. Positive individuals returned for confirmatory molecular testing and consented to repeating the Ag-RDT using a bilateral NA swab for comparison.</li> <li>RT-PCR testing on the RTB from the Ag-RDT using NP and NA swab collections resulted in 100.0% and 98.7% sensitivity, respectively. NA swabs provide an adequate alternative to NP swab collection for use with Ag-RDT, with the recognition that the test is most sensitive in specimens with high viral loads.</li> <li>With the high sensitivity of RT-PCR testing on RTB from Ag-RDT, a more streamlined approach to confirmatory testing is possible without recollection or use of paired collections strategies.</li> </ul>

## **Evidence on Traditional Medicine**

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

#### **Evidence on Screening/Surveillance**

Date	Author/s	Title	Journal/ Article Type	Summary
14 Feb 2022	WHO Global	Public health surveillance for COVID-19: interim guidance	WHO Interim guidance	<ul> <li>This interim guidance summarizes current WHO guidance for public health surveillance of COVID-19 in humans caused by infection with SARS-CoV-2.</li> <li>This document includes updates in contact definitions and detection strategies, reinfection evidence standardization and surveillance, inclusion of clinical case definition of post COVID-19 condition as defined by WHO and the addition of the definition of breakthrough infection</li> </ul>

#### **Evidence on Community Measures**

Date	Author/s	Title	Journal/ Article Type	Summary
17 Feb 2022	WHO Global	<u>Contact tracing and</u> <u>quarantine in the</u> <u>context of the</u> <u>Omicron</u> <u>SARS-CoV-2</u> <u>variant: interim</u> <u>guidance</u>	WHO Surveillance, case investigation and epidemiologi cal protocols	<ul> <li>This interim guidance has been developed in the background of the present global surge of cases due to the SARS-CoV-2 Omicron variant.</li> <li>The WHO continues to recommend using a risk-based, pragmatic approach for countries to consider when introducing any changes to existing contact tracing and quarantine measures.</li> <li>Any interruption of contact tracing or shortening of the duration of quarantine will increase the risk of onward transmission and must be weighed against healthcare capacity, population immunity and socioeconomic priorities. SARS-CoV-2 testing (PCR or Ag-RDT) can be used as a measure to shorten quarantine.</li> </ul>

# **Evidence on Personal Measures**

Date	Author/s	Title	Journal/ Article Type	Summary
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