Weekly Evidence Report

Health Technology Assessment Philippines

15 - 21 October 2022

Overview

The following report presents summaries of evidence the Department of Health (DOH) - Health Technology Assessment (HTA) Division reviewed for the period of 15 - 21 October 2022 on current public health emergency concerns, COVID-19 and monkeypox. The HTA Division reviewed a total of 14 studies for COVID-19 and 5 studies for monkeypox.

For COVID-19, evidence includes 1 study on Epidemiology; 5 studies on Vaccines; 3 studies on Drugs; 1 study on Transmission; 0 studies on Equipment and Devices; 0 studies on Medical and Surgical Procedures; 0 studies on Traditional Medicine; 3 studies on Preventive & Promotive Health; and 1 study on Other Health Technologies.

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

Sections

COVID-19

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
14 Sep 2022	WHO Global	Weekly epidemiological update on COVID-19 - 19 October 2022	*WHO Global Situation Report*	• Globally, the number of new weekly cases decreased by 6% during the week of 10 to 16 October 2022, as compared to the previous week, with over 2.9 million new cases reported. • The number of new weekly deaths decreased by 17%, as compared to the previous week, with about 8300 fatalities reported. • As of 16 October 2022, 621 million confirmed cases and 6.5 million deaths have been reported globally.

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
18 Oct 2022	Toepfner et al.	Comparative Safety of the BNT162b2 Messenger RNA COVID-19 Vaccine vs Other Approved Vaccines in Children Younger Than 5 Years	*JAMA Network Open / Cohort study*	• Based on guardian-reported survey of safety profile of BNT162b2 in 7,806 children, BNT162b2 was associated with significantly more frequent injection-site, musculoskeletal, dermatologic, or otolaryngologic symptoms but fewer general symptoms and fever after vaccination compared with approved non–SARS-CoV-2 vaccines. • BNT162b2 was comparable with the frequency of adverse events after vaccination with approved non–SARS-CoV-2 vaccines in children younger than 5 years.

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

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

Date	Author/s	Title	Journal/ Article Type	Summary
19 Oct 2022	European Medicines Agency	EMA recommends approval of Comirnaty and Spikevax COVID-19 vaccines for children from 6 months of age	*EMA Recommendation*	• EMA's human medicines committee (CHMP) has recommended extending the use of Comirnaty and Spikevax targeting the original strain of SARS-CoV-2. • Compared to the doses for already authorised age groups,1 the doses of both vaccines in these new younger age groups will be lower. • For Comirnaty, a main study in children from 6 months to 4 years of age showed that the immune response to the lower dose of Comirnaty (3 micrograms) was comparable to that seen with the higher dose (30 micrograms) in 16- to 25-year-olds. • For Spikevax, a main study in children from 6 months to 5 years of age showed that the immune response to the lower dose of Spikevax (25 micrograms) was comparable to that seen with the higher dose (100 micrograms) in 18- to 25-year-olds.
20 October 2022	US CDC	COVID-19 Vaccines While Pregnant or Breastfeeding	*US CDC Statement*	• Evidence continues to build showing that COVID-19 vaccination before and during pregnancy is safe, effective, and beneficial to both the pregnant person and the baby. • Safety monitoring systems have not found any safety concerns for people who received an mRNA COVID-19 vaccine late in pregnancy or for their babies. • There is no evidence of increased risk for miscarriage among pregnant people who received an mRNA COVID-19 vaccine just before or during early pregnancy (before 20 weeks of pregnancy).
18 Oct 2022	Janssen et al.	Coadministration of seasonal influenza and COVID-19 vaccines: A systematic review of clinical studies	*Human Vaccines & Immunotherapeutics / Systematic Review*	• This systematic review examined published data on the safety, immunogenicity, efficacy/effectiveness, and acceptability/acceptance of coadministration of influenza and COVID-19 vaccines. • There were no safety concerns or immune interferences were found whatever the vaccines or the age of vaccinated subjects (65- or 65+). • No efficacy/effectiveness data were available.

Evidence on Vaccines

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

Date	Author/s	Title	Journal/ Article Type	Summary
17 Oct 2022	WHO	Good practices statement on the use of variant-containing COVID-19 vaccines	*WHO SAGE statement*	• Some immune evasion has been observed in the context of the Omicron variants that are currently circulating. Recently-authorized bivalent variant-containing mRNA vaccines may broaden and enhance the immune response to the Omicron and its descendent lineages when administered as a booster dose. • Data that are currently available are not sufficient to support the issuance of any preferential recommendation for bivalent variant-containing vaccine boosters over ancestral-virus-only boosters. • The immunogenicity data comparing bivalent Omicron-containing boosters to the monovalent ancestral boosters demonstrate only modest superiority. The impact on vaccine effectiveness remains to be demonstrated. • At this time, WHO recommends that any WHO EUL COVID-19 vaccines or authorized mRNA bivalent variant-containing vaccines can be used for booster vaccination.

Evidence on Drugs

Date	Author/s	Title	Journal/ Article Type	Summary
19 Oct 2022	Grundmann et al.	Fewer COVID-19 neurological complications with dexamethasone and remdesivir	*Annals of Neurology / Observational Study*	• In severe COVID-19, treatment with dexamethasone, remdesivir, and both combined is associated with a lower frequency of neurological complications. • In non-hypoxic COVID-19, dexamethasone is associated with less neurological complications. • Treatment with dexamethasone, remdesivir or both in patients hospitalised with COVID-19 associated with a lower frequency of neurological complications in an additive manner, such that the greatest benefit was observed in patients who received both drugs together.

Evidence on Drugs

Date	Author/s	Title	Journal/ Article Type	Summary
18 Oct 2022	Nevalainen et al.	Effect of remdesivir post hospitalization for COVID-19 infection from the randomized SOLIDARITY Finland trial	*Nature / Randomized trial*	• The study report the first long-term follow-up of a randomized trial (NCT04978259) addressing the effects of remdesivir on recovery and other patient-important outcomes one year after hospitalization resulting from COVID-19. • At one year, self-reported recovery occurred in 85% in remdesivir and 86% in standard of care (SoC) (RR 0.94, 95% CI 0.47-1.90). • Of the 21 potential long-COVID symptoms, patients reported moderate/major bother from fatigue (26%), joint pain (22%), and problems with memory (19%) and attention/concentration (18%).
19 Oct 2022	Ling et al.	Monoclonal antibodies for the treatment of COVID-19 infection in children	*Expert Review of Anti-infective Therapy / Expert Opinion*	• Limited evidence exists for the safety and efficacy of mAbs to treat COVID-19 in children as new variants emerge. • For the great majority of pediatric patients, mAb treatment is likely not indicated. • In rare pediatric outpatient settings, such as profound immunodeficiency or severe pulmonary disease, the benefits of antiviral treatment for COVID-19 likely outweigh the relatively small risks.

Evidence on Transmission

Date	Author/s	Title	Journal/ Article Type	Summary
17 Oct 2022	Al-kuraishy et al.	Pregnancy and COVID-19: high or low risk of vertical transmission	*Clinical and Experimental Medicine*	• The objective of this systematic review was to evaluate current literature regarding the effects of COVID-19 during pregnancy and establish pregnancy outcomes and vertical and perinatal transmission during pregnancy. • Pregnant women are commonly susceptible to respiratory viral infections and severe pneumonia due to physiological immune suppression and pregnancy-induced changes.However, there is still no robust clinical evidence of vertical transmission of SARS-CoV-2.

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
18 Oct 2022	White et al.	Factors associated with COVID-19 masking behavior: an application of the Health Belief Model	*Health Science Research / Modeling Study*	• This study aimed to analyze longitudinal data in a sample of US adults aged 18–49 years to identify constructs that contribute to face mask-wearing. • Perceived COVID-19 severity, perceived masking benefits and self-efficacy were positively associated with masking behavior, and masking barriers were negatively associated with masking behavior. Perceived susceptibility to COVID-19 and cues to action were non-significant correlates of masking behavior.

Evidence on Community Measures

Date	Author/s	Title	Journal/ Article Type	Summary
15 Oct 2022	Levesque et al.	COVID-19 prevalence and infection control measures at homeless shelters and hostels in high-income countries: a scoping review	*Systematic Reviews /Scoping Review*	• The review showed that there is no clear indication of generally accepted infection control and prevention measures (IPAC) standards for homeless shelter residents and workers. • There is a great need for future research to establish IPAC best practices specifically for homeless shelter/hostel contexts. • Homelessness prevention is key to limiting disease outbreaks and the associated negative health outcomes in shelter populations.
19 Oct 2022	Odedokun et al.	COVID-19 Vaccine Acceptance in Pregnancy	*American Journal of Perinatology*	• The purpose of the study is to evaluate the acceptance rate of the coronavirus disease 2019 (COVID-19) vaccine among pregnant women at Mount Sinnai South Nassau, New York. • Of the 701 pregnant women who completed the survey, 96 patients accepted the vaccine. More pregnant women who were older accepted the COVID-19 vaccine compared with those who were younger ($p = 0.0343$). • Pregnant women willing to get the flu vaccine and/or the Tdap vaccine in pregnancy were more likely to obtain the COVID-19 vaccine ($p < 0.05$). • Pregnant patients who had household members willing to receive the COVID-19 vaccine sought to obtain the vaccine for themselves ($p < 0.0001$). • Pregnant women who had an underlying respiratory illness in the pregnancy were less likely to accept the COVID-19 vaccine than those who had either other or no medical problems ($p < 0.05$).

Evidence on Other Health Technologies

Date	Author/s	Title	Journal/ Article Type	Summary
18 Oct 2022	LFD AI Consortium	Machine learning for determining lateral flow device results for testing of SARS-CoV-2 infection in asymptomatic populations	*Cell Reports Medicine / Diagnostic Accuracy Study*	• Rapid antigen tests in the form of lateral flow devices (LFDs) allow testing of a large population for severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2). To reduce the variability in device interpretation, the design and testing of an artificial intelligence (AI) algorithm based on machine learning was reported in this paper. • A machine learning-based classifier of LFD results outperforms human reads in assisted testing sites and self-reading.

Evidence on Traditional Medicine

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
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Evidence on Medical and Surgical Procedures

Date	Author/s	Title	Journal/ Article Type	Summary
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MONKEYPOX

Evidence on Epidemiology

Monkeypox Case Tracker:

WHO: https://extranet.who.int/publicemergency/#

US CDC: https://www.cdc.gov/poxvirus/monkeypox/response/2022/index.html

Date	Author/s	Title	Journal/ Article Type	Summary
18 Oct 2022	European CDC	Monkeypox situation update	*Epidemiological update*	• Since the start of the monkeypox outbreak and as of 18 October 2022, 20 544 confirmed cases of monkeypox (MPX) have been reported from 29 EU/EEA countries. In total, 63 cases have been reported from three Western Balkan countries and Turkey.
19 Oct 2022	WHO	WHO situation report	*Epidemiological update*	• The number of new weekly deaths decreased by 17%, as compared to the previous week, with about 8300 fatalities reported.
19 Oct 2022	Khalil, et al.	Monkeypox in children: Update on the current outbreak and need for better reporting	*Elsevier/ Correspondence*	• As schools reopen after summer holidays, despite no transmissions reported in educational settings so far, increased vigilance and timely reporting will be critical in communities with on-going transmissions. • Taken together, global reports of monkeypox disease in young children are reassuring, but there is a need for more robust and systematic data beyond media reports to both reassure parents and provide evidence-based care for children.

Evidence on Transmission

Date	Author/s	Title	Journal/ Article Type	Summary
19 Oct 2022	Cocco, et al.	Monkeypox epidemic in prisons: How to prevent it?	*The Lancet/ Commentary*	• On July 23rd 2022 the World Health Organization (WHO) declared the monkeypox virus (MPXV) outbreak a Public Health Emergency of International Concern. • As of October 2022, in Italy 856 cases of MPXV infection were detected in the general population of which 350 in the Northern Region Lombardy, 71% in Milan, main metropolitan centre (1.4 million inhabitants); 99% of them were males aged 30–39 years old. • On August 10th, a vaccination campaign against monkeypox virus started in Lombardy with the administration of the first 2000 doses for categories at risk as defined by national and regional authorities (excluding individuals already vaccinated for smallpox virus, who have sufficient immunity against MPXV).

Evidence on Preventive & Promotive Health

Evidence on Screening

Date	Author/s	Title	Journal/ Article Type	Summary
15 October 2022	Pan, et al.	The monkeypox case definition in the UK is broad – Authors' reply	*The Lancet/ Correspondence*	• The authors continue to caution against classifying individuals with a rash and who identify as gay, bisexual, or other men who have sex with men (MSM) in the same risk category (probable case) as those who have had new sexual partners in the 21 days before symptom onset, or those who have had an epidemiological link to a confirmed, probable, or highly probable case of monkeypox infection in the 21 days before symptom onset. They believe such distinctions between MSM and the general population are unnecessary, especially when subsequent recommended management of both possible and probable cases is the same (eg, take samples to test for monkeypox infection, take a relevant sexual and travel history, and, if admission to hospital is required, give access to a negative pressure isolation ward with adequate personal protective equipment). Although MSM are the majority of confirmed cases in the UK, monkeypox is not a disease that occurs only in MSM, nor are all MSM engaged in high amounts of sexual activity. • Physicians and the public might make generalisations on the basis of these definitions, which could further stigmatise the MSM community, similar to previous experiences with HIV.

Evidence on Personal Measures

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Evidence on Community Measures

Date	Author/s	Title	Journal/ Article Type	Summary
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Evidence on Vaccines

Date	Author/s	Title	Journal/ Article Type	Summary
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Evidence on Drugs

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 Equipment and Devices

Date	Author/s	Title	Journal/ Article Type	Summary
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Evidence on Medical and Surgical Procedures

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Evidence on Other Health Technologies

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