

# Weekly Evidence Report



Health Technology Assessment Philippines

10 – 16 September 2022

## Overview

The following report presents summaries of evidence the Department of Health (DOH) - Health Technology Assessment (HTA) Division reviewed for the period of 10 – 16 September 2022 on current public health emergency concerns, COVID-19 and monkeypox. The HTA Division reviewed a total of 18 studies for COVID-19 and 9 studies for monkeypox.

For COVID-19, evidence includes 1 study on Epidemiology; 6 studies on Vaccines; 5 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; 4 studies on Preventive & Promotive Health; and 1 study on Other Health Technologies.

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



## Sections

---

Epidemiology

---

Vaccines

---

Drugs

---

Transmission

---

Equipment & Devices

---

Medical & Surgical Procedures

---

Traditional Medicine

---

Preventive & Promotive Health

---

Other Health Technologies

---

# COVID-19

## Evidence on Epidemiology

### Local COVID-19 Case Tracker:

[https://doh.gov.ph/2019-nCoV?gclid=CjwKCAjwjtOTBhAvEiwASG4bCOmLzFMQljh8DX\\_VVSGA-Hm00Pt5\\_CscykID7xZv4zqlXG5vm9PM2xoC27QQAvD\\_BwE](https://doh.gov.ph/2019-nCoV?gclid=CjwKCAjwjtOTBhAvEiwASG4bCOmLzFMQljh8DX_VVSGA-Hm00Pt5_CscykID7xZv4zqlXG5vm9PM2xoC27QQAvD_BwE)

Date	Author/s	Title	Journal/ Article Type	Summary
14 Sep 2022	<a href="#">WHO Global</a>	Weekly epidemiological update on COVID-19 - 14 September 2022	<i>WHO Global Situation Report</i>	<ul style="list-style-type: none"> <li>Globally, the number of weekly cases decreased by 28% during the week of 5 to 11 September 2022 as compared to the previous week, with just under 3.1 million new cases reported.</li> <li>The number of new weekly deaths decreased by 22% as compared to the previous week, with over 11,000 fatalities reported.</li> <li>As of 11 September 2022, over 605 million confirmed cases and over 6.4 million deaths have been reported globally.</li> </ul>

## 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
12 Sep 2022	<a href="#">Mrak et al.</a>	Heterologous vector versus homologous mRNA COVID-19 booster vaccination in non-seroconverted immunosuppressed patients: a randomized controlled trial	<i>Nature Communication s/ Randomized Controlled Trial</i>	<ul style="list-style-type: none"> <li>Patients who failed to seroconvert upon two mRNA vaccinations (BNT162b2 or mRNA-1273) are randomized to receive either a third dose of the same mRNA or the vector vaccine ChAdOx1 nCoV-19.</li> <li>Seroconversion rates at week four are significantly higher in the mRNA (homologous vaccination, 15/24, 63%) as compared to the vector vaccine group (heterologous vaccination, 4/22, 18%). SARS-CoV-2-specific T-cell responses are reduced but could be increased after a third dose of either vector or mRNA vaccine.</li> <li>Efficacy and safety data underline the importance of a booster vaccination and support the use of a homologous mRNA booster vaccination in immunosuppressed patients.</li> </ul>

## 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
12 Sep 2022	<a href="#">Pfizer</a>	Pfizer and BioNTech Receive Positive CHMP Opinion for Omicron BA.4/BA.5-Adapted Bivalent COVID-19 Vaccine Booster in European Union	<i>Pfizer/Press release</i>	<ul style="list-style-type: none"> <li>Committee for Medicinal Products for Human Use (CHMP) gives recommendation based on favorable data from Omicron-adapted vaccines</li> <li>Pfizer-BioNTech bivalent Omicron BA.4/BA.5 COVID-19 vaccine is available to ship immediately, pending European Commission approval, to support EU vaccination campaigns this fall</li> <li>This vaccine contains 15-µg of mRNA encoding the wild-type spike protein of SARS-CoV-2 in the Original Pfizer-BioNTech COVID-19 Vaccine, and 15-µg of mRNA encoding the spike protein of the Omicron BA.4/BA.5 subvariants.</li> </ul>
13 Sep 2022	<a href="#">Abolmaali et al.</a>	Guillain-Barré syndrome in association with COVID-19 vaccination: a systematic review	<i>Immunologic Research/Systematic review</i>	<ul style="list-style-type: none"> <li>The study conducted a systematic review assessing different demographic, clinical, and neurophysiological aspects of patients with Guillain-Barré syndrome (GBS) following immunization with COVID-19 vaccines</li> <li>AstraZeneca was the most-reported vaccine associated with GBS with 52 cases (59.1%) followed by Pfizer with 20 cases (22.7%).</li> <li>Overall, a small rise in GBS incidence, following various COVID-19 vaccines, was observed. Notably, 85% of affected individuals experienced at least a partial recovery.</li> </ul>
13 Sep 2022	<a href="#">US CDC</a>	Summary Document for Interim Clinical Considerations for Use of COVID-19 Vaccines Currently Authorized or Approved in the United States	<i>US CDC/Recommendations</i>	<ul style="list-style-type: none"> <li>Everyone ages 12 years and older is recommended to receive 1 age-appropriate bivalent mRNA booster dose after completion of any FDA approved or FDA-authorized monovalent primary series or last monovalent booster dose.</li> </ul>

## 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
15 Sep 2022	<a href="#">Sobieszczyk et al.</a>	Durability of protection and immunogenicity of AZD1222 (ChAdOx1 nCoV-19) COVID-19 vaccine over 6 months	<i>Journal of Clinical Investigation/ Randomized Controlled Trial</i>	<ul style="list-style-type: none"> <li>Adults at increased risk of SARS-CoV-2 infection were randomized (2:1), stratified by age, to receive 2 doses of AstraZeneca (AZD1222) or placebo.</li> <li>AZD1222 is safe and well tolerated, demonstrating durable protection and immunogenicity with median follow-up (AZD1222 group) of 6 months.</li> </ul>
16 Sep 2022	<a href="#">WHO</a>	COVID-19 vaccine tracker and landscape	<i>WHO/ Tracker and landscape</i>	<ul style="list-style-type: none"> <li>As of 16 September 2022, there are 172 vaccines in clinical development and 199 vaccines in pre-clinical development worldwide.</li> <li>Among the candidates in clinical phase, 11 vaccines are in phase 4 of the development, 46 vaccines are in the phase 3, while the rest of the candidate vaccines are in phase 1-<sup>2</sup>/<sub>3</sub> of their development.</li> </ul>

## Evidence on Drugs

Date	Author/s	Title	Journal/ Article Type	Summary
10 Sep 2022	<a href="#">Mali et al.</a>	Efficacy and safety of Molnupiravir in COVID-19 patients: a systematic review	<i>Irish Journal of Medical science/ Systematic review</i>	<ul style="list-style-type: none"> <li>Based on 4 published and 2 unpublished with interim reports, it was observed that the daily dose of 1600 mg Molnupiravir for 5 days was safe and tolerable with nausea, diarrhea and headache as the common adverse effects.</li> <li>The results also showed significant decrease in time to viral clearance with 800 mg twice daily in mild patients and reduction in the risk of hospitalization or death by 50% in non-hospitalized COVID-19 patients</li> </ul>
12 Sep 2022	<a href="#">Almeida et al.</a>	Effectiveness and safety of tocilizumab for COVID-19: a systematic review and meta-analysis of randomized clinical trials	<i>Sao Paulo Medical Journal/ Systematic review and meta-analysis</i>	<ul style="list-style-type: none"> <li>The study was not able to find differences between using tocilizumab compared to standard care on mortality in hospitalized patients with COVID-19 (risk ratio (RR) 0.97, 95% confidence interval (CI) 0.84 to 1.13; 8 trials; 5,950 participants; low-certainty evidence).</li> <li>To date, the best evidence available shows no difference between using tocilizumab plus standard care compared to standard care alone for reducing mortality in patients with COVID-19.</li> </ul>

## Evidence on Drugs

Date	Author/s	Title	Journal/ Article Type	Summary
12 Sep 2022	<a href="#">Marcec et al.</a>	Intravenous immunoglobulin (IVIg) therapy in hospitalised adult COVID-19 patients: A systematic review and meta-analysis	<i>Reviews in Medical Virology/ Systematic review and meta-analysis</i>	<ul style="list-style-type: none"> <li>The study aimed to investigate the potential impact of IVIg on mortality and length of hospitalisation in adult COVID-19 patients.</li> <li>Meta-analysis results indicated that IVIg therapy had no statistically significant effect on mortality (RR 0.91 [0.59; 1.39], <math>p = 0.65</math>, <math>I^2 = 69%</math> [46%; 83%]) or length of hospital stay (MD 0.51 [-2.80; 3.81], <math>p = 0.76</math>, <math>I^2 = 96%</math> [94%; 98%]).</li> <li>The results of this meta-analysis do not support use of IVIg in hospitalised adult COVID-19 patients.</li> </ul>
14 Sep 2022	<a href="#">Nyirenda et al.</a>	Fluvoxamine for the treatment of COVID-19	<i>Cochrane Database of Systematic Reviews/ Systematic review</i>	<ul style="list-style-type: none"> <li>Based on a low- certainty evidence, fluvoxamine may slightly reduce all- cause mortality at day 28, and may reduce the risk of admission to hospital or death in outpatients with mild COVID- 19.</li> </ul>
14 Sep 2022	<a href="#">Sellitto et al.</a>	Effect of remdesivir on mortality rate and clinical status of COVID-19 patients: a systematic review with meta-analysis	<i>Journal of Chemotherapy/ systematic review and meta-analysis</i>	<ul style="list-style-type: none"> <li>This study aimed to carry out a systematic review with meta-analysis to investigate whether Remdesivir (RDV) can significantly modify the outcome of COVID-19 patients evaluating its effects on mortality, length of stay, time to clinical improvement and need for oxygen supplementation.</li> <li>No significant improvement in terms of survival in patients treated with standard therapy (ST)+RDV as compared to ST alone (<math>P = 0.24</math>) was found. The duration of oxygen support was significantly lower in patients treated with ST + RDV compared with ST alone (<math>P = 0.03</math>).</li> </ul>

## Evidence on Transmission

Date	Author/s	Title	Journal/ Article Type	Summary
14 September 2022	<a href="#">Onakpoya et al.</a>	Viral Cultures for Assessing Fomite Transmission of SARS-CoV-2: a Systematic Review and Meta-Analysis	<i>The Journal of Hospital Infection/ Systematic review and meta-analysis</i>	<ul style="list-style-type: none"> <li>Five studies demonstrated replication-competent virus from fomite cultures and three used genome sequencing to match fomite samples with human clinical specimens.</li> <li>The evidence from published studies suggests that replication-competent SARS-CoV-2 is present on fomites.</li> </ul>

## 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
14 Sep 2022	<a href="#">Balestracci et al.</a>	Patient safety implications of wearing a face mask for prevention in the era of COVID-19 pandemic: a systematic review and consensus recommendations	<i>Internal and Emergency Medicine/ Systematic review and meta-analysis</i>	<ul style="list-style-type: none"> <li>Wearing an N95 respirator is more associated with worse side effects than wearing a surgical mask with the following complications: breathing difficulties (reduced FiO<sub>2</sub>, SpO<sub>2</sub>, PaO<sub>2</sub> increased ETCO<sub>2</sub>, PaCO<sub>2</sub>), psychiatric symptoms (panic attacks, anxiety) and skin reactions.</li> <li>Difficulties in communication is another issue to be considered especially with young children, older person and people with hearing impairments.</li> <li>It is also recommended to take an "air break" after 1-2 h consecutively of mask-wearing</li> </ul>

### Evidence on Community Measures

Date	Author/s	Title	Journal/ Article Type	Summary
12 Sep 2022	<a href="#">Wang et al.</a>	Mapping global acceptance and uptake of COVID-19 vaccination: A systematic review and meta-analysis	<i>Communication s Medicine/ Systematic review and meta-analysis</i>	<ul style="list-style-type: none"> <li>The global acceptance and uptake rate of COVID-19 vaccination are 67.8% (95% CI: 67.1–68.6) and 42.3% (95% CI: 38.2–46.5), respectively.</li> <li>Among all population groups, pregnant/breastfeeding women have the lowest acceptance (54.0%, 46.3–61.7) and uptake rates (7.3%, 1.7–12.8).</li> <li>Females, those aged &lt; 60 years old, Black individuals, those with lower education or income have the lower acceptance than their counterparts.</li> </ul>

## Evidence on Preventive & Promotive Health

### Evidence on Community Measures

Date	Author/s	Title	Journal/ Article Type	Summary
12 Sep 2022	<a href="#">Belay et al.</a>	COVID-19 vaccine acceptance rate and its predictors in Ethiopia: A systematic review and meta-analysis	<i>Human Vaccines and Immunotherapeutics/ Systematic review and meta-analysis</i>	<ul style="list-style-type: none"> <li>Overall pooled proportion of COVID-19 vaccine acceptance was 51.2% (95% CI: 43.9, 58.5)</li> <li>Having good knowledge (Odds ratio: 2.7; 95% CI: 1.1, 7.1; P.value: 0.00), chronic disease (Odds ratio: 2; 95% CI: 1.3, 3.1), older age (Odds ratio: 1.8; 95% CI: 1.1, 3.0; P.value: 0.02), and secondary education and above (Odds ratio: 3.3; 95% CI: 1.7, 6.7; P.value: 0.00) were significantly associated with the acceptance of COVID-19 vaccine.</li> </ul>
16 Sep 2022	<a href="#">Cénat et al.</a>	COVID-19 Vaccine Hesitancy and Related Factors in Canada: A Systematic Review and Meta-analysis	<i>Journal of Medical Virology/ Systematic review and meta-analysis</i>	<ul style="list-style-type: none"> <li>Twenty-four articles were included in the meta-analysis; 12 for the pooled prevalence of vaccine hesitancy (42.3% [95% CI, 33.7%-51.0%]) and 12 for vaccine unwillingness (20.1% [95% CI, 15.2% - 24.9%]).</li> <li>Vaccine hesitancy was higher in females (18.3% [95% CI, 12.4% - 24.2%]) than males (13.9% [95% CI, 9.0% - 18.8%]), rural (16.3% [95% CI, 12.9%-19.7%]) versus urban areas (14.1% [95% CI, 9.9% - 18.3%]).</li> </ul>

### Evidence on Other Health Technologies

Date	Author/s	Title	Journal/ Article Type	Summary
14 Sep 2022	<a href="#">Nie et al.</a>	A systematic review on outpatient telemedicine utilization in neurosurgery following the start of COVID-19	<i>World Neurosurgery/ Systematic review</i>	<ul style="list-style-type: none"> <li>Of 9834 patients and 116 providers, 82.4% and 65.2% were satisfied overall with telemedicine, respectively.</li> <li>Of 3526 patients and 168 providers, 57.0% and 66.5% preferred telemedicine to in-person visits, respectively.</li> </ul>

### Evidence on Traditional Medicine

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

### Evidence on Equipment and Devices

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

### Evidence on Medical and Surgical Procedures

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

# 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
16 Sep 2022	<a href="#">WHO</a>	WHO situation report	<i>Epidemiological update</i>	<ul style="list-style-type: none"> <li>A total of 60,481 monkeypox cases have been reported globally; 4 of which are from the Philippines.</li> </ul>
13 Sep 2022	<a href="#">European CDC</a>	Monkey situation update	<i>Epidemiological update</i>	<ul style="list-style-type: none"> <li>Since the monkeypox outbreak, 19,379 confirmed cases of monkeypox have been reported from 29 EU/EEA countries. The five countries that reported most cases are Spain, France, Germany, Netherlands, and Italy.</li> </ul>
15 Sep 2022	<a href="#">Reda et al.</a>	The clinical manifestations and severity of the 2022 monkeypox outbreak among 4080 patients	<i>Travel Medicine and Infectious Disease/ Systematic review</i>	<ul style="list-style-type: none"> <li>Eleven studies (N = 3488) reported the prevalence of HIV in their MPX populations to be 11.6% (405/3488).</li> <li>The most common clinical features of MPX were rash 70% (95%CI: 32–92), lymphadenopathy 62% (95%CI: 55–69), and fever 62% (95%CI: 58–65)</li> <li>Only 7% (95%CI: 5–9) of MPX cases required hospitalization.</li> </ul>

## Evidence on Vaccines

Date	Author/s	Title	Journal/ Article Type	Summary
15 Sep 2022	<a href="#">Poland et al.</a>	Prevention of monkeypox with vaccines: a rapid review	<i>Infectious Disease/ Review article</i>	<ul style="list-style-type: none"> <li>Smallpox vaccines represent an effective countermeasure that can be used to control monkeypox outbreaks</li> <li>Third-generation vaccines, although safer for use in immunocompromised populations, require two doses, which is an impediment to rapid outbreak response</li> </ul>
15 Sep 2022	<a href="#">New York Department of Health</a>	Guidance for Health Care Providers and Vaccine Administrators Monkeypox JYNNEOS Vaccination Information	<i>Guidance document</i>	<ul style="list-style-type: none"> <li>Statewide eligibility has now been expanded to include immunization of all individuals at risk of becoming infected with Monkeypox.</li> <li>New York State is not pursuing the deployment nor use of the ACAM2000 vaccine currently</li> <li>JYNNEOS vaccine is US Food and Drug Administration (FDA)-approved (licensed) for the prevention of smallpox and monkeypox disease in adults 18 years of age and older via subcutaneous administration of two 0.5mL doses administered 28 days (4 weeks) apart (standard regimen).</li> </ul>

## Evidence on Drugs

Date	Author/s	Title	Journal/ Article Type	Summary
16 Sept 2022	<a href="#">O'Laughlin et al</a>	Clinical use of tecovirimat (Tpoxx) for treatment of monkeypox under an investigational new drug protocol - United States, May - August 2022	<i>Morbidity and Mortality Weekly Report/ Investigational New Drug Protocol</i>	<ul style="list-style-type: none"> <li>As of August 20, 2022, intake and outcome forms were available for 549 and 369 patients, respectively; 97.7% of patients were men, with a median age of 36.5 years.</li> <li>Among patients with available data, 38.8% were reported to be non-Hispanic White (White) persons, 99.8% were prescribed oral tecovirimat, and 93.1% were not hospitalized.</li> <li>Approximately one half of patients with Monkeypox virus infection who received tecovirimat were living with HIV infection.</li> </ul>

## Evidence on Transmission

Date	Author/s	Title	Journal/ Article Type	Summary
15 Sep 2022	<a href="#">Marimuthu et al</a>	Viable Monkeypox virus in the environment of a patient room	<i>MedRxiv/ prospective surveillance study</i>	<ul style="list-style-type: none"> <li>Air, surface, and dust contamination was highest during the first eight days of the illness, with a gradual decline to the lowest contamination level by day 21.</li> </ul>
13 Sep 2022	<a href="#">Bragazzi, Kong and Wu</a>	Is monkeypox a new, emerging sexually transmitted disease? A rapid review of the literature	<i>Journal of Medical Virology/ Rapid review</i>	<ul style="list-style-type: none"> <li>Clusters of monkeypox have been described among men having sex with men (MSM), some of which have been epidemiologically linked to international travel to non-endemic countries and participation in mass gathering events/festivals, like the "Maspalomas (Gran Canaria) 2022 pride".</li> <li>Monkeypox does not seem to be an exclusively sexually transmitted disease, since infection in children is also being reported, talking in favor of other transmission routes, including the household transmission or other "complex" routes of monkeypox exposures that have not yet been demonstrated in humans or in animal models</li> </ul>

## Evidence on Traditional Medicine

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

## Evidence on Preventive & Promotive Health

### Evidence on Screening

Date	Author/s	Title	Journal/ Article Type	Summary
13 Sep 2022	<a href="#">Chelsky et al</a>	Validation study of a direct real-time PCR Protocol for detection of Monkeypox Virus	<i>The Journal of Molecular Diagnostics/ Study protocol validation</i>	<ul style="list-style-type: none"> <li>The assay retains the sensitivity and accuracy of the indirect assay while eliminating the need for nucleic acid extraction kits, reducing laboratory technologist time per sample, and decreasing exposure to an infectious agent.</li> <li>This direct method will make it easier for laboratories across the world to rapidly develop, validate, and scale testing for monkeypox virus.</li> </ul>

### Evidence on Personal Measures

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

### Evidence on Community Measures

Date	Author/s	Title	Journal/ Article Type	Summary
15 Sep 2022	<a href="#">van Nispen et al.</a>	Diagnosis and Management of Monkeypox: A Review for the Emergency Clinician	<i>Annals of Emergency Medicine: An International Journal/ Systematic review</i>	<ul style="list-style-type: none"> <li>Local, state, and federal health authorities should be involved in the care of people under investigation for this illness.</li> <li>With confirmed cases worldwide and the possibility of community spread, emergency clinicians need to be aware of the manifestations and management of this disease, both to treat those with the disease as well as to provide education to those exposed and at risk of infection</li> </ul>

### Evidence on Equipment and Devices

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

### Evidence on Medical and Surgical Procedures

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

### Evidence on Traditional Medicine

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

### Evidence on Other Health Technologies

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