



**Philippine COVID-19 Living Clinical Practice Guidelines**  
*Institute of Clinical Epidemiology, National Institutes of Health, UP Manila*  
*In cooperation with the Philippine Society for Microbiology and Infectious Diseases*  
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## EVIDENCE SUMMARY

### RESEARCH QUESTION: In the community, in what settings should mask wearing be required?

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### RECOMMENDATIONS

Recommendations	Certainty of Evidence	Strength of Recommendation
In the community setting, we recommend the use of a face mask for preventing COVID-19 in crowded, enclosed, and poorly ventilated spaces	Low	Strong

### Consensus Issues

The panel upgraded the strength of recommendation to strong, acknowledging that masking in community settings is a form of public health intervention with benefits not limited to COVID-19 prevention, especially in crowded and poorly-ventilated spaces.

### KEY FINDINGS

- There were two non-randomized studies that compared the incidence of COVID-19 in the community setting (school) in the post-vaccination era. Both studies found that the lifting of mask mandates was associated with an increased incidence of COVID19 cases.



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## INTRODUCTION

At the onset of the COVID-19 pandemic up until the pre-vaccination period, face masks were an essential part of non-pharmacologic interventions against COVID19. However, after the first roll-out of vaccination on December 8, 2020 in the United Kingdom and March 1, 2021 in the Philippines, the lifting of mask mandates has been a contentious issue worldwide [1,2].

As of December 31 2022, 146 out of 195 countries still have mask mandates in place. Five (Bangladesh, Nepal, Zimbabwe, Liberia, Eritrea) require mask wearing outside of home at all times, while 75 (51%), including the Philippines, require masks to be worn in some public spaces. Thirty-six (38) countries have no policy on mask wearing—these include countries in the African region (South Africa, Namibia, Botswana, Tanzania), Middle East (Yemen, Libya, Iraq), and Europe (Switzerland, Portugal, Netherlands, Luxemburg, Iceland, Denmark) [3, 4]. Table 1 shows an updated status of mask mandates in the countries surrounding the Philippines in the East and South East Asian regions as of April 19, 2023.

**Table 1.** Status of Mask Mandates in Countries in the East and South East Asian region [3]

<b>No Policy</b>	<b>Recommended</b>	<b>Required in some public places</b>	<b>Required in all public places</b>
Hong Kong [5] Indonesia [6] Singapore	Mongolia	Cambodia China [7] Japan [8] Macao [9] Malaysia [4] Philippines South Korea Taiwan Thailand [10]	Laos Myanmar Timor-Leste Vietnam [11]

In the Philippines, Executive Order No 03 was released in September 2022 allowing voluntary wearing of facemasks in the outdoor setting, open spaces, and non-crowded places with good ventilation. As of March 15 2023, 90/121 provinces and 201 component cities are under Alert Level I [12].

A Cochrane Systematic Review, recently published last January 2023, assessed the effectiveness of physical interventions to reduce the spread of acute respiratory viruses. Jefferson et al. included studies up to October 2022, and investigated several physical interventions that included a comparison of medical/surgical mask versus no mask in the prevention of spread of respiratory viruses in the community and the healthcare setting. Ten studies were done in non-pandemic settings, while two out of the 13 trials comparing mask versus no mask were conducted during the early phase of the SARS-Cov2 pandemic. Overall, the authors concluded that the “observed lack of effect of mask wearing...has many potential reasons: poor study design, insufficiently- powered studies arising from low viral circulation in some studies, and lower adherence with mask wearing” [13].

The two studies done during the COVID-19 pandemic and conducted during pre-vaccination roll-out, aimed to evaluate whether recommending physical interventions measures like social distancing and mask wearing reduced the risk of SARS-Cov2 infection [14,15]. The intervention was in-person (Abaluck et al) and remote (Bundgaard et al) encouragement of universal masking for a specified amount of time.

The former, conducted from November 2020 to April 2021 in rural villages in Bangladesh, showed a symptomatic seroprevalence of 0.68% in the treatment group compared with 0.78% in the control group (RR 0.89, 95% CI 0.87-0.91) [14]. However, only 40% of symptomatic patients gave consent to be tested and the evidence had a high risk of bias. Meanwhile, the latter study, conducted in April to June 2020 during the lockdown period in Denmark, revealed infection with SARS-CoV-2 in 1.8% of the treatment group against 2.1% of the control group (between-group difference -0.3% (95% CI -1.2 to 0.4; p-value -0.38) OR 0.82 [CI, 0.54-1.23]; P= 0.33). The authors surmised that the results were inconclusive [15].



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Currently, 72.3% of the population globally has received at least one dose of vaccine [16]. Locally, as of March 21 2023, 94.64% of eligible persons have been fully vaccinated with the primary series, while 27.65% had booster shots [17,18]. In September 2022, a systematic review using real-world data involving 27 countries (including Asian countries such as India, Thailand, China, and South Korea) investigated vaccine efficacy of more common COVID-19 vaccines such as mRNA-1273, BNT162b2 ChAdOx1, Ad26.COV.S, BBV15, CoronaVac, BBIP-CorV, and Gam-COVID-Vac. It is estimated that a global reduction of 63% in total deaths (19.8 million of 31.4 million) were averted during the first year of COVID-19 vaccination. There is a high vaccine efficacy (VE) against Alpha, Beta, Gamma, and Delta. Low VE against infection, and moderate VE for severe disease, were noted for Omicron variants [19].

This review question aims to evaluate the use of masks in the face of the changing context of the COVID-19 pandemic, and the settings in which they should be required.

## REVIEW METHODS

We performed a systematic search from January 2022 until April 2, 2023 using Medline and Google Scholar with a combined MeSH and free text search using the terms coronavirus infections, COVID-19, and masks. We also looked at the COVID-NMA Living Data and searched for ongoing studies in the NIH *clinicaltrials.gov* and various trial registries. Preprints were also searched using medrxiv, chinaxiv, biorxiv, and epistemonikos.

We included articles with adults and children participants, comparing “no masking” against “masking”. Outcomes of interest include prevention of COVID-19 infection (forward transmission, prevalence, incidence, severity levels, progression of illness, and mortality).

Randomized controlled and non-randomized trials that compared masking against no masking in the community setting were included in this review. ROBINS-I criteria were used to assess the study bias. Subgroup analysis was planned based on setting (indoor/outdoor, high/low vaccination rate, high/low transmission) and patient characteristic (category risk, age, vaccination status).

## RESULTS

We found two non-randomized studies that directly compared no masking against masking in the community setting [20,21].

The studies of Cowger et al, and Shah et al. included a total of 1.4 million individuals. A difference-in-difference and observational designs were used in the first and second study to compare no mask against mask in terms of incidence rates and COVID-19 positivity rates, respectively. The studies were done in different states in the United States and involved the staff and students in different school districts.

The study by Cowger et al involved 72 school districts in Boston Massachusetts and was conducted over a 15-week period (March-June 2022). The predominant SARS-CoV2 variants were: Omicron BA.1 (10 weeks prior to lifting of mask mandate) and Omicron BA.2+ (post-lifting). The town vaccination rates for all ages were approximately 70-80% (fully vaccinated). A total of 72 (97%) school districts lifted masking requirements. Trends in the incidence of COVID-19 (weekly cases per 1000 population) prior to and after the lifting of masking policy were compared [20].

On the other hand, the study by Shah et al involved 30 school districts in Texas and was conducted over an 11-week period (August to October 2021). The predominant SARS-CoV-2 variant was the Delta variant. Fifteen (50%) school districts had optional masking policies. The staff and student vaccination rates were unavailable at the time of the study [21]. However, based on other sources, the reported Texas vaccination rate at the time of study onset were: 52% received one dose and 44% were fully vaccinated [22].

Both studies showed increased number of COVID-19 cases in school districts where face mask policies were rescinded. The study by Cowger et al. showed that school districts that lifted mask mandates had an



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additional 1.4 per 1000 cases among students and staff (95%CI 0.6-2.3) in the first week of mask mandate lifting, to 9.7 per 1000 (95%CI 7.1-12.3) by the ninth week of lifting. The total observation time was 15 weeks after the lifting of mask mandates. Overall, at the end of this period, the study reported 44.9 per 1000 additional cases (95%CI 32.6-57.1), or an additional 11,901 cases (95%CI 8,651-15,151) over that time. Meanwhile, the study by Shah et al revealed an overall higher positivity rate of 6.5% in the optional mask policy versus 3.5% with the mandatory mask policy. However, in terms of staff COVID positivity rate, no differences were observed in districts with mandatory masking versus optional masking (9.30%  $\pm$  4.05 vs 9.77%  $\pm$  1.47; P=0.91).

The overall certainty of evidence was rated “low” because of risk of bias arising from unspecified methodology for testing, ascertainment of COVID-19 positivity, absence of analysis for confounders, and unbalanced co-interventions.

### RECOMMENDATIONS FROM OTHER GROUPS

Agency	Recommendation	Strength of Recommendation/ Certainty/Quality of Evidence
World Health Organization Clinical management of COVID-19: living guideline (13 January 2023) [23]	WHO recommends the use of a mask for the prevention of SARS-CoV-2 transmission in the community in the following situations: when in crowded, enclosed, or poorly ventilated spaces; following a recent exposure to COVID-19 when sharing a space with others; when sharing a space with a person who displays signs or symptoms of COVID-19 or is COVID-19- positive; for individuals at high risk of severe complications from COVID-19.	Strong Recommendation  Low certainty of evidence
Centers for Disease Control and Prevention. (Accessed March 26, 2023) [24]	Wearing of mask depends on the COVID19 Community Level where a person is staying.  Green (Low): People may choose to mask at any time. Masks are recommended in indoor public transportation settings and may be required in other places by local or state authorities.  Yellow (Medium or High): If you are at high risk for getting very sick, wear a high-quality mask or respirator; if you have household or social contact with someone at high risk getting very sick, consider self-testing to detect infection before contact and consider wearing a mask when indoors with them.  Orange (High Level): Wear a high-quality mask or respirator; if you are high risk for getting very sick, consider avoiding non-essential indoor activities in public where you could be exposed.	-
Government of Canada (accessed March 26, 2023). [25]	We recommend that you wear a mask in public indoor settings. You should feel free to wear a mask even if it's not required in your community or setting.  It's especially important to wear a mask if you're: at risk of more severe disease or outcomes, around others who are at risk of more severe disease or outcomes, visiting a group living setting in a crowded or poorly ventilated setting.	-



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## ONGOING STUDIES AND RESEARCH GAPS

There are currently no registered trials in [clinicaltrials.gov](https://clinicaltrials.gov) that aims to directly answer the scenario in question. Local studies aimed at comparing mask against no mask with regards the incidence, disease severity in the community setting are needed. Subgroup analysis on the COVID19 case levels and vaccination studies are warranted.

## ADDITIONAL CONSIDERATIONS FOR EVIDENCE TO DECISION (ETD) PHASE

### COST

Currently there are no cost-effectiveness study comparing mask against no mask in the post-vaccination era. However, the following factors may be considered:

- In the study by Cowger et al, confirmed COVID19 cases were instructed to isolate for five days. The authors reported that this translated to at least 17,500 missed school days for students, and 6,500 missed school days for the staff during the 15-week study period [20].
- Surgical masks now cost ₱20 (50 pieces, 3 ply, price based on shopee.com).

### PATIENT'S VALUES AND PREFERENCE, EQUITY, ACCEPTABILITY, AND FEASIBILITY

A face-to-face survey by the Social Weather Station involving 1,200 adult respondents was conducted last December 10-14, 2022. The survey revealed that 91% of respondents approve of voluntary mask-wearing indoors and outdoors. Sixty-four percent “strongly approve” this proposition, while 4% “somewhat” to “strongly disapprove.” With regards to children attending in-person classes, 91% agree with the voluntary mask wearing. Of those, more than half (65%) “strongly agree” [26].



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## APPENDICES

### Appendix 1: Preliminary Evidence to Decision

**Table 1. Summary of initial judgements prior to the panel discussion (N=6/9)**

FACTORS	JUDGEMENT					
	No	Yes (N=6)	Varies			
<b>Problem</b>	No	Yes (N=6)	Varies			
<b>Benefits</b>	Large (N=3)	Varies (N=1)	Small (N=1)	Uncertain (N=1)		
<b>Harms</b>	Large (N=1)	Moderate (N=1)	Small (N=2)	Trivial (N=1)	Varies (N=1)	
<b>Balance of Benefits and Harms</b>	Favors the use of masking (N=2)	Probably favors the use of masking (N=4)	Probably favors no masking	Don't Know		
<b>Certainty of Evidence</b>	High	Moderate (N=2)	Low (N=1)	Very low (N=2)	No evidence (N=1)	





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<b>Accuracy</b>	Very Accurate	Accurate (N=2)	Inaccurate (N=1)	Very Inaccurate	Varies (N=1)	Don't Know
<b>Values</b>	Important uncertainty or variability	Possibly important uncertainty or variability (N=1)	Probably NO important uncertainty or variability (N=3)	No important uncertainty or variability (N=1)		
<b>Resources Required</b>	Don't Know	Large cost	Moderate Cost (N=4)	Negligible cost	Moderate savings	Large Savings (N=1)
<b>Certainty of evidence of required resources</b>	No included studies (N=4)	Very low	Low	Moderate (N=1)	High (N=1)	
<b>Cost effectiveness</b>	No included studies (N=2)	Favors the comparator (N=1)	Does not favor either Masking or the comparator	Probably favors Masking (N=2)	Varies (N=1)	
<b>Equity</b>	Reduced	Probably Reduced (N=1)	Probably no impact	Probably Increased (N=4)	Increased	Varies (N=1)



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<b>Acceptability</b>	Don't Know	No	Probably No	Yes (N=1)	Probably yes (N=5)	Varies
<b>Feasibility</b>	Don't Know	No	Probably No	Yes (N=3)	Probably yes (N=3)	Varies



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## Appendix 2: Search Strategy and Yield per database

Database	Search strategy	Date	Results	
			Yield	Include
PubMed	Search: <b>((covid 19) AND (mask)) AND (forward transmission)</b> Filters: <b>from 2022 - 2023</b> (("covid 19"[All Fields] OR "covid 19"[MeSH Terms] OR "covid 19 vaccines"[All Fields] OR "covid 19 vaccines"[MeSH Terms] OR "covid 19 serotherapy"[All Fields] OR "covid 19 nucleic acid testing"[All Fields] OR "covid 19 nucleic acid testing"[MeSH Terms] OR "covid 19 serological testing"[All Fields] OR "covid 19 serological testing"[MeSH Terms] OR "covid 19 testing"[All Fields] OR "covid 19 testing"[MeSH Terms] OR "sars cov 2"[All Fields] OR "sars cov 2"[MeSH Terms] OR "severe acute respiratory syndrome coronavirus 2"[All Fields] OR "ncov"[All Fields] OR "2019 ncov"[All Fields] OR (("coronavirus"[MeSH Terms] OR "coronavirus"[All Fields] OR "cov"[All Fields]) AND 2019/11/01:3000/12/31[Date - Publication])) AND ("masks"[MeSH Terms] OR "masks"[All Fields] OR "mask"[All Fields]) AND (("forward"[All Fields] OR "forwards"[All Fields]) AND ("transmissability"[All Fields] OR "transmissable"[All Fields] OR "transmissibilities"[All Fields] OR "transmissibility"[All Fields] OR "transmissible"[All Fields] OR "transmissibles"[All Fields] OR "transmission"[MeSH Subheading] OR "transmission"[All Fields] OR "transmissions"[All Fields])) AND (2022:2023[pdat])	26 March 2023	1	0
	Search: <b>((covid-19) AND (mask)) AND (required)</b> Filters: <b>Systematic Review, Adult: 19+ years, from 2022 - 2023</b> (("covid 19"[All Fields] OR "covid 19"[MeSH Terms] OR "covid 19 vaccines"[All Fields] OR "covid 19 vaccines"[MeSH Terms] OR "covid 19 serotherapy"[All Fields] OR "covid 19 nucleic acid testing"[All Fields] OR "covid 19 nucleic acid testing"[MeSH Terms] OR "covid 19 serological testing"[All Fields] OR "covid 19 serological testing"[MeSH Terms] OR "covid 19 testing"[All Fields] OR "covid 19 testing"[MeSH Terms] OR "sars cov 2"[All Fields] OR "sars cov 2"[MeSH Terms] OR "severe acute respiratory syndrome coronavirus 2"[All Fields] OR "ncov"[All Fields] OR "2019 ncov"[All Fields] OR (("coronavirus"[MeSH Terms] OR "coronavirus"[All Fields] OR "cov"[All Fields]) AND 2019/11/01:3000/12/31[Date - Publication])) AND ("masks"[MeSH Terms] OR "masks"[All Fields] OR "mask"[All Fields]) AND ("require"[All Fields] OR "required"[All Fields] OR "requirement"[All Fields] OR "requirements"[All Fields] OR "requires"[All Fields] OR "requiring"[All Fields])) AND ((systematicreview[Filter] AND (alladult[Filter]) AND (2022:2023[pdat]))	02 April 2023	2	0



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	<p>Search: <b>((covid-19) AND (mask)) AND (obligatory)</b> Filters: <b>from 2022 - 2023</b>          (("covid 19"[All Fields] OR "covid 19"[MeSH Terms] OR "covid 19 vaccines"[All Fields] OR "covid 19 vaccines"[MeSH Terms] OR "covid 19 serotherapy"[All Fields] OR "covid 19 nucleic acid testing"[All Fields] OR "covid 19 nucleic acid testing"[MeSH Terms] OR "covid 19 serological testing"[All Fields] OR "covid 19 serological testing"[MeSH Terms] OR "covid 19 testing"[All Fields] OR "covid 19 testing"[MeSH Terms] OR "sars cov 2"[All Fields] OR "sars cov 2"[MeSH Terms] OR "severe acute respiratory syndrome coronavirus 2"[All Fields] OR "ncov"[All Fields] OR "2019 ncov"[All Fields] OR ("coronavirus"[MeSH Terms] OR "coronavirus"[All Fields] OR "cov"[All Fields]) AND 2019/11/01:3000/12/31[Date - Publication])) AND ("masks"[MeSH Terms] OR "masks"[All Fields] OR "mask"[All Fields]) AND "obligatory"[All Fields]) AND (2022:2023[pdat])</p>	02 April 2023	5	0
	<p>Search: <b>((covid-19) AND (mask)) AND (mandatory)</b> Filters: <b>Adult: 19+ years, from 2022 - 2023</b>          (("covid 19"[All Fields] OR "covid 19"[MeSH Terms] OR "covid 19 vaccines"[All Fields] OR "covid 19 vaccines"[MeSH Terms] OR "covid 19 serotherapy"[All Fields] OR "covid 19 nucleic acid testing"[All Fields] OR "covid 19 nucleic acid testing"[MeSH Terms] OR "covid 19 serological testing"[All Fields] OR "covid 19 serological testing"[MeSH Terms] OR "covid 19 testing"[All Fields] OR "covid 19 testing"[MeSH Terms] OR "sars cov 2"[All Fields] OR "sars cov 2"[MeSH Terms] OR "severe acute respiratory syndrome coronavirus 2"[All Fields] OR "ncov"[All Fields] OR "2019 ncov"[All Fields] OR ("coronavirus"[MeSH Terms] OR "coronavirus"[All Fields] OR "cov"[All Fields]) AND 2019/11/01:3000/12/31[Date - Publication])) AND ("masks"[MeSH Terms] OR "masks"[All Fields] OR "mask"[All Fields]) AND "mandatory"[All Fields]) AND ((alladult[Filter]) AND (2022:2023[pdat]))</p>	02 April 2023	11	0
	<p>Search: <b>"Masks"[Mesh]</b> Filters: <b>Systematic Review, from 2022 - 2023</b> Sort by: <b>Most Recent</b>          ("Masks"[MeSH Terms]) AND ((systematicreview[Filter]) AND (2022:2023[pdat]))</p>	26 March 2023	28	0
	<p>Search: <b>((covid 19) AND (mask)) AND (after vaccination)</b> Filters: <b>from 2022 - 2023</b>          (("covid 19"[All Fields] OR "covid 19"[MeSH Terms] OR "covid 19 vaccines"[All Fields] OR "covid 19 vaccines"[MeSH Terms] OR "covid 19 serotherapy"[All Fields] OR "covid 19 nucleic acid testing"[All Fields] OR "covid 19 nucleic acid testing"[MeSH Terms] OR "covid 19 serological testing"[All Fields] OR "covid 19 serological testing"[MeSH Terms] OR "covid 19 testing"[All Fields] OR "covid 19 testing"[MeSH Terms]</p>	27 March 2023	149	0



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	OR "sars cov 2"[All Fields] OR "sars cov 2"[MeSH Terms] OR "severe acute respiratory syndrome coronavirus 2"[All Fields] OR "ncov"[All Fields] OR "2019 ncov"[All Fields] OR (("coronavirus"[MeSH Terms] OR "coronavirus"[All Fields] OR "cov"[All Fields]) AND 2019/11/01:3000/12/31[Date - Publication])) AND ("masks"[MeSH Terms] OR "masks"[All Fields] OR "mask"[All Fields]) AND ("after"[All Fields] AND ("vaccin"[Supplementary Concept] OR "vaccin"[All Fields] OR "vaccination"[MeSH Terms] OR "vaccination"[All Fields] OR "vaccinable"[All Fields] OR "vaccinal"[All Fields] OR "vaccinate"[All Fields] OR "vaccinated"[All Fields] OR "vaccinates"[All Fields] OR "vaccinating"[All Fields] OR "vaccinations"[All Fields] OR "vaccination s"[All Fields] OR "vaccinator"[All Fields] OR "vaccinators"[All Fields] OR "vaccine s"[All Fields] OR "vaccinated"[All Fields] OR "vaccines"[MeSH Terms] OR "vaccines"[All Fields] OR "vaccine"[All Fields] OR "vaccins"[All Fields])) AND (2022:2023[pdat])			
	Search: <b>(covid 19) AND (universal mask)</b> Filters: <b>from 2022 - 2023</b> (("covid 19"[All Fields] OR "covid 19"[MeSH Terms] OR "covid 19 vaccines"[All Fields] OR "covid 19 vaccines"[MeSH Terms] OR "covid 19 serotherapy"[All Fields] OR "covid 19 nucleic acid testing"[All Fields] OR "covid 19 nucleic acid testing"[MeSH Terms] OR "covid 19 serological testing"[All Fields] OR "covid 19 serological testing"[MeSH Terms] OR "covid 19 testing"[All Fields] OR "covid 19 testing"[MeSH Terms] OR "sars cov 2"[All Fields] OR "sars cov 2"[MeSH Terms] OR "severe acute respiratory syndrome coronavirus 2"[All Fields] OR "ncov"[All Fields] OR "2019 ncov"[All Fields] OR (("coronavirus"[MeSH Terms] OR "coronavirus"[All Fields] OR "cov"[All Fields]) AND 2019/11/01:3000/12/31[Date - Publication])) AND (("universal"[All Fields] OR "universalism"[All Fields] OR "universalities"[All Fields] OR "universality"[All Fields] OR "universalization"[All Fields] OR "universalize"[All Fields] OR "universalized"[All Fields] OR "universalizing"[All Fields] OR "universally"[All Fields] OR "universals"[All Fields] OR "universe"[All Fields] OR "universes"[All Fields]) AND ("masks"[MeSH Terms] OR "masks"[All Fields] OR "mask"[All Fields])) AND (2022:2023[pdat])	27 March 2023	80	1
Google scholar	Free search: covid 19 mask vs no mask	27 March, 2023	78K	1
clinicaltrials.gov	COVID19, Mask	27 March, 2023	357 177 complete	0
medrxiv	COVID19 AND Mask	27 March, 2023		0
COVID NMA Living Data	<i>"As of March 1, 2022, the COVID-NMA stopped including non-pharmacological interventions trials. The</i>	27 March, 2023		



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	<i>analysis presented in this page includes trials identified and included up to Feb 28, 2022.</i> <a href="https://covid-nma.com/living_data/supportive.php">https://covid-nma.com/living_data/supportive.php</a>			
Free search at Google	Park MB, Ranabhat CL. COVID-19 trends, public restrictions policies and vaccination status by economic ranking of countries: a longitudinal study from 110 countries. Arch Public Health. 2022 Aug 24;80(1):197. doi: 10.1186/s13690-022-00936-w. PMID: 35999620; PMCID: PMC9398898.	27 March, 2023		
bioRxiv	"covid-19 AND mask" and posted between "02 Jan, 2022	2 April 2023	587	0
epistemonikos	(title:((COVID-19 AND Masks) AND mandatory) OR abstract:((COVID-19 AND Masks) AND mandatory))	2 April 2023	71	1
Cochrane Central	COVID-19 AND Masks	2 April 2023	275	0



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## Appendix 3. Characteristics of included studies

Title/Author	Study design	Country	Number of participants	Population	Intervention Group(s)	Control	Outcomes
<i>Lifting universal masking in schools — COVID-19 incidence among students and staff</i>  Cowger T. et al, 2022	Difference-in-difference with multiple time periods design	USA (MA)	72 school districts  294,084 Students  46,530 Staff	Staff and students	Lifted mask mandate  70 school districts	Sustained mask mandate  2 school districts	Difference-in difference estimate of 44.9 (32.6 to 57.1) in 15 weeks
<i>Relation of masking policy to COVID-19 positivity rate in Texas school districts</i>  Shah M. et al, 2022	Observational, retrospective	USA (TX)	30 school districts  676,562 Students  387,407 Staff	Staff and students	Optional mask policy  15 school districts	Mandatory mask policy  15 school districts	Overall mean positivity rate 6.5% vs 3.5% in 11 weeks  Proportion of patients with COVID19 4.6% vs 2.3%



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## Appendix 4. Study Appraisal (ROBINS-I)

<b>Study/author</b>	<b>Cowger T, et al</b>	<b>Shah M, et al</b>
Bias due to confounding	Moderate	Serious
Bias in selection of participants into the study	Moderate	Serious
Bias in classification of interventions	Low	Low
Bias due to deviations from intended interventions	Serious	Serious
Bias due to missing data	Low	Critical
Bias in measurement of outcomes	Serious	Serious
Bias in selection of the reported result	Low	Low
<b>Overall</b>	Serious	Critical risk of bias





# Philippine COVID-19 Living Clinical Practice Guidelines

## Appendix 5. GRADE Profile Evidence Table

**Author(s):** Karen Joyce Cortez, MD, Maria Teresa Sanchez-Tolosa, MD D Clin Epi, FPDS, Michelle Cristine Miranda, MD

**Question:** No masking compared to masking for prevention of COVID-19

**Setting:** Community (school and school district settings)

**Bibliography:** Study 1: Shah M, Shah M, Hollingsworth JW. Relation of masking policy to COVID-19 positivity rate in Texas school districts. Proc (Bayl Univ Med Cent). 2022 Apr 5;35(4):466-467. doi: 10.1080/08998280.2022.2056369. Study 2: Cowger T, et al. Lifting Universal Masking in Schools — Covid-19 Incidence among Students and Staff N Engl J Med 2022; 387:1935-1946. DOI: 10.1056/NEJMoa2211029

Certainty assessment							№ of patients		Effect		Certainty	Importance
№ of studies	Study design	Risk of bias	Inconsistency	Indirectness	Imprecision	Other considerations	No masking	Masking	Relative (95% CI)	Absolute (95% CI)		
<b>Mean positivity rate (Study 1) (follow-up: 11 weeks; assessed with: SARS-Cov2 testing, methodology unspecified)</b>												
1	observational studies	very serious <sup>a</sup>	not serious	not serious	not serious	none	6.5	3.5	-	<b>MD 3 higher</b> (1.008 higher to 4.991 higher)	⊕⊕○○ Low	CRITICAL
<b>Proportion of patients with COVID-19 (Study 1) (follow-up: 11 weeks)</b>												
1	observational studies	very serious <sup>a</sup>	not serious	not serious	not serious	none	17753/387407 (4.6%)	15302/676562 (2.3%)	<b>OR 2.05</b> (2.01 to 2.10)	<b>23 more per 1,000</b> (from 22 more to 24 more)	⊕⊕○○ Low	CRITICAL
<b>Additional COVID-19 cases per 1000 population (Study 2) (follow-up: 15 weeks; assessed with: Standardized weekly reporting (regardless of symptoms, testing used, setting))</b>												
1	observational studies	very serious <sup>b</sup>	not serious	not serious	not serious	none	Additional 44.9 cases per 1000 students and staff (95% confidence interval, 32.6 to 57.1) in the areas where masks were not worn, compared to the areas where masking was continued.			⊕○○○ Very low	CRITICAL	

CI: confidence interval; MD: mean difference; OR: odds ratio

### Explanations

- a. Due to unspecified methodology for testing, ascertainment of COVID-19 positivity, absence of analysis for confounders, and unbalanced co-interventions.
- b. Due to variable method (undisclosed) of determining COVID-19 infection, unbalanced co-interventions.