

SUPPLEMENTARY MATERIAL

Prevalence of human metapneumovirus infection among children suffering from acute respiratory illness in India: a systematic review and meta-analysis

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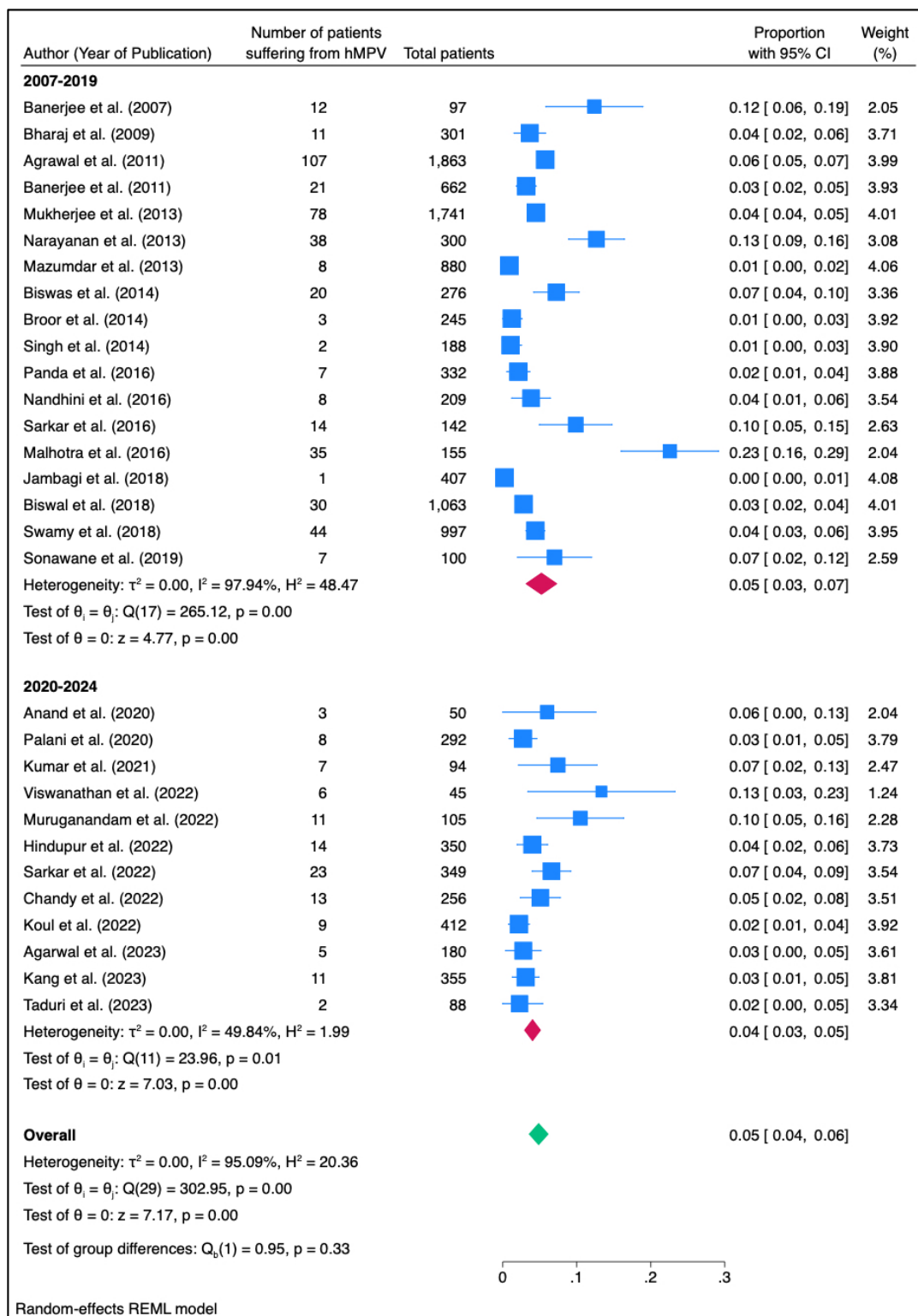
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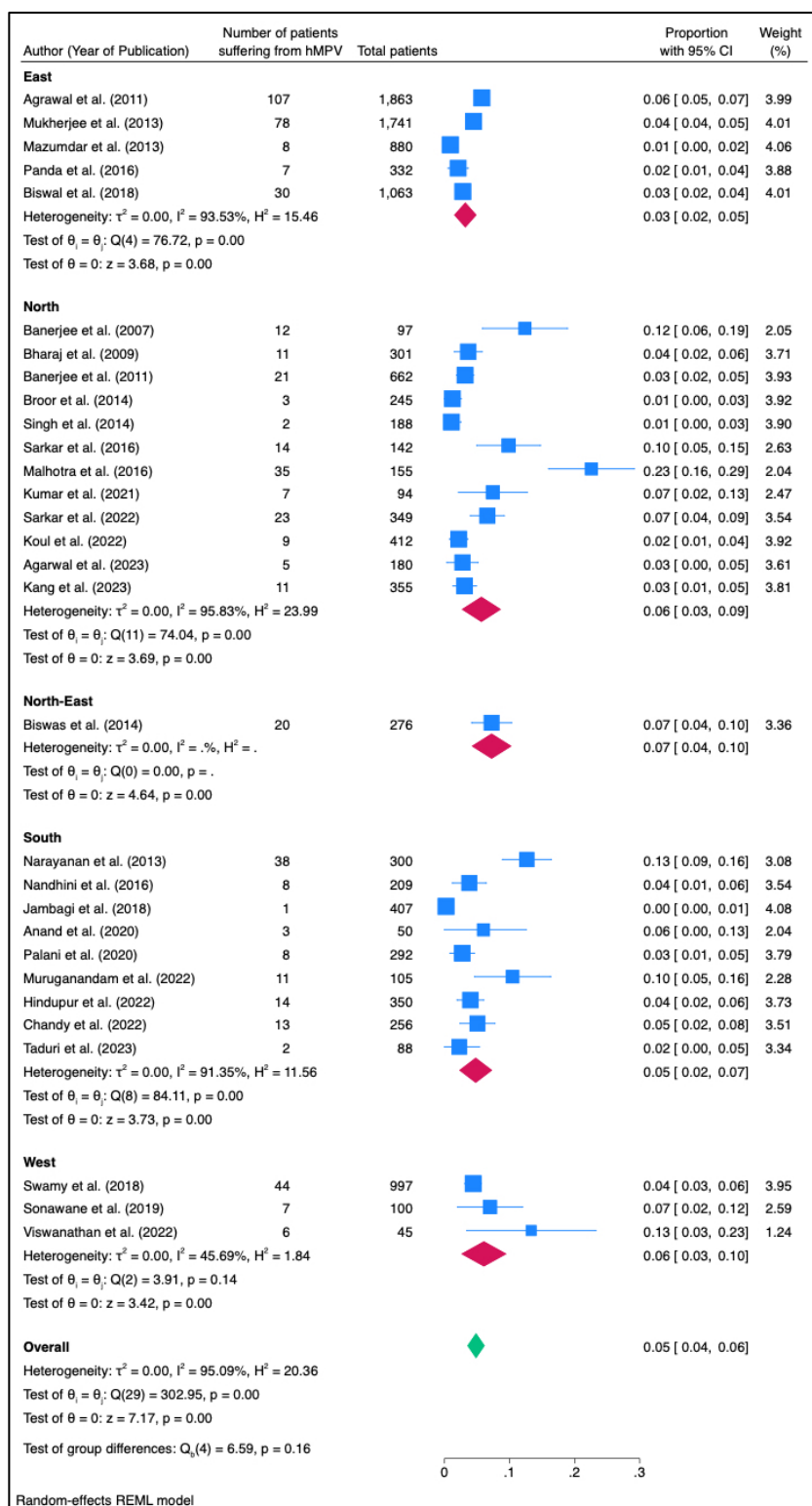
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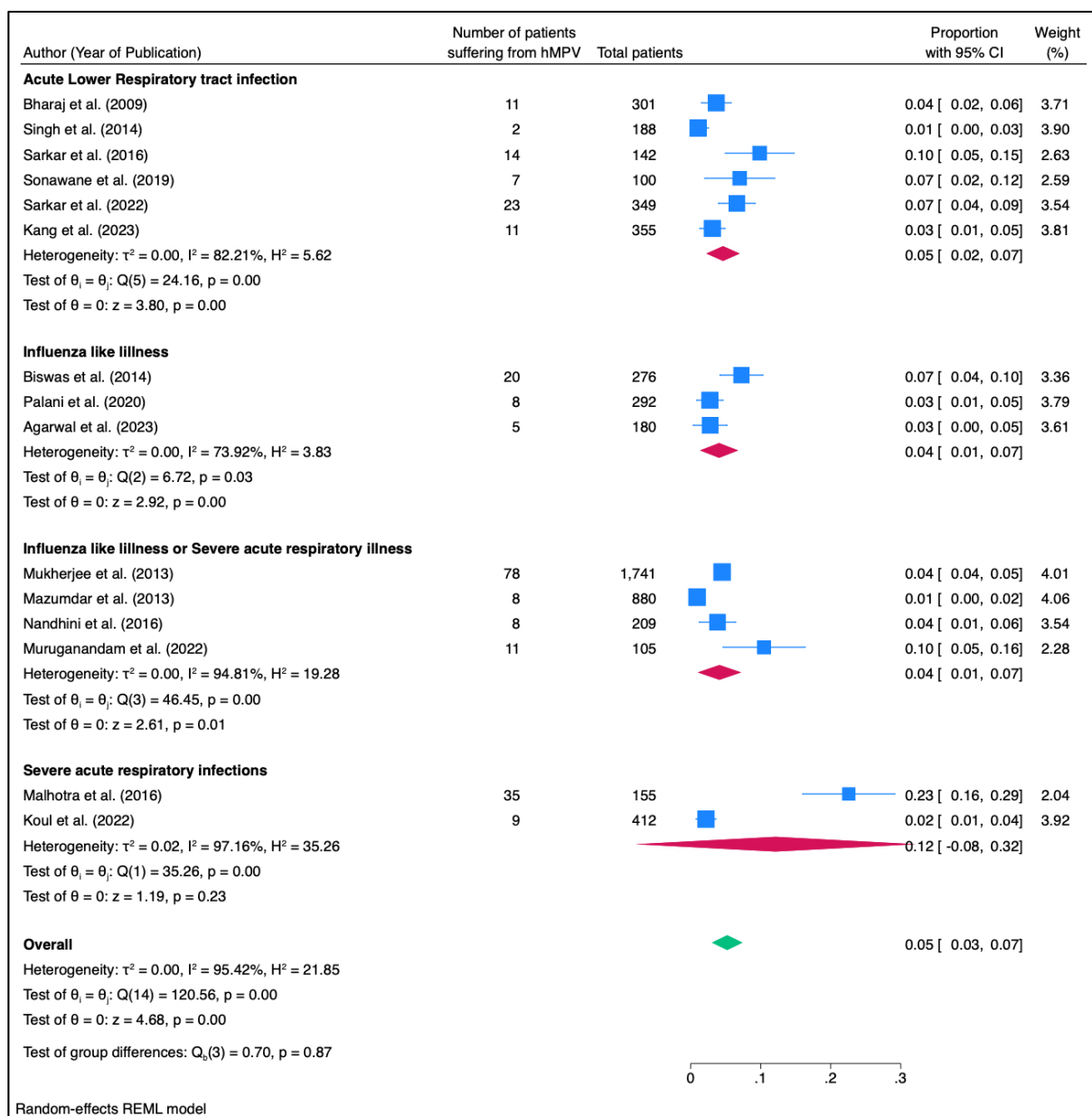
Key words: human metapneumovirus, acute respiratory infections, severe acute respiratory illness, acute lower respiratory tract infection, prevalence.



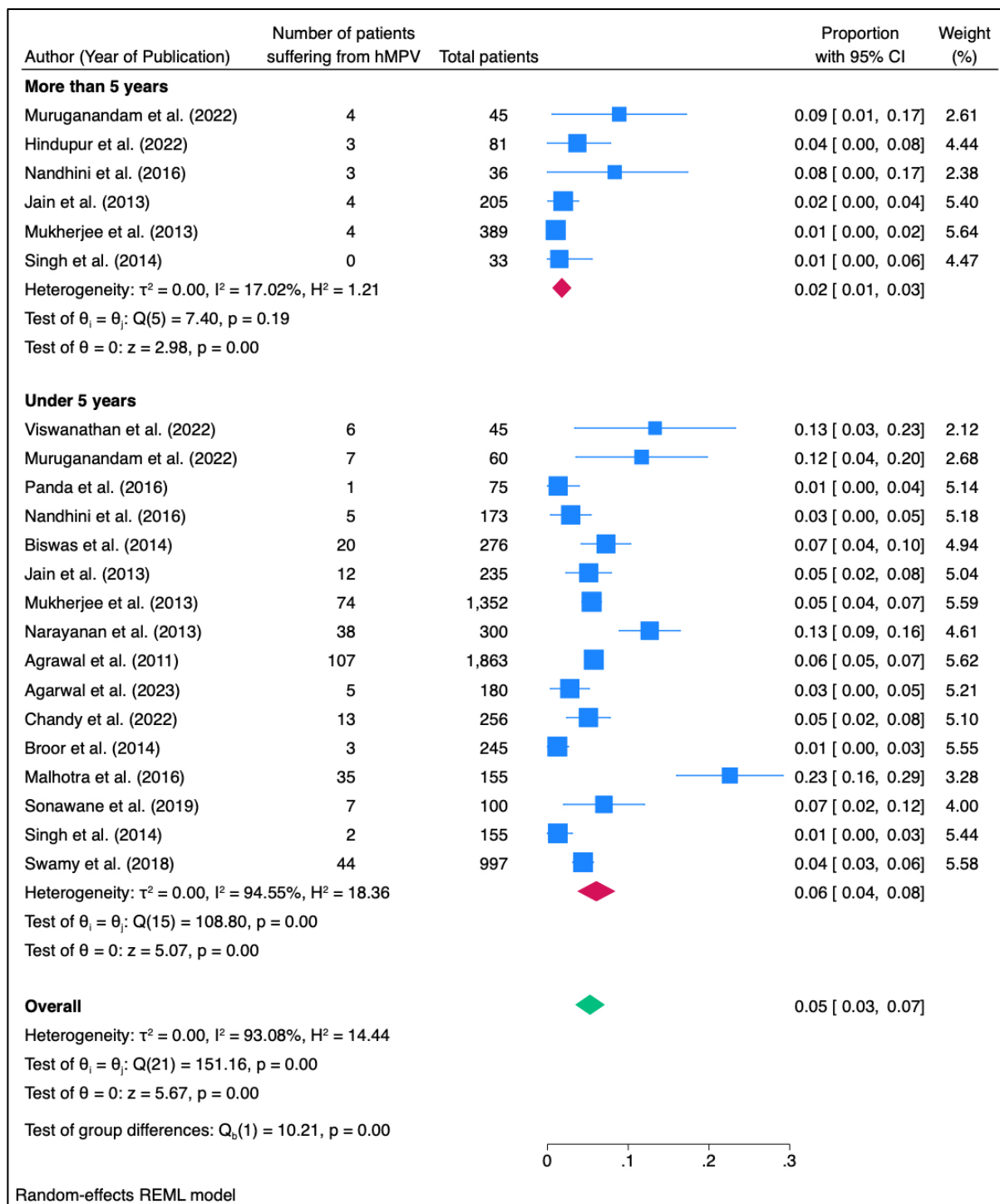
Supplementary Figure 1. Forest plot of pooled prevalence of human metapneumovirus among children with acute respiratory infections, stratified by study publication year (2007–2019 vs. 2020–2024).



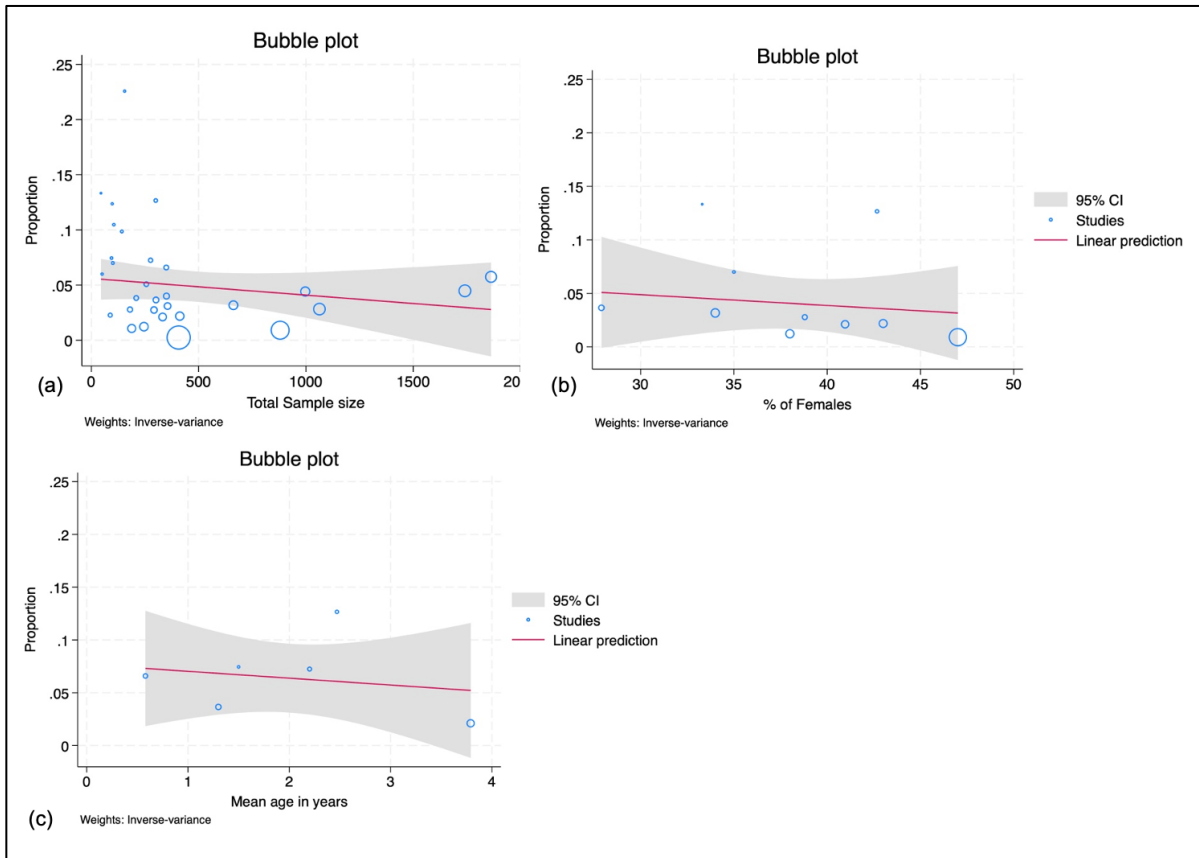
Supplementary Figure 2. Forest plot of pooled prevalence of human metapneumovirus among children with acute respiratory infections, stratified by geographic region in India.



Supplementary Figure 3. Forest plot of pooled prevalence of human metapneumovirus among children with acute respiratory infections, stratified by clinical presentation.



Supplementary Figure 4. Forest plot of pooled prevalence of human metapneumovirus among children with acute respiratory infections, stratified by age groups (more than 5 years vs. under 5 years).



Supplementary Figure 5. a) Bubble plot representing the relationship between human metapneumovirus (HMPV) proportion and total sample size of studies; b) bubble plot showing the relationship between HMPV proportion and percentage of females across studies; c) bubble plot depicting the association between HMPV proportion and mean age of participants in years.

Supplementary Table 1. Inclusion and exclusion criteria.

| | Inclusion criteria | Exclusion criteria |
|---------------|---|---|
| Population | Children aged 18 years or below diagnosed with ARI, including <ul style="list-style-type: none"> • Influenza-like illness (ILI), • Severe acute respiratory infection (SARI), • Acute lower respiratory tract infection (ALRTI), and • Non-specific ARI cases with upper respiratory tract infection (URTI) symptom. Geographical scope restricted to studies conducted in India. | <ul style="list-style-type: none"> • Adult population • Studies not focused on ARI. • Studies involving populations outside India. |
| Outcome | Studies reporting the prevalence of Human Metapneumovirus (HMPV) | Studies without outcome data on hMPV prevalence |
| Timeline | Initiation to January 3 rd 2025 | |
| Language | English | Published in other languages |
| Type of study | Observational studies: cross-sectional, case-control, and cohort studies | Reviews, case series, case study |

Supplementary Table 2. Search strategy.

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|---|
| Pubmed #1 "Metapneumovirus"[MeSH Terms] OR "Metapneumovirus"[Title/Abstract] OR "hmpv"[Title/Abstract] OR "metapneumoviru*"[Title/Abstract] OR "hmpv"[Title/Abstract] OR "Severe Acute Respiratory illness"[Title/Abstract] OR "SARI"[Title/Abstract] - 4399 #2 "Prevalence"[MeSH Terms] OR "Epidemiology"[MeSH Terms] OR "Cross-Sectional Studies"[MeSH Terms] OR "Prevalence"[Title/Abstract] OR "Epidemiology"[Title/Abstract] OR "Cross-Sectional Studies"[Title/Abstract] OR "burden"[Title/Abstract] OR "seroepidemiologic studies"[MeSH Terms] OR "seroepidemiologic studies"[MeSH Terms] OR "seroprevalen*"[Title/Abstract] - 1,884,401 #3 "india"[MeSH Terms] OR "india"[All Fields] OR "india's"[All Fields] OR "indias"[All Fields] - 878,603 #1 AND #2 AND #3 - 64 |
| Web of Science #1 TS=("Metapneumovirus" OR "hmpv" OR "metapneumoviru*" OR "Severe Acute Respiratory illness" OR "SARI")- 5,087 #2 TS=("Prevalence" OR "Epidemiology" OR "Cross-Sectional Studies" OR "burden" OR "seroepidemiologic studies" OR "seroprevalen*")- 1,776,905 #3 TS=("india" OR "india s" OR "indias")- 240,686 #1 AND #2 AND #3 - 49 |
| Embase #1 ('metapneumovirus'/exp OR 'metapneumovirus' OR 'hmpv' OR 'metapneumoviru*')-6,118 #2 ('prevalence'/exp OR 'epidemiology'/exp OR 'cross-sectional study'/exp OR 'prevalence' OR 'epidemiology' OR 'cross-sectional studies' OR 'burden' OR 'seroepidemiologic studies'/exp OR 'seroprevalen*')-6,748,297 #3 ('india' OR 'india s' OR 'indias')-1,574,936 #1 AND #2 AND #3- 133 |
| Scopus: #1 (TITLE ("metapneumovirus" OR "hmpv" OR "metapneumoviru*" OR "severe acute respiratory illness" OR "SARI") OR ABS ("metapneumovirus" OR "hmpv" OR "metapneumoviru*" OR "severe acute respiratory illness" OR "SARI"))-7105 #2 (TITLE ("prevalence" OR "epidemiology" OR "cross-sectional studies" OR "burden" OR "seroepidemiologic studies" OR "seroprevalen*") OR ABS ("prevalence" OR "epidemiology" OR "cross-sectional studies" OR "burden" OR "seroepidemiologic studies" OR "seroprevalen*"))-2,044,821 #3 (TITLE ("india" OR "india s" OR "indias") OR ABS ("india" OR "india s" OR "indias"))- 551,277 #1 AND #2 AND #3=45 |