



Review of Respiratory Syncytial Virus (RSV) Disease Burden Studies in Low- and Middle- Income Countries

Methods

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Methods for RSV Disease Burden Literature Presented on VIEW-Hub

Literature Search & Review (ongoing)

Aim: A retrospective search of published literature for studies presenting evidence on the disease burden of respiratory syncytial virus (RSV) among children in low- and middle-income countries (LMICs).

The review will be conducted in stages, with new outcomes added sequentially. Currently, the review is focused on a single outcome: the proportion testing RSV-positive among children hospitalized with acute respiratory illness/lower respiratory tract illness (% LRI hospitalizations RSV+). This expands on a [prior systematic review](#) to support a meta-analysis conducted by IVAC and WHO colleagues.¹ We leveraged the search strategy and results of the prior review and modified the selection criteria to include a larger volume of studies on VIEW-Hub. Previously excluded studies are in the process of being re-reviewed based on the modified criteria, including a wider time span, more inclusive diagnostic methods, etc. The first stage restricts studies to the time period used for the prior systematic review, studies conducted between 2010-2019, which will be expanded to 2000-present in the second stage.

VIEW-hub will be continuously updated to incorporate evidence on RSV disease burden among children in LMICs as comprehensively as possible (see “Next to Be Added” section below). This methods document, including details on the literature search and inclusion/ exclusion criteria, will be updated as the review is expanded and more studies are added to VIEW-Hub.

Inclusion and Exclusion Criteria for the Outcome “% LRI hospitalizations RSV+”

Inclusion

1. Includes children younger than 5 years of age hospitalized for an acute respiratory illness (including ARI, LRTI, SARI, pneumonia, bronchiolitis, ILI, etc.)
 - Include if children aged <5 years were not reported separately, as long as the population included children <5 years (e.g. study conducted among children <18 years)
2. RSV was confirmed by testing (can include non-PCR testing)
3. Reported the proportion positive for RSV or this can be calculated from the provided data
4. Includes at least one country with current low- or middle-income status, including multi-country studies reporting results in aggregate.
5. Data collected on or after 2000 and reports data representative of non-COVID-19 pandemic conditions. *Note: Stage 1 currently includes only studies with data from 2010-2019.*

¹ Lutz, C.S., Zhang, H., Knoll, M.D. *et al.* Respiratory syncytial virus positivity among hospital admissions for acute respiratory illness in children younger than 5 years of age in low- and middle-income countries: a systematic review and meta-analysis. *BMC Public Health* **26**, 1059 (2026). <https://doi.org/10.1186/s12889-026-26743-4>



Exclusion

1. Studies in non-human subjects or irrelevant data (e.g., immunology, non-infectious disease, etc.)
2. Study presents no original data (e.g. opinion piece, letter to editor, review, etc.).
3. Participants not hospitalized for ARI (e.g., outpatient or community setting only or combined with hospitalized cases that could not be disaggregated, or hospitalizations were not restricted to those with ARI such as hospitalization for any reason.
4. Data collected exclusively or primarily during COVID-19 pandemic period for which pre- or post-COVID-19 data are not reported separately.

Next to Be Added to VIEW-Hub

1. Studies conducted between 2000-2010 and in post-COVID-19 periods (~2022 onward, or the studies that include 2020-2022 data but report post-COVID-19 results).
2. Studies excluded from prior review meeting expanded criteria (e.g., studies that included children <5 years but did not disaggregate children <5, and studies with at least one LMIC that did not report LMIC results separately).
3. Studies presenting evidence on additional disease burden outcomes of interest, including: the proportion RSV-positive among viral-positive ARI or among any ARI (inpatient or outpatient); severity of disease; incidence; mortality; seasonality patterns; etc.

Notes on Study Filters and Study Details

“Age groups:” Neonates, <6 months, <1 year, <2 years, <5 years

The “Age groups evaluated” categories reflect the groups in each study for which the proportion of hospitalizations testing RSV-positive (% LRI hospitalization RSV+) are available or calculable.

- The % LRI hospitalizations RSV+ for select age groups of interest (e.g. <6 months, or the youngest group for which data is available) is included in the study Description field where possible (calculated if not directly provided by the study).
- The age categories may not be precise, as limited by the study, but reflect the youngest age categories for which the outcome is evaluated or calculable (including available age-stratified results). Precise age groups for which outcomes are evaluated are stated in the Description field. For example:
 - A study that evaluates infants aged ≤ 2 months would be marked as “<6 months,” and a study that evaluates children ≤ 3 years and stratifies by <1 year and <2 years of age would be marked as “<1 year,” “<2 years,” and “<5 years.”
 - Studies only among “Neonates” are also marked as <6 months and are thus reflected on the “<6 months” study map.



“Description”

The “Description” field in the “Study details” on VIEW-Hub highlights details and results most relevant to the review. There may be other outcomes, populations, or pathogens evaluated in the study that are not reflected in the Description that are not a focus of this review.

- If the study has data on the % LRI hospitalizations RSV+, this will be included in the Description. This includes estimates provided in the article as well as those calculated from data provided (including in supplements / appendices, or in text, tables and figures in the main article).

“Other citations for this study”

This field notes citations presenting results for the same study or dataset when the data were published more than once. The Description field reflects data or information most relevant to the review which may come from more than one citation for a study.