



Copies of this poster obtained through Quick Response (QR) code are for personal use only

A Systematic Review of Health State Utility Values for Influenza and Influenza-like Illness

Ria Heinrich¹, Franziska Sende¹, Josephine Thiesen¹, Anahita Poshtiban², Oliver Damm², Fabián P. Alvarez³, Tonio Schoenfelder^{1,4}

¹Scientific Institute for Health Economics and Health Services Research (WIG2 GmbH), Leipzig, Germany

²Sanofi-Aventis Deutschland GmbH, Berlin, Germany

³Sanofi Vaccines, Lyon, France

⁴Chair of Health Sciences - Public Health, Technische Universität Dresden, Dresden, Germany

INTRODUCTION



Influenza imposes a substantial clinical and economic burden on health care facilities. It causes acute lower respiratory infection and hospitalizations especially among the elderly.

METHODS

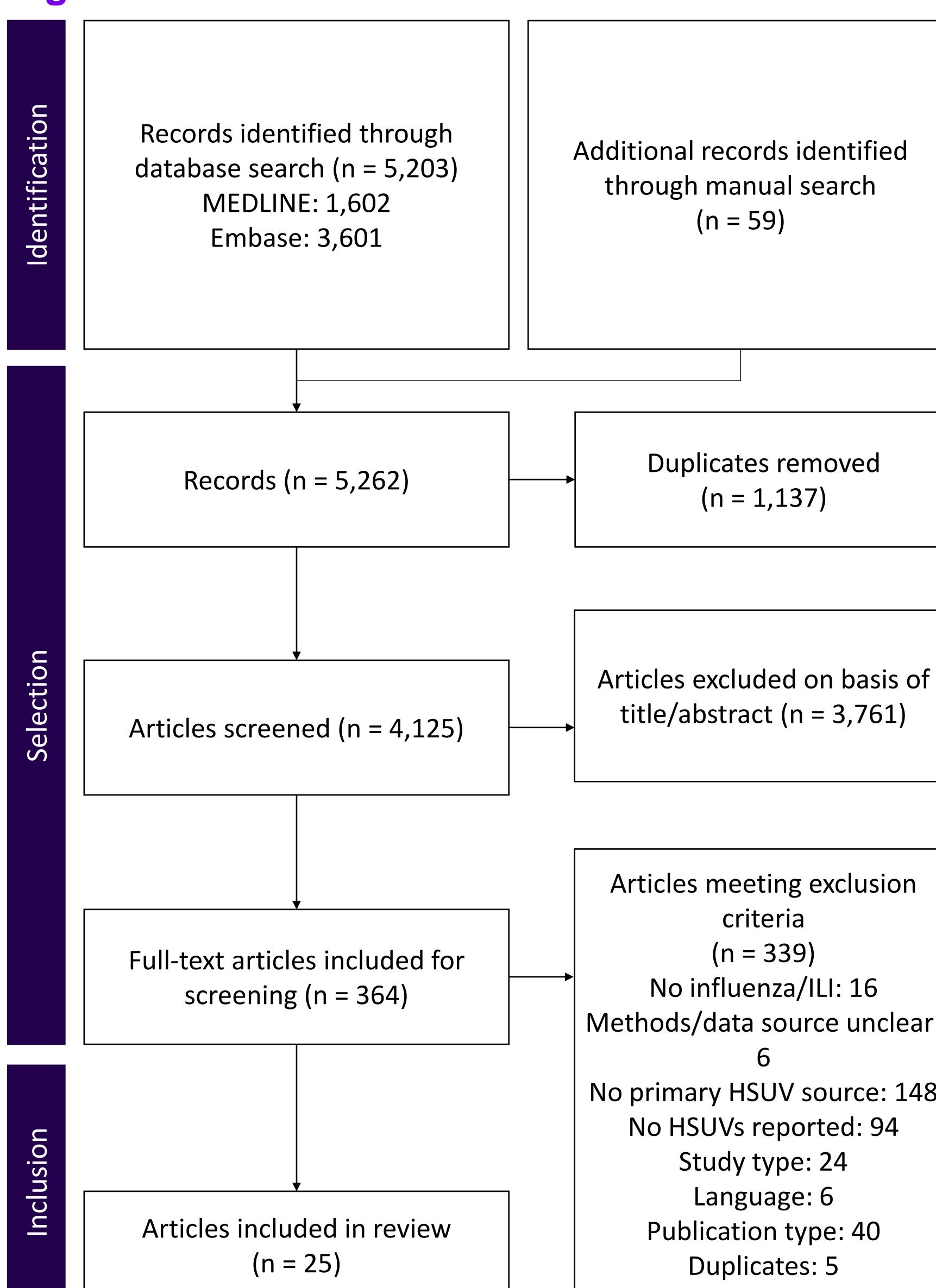
We conducted a systematic literature search in MEDLINE and Embase to identify articles published from 1990/01/01 to 2023/08/15 in English, German, Portuguese, or Spanish language. Articles reporting data on HSUVs associated with influenza or ILI were included. A quality assessment was performed based on 10 pre-defined questions.

Data extraction encompassed:

- Main study characteristics: study type, assessed groups for HSUV, sample size, and as instrument for assessment and timepoint.
- Findings related to baseline and influenza/ILI HSUVs with respective mean utility weights and duration of health states.

RESULTS

Figure 1: PRISMA flowchart



Characteristics of included studies:

- 14 studies were conducted in Europe, 7 in North America, and 2 each in Asia and Australia.
- Many of the included utility studies were performed as part of model-based economic evaluations.
- Population sizes in the studies ranged from 15 to 6,289 subjects.

Quality of included studies:

- We observed varying study quality; only 6 studies met all pre-defined and applicable quality criteria.

Results of included studies:

- Utility values showed great heterogeneity: the range for the worst day of infection was -0.342 in patients with laboratory-confirmed influenza to 0.48 in patients with ILI.
- Total range was -0.342 for worst day of influenza infection to 0.941 for ILI in at risk children ≤12 years of age.
- Only one study reported age-specific values.
- Observed differences between values potentially reflect the variety of study populations and timepoints of assessment.

CONCLUSIONS



- This systematic review revealed varying utility weights for influenza and ILI across published studies.
- Since methods used to estimate utility weights also differed considerably, researchers should take care when selecting HSUVs for further analysis, such as CEA/CUA.

CONFLICTS OF INTEREST, FUNDING & Disclosure

RH, FS, JT, and TS declare that there are no conflicts of interest regarding the research, authorship and/or publication of this abstract. They are employees of WIG2 GmbH. WIG2 GmbH received funding from Sanofi-Aventis Deutschland GmbH, Berlin, Germany for the conduct of the study. AP, OD, FA are employees of Sanofi and may hold shares and/or stock options in the company.



Scan here for references