

# Simulation of the WHO Global Infodemic Managers' Framework and Covid-19 Research Evidence in a Post-truth World in South Africa: A Scoping Review

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## Background

- In South Africa, a successful public health response to outbreaks such as Covid-19 depends on broad dissemination and widespread acceptance of accurate information.
- Yet, inaccurate and deceptive evidence had been rife, as shown by its rapid spread on internet sources. Medical and non-medical experts have become instrumental in suggesting policies to counteract the spread of Covid-19 virus.
- Little is known about the WHO skillsets of infodemic managers, applied to public health practices to curb and interpret infodemic signals of Covid-19 virus, via accurate evidence and vital facts shared to tackle inaccurate information affecting health decision-making.
- OBJECTIVE:** Explores the impact of infodemic information on Covid-19 pandemic and, how to model the WHO Infodemic Managers' Framework to Tackle Inaccurate Information affecting Health Decision-Making.

## Methodology

- Design:** We conducted a systematic review of peer-reviewed studies assessing the systematic way of tackling information, misinformation and disinformation affecting healthcare decision-making in research evidence in the post-truth world, published between January 2020 and September 2022.
- Data Sources:** Web of Science, Medline, Scopus, PubMed, Google Scholar, EMBASE, Cochrane Library, CINAHL, and World Health Organization (WHO) Online Access to Research published by WHO on a broad range of health topics.
- Eligibility Criteria for Selecting Studies:** Papers were selected based on the following inclusion criteria: if they were peer-reviewed and published between January 2020 and September 2022, were in English Language and have being checked for quality and accuracy (an interrater agreement average of 78%).
- Data Extraction and Synthesis:** Abstracts were reviewed independently by the principal investigators and two recruited researchers to determine relevance. Full texts of potentially eligible studies were retrieved and independently examined by the some authors; areas of disagreement or lack of clarity were resolved through discussion by the two researchers and the principal investigators and – where necessary – the assessment of a third researcher.
- Data analysis:** Data were analyzed using thematic analysis.

## Results

- Figure 1 presents the PRISMA flow diagram describing the process of study selection and reasons for study exclusion.

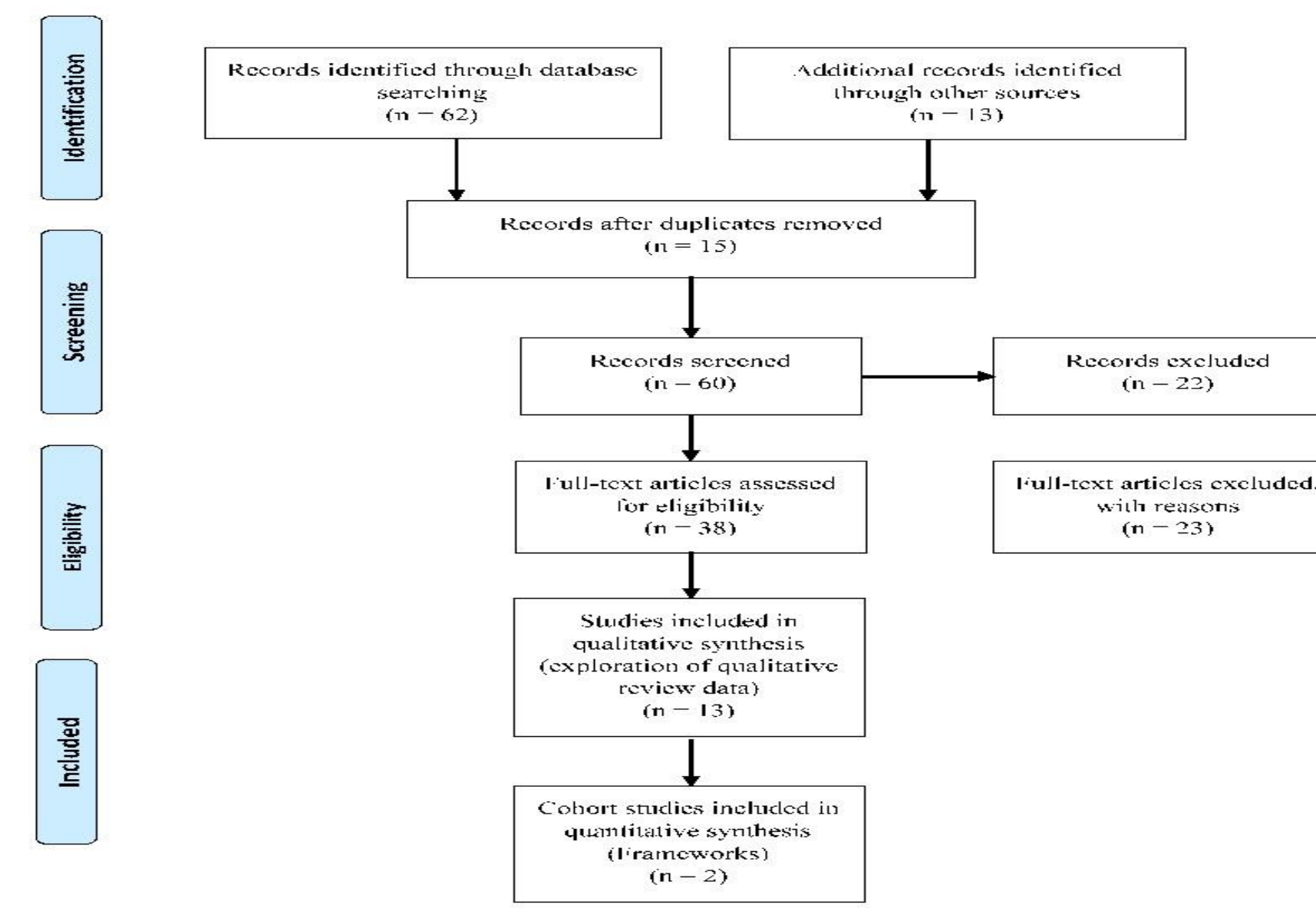


Figure 1: Flow diagram showing the selection and sample sizes generated from the selection process. Adapted from: Moher D, Liberati A, Tetzlaff J, Altman DG, The PRISMA Group (2009). Preferred Reporting Items for Systematic Reviews and Meta-Analyses: The PRISMA Statement. *PLoS Med* 6(7): e1000097. doi: 10.1371/journal.pmed1000097.

- A total of 35 titles and abstracts were considered eligible for inclusion in the review. Most studies were conducted in Africa and outside Africa, of which 25 jointly in South Africa and across other African countries, including international organizations in developed countries. A majority of studies assessed was classified under four major themes:
  - Listing of infodemic information on Covid-19 (such as drinking alcohol protect you against Covid-19, chloroquine is a proven cure etc.);**
  - Challenges public health policy experts faced with infodemic information based on three factors:**
    - Individual factors** (such as lack of understanding of science, the inability to recognize misinformation, holding of beliefs inconsistent with the best available science etc.).
    - Group-level dynamics** (influences health expert's uptake of misinformation. For instance, social networks on Hawaii's insular culture can shape individuals' attitudes and beliefs, allowing the normalization of falsehoods and making it difficult to counter unfounded beliefs with correct information.
    - Major systems-level factors** contribute to the spread of infodemic information (including increasing political polarization, declining trust in science, politically asymmetric trustfulness, an evolving media landscape and a fractioning of the media that rewards political extremism etc.).
  - Tackling inaccurate infodemic information affecting health decision-making:-**
    - Train health workers to better identify and address health infodemic information;
    - Tailor health, information and digital literacy initiatives (For instance, people can be educated about how to recognize misinformation and media manipulation techniques. This can be done using digital strategies such as SMS-based pre-bunking courses, next-generation chatbots that mimic natural human conversation and game-based learning through apps, among others).

## Results (Contd.)

- Simulation of World Health Organization infodemic manager's framework in tackling infodemic information affecting health decision-making**
  - Establish an infodemic workforce for rapid infodemic insights generation and response, for instance SAMRC can partner with World Health Organization for Infodemic Manager Training Programmes for capacity building training for staff/students).

## WHO Infodemic Management

- The WHO Infodemic Management is the systematic use of risk- and evidence-based analysis and approaches to manage the infodemic and reduce its impact on health behaviours during health emergencies.
- Developing metrics and indicators to quantify the burden of infodemic on health and well-being.
- Infodemic Management designed to enable good health practices through 4 types of activities:
  - Listening to community concerns and questions
  - Promoting understanding of risk and health expert advice
  - Building resilience to misinformation
  - Engaging and empowering persons to adopt positive action.

## Conclusion

- Simulation of WHO's infodemic framework as programmes to tackle infodemic information affecting health decision-making need to be tailored to the needs of the public in South Africa.
- Strengthening infodemic management is a vital strategy for addressing infodemic information and in post-truth world, monitoring and impact assessment of infodemic management is critical to determining its effectiveness and sustainability in South Africa.
- Future research is warranted to fully incorporate WHO infodemic skillsets into public health policy practices to promote and advocate for high-quality research evidence in a post-truth world in South Africa.

## Acknowledgements

