

THE ECOSYSTEM OF EVIDENCE

Navigating the future
of the ecosystem of evidence

Artificial intelligence and digital transformation
in research and healthcare

11th EBHC International Conference
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#EBHC2026

Evidence resources on the preparedness for the Pandemic response

An Evidence Platform

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30th GIMBE 1996-2026 EVIDENCE FOR HEALTH

Introduction

1.0 Introduction: The Problem, Aim, and Objectives

The problem

- Pandemics disrupt more than health: most sectors face negative shocks
- Diseases are diverse and spread widely, so prevention and treatment are hard
- An evidence-based, multidisciplinary response is needed

The need for quick evidence

- Early evidence is needed to design interventions across sectors
- Without knowing what exists, research is duplicated and time is lost
- Hundreds of thousands of papers already exist: assess what has been done first

Aim

Map the available evidence on COVID-19 and similar pandemics, identify relevant reviews by sector, and produce user-friendly evidence products

Specific objectives

1. Develop a framework to map evidence resources and assess confidence in each
2. Map evidence resources for priority pandemics, including COVID-19
3. Provide a summary overview of the evidence resources in the map
4. Identify priority areas for future research

Aims and Objectives

1.3-1.4 Conceptual Framework and Why the EGM Matters

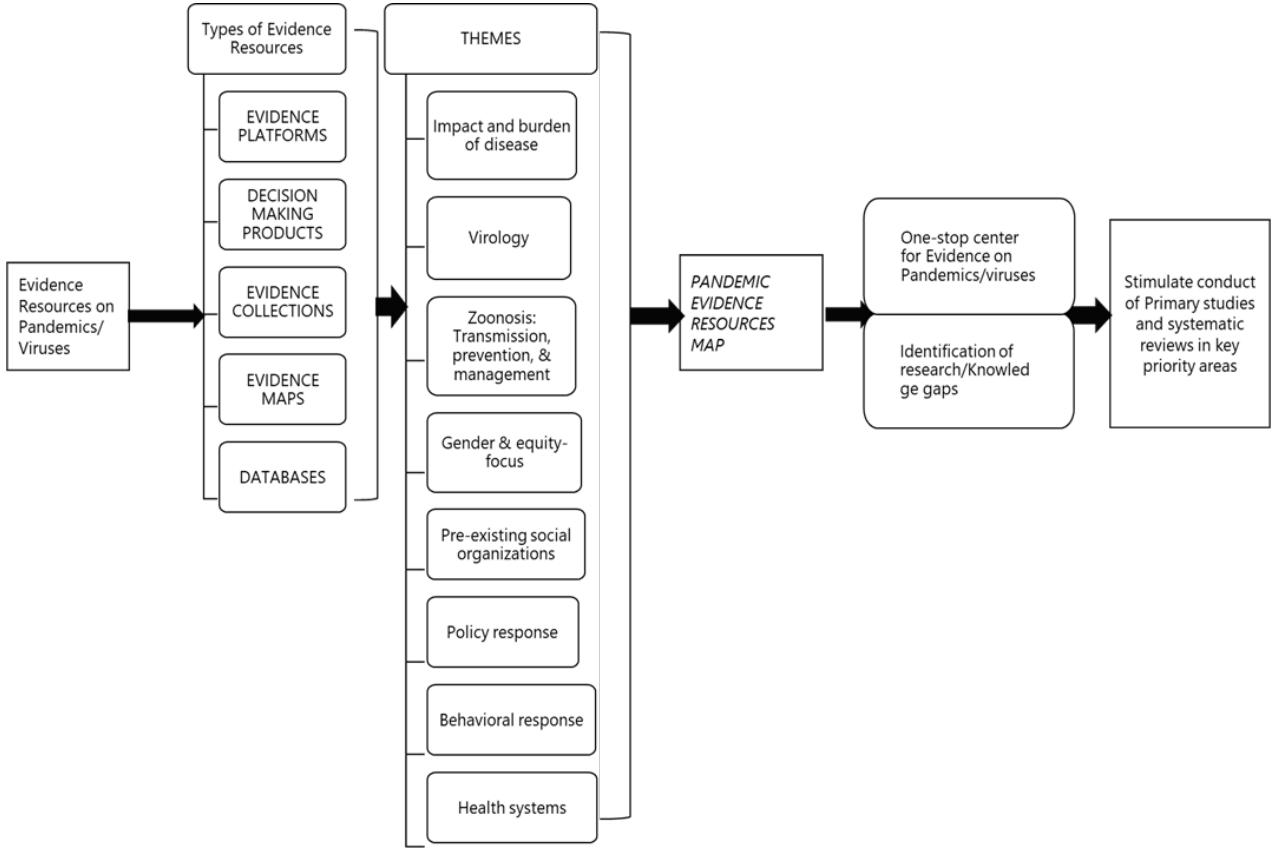


Figure I: The conceptual framework depicting the proposed plan for the Evidence Map

Why develop the EGM

- Identifies research gaps and tracks preparedness, response, and economic impacts
- Shows common prerequisites for future preparedness
- Strengthens public health infrastructure and a coordinated response
- Supports policy guidelines and an evidence-based response

How it is used

- A one-stop center for pandemic evidence
- Developers can find, review, or mine existing resources instead of building new ones
- Existing maps are narrower; COVID-END is COVID-19 only

Methods

2.0 Methods at a Glance

1 Search

COVID-END, Google (first 10 pages), snowballing, and organization and ministry websites, for 15 pandemics and viruses

2 Screen

Four independent reviewers applied the inclusion and exclusion criteria; duplicates were removed

3 Code

Four reviewers coded in EPPI-Reviewer by pandemic, resource type, and theme; discrepancies resolved by discussion

4 Appraise

Five domains rated High, Medium, or Low; the overall rating is the lowest of the first four

Inclusion criteria

- Open access online resources that present or link to primary studies, reviews, guidance documents, or user-friendly knowledge products
- Readily accessible to everyone

Exclusion criteria

- Inadequate evidence on a specific pandemic or virus
- Blogs, news, webinars, or articles lacking a scientific foundation
- Not about one of the specified pandemics or viruses

Results

3.1 Identification of Evidence Resources

802 evidence resources identified → **785** screened → **555** taken for data abstraction → **496** evidence resources mapped

−17 duplicates removed

−230 excluded: did not meet inclusion criteria

−59 excluded on critical review

496 of 802 identified resources (62%) satisfied the eligibility criteria and were mapped

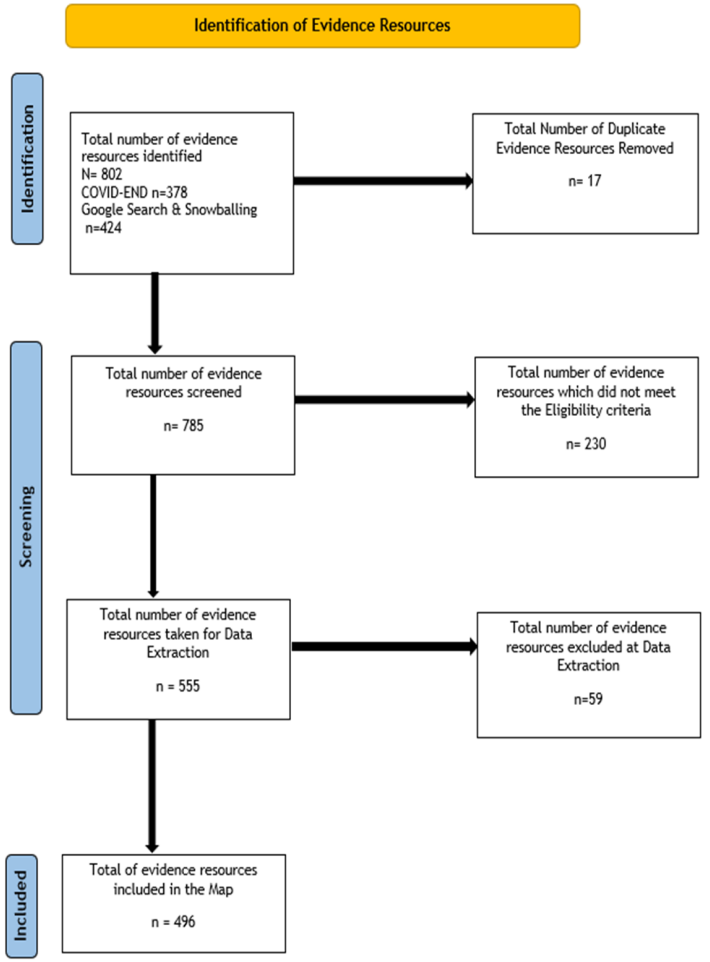


Figure II: PRISMA flow chart

Results

3.2 Pandemics, Types and Themes

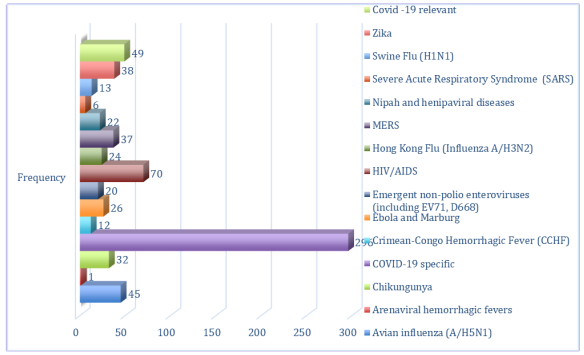


Figure III: Distribution of pandemic evidence resources

By pandemic

Mostly COVID-19, then HIV/AIDS. Fewest: Arenaviral fevers, SARS, CCHF, Swine Flu



Figure IV: Types of evidence resources

By type

Platforms most common, then decision-making products and collections. Few databases and maps

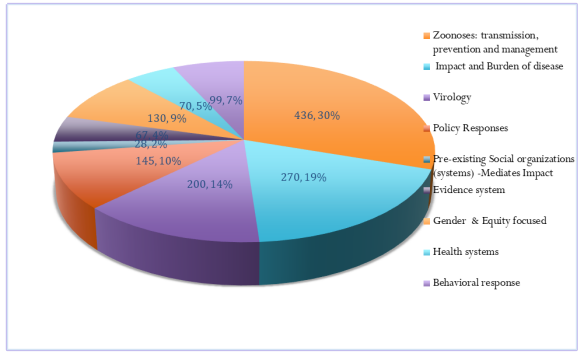


Figure V: Themes

By theme

Transmission, prevention and management first, then disease burden. Fewest: behavioral response, health systems

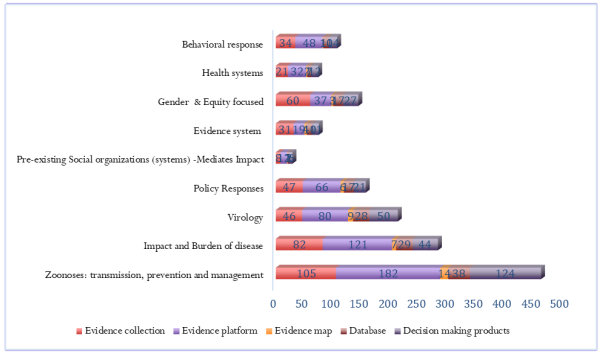


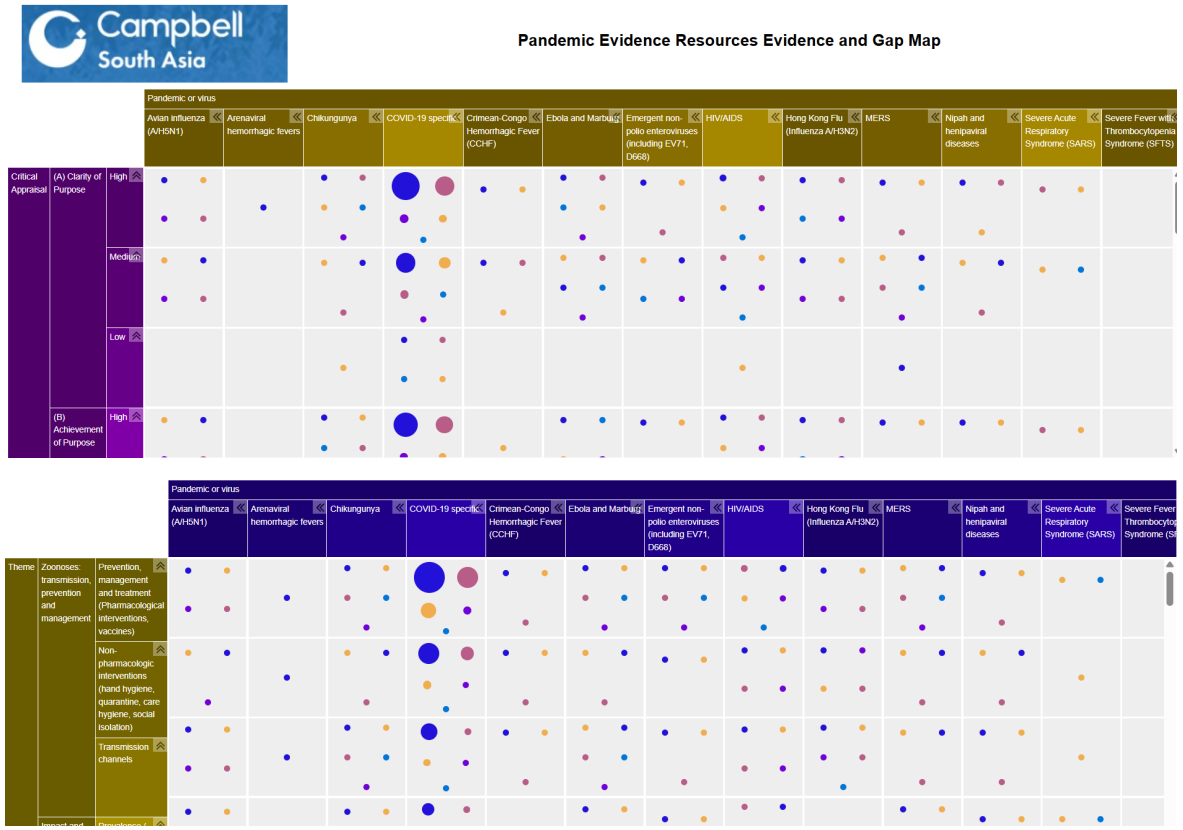
Figure VI: Themes by type of evidence resource

Themes by type

How the themes are spread across the five types of evidence resource

Results

3.3 Evidence and Gap Maps



496
evidence resources mapped

84
reported systematic reviews

16
evidence maps on pandemics

0
resources found on SFTS

Key points

- Most resources focus on COVID-19; none found on SFTS
- Limited resources on evidence system, health system and behavioral response
- Few decision-making products beyond COVID-19

Results

3.4 Overall Quality and Clarity of Purpose

Figure VII: Overall quality



Figure VIII: Overall quality by type

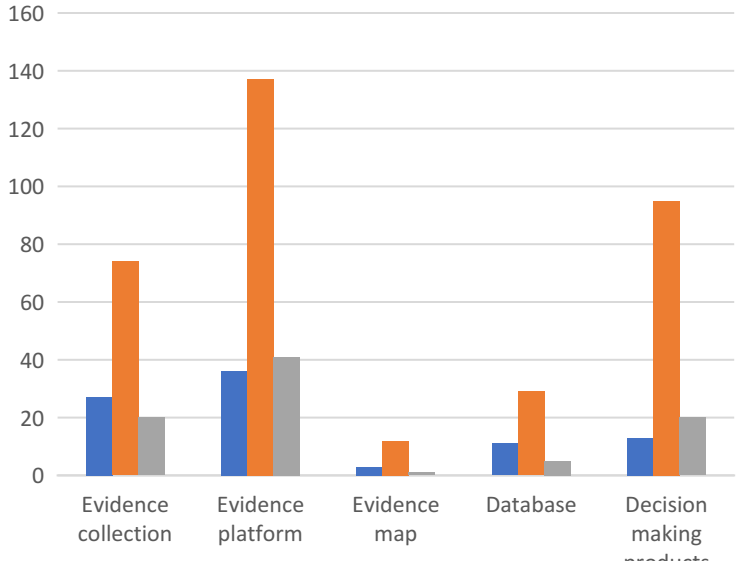
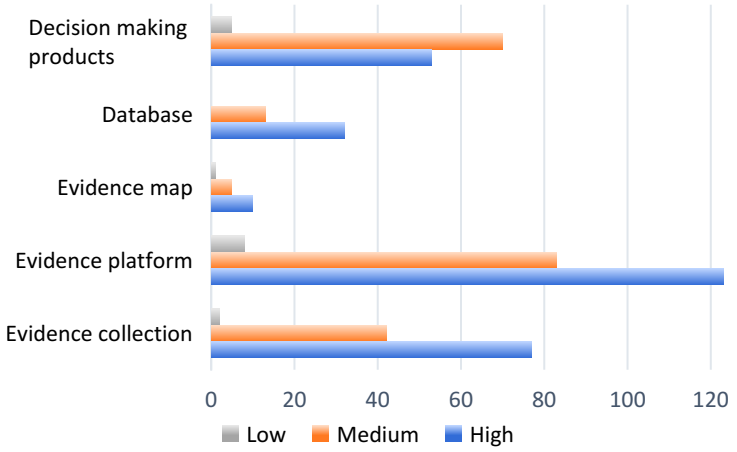


Figure IX: Clarity of purpose



Most resources medium quality (327 of 496, 66%); 85 high, 84 low. Kappa 0.71, 85.9% agreement.

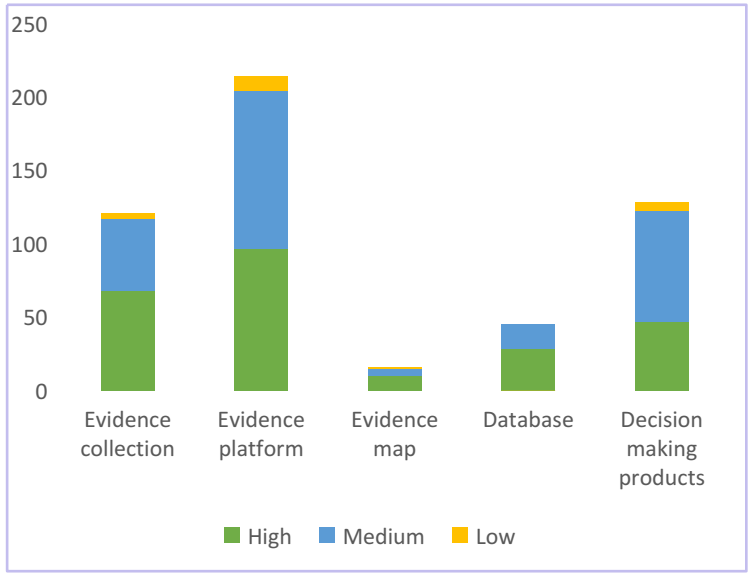
Medium is most common in every type; platforms have the most high-rated (36).

59.5% had a well-described purpose. Databases strongest (32/45), then collections (77/121).

Results

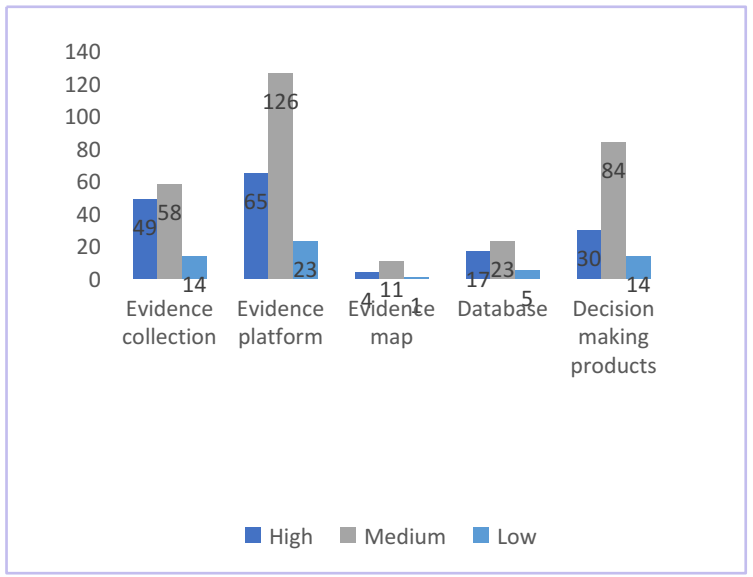
3.5 Achievement, Ease of Use and Updating

Figure X: Achievement of purpose



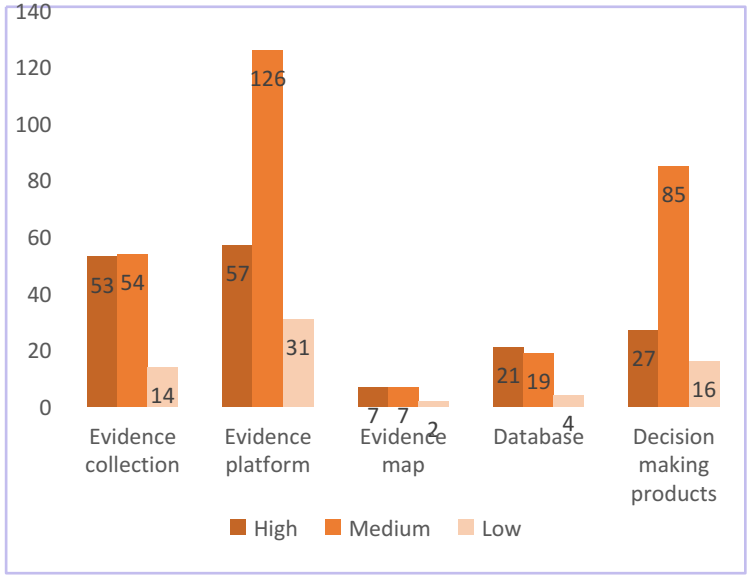
48.6% achieved their stated goals; 51% did not exactly. Most evidence maps met or exceeded theirs.

Figure XI: Ease of use



33.3% very easy to use and 60.9% slightly easy; simple resources were the majority.

Figure XII: Updating with new information



33.3% updated regularly; 59.1% frequently but irregularly; the rest not updated.

Discussion

Discussion

- The first map of its kind: shows where evidence exists and where the gaps are
- Evidence resources are inadequate for many pandemics (e.g., Nipah, SARS, Swine Flu, Zika, MERS)
- Gaps in behavioral response, gender and equity, health systems, and evidence system
- More systematic reviews and decision-making products beyond COVID-19 are needed

Conclusion

- Most evidence resources are about COVID-19, possibly because of its recent occurrence
- Preparedness needs scientific evidence on medical, social, and economic aspects
- Concerted effort is needed to produce evidence maps and decision-making products

Implications

- **Researchers:** prioritize under-researched areas and avoid duplication
- **Funders:** direct grants to under-researched areas
- **Policymakers:** guidance, toolkits, and synthesized evidence in one place