

Innovations in Evidence Synthesis

Leveraging technology and collaboration to advance the Sustainable Development Goals

A presentation by
Cochrane's Editor in Chief
Dr Karla Soares-Weiser



Declaration of Interests

I am a full-time employee of the Cochrane Collaboration and do not have any conflict of interest related to this presentation.

Although I speak on behalf of Cochrane, the views represented here are mine.

I have included personal examples that reflect my own cultural perspective. I deeply respect that these may not align with all cultural views and appreciate the diversity of experiences among us.

Dr Karla Soares-Weiser



Mid 1980's, Brazil



Porto Seguro, state of Bahia, Brazil



Itaipe, state of Minas Gerais, Brazil





Seeing these living conditions first-hand increased my determination to set up a health care facility, and also to work with the community to address and **raise awareness of the social determinants of health.**



Getting to know a community and the interplay of local personalities, politics and power is essential to improve decision-making.

[Faint, illegible handwritten notes]

199

10

div-
njem
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i Goja
tretisao
prirodno

divvula

Cochrane in 1993: principles and relationships

1. **Collaboration**
2. Building on the **enthusiasm** of individuals
3. Avoiding duplication of effort
4. Minimizing bias
5. Keeping up-to-date
6. Striving for **relevance**
7. **Promoting access**
8. Ensuring **quality**
9. Continuity
10. Enabling **wide participation**



Sir Iain Chalmers by Julia Fullerton-Batten.
National Portrait Gallery, 2006.

**The most important enablers were the
environment and people that made it happen**

Cochrane Database of Systematic Reviews

Launched in 1994





David Sacket's Evidence cart

Bringing the library to the
patient's bedside

Straus S, Eisinga A, Sackett D. Journal of the Royal
Society of Medicine, 2016, 109 (6): 241-247



“

“Reflecting on this work from the late 1990s, huge strides have been made in providing high-quality evidence resources at the point of decision-making... However, we are continuing to struggle with the challenge of integrating relevant evidence with clinical data in the electronic health record in a way that promotes optimal patient care.”

- Sharon Strauss (2016)

**Think
broader**

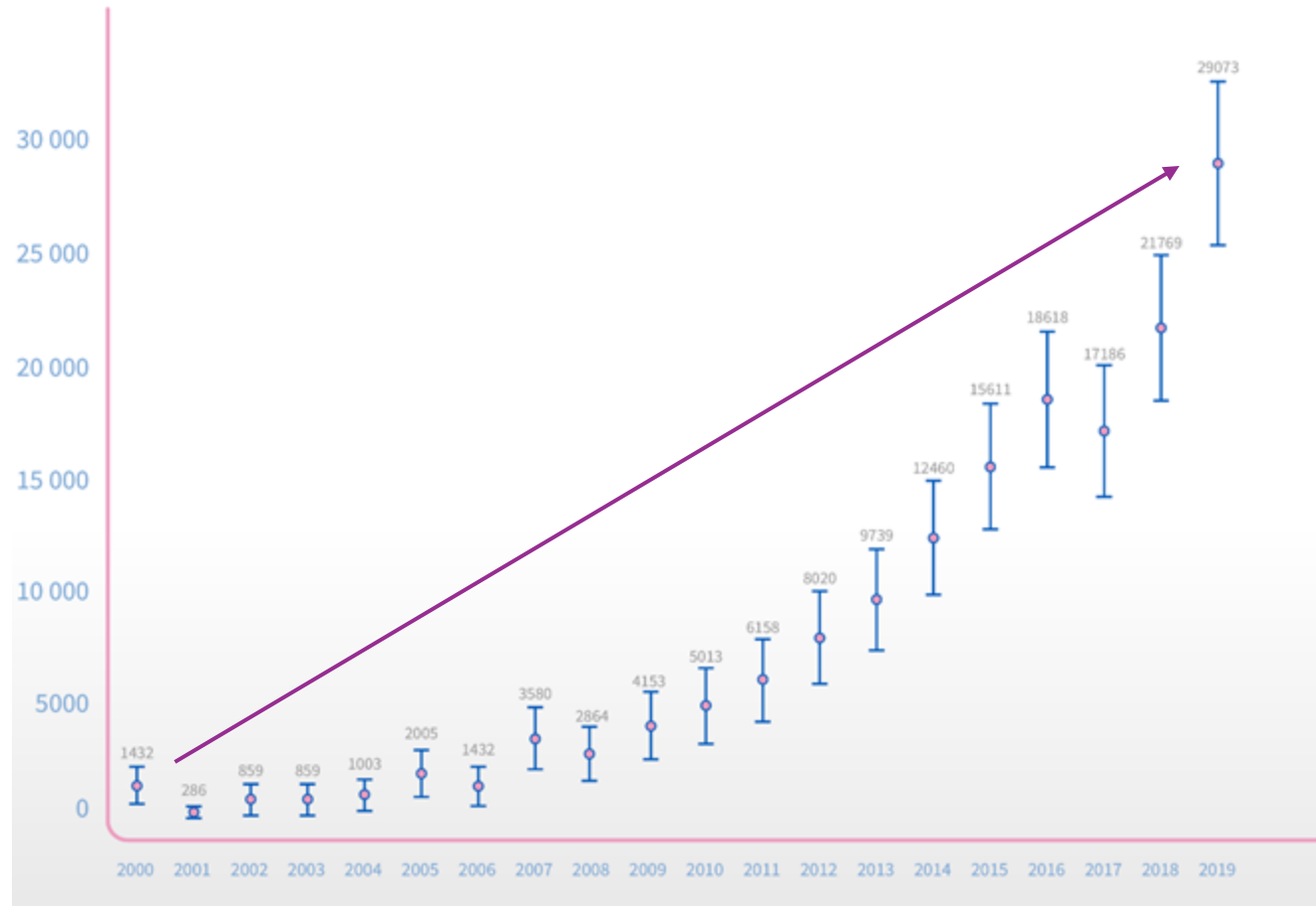
**Work
together**

**A lot of
work still
to be done**

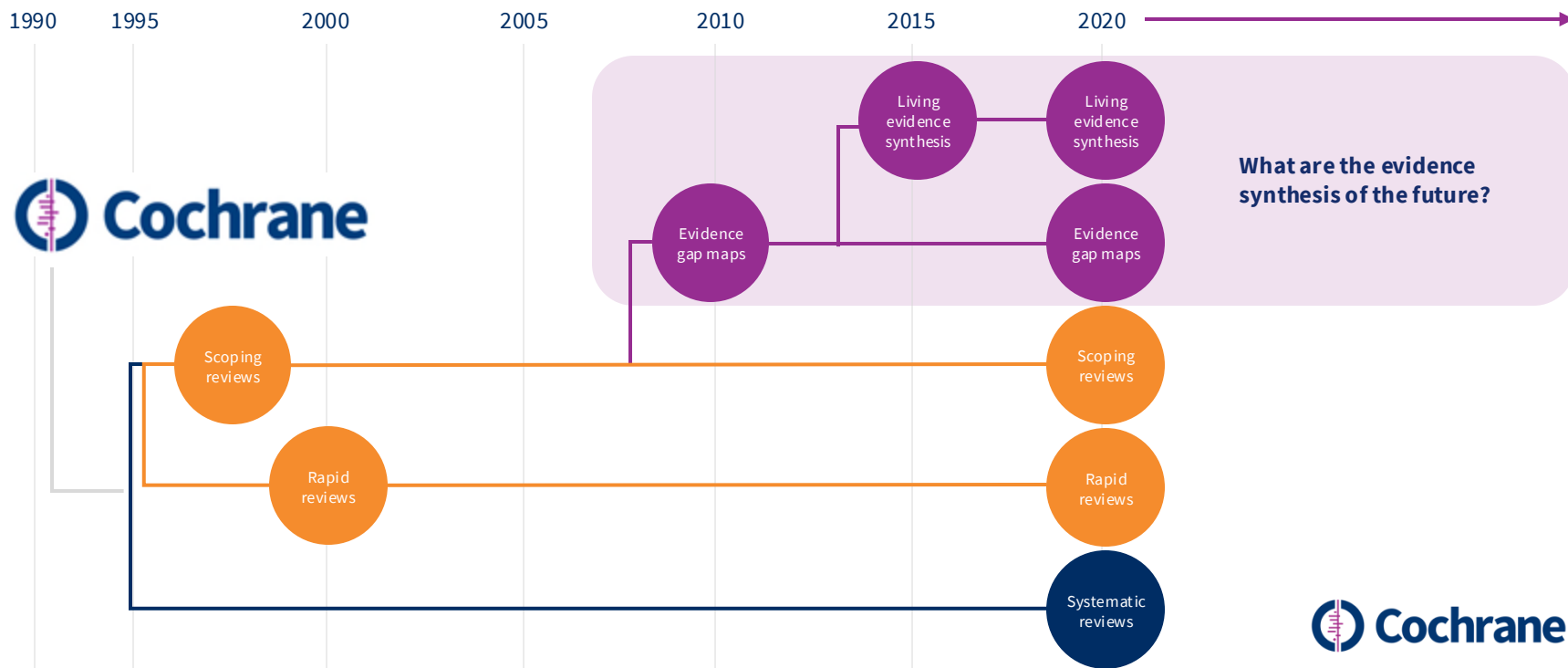


“Since 1900, the number of published scientific articles has doubled about every 10 to 15 years; since 1980, about 8% to 9% annually.”

**RAPID RISE OF
SYSTEMATIC
REVIEWS (EVIDENCE
SYNTHESES) FROM
2000 to 2019**



A long road to progress with new challenges





Challenges

**Duplication of efforts
leading to research
waste**

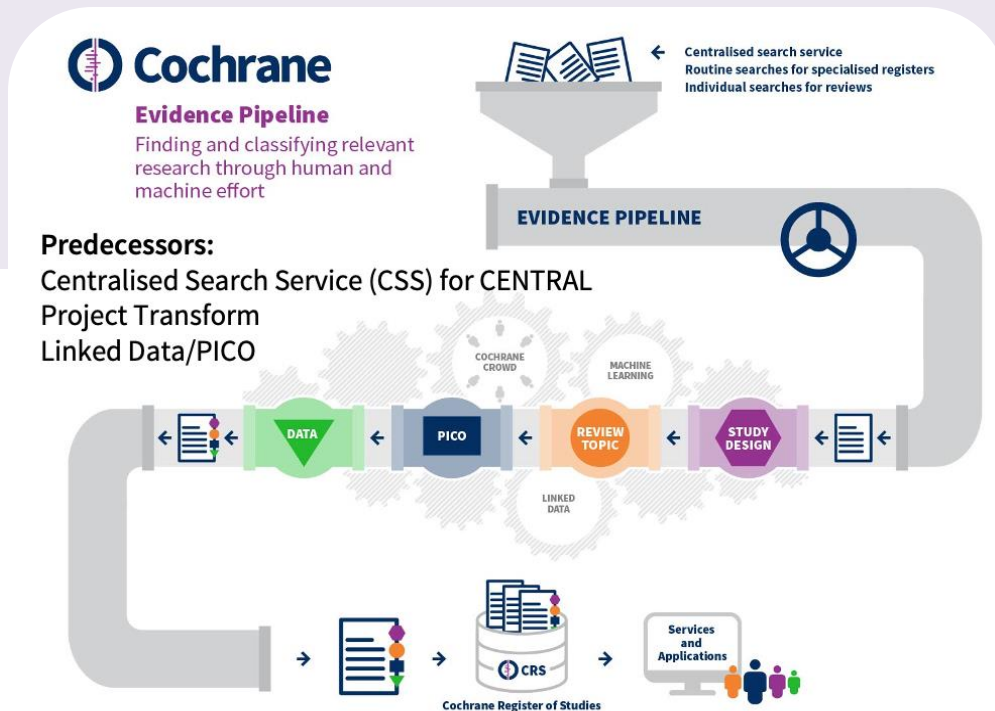
**Evidence syntheses
not always guided by
interest holders
needs**

**How to leverage AI
opportunities?**

**Collaboration
and equity**

Is Cochrane getting it right?

Innovation and technology... automating the boring bits and saving time...



Increased use of technology and crowd source to support review production.

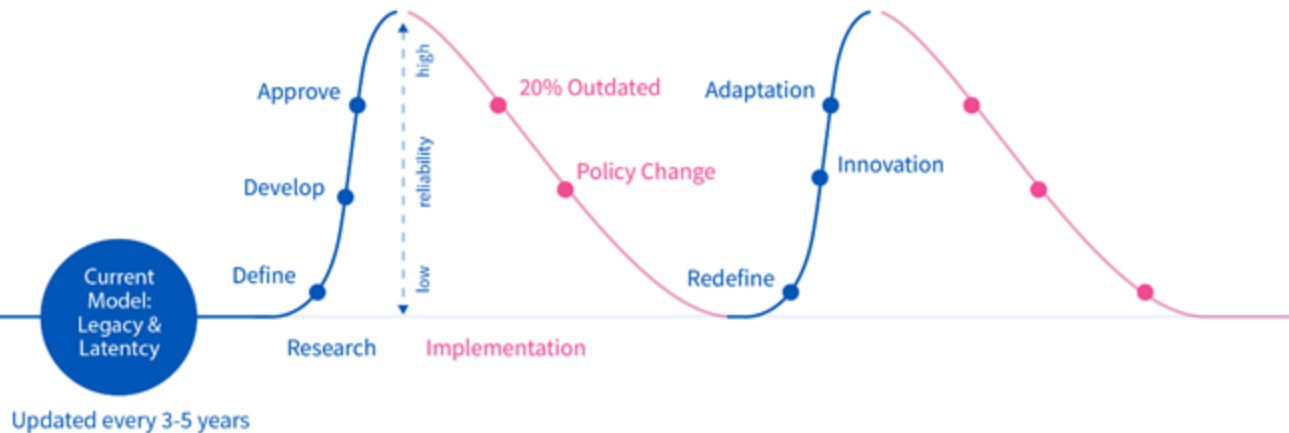


A global community of volunteers who complete tasks to help classify the research needed to support informed decision-making about healthcare.

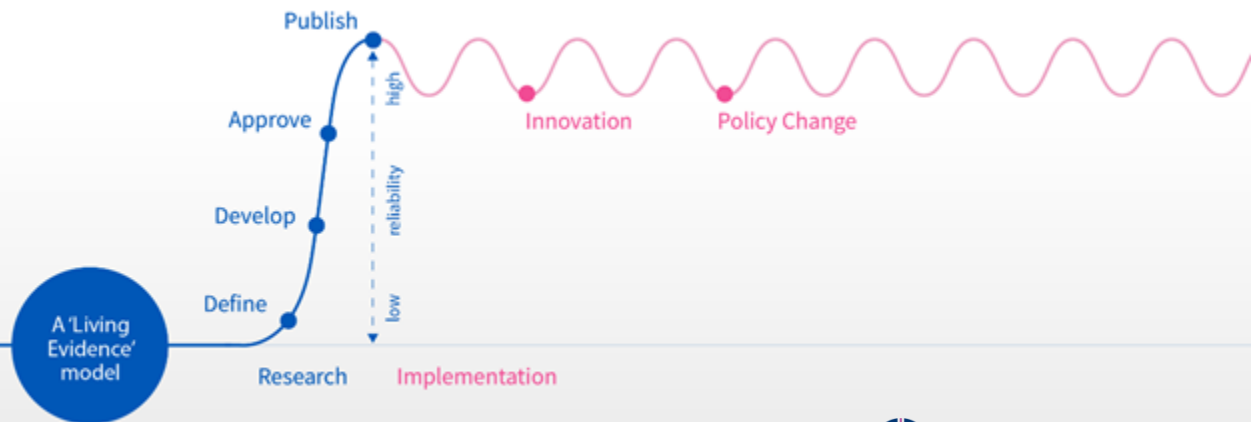
35,736
contributors

193
countries

10,101,056
classifications



Living evidence synthesis



Cochrane new Scientific Strategy

Strategic purpose

We are committed to high-quality, accessible health **evidence for all** who need it.



Cochranes research priorities 2025 - 2030



Research
priorities



**Maternal, newborn
and child health**

Offering mothers and children
the best start in life

**Multiple chronic
conditions**

Improving quality of life

**Infectious diseases
and pandemics**

Building a safer world

**Climate change and
sustainability**

Protecting people and planet

Maternal, newborn and child health



Prevent maternal
illness and mortality

Reduce foetal, neonatal and
childhood death rates

Improve health
through nutrition



Filter your results

Date

Publication date

The last 3 months 5
 The last 6 months 5
 The last 9 months 5
 The last year 5
 The last 2 years 6

Custom Range:

dd/mm/yyyy to dd/mm/yyyy
 Apply Clear

Status

New search 6
 Conclusions changed 2

Available Translations

Español 18
 Show 15 more ▾

Review Type

Intervention 17
 Diagnostic 1
 Qualitative 1

Topics

+ Pregnancy & childbirth 14
 + Complementary & alternative medicine 1

Cochrane Reviews 19	Cochrane Protocols 0	Trials 855	Editorials 0	Special Collections 0	Clinical Answers 7	More ▾
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19 Cochrane Reviews matching postpartum haemorrhage in Record Title - (Word variations have been searched)

Cochrane Database of Systematic Reviews
Issue 2 of 12, February 2025

☐ Select all (19) Export selected citation(s) [Show all previews](#)

Order by: Publish Date - New To Old ▾ Results per page: 25 ▾

- ☐ **Transfusion of blood and blood products for the management of postpartum haemorrhage**
 Caitlin R Williams, Hanna E Huffstetler, Angelo S Nyamtema, Eva Larkai, Magdalena Lyimo, Afroditi Kanellopoulou, Lindsay Robertson, Leslie Choi, Fadhlun M Alwy Al-beity
 Intervention Review 6 February 2025
[Show preview ▾](#)
- ☐ **Tests for diagnosis of postpartum haemorrhage at vaginal birth**
 Idnan Yunas, Ioannis D Gallos, Adam J Devall, Marcelina Podeseck, John Allotey, Yemisi Takwoingi, Arri Coomarasamy
 Diagnostic Review 17 January 2025 Open access
[Show preview ▾](#)
- ☐ **Tranexamic acid for preventing postpartum haemorrhage after vaginal birth**
 Christa Rohwer, Anke C Rohwer, Catherine Cluver, Katharine Ker, G Justus Hofmeyr
 Intervention Review 15 January 2025 New search Conclusions changed Open access
[Show PICO ▾](#) [Show preview ▾](#)
- ☐ **Cell salvage for the management of postpartum haemorrhage**
 Teesta Dey, Daisy Brown, Maia G Cole, Ruairaidh A Hill, Marty Chaplin, Hanna E Huffstetler, Ffion Curtis
 Intervention Review 20 December 2024
[Show PICO ▾](#) [Show preview ▾](#)
- ☐ **Tranexamic acid for preventing postpartum haemorrhage after caesarean section**
 Christa Rohwer, Anke Rohwer, Catherine Cluver, Katharine Ker, G Justus Hofmeyr
 Intervention Review 13 November 2024 Open access
[Show PICO ▾](#) [Show preview ▾](#)
- ☐ **Perceptions and experiences of the prevention, detection, and management of postpartum haemorrhage: a qualitative evidence synthesis**
 Shahinoor Akter, Gillian Forbes, Martha Vazquez Corona, Suelien Miller, Fernando Althabe, Arri Coomarasamy, Ioannis D Gallos, Olufemi T Oladapo, Joshua P Vogel, Fabiana Lorenzatto, Meghan A Bohren
 Qualitative Review 27 November 2023 Open access
[Show PICO ▾](#) [Show preview ▾](#)
- ☐ **Uterotonic agents for first-line treatment of postpartum haemorrhage: a network meta-analysis**
 William R Parry Smith, Argyro Papadopoulou, Eleanor Thomas, Aurelio Tobias, Malcolm J Price, Shireen Meher, Zarko Allfirevic, Andrew D Weeks, G Justus Hofmeyr, Ahmet Metin Gülmezoglu, Mariana Widmer, Olufemi T Oladapo, Joshua P Vogel, Fernando Althabe, Arri Coomarasamy, Ioannis D Gallos
 Intervention Review 24 November 2020 Free access
[Show PICO ▾](#) [Show preview ▾](#)

Fast-track evidence syntheses for WHO guideline on postpartum haemorrhage

- Active engagement with the WHO to produce 13 evidence synthesis to support decision-makers
- Support during the development of evidence synthesis and fast-track for publication
- Agile response, adapting and learning

2025: Living Evidence Gap Map on Neonatal Health

- Led by Cochrane India
- Interest holder engagement
- Interactive map and dashboard
- Clear identification of gaps



Infectious diseases and pandemics



Address major global infectious diseases

Tackle emerging vector-borne diseases

Confront antimicrobial resistance

Improve diagnostic methods



2025: Living Evidence Gap Map on Dengue

- In collaboration with Instituto Veredas in Brazil
- Interest holder engagement
- Interactive map and dashboard
- Clear identification of gaps

<https://www.veredas.org/>





Collaboration

Collaboration is essential for global solutions!

Global challenges demand diverse voices working **together.**





SCROFULA

In hindsight...

Brazil

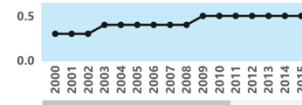
Indicators in the Sustainable Development Goals associated with TB incidence.

Data Source: SDG indicators database, The World Bank, World Health Organization

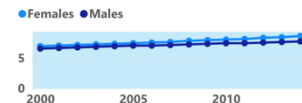
SDG 3



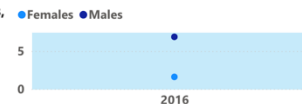
HIV prevalence
(% of population aged 15-49 years)



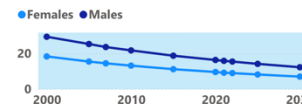
Diabetes prevalence
(% of population aged ≥ 18 years)



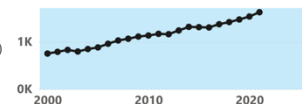
Alcohol use disorders, 12 month prevalence
(% of population aged ≥ 15 years)



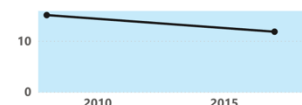
Smoking prevalence
(% of population aged ≥ 15 years)



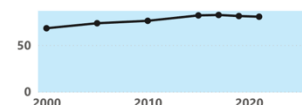
Health expenditure per capita, PPP**
(current international \$)



Greater than 10% of total household expenditure or income on health
(% of population)



UHC index of essential service coverage**
(based on 14 tracer indicators including TB treatment)



Brazil

Indicators in the Sustainable Development Goals associated with TB incidence.

Data Source: SDG indicators database, The World Bank, World Health Organization

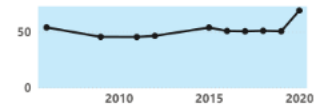
Other SDGs



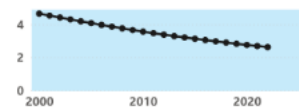
Population living below the international poverty line
(% of population)



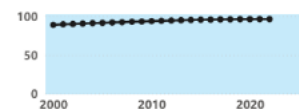
Population covered by social protection floors/systems
(% of population)



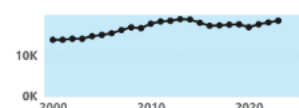
Prevalence of undernutrition
(% of population)



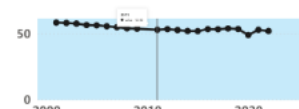
Access to clean fuels and technologies for cooking
(% of population)



GDP per capita, PPP**
(constant 2021 international \$)



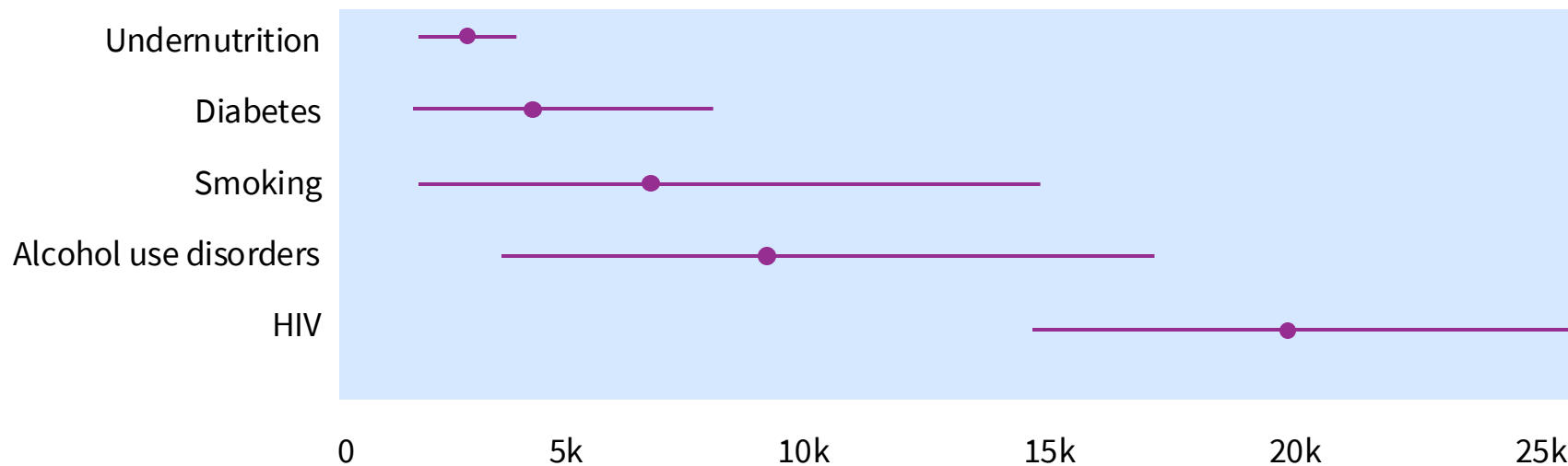
GINI index
(0=perfect equality, 100=perfect inequality)



Population living in slums
(% of urban population)



Number of TB cases attributable to five risk factors in Brazil, 2023



Data Source: SDG indicators database, The World Bank, World Health Organization



“

“To realize the SDGs for children, swift action must be taken... By 2030, only one in four children will live in countries where 70 per cent of the child-related SDG targets will be met. If recent progress continues, only 60 countries will have met their targets by 2030, leaving around 1.9 billion children in 140 countries behind.”

- Source: UNICEF Data Warehouse, 2023 | https://data.unicef.org/dv_index/

The question is how can we make a real difference and deliver improvements at both local and global levels?





“

“Because the people who are crazy enough to think they can change the world, are the ones who do.”

- Steve Jobs



Evidence Synthesis Infrastructure Collaborative

Funded by the Wellcome Trust





Acknowledgements

The Evidence Synthesis Infrastructure Collaborative is funding by the Wellcome Trust and supported by:

UN Global
SDG
Synthesis
Coalition

Building a Global
Evidence
Synthesis
Community

Pan-African
Collective for
Evidence (PACE)

Center for Rapid
Evidence
Synthesis
(ACRES)

Adjudication
panel
Representatives
of “interest
holders”

SHOW ME the Evidence

S

Support systems nationally (and locally) that use many forms of research evidence to help address local priorities

H

Harmonized efforts globally that make it easier to learn from others around the world

O

Open-science approaches that make it the norm to build on what others have done

W

Waste-reduction efforts that make the most of investments in evidence support and in research

M

Measured communications that clarify what we know from existing evidence and with what caveats

E

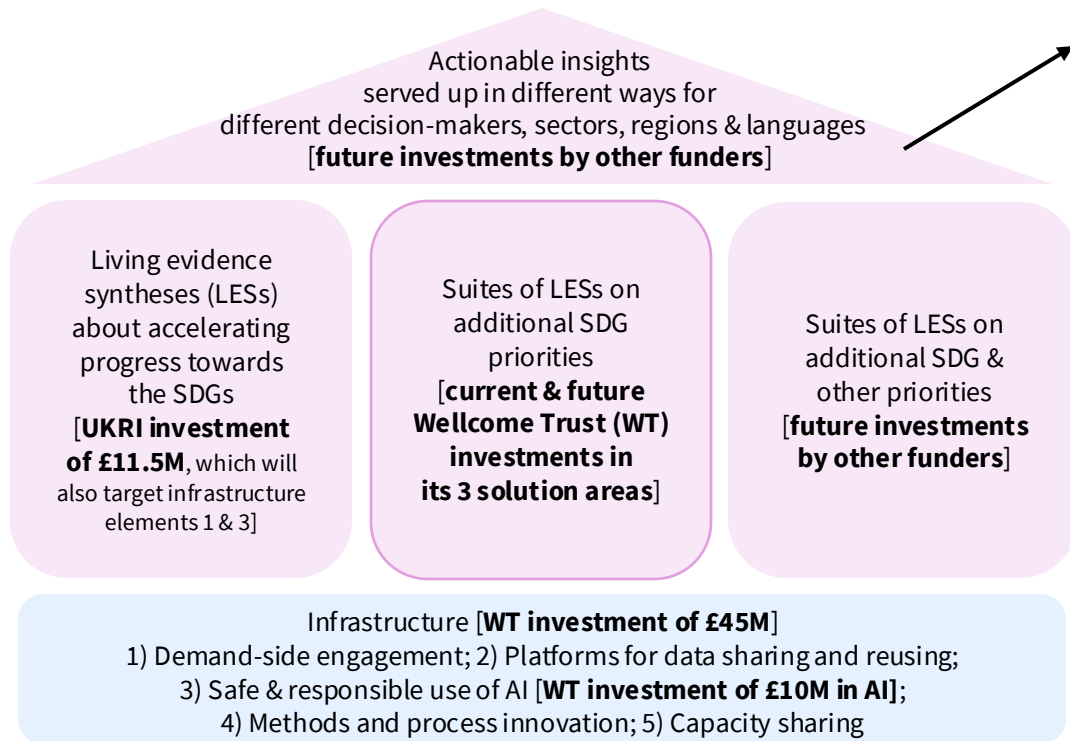
Equity and efficiency in all aspects of this work



Lavis JN et al. Cochrane Database of Systematic Reviews, 2024, Issue 11.



Where collective action is emerging and still needed



Examples in the education sector:

- 1) Best buys: [GEEAP](#)
- 2) Broad approaches: [EEF](#)
- 3) Branded programs: [IES WWC](#)

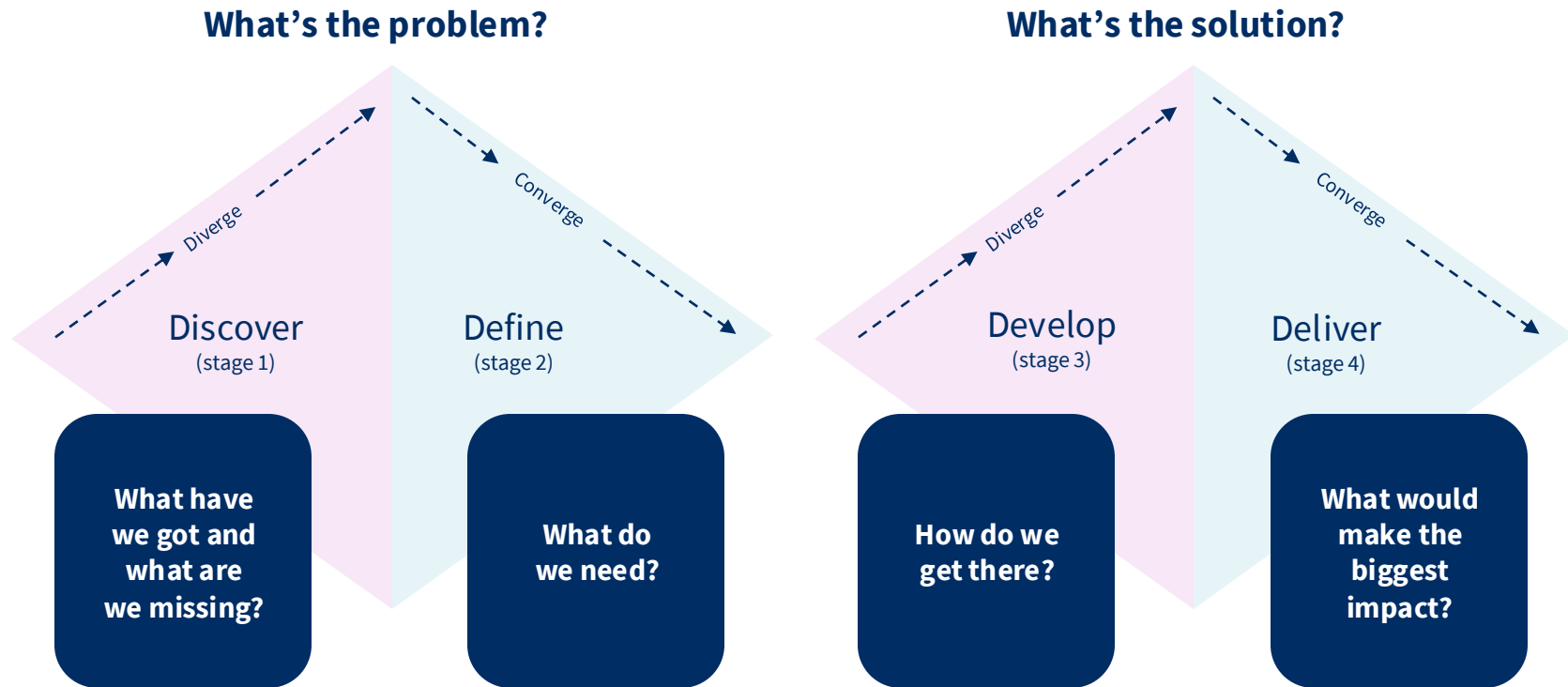
Working and Planning Groups



Groups	Focus	Co-Leads
WG1: Demand-side engagement	Get producers and potential users working together to understand and meet user needs	Patrick Okwen, Cameroon Eleanor Williams, Australia
WG2: Data sharing and reusing	Make it normal to study a question once and use the answers many times in many different contexts	Zhipeng Wei, China Julian Elliott, Australia
WG3: Safe and responsible use of AI	Bring evidence synthesis to the forefront of technology so that we can get the best impact from the people and resources we have	Ashrita Saran, India Malcolm Macleod, UK
WG4: Methods & process innovation	Devise synthesis methods and processes that enable radically more timely, relevant, and affordable synthesis	Solange Durao, South Africa Fiona Campbell, UK
WG5: Capacity sharing	Build a global community with the capabilities to deliver and use evidence synthesis across all major societal questions	Veronica Osorio Calderon, Bolivia Tamara Lotfi, Lebanon
PG1: Governance	Devise options for how key interest holders can continue to set and achieve shared goals beyond this process	Joseph Mathew, India Jeremy Grimshaw, Canada



Planning Process: January to June 2025



About this initiative

We have a once in a generation chance for a global step change in evidence synthesis.



The world is poised for a once in a generation opportunity in how we produce and use evidence synthesis to address societal challenges, including how we accelerate progress with the United Nations Sustainable Development Goals (or SDGs). Achieving this will require collaboration among those working on the 'demand' side of evidence, those working on the 'supply side', those working as evidence intermediaries, and funders.

The **Evidence Synthesis Infrastructure Collaborative (ESIC)** will power such collaboration. Three groups – one representing each of the demand, supply and intermediary communities – have come together to propose an open and equitable planning process that will yield a 'menu of options' for funders on pieces of infrastructure they might want to invest in and/or leverage and a consensus roadmap of actionable insights to deliver on the promise of a step-change improvement.

[Learn more about the context](#) and [read the proposal here](#).

Sign up for updates

Join hundreds of others building a global synthesis community. [Sign up here](#).

Important Dates

- Open consultation 1: 12th – 19th February
- Open consultation 2: 12th – 19th March
- Open consultation 3: 30th April – 7th May
- Open consultation 4: 4th – 11th June

Meetings Information

Meeting recordings, transcripts, slides and calendar of upcoming meetings

[Meetings →](#)

Background Documents

Including translations – French, Italian, Chinese, Spanish, Portuguese, Russian

[Documents →](#)

FAQs

Answers to some frequently asked questions

[FAQs →](#)

Working Groups

**Demand-side
Engagement**

**Data Sharing and Re-
using**

**Safe and Responsible use
of AI**

**Methods and Process
Innovation**

Capacity Sharing

Planning Groups

**Governance Planning
Group**

<https://evidencesynthesis.atlassian.net/wiki>

Funded by @Wellcometrust

Call-to-action – we must:

Collaborate

**Be global &
inclusive**

**Not leave
anyone
behind**





**Let's work together
to make it happen!**

Thank you!