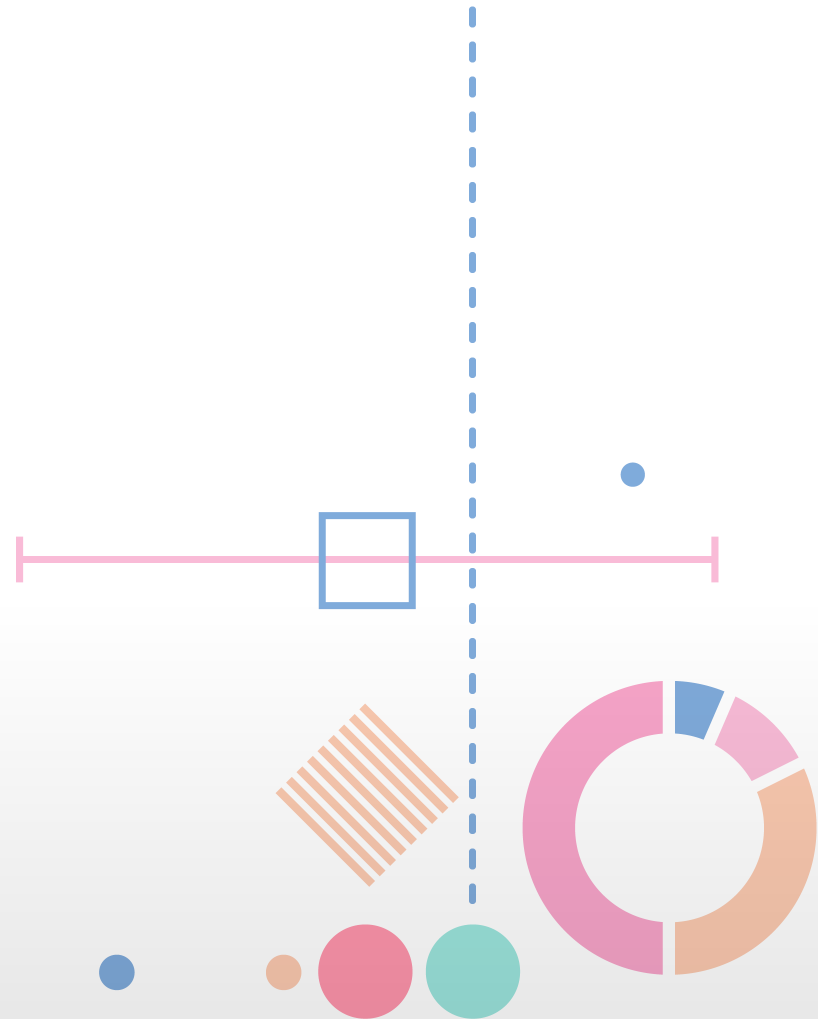


Evolution and revolution: the future of global evidence synthesis

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

NIHR CRSU Symposium
Evidence synthesis: navigating an evolving landscape
London, 23 May 2022



1753



James Lind conducted the first systematic review in 1753, providing a concise and unbiased summary of evidence on the treatment of scurvy...

1960



Meta-analysis

1970



Systematic review

1980



Cochrane

1990

1995

2000



Scoping reviews



Rapid reviews

2005



Evidence mapping

2010



Living systematic reviews

2015



Living systematic reviews

2020



Evidence mapping



Scoping reviews



Rapid reviews



Systematic reviews

Systematic reviews:
the evolution of species?

'We expect this process of evolution to continue...
such that in 10 years' time, there will appear new, as yet unimagined species of reviews—
and perhaps some current species of review will become extinct.'



Systematic Reviews

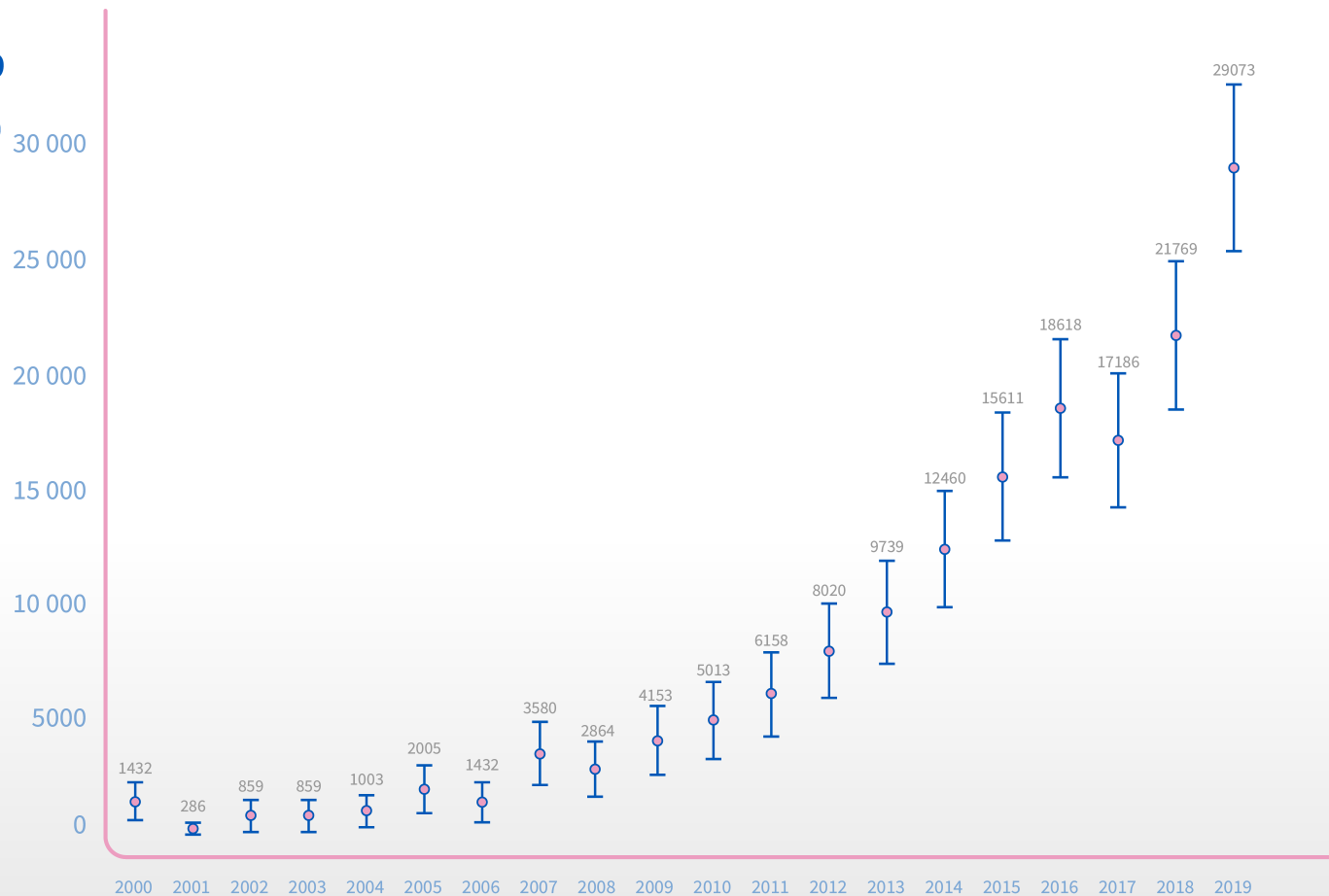
Editorial | [Open Access](#) | [Published: 22 December 2015](#)

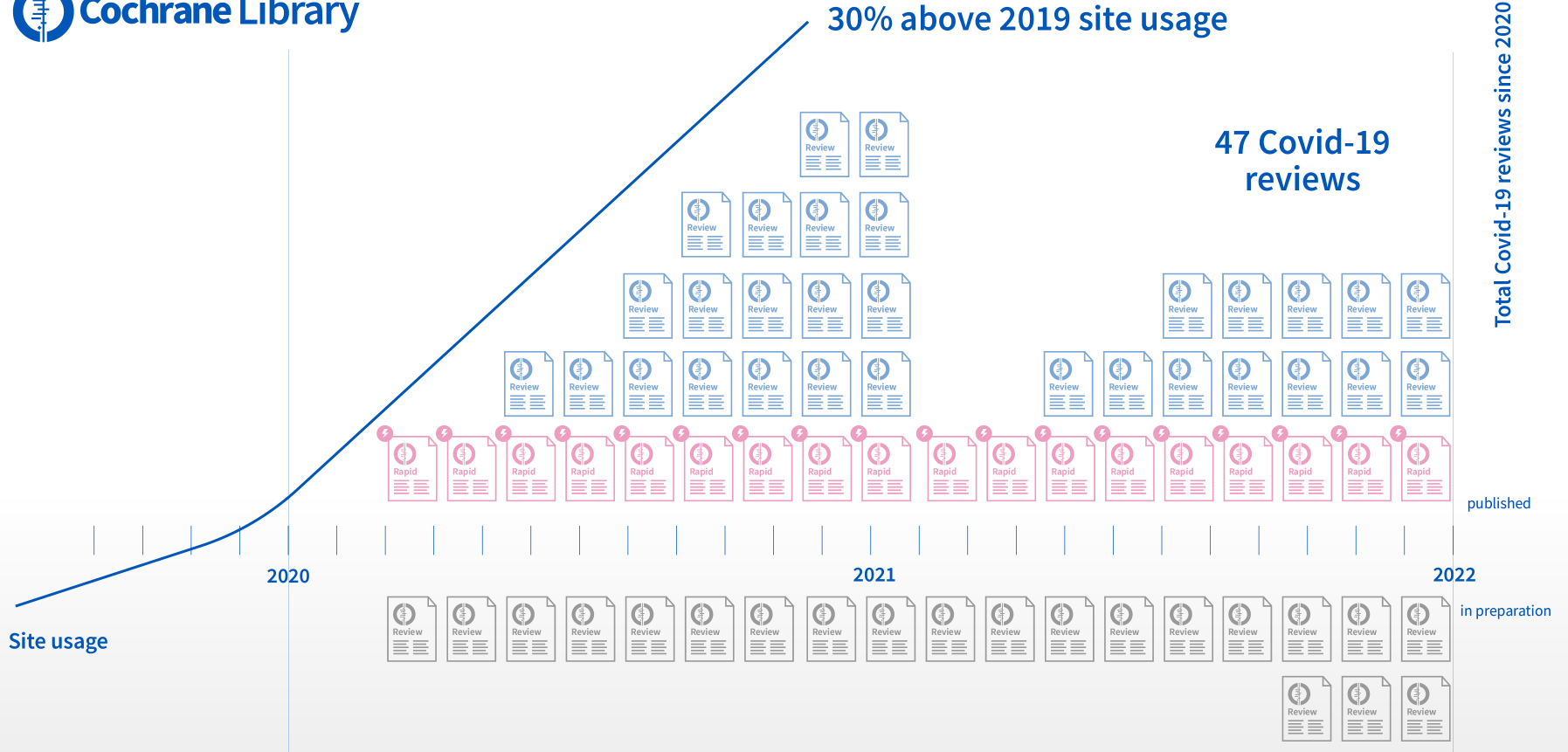
All in the Family: systematic reviews, rapid reviews, scoping reviews, realist reviews, and more

[David Moher](#) , [Lesley Stewart](#) & [Paul Shekelle](#)

RAPID RISE OF SYSTEMATIC REVIEWS FROM 2000 to 2019

Q Hoffmann et al @ www.jclinepi.com





'The most talked-about review in the history of the Cochrane Library.'

 **12,000+** tweets

Ivermectin for preventing and treating COVID-19 

 **Cochrane Ivermectin Review**

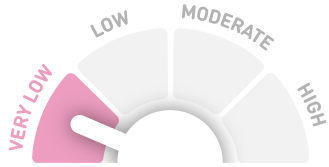
10,300

Altmetric attention score
Top 50 of all Altmetric scores for 2021

 **World Health Organization**

 **EUROPEAN MEDICINES AGENCY**

200+  **NEWS Stories**

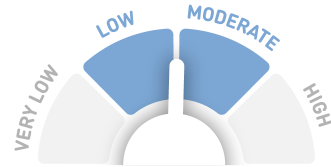


CERTAINTY OF EVIDENCE

RAPID REVIEW

DURATION: 6 months

SYSTEMATIC REVIEW



CERTAINTY OF EVIDENCE

DURATION: 1-2 years +

RECOMMENDATION MAPPING


The screenshot shows the COVID19 Recommendations web application. At the top, there is a navigation bar with the site logo, the title "COVID19 Recommendations", and links for "Recommendations map" and "Recommendations List". Below the navigation bar is a search input field with the placeholder text "Enter the keyword".

The main content area is a modal window for a specific recommendation. The modal has a close button (X) in the top right corner. It contains the following information:

- Recommendation ID:** 518
- Description:** For people who are experiencing new or ongoing symptoms 4 weeks or more after acute COVID-19, offer an initial consultation and use shared decision making to discuss and agree with the person whether it should be remote or in person.
- Certainty of evidence:** High (represented by four yellow smiley face icons).
- Recommendation strength:** strong (represented by a green checkmark icon).
- Additional Guidance:** Develop process for the referral of symptomatic travellers with suspected COVID-19 to health-care facilities for further assessment and treatment, following national guidance on close contact management, and WHO guidance on quarantining.
- Additional Guidance:** Secure a temporary space to isolate personnel and travellers with signs of COVID-19 until further evaluation, with separate toilets and waste management.

Each section of the modal has a "Highlight" button next to it. A mouse cursor is shown clicking on the "Highlight" button for the recommendation description.

In the background, a table of recommendations is visible. The table has columns for "All", "Infection control", "Vaccination", "Screening", "Diagnosis", "Treatment and rehabilitation", "Prognosis", and "Priority review". The row for recommendation ID 518 is highlighted, and a mouse cursor is pointing to the "518" value in the "All" column.

 covid19.recmap.org

LIVING MAPPING OF TRIALS

i.e., trials registered on the WHO platform

Updated Weekly

4227

Randomized Trials
1410 RCTs recruiting

3261

RCTs on treatments
(1085 recruiting)

408

RCTs on prevention
(122 recruiting)

408

RCTs on vaccines
(203 recruiting)

LIVING SYNTHESIS OF PUBLISHED STUDIES

includes both articles and pre-prints

Updated Daily

738

Studies (RCTs or Observational studies)
with complete data extractions and results included
in our evidence synthesis

487

RCTs on treatments

17

RCTs on prevention

139

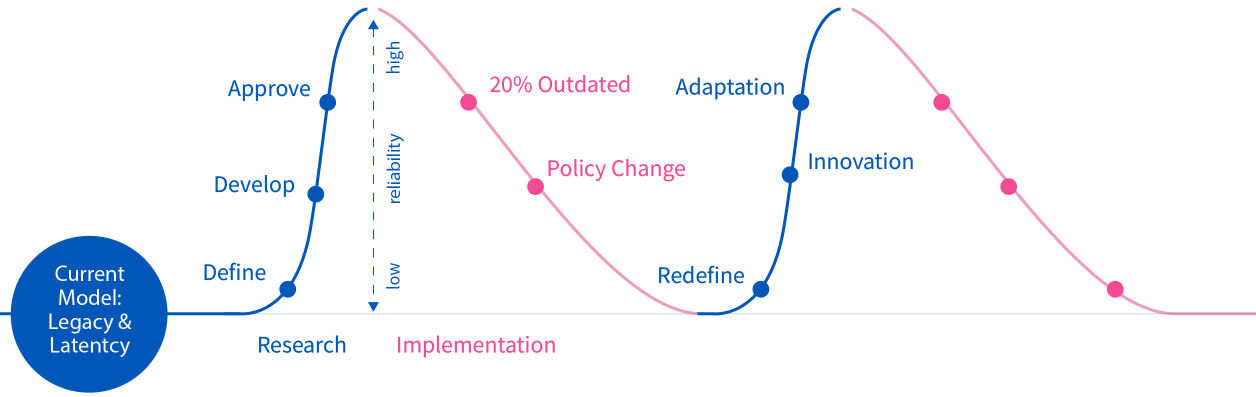
RCTs on vaccines

95

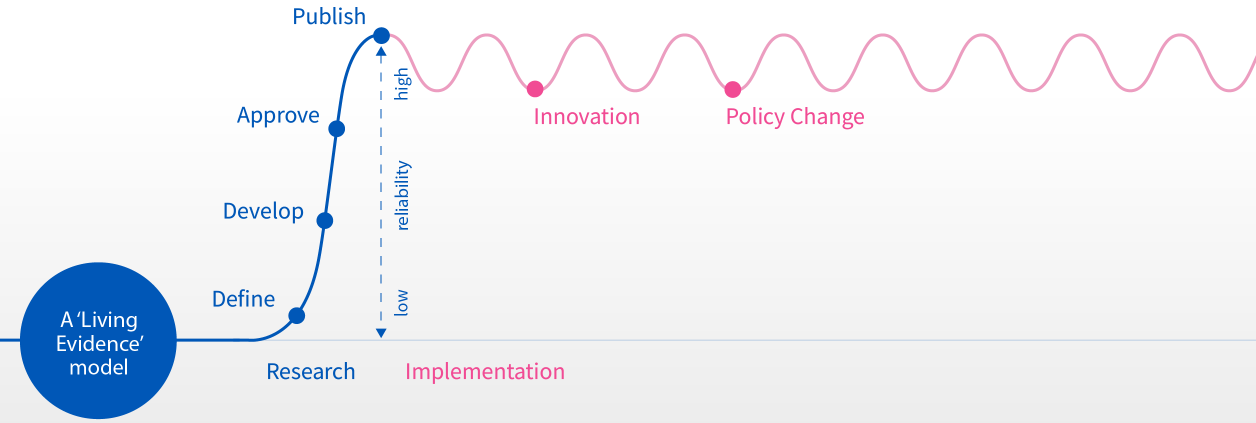
Observational studies
on vaccines



covid-nma.com



Updated every 3-5 years



Living systematic reviews

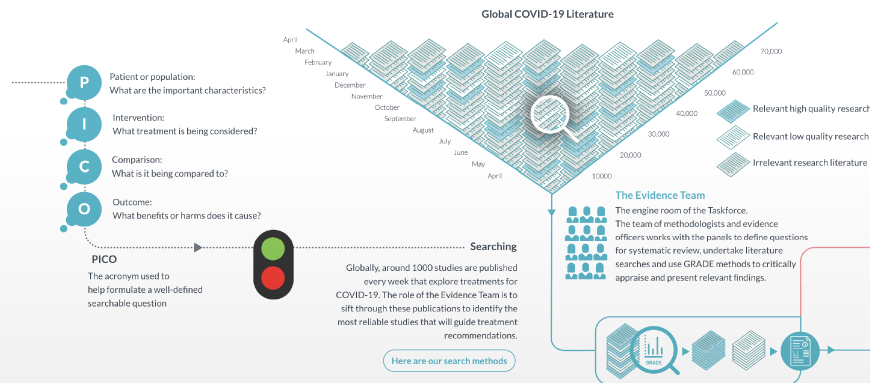
Best evidence supporting best care

As clinicians work to provide the best possible care for Australians during the COVID-19 pandemic, we're working to keep them up-to-date with the latest evidence

- LIVING GUIDELINES
- CLINICAL FLOWCHARTS
- TOPICS UNDER REVIEW
- DO YOU HAVE A CLINICAL QUESTION?

The Taskforce gets busy:

Finding evidence

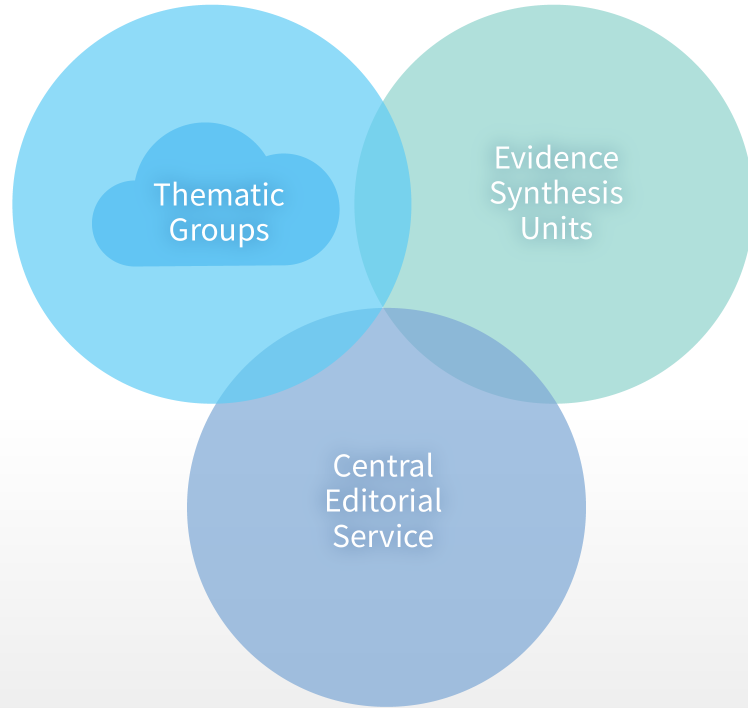


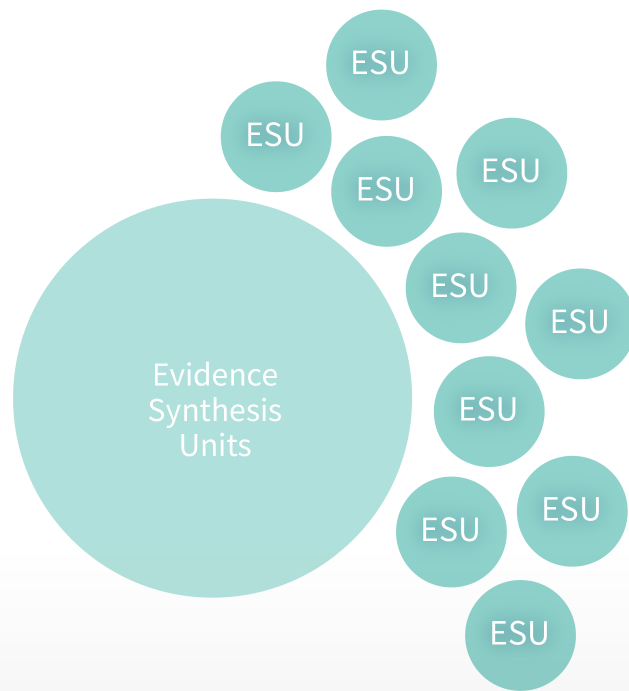


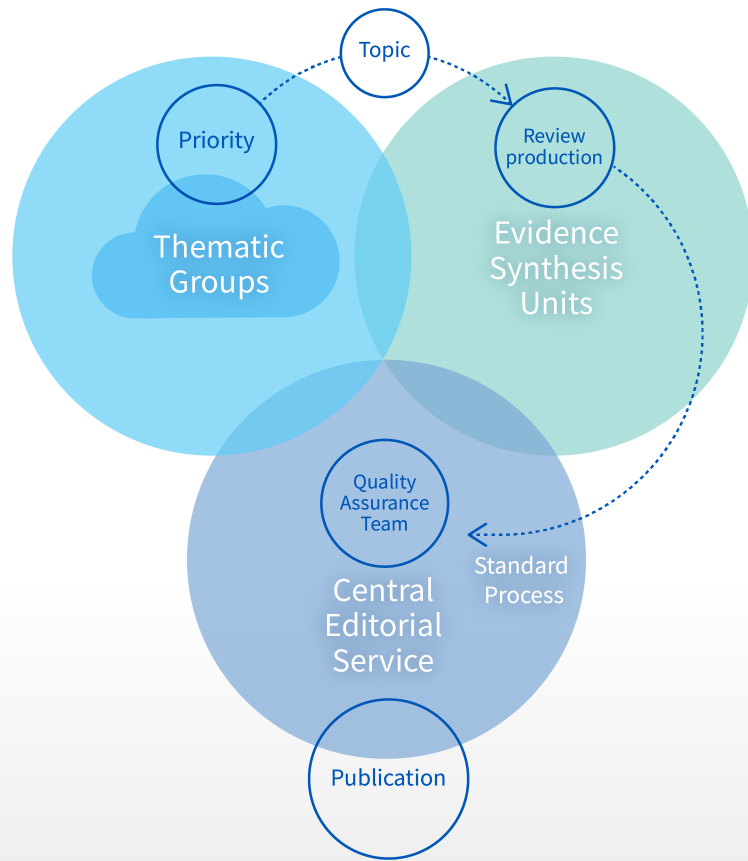
FIOPUZ
Fundação Oswaldo Cruz

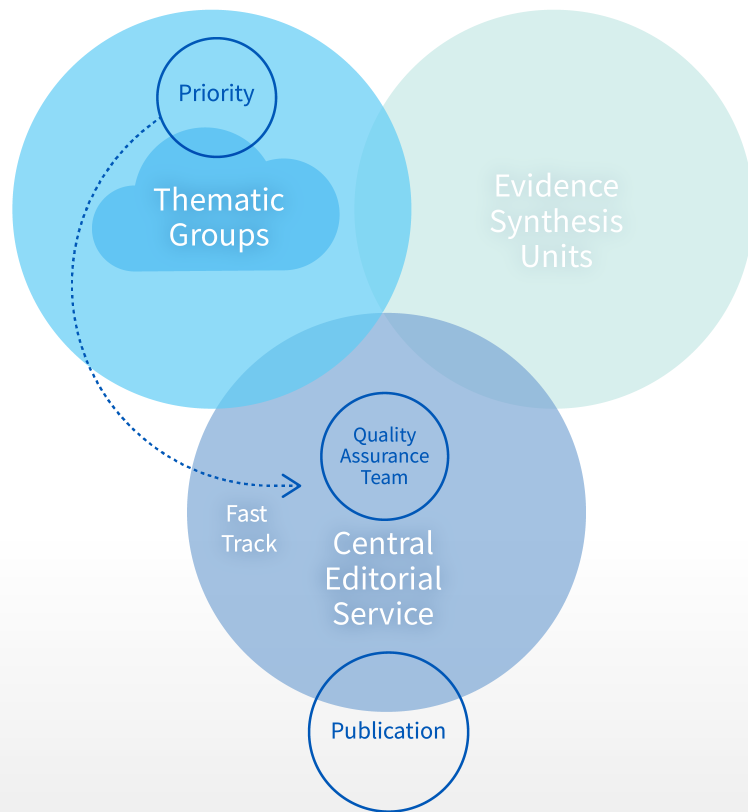


McMaster
HEALTH FORUM











Cardiovascular

- ✓ Capacity strengthening
- ✓ Consumer engagement
- ✓ Disseminate Cochrane evidence
- ✓ Leadership & content expertise
- ✓ Produce high-priority evidence synthesis
- Stakeholder engagement
- ✓ Support centralized editorial process
- ✓ Work with ESUs to deliver large suites of evidence syntheses

Evidence Synthesis Unit
A

Evidence Synthesis Unit
B

Evidence Synthesis Unit
C

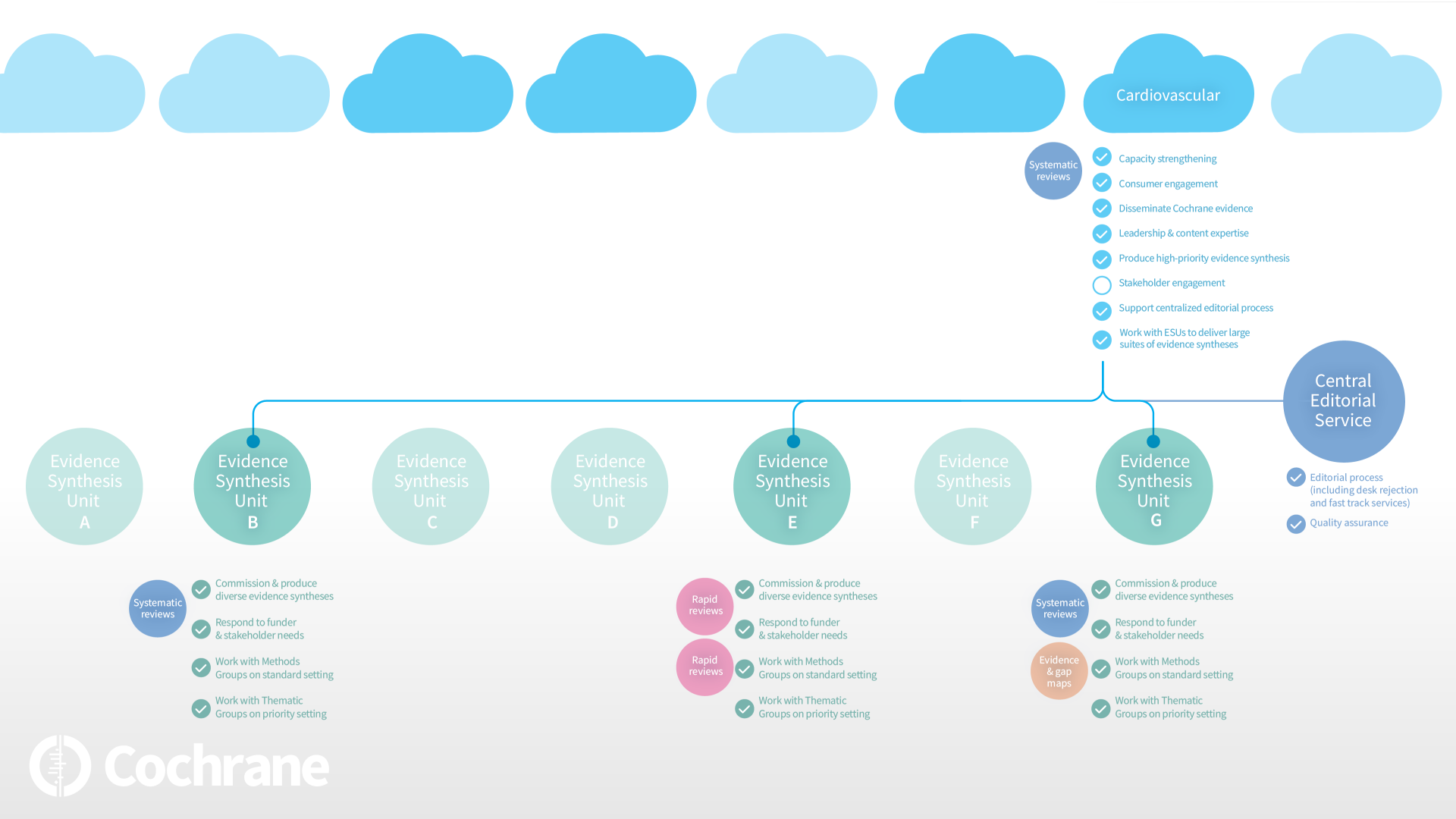
Evidence Synthesis Unit
D

Evidence Synthesis Unit
E

Evidence Synthesis Unit
F

Evidence Synthesis Unit
G

Central Editorial Service





Mental
Health &
Wellbeing

- ✓ Capacity strengthening
- ✓ Consumer engagement
- ✓ Disseminate Cochrane evidence
- ✓ Leadership & content expertise
- Produce high-priority evidence synthesis
- ✓ Stakeholder engagement
- ✓ Support centralized editorial process
- ✓ Work with ESUs to deliver large suites of evidence syntheses

Evidence
Synthesis
Unit
A

Evidence
Synthesis
Unit
B

Evidence
Synthesis
Unit
C

Evidence
Synthesis
Unit
D

Evidence
Synthesis
Unit
E

Evidence
Synthesis
Unit
F

Evidence
Synthesis
Unit
G

Central
Editorial
Service



- ✓ Capacity strengthening
- ✓ Consumer engagement
- ✓ Disseminate Cochrane evidence
- ✓ Leadership & content expertise
- Produce high-priority evidence synthesis
- ✓ Stakeholder engagement
- ✓ Support centralized editorial process
- ✓ Work with ESUs to deliver large suites of evidence syntheses



- ✓ Editorial process (including desk rejection and fast track services)
- ✓ Quality assurance

- Systematic reviews
 - ✓ Commission & produce diverse evidence syntheses
 - ✓ Respond to funder & stakeholder needs
 - ✓ Work with Methods Groups on standard setting
 - ✓ Work with Thematic Groups on priority setting

- Systematic reviews
 - ✓ Commission & produce diverse evidence syntheses
 - ✓ Respond to funder & stakeholder needs
- Qualitative reviews
 - ✓ Work with Methods Groups on standard setting
 - ✓ Work with Thematic Groups on priority setting



Health
Equity

- Capacity strengthening
- Consumer engagement
- Disseminate Cochrane evidence
- Leadership & content expertise
- Produce high-priority evidence synthesis
- Stakeholder engagement
- Support centralized editorial process
- Work with ESUs to deliver large suites of evidence syntheses



Evidence
Synthesis
Unit
A



Equity lens

Evidence
Synthesis
Unit
B



Equity lens

Evidence
Synthesis
Unit
C



Equity lens

Evidence
Synthesis
Unit
D



Equity lens

Evidence
Synthesis
Unit
E



Equity lens

Evidence
Synthesis
Unit
F



Equity lens

Evidence
Synthesis
Unit
G



Equity lens

Central
Editorial
Service

- Editorial process (including desk rejection and fast track services)
- Quality assurance



- Capacity strengthening
- Consumer engagement
- Disseminate Cochrane evidence
- Leadership & content expertise
- Produce high-priority evidence synthesis
- Stakeholder engagement
- Support centralized editorial process
- Work with ESUs to deliver large suites of evidence syntheses

- Capacity strengthening
- Consumer engagement
- Disseminate Cochrane evidence
- Leadership & content expertise
- Produce high-priority evidence synthesis
- Stakeholder engagement
- Support centralized editorial process
- Work with ESUs to deliver large suites of evidence syntheses



Evidence
Synthesis
Unit
A

Evidence
Synthesis
Unit
B

Evidence
Synthesis
Unit
C

Evidence
Synthesis
Unit
D

Evidence
Synthesis
Unit
E

Evidence
Synthesis
Unit
F

Evidence
Synthesis
Unit
G

Central
Editorial
Service

Infectious Disease & Global Emergencies

Rapid reviews

- ✓ Capacity strengthening
- Consumer engagement
- ✓ Disseminate Cochrane evidence
- ✓ Leadership & content expertise
- ✓ Produce high-priority evidence synthesis
- Stakeholder engagement
- ✓ Support centralized editorial process
- ✓ Work with ESUs to deliver large suites of evidence syntheses

Central Editorial Service

- ✓ Editorial process (including desk rejection and fast track services)
- ✓ Quality assurance

Evidence Synthesis Unit A

Evidence Synthesis Unit B

Evidence Synthesis Unit C

Evidence Synthesis Unit D

Evidence Synthesis Unit E

Evidence Synthesis Unit F

Evidence Synthesis Unit G

Living systematic reviews

- ✓ Commission & produce diverse evidence syntheses
- ✓ Respond to funder & stakeholder needs

Scoping reviews

- ✓ Work with Methods Groups on standard setting
- ✓ Work with Thematic Groups on priority setting

Rapid reviews

- ✓ Commission & produce diverse evidence syntheses
- ✓ Respond to funder & stakeholder needs

Rapid reviews

- ✓ Work with Methods Groups on standard setting
- ✓ Work with Thematic Groups on priority setting

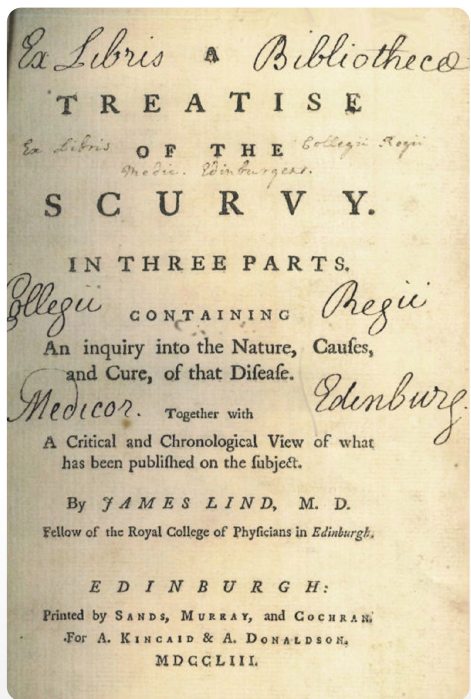
Evidence & gap maps

- ✓ Commission & produce diverse evidence syntheses
- ✓ Respond to funder & stakeholder needs

- ✓ Work with Methods Groups on standard setting
- ✓ Work with Thematic Groups on priority setting

The logo features a large, bold, dark blue number '30'. The zero is stylized as a circle containing a vertical line with horizontal bars of varying lengths extending from it, resembling a forest plot or a bar chart. Below the '0' is a dark blue rectangular box containing the word 'YEARS' in white, uppercase, sans-serif font.

30
YEARS



Cochrane Visual abstract | Cochrane rapid review

Quarantine to control COVID-19

Trusted evidence.
Informed decisions.
Better health.

Key findings

- Our rapid review looked at the latest evidence from modelling studies and found:
 - Combining quarantine with other measures, such as closing schools or social distancing, is more effective at reducing the spread of COVID-19 than quarantine alone.
 - Quarantine of people exposed to confirmed cases may avert high proportions of infections and deaths compared to no measures.
 - More comprehensive and early implementation of prevention and control measures may be more effective in containing the COVID-19 outbreak.

Coronavirus disease (COVID-19) is a new virus that has spread rapidly around the globe. There is no effective treatment or vaccine for COVID-19, so restrictive measures such as quarantine, isolation and social distancing are being used to reduce transmission of the infection.

This Cochrane rapid review was commissioned by the World Health Organization (WHO) to assess whether and how effectively quarantine stops COVID-19 spreading, and if it prevents death.

Quarantine is used to separate and restrict the movement of people who are well but who may have been exposed to COVID-19. It can be voluntary or legally enforced.

Isolation is different from quarantine. Isolation is used to separate people who have symptoms from those who are well.

We included 29 studies in this rapid review

- 15 SARS/MERS simulation studies
- 10 studies on COVID-19: Studies simulated outbreaks in China, South Korea, United Kingdom and on the Diamond Princess cruise ship.
- 4 SARS/MERS studies on population data

Certainty of evidence

We cannot be completely certain about the evidence we found, as the COVID-19 studies based their models on limited data and made different assumptions about the virus (e.g. how quickly it would spread).

The other studies investigated SARS and MERS so we could not assume the results would be the same for COVID-19. For this reason we judge the certainty of evidence to be low/very low.

This review includes evidence published up to 12 March 2020.

covidrapidreviews.cochrane.org Cochrane Library 2020

Thank you