



PHIRI

Population Health Information
Research Infrastructure

Scoping review

challenges leading a collaborative group

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ISCIII

October 11th 2022



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This project has received
funding from the European
Union's Horizon 2020
research and innovation
programme under grant
agreement No 101018317



Scoping review (ScR)

What is a ScR?

- A type of knowledge synthesis
- Follow a systematic approach on a topic
- Identify main **concepts, theories, sources** and knowledge **gaps**.

Our ScR:

- To identify the key health indicators in the COVID-19 literature, on morbidity, severity and mortality
- Focusing on differences in their calculation.

Expected results: identify commonly used indicators of direct impact



Study phases

- Phase 1 – Screening Titles/Abstracts
- Phase 2 – Full-text Reading
- Phase 3 – Indicator data extraction

Annals of Internal Medicine RESEARCH AND REPORTING METHODS

PRISMA Extension for Scoping Reviews (PRISMA-ScR): Checklist and Explanation

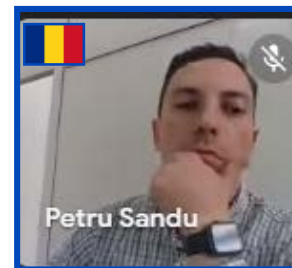
Andrea C. Tricco, PhD, MSc; Erin Lillie, MSc; Wasifa Zarin, MPH; Kelly K. O'Brien, PhD, BScPT; Heather Colquhoun, PhD; Danielle Levac, PhD, MSc, BScPT; David Moher, PhD, MSc; Micah D.J. Peters, PhD, MA(Q); Tanya Horsley, PhD; Laura Weeks, PhD; Susanne Hempel, PhD; Elie A. Akl, MD, PhD, MPH; Christine Chang, MD, MPH; Jessie McGowan, PhD; Lesley Stewart, PhD, MSc; Lisa Hartling, PhD, MSc, BScPT; Adrian Aldcroft, BA(Hons), BEd; Michael G. Wilson, PhD; Chantelle Garritty, MSc; Simon Lewin, PhD; Christina M. Godfrey, PhD, RN; Marilyn T. Macdonald, PhD, MSN; Etienne V. Langlois, PhD; Karla Soares-Weiser, MD, PhD; Jo Moriarty, MA; Tammy Clifford, PhD, MSc; Özge Tunçalp, MD, PhD, MPH; and Sharon E. Straus, MD, MSc

Researchers involved in the selection of sources of evidence



Team 1

16 researchers from 11 institutions



Team 2



Phase 1 - Screening titles and abstracts

- Challenges

- ✓ To manage a team of collaborators have not met before
- ✓ Different levels of expertise
- ✓ Different level of involvement (e.g. 40 hours max to the task)
- ✓ They would work for free
- ✓ To give tasks to collaborators

Phase 1 - Screening titles and abstracts

- Challenge

- ✓ To manage a team of collaborators have not met before

- Approach

- ✓ We celebrated a meeting with all of them

The screenshot shows a Zoom meeting interface. At the top, a banner says "César Garriga está presentando". The main window displays a presentation slide titled "Exclusion criteria (records screening phase)". The slide lists six criteria: 1. Not an original research (e.g., editorial, protocol...), 2. Unrelated topic, 3. Not a population-based study (However, nursing homes, homes for the aged and inpatients (hospitalised patients) should be included), 4. Subpopulation (Paediatric patients, patients with a condition without comparison with general population, health workers, pregnant women... However, elderly should be included), 5. Duplicate, and 6. Prognostic studies. The slide also includes the PHIRI logo and a European Union flag. To the right of the slide is a grid of nine participant video feeds. The participants are: César Garriga, MJ Forjaz, Carmen R.B., Luigi Palmieri, Richard Pentz, Rodrigo Santos, Petru Sandu, 2 más (2 more), and Tú. At the bottom of the Zoom window, there is a status bar showing the time as 11:31, the user name vqe-ycpd-iqm, and various control icons. An "Activar Windows" notification is also visible.

Exclusion criteria (records screening phase)

1. Not an original research
 - e.g. editorial, protocol...
2. Unrelated topic
3. Not a population-based study.
 - However, nursing homes, homes for the aged and inpatients (hospitalised patients) should be included.
4. Subpopulation
 - Paediatric patients, patients with a condition without comparison with general population, health workers, pregnant women...
 - However, elderly should be included.
5. Duplicate
6. Prognostic studies

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Activar Windows
Ve a Configuración para activar Windows.

- Agenda

- Protocol

- ✓ Review phases
- ✓ Eligibility
- Ready to provide tasks

Testing Rayyan

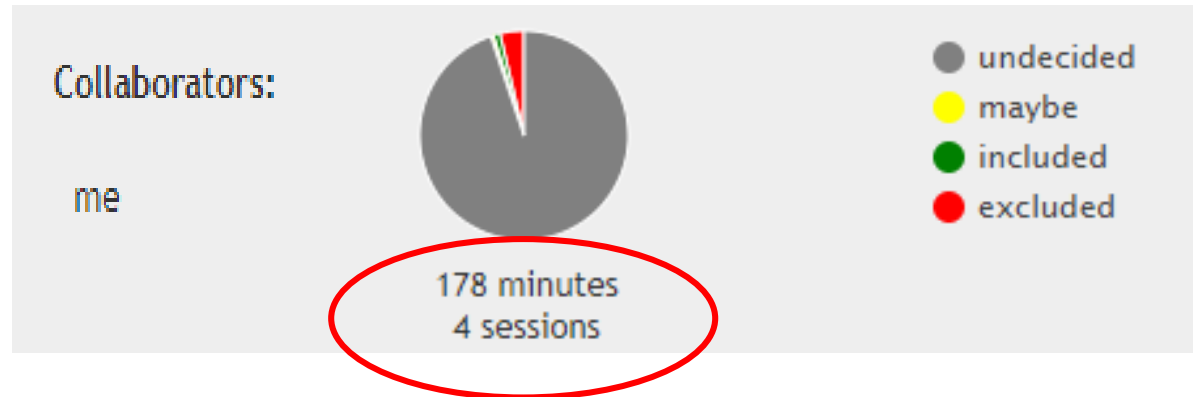
- Challenge

- ✓ Different level of involvement (e.g. 40 hours max to the task)

- Approach

- ✓ Time control

rayyan



Phase 1 - Screening titles and abstracts

- Challenge

- ✓ Different levels of expertise

- Approach

- ✓ Pilot test

- Team 1 reviewed 5% of ~3,700 titles and abstracts

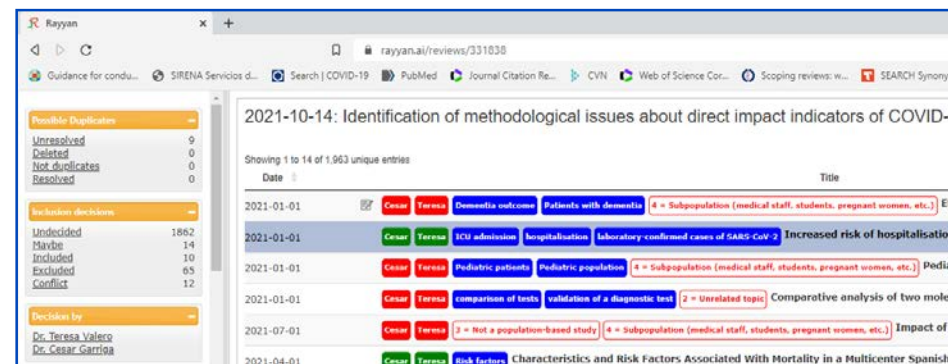
- Comparison of level of agreement within team 1

- ✓ Training team 2 on Rayyan

- To discriminate between eligible and not eligible titles/abstracts

- How to select: included, excluded or maybe

- Create labels (use exactly same labels and format among reviewers)





Phase 1 - Screening titles and abstracts

- Challenge
 - ✓ Giving tasks to collaborators
- Approach
 - ✓ Create team 2 the collaborators from partner institutions
 - role of Reviewer 2
 - ✓ Create folders for each collaborator
 - with a specific number of records for reviewing
 - ✓ Bilateral meetings to solve disagreements and maybes

Table 1. Allocation of task. Title and abstracts phase

Reviewer 1	Number of papers	Reviewer 2	Papers
TVG	1945	MT	389
		MV	389
		AC	389
		JI	389
		PB	389
CG	1946	RP	389
		SCL and AJ	(194 and 195)
		BU and LP	(194 and 195)
		RFS	390
		SD	389
Total	3891		



Phase 2 – Full-text reading

- Challenges
 - ✓ Data charting
 - ✓ Full-text reading
 - ✓ Tough deadlines



Phase 2 – Full-text reading

- Challenge

- ✓ Data charting

- Approaches

- ✓ To populate a pre-defined standardised MS Word-based data extraction template regarding study characteristics

- ✓ Pilot test

- Each member of team 2 reviewed 10 papers

- Each member of team 1 reviewed 50 and 60 papers respectively.

Paper (First author,-author country, reference)	Country/ administrative area	Study period (mmm/yyyy)	Study design ¹	Sample/Population (general population, patients, hospitalised patients, the dead, residents care homes, older)	Methods/statistical analysis (descriptive, multivariable)	Indicators	Exclusion criteria ²	SARS-CoV-2 infection diagnosis not clear
Adhikari A, US (2)	US/Queens county, New York	Mar/2020 to Apr/2020	Ecological	General population	Descriptive, multivariable Negative binomial regression	effective reproductive number		
Apenteng OO, Denmark (3)	USA, Spain, Italy, Germany, and France	Apr/2020	Ecological	General population	Compartmental model (SIR/SEIR models)	basic reproduction number		

Phase 2 – Full-text reading

- Challenges

- ✓ Full-text reading
- ✓ Tough deadlines

- Approach

- ✓ **‘Material and methods’** and **‘Results’**
→ indicators
- ✓ **‘Discussion’** section → limitations or strengths
- ✓ Team 2 → reviewed all papers
- ✓ Team 1 → reviewed difficult papers

Reviewer 1	Papers	Reviewer 2	Papers
TVG	328	MT	66
		MV	65
		AC	65
		JI	66
		PB	66
CG	392	RP	65
		SCL and AJ	66 (33 each)
		BU and LP	66 (33 each)
		RFS	65
		JV	65
		SD	65
Total	720		

Phase 3 – Indicator data extraction


- Challenges

- ✓ Data charting
- ✓ Tough deadlines
- ✓ Validate data

- Approaches

- ✓ To create an on-line survey (google form)
- ✓ Tested the google form → Team 1
- ✓ Assign randomly 15% of selected papers → Team 2
- ✓ Check data correction
- ✓ Checking the match between:
 - indicators nominated in phase 2
 - and indicators fully described in phase 3

Table 3. Description of indicators

tvalerogaspar@gmail.com [Cambiar de cuenta](#)  Borrador guardado

Morbidity

Morbidity

☒ Incidence


☐ Prevalence

☐ Reproductive number

☐ Underreported infections

☐ Otro: _____

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Lessons learned

- Each phase of a scoping review have different challenges
- Need to involve people during all the process
- Flexibility to adapt tasks to time available

Thanks for your attention!



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