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COVID-19 Evidence Network to support Decision-making

Evidence synthesis during the 'marathon phase' of the pandemic

WHO ECC-19 meeting

27th August 2020

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Evidence synthesis during the sprint phase (1)

- Substantial increase in evidence synthesis (and supporting) activities
- Lots of new entrants to the field
- Focus on rapid reviews (largely) on clinical and public health topics
- Variable quality and transparency of reviews
- Duplication of effort
- Discoverability and longevity of (rapid) reviews uncertain
- Relatively few living systematic reviews/guidelines
- Evidence synthesis capacity and conduct issues in LMICs

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Evidence synthesis during the sprint phase (2)

Noise-to-signal problem

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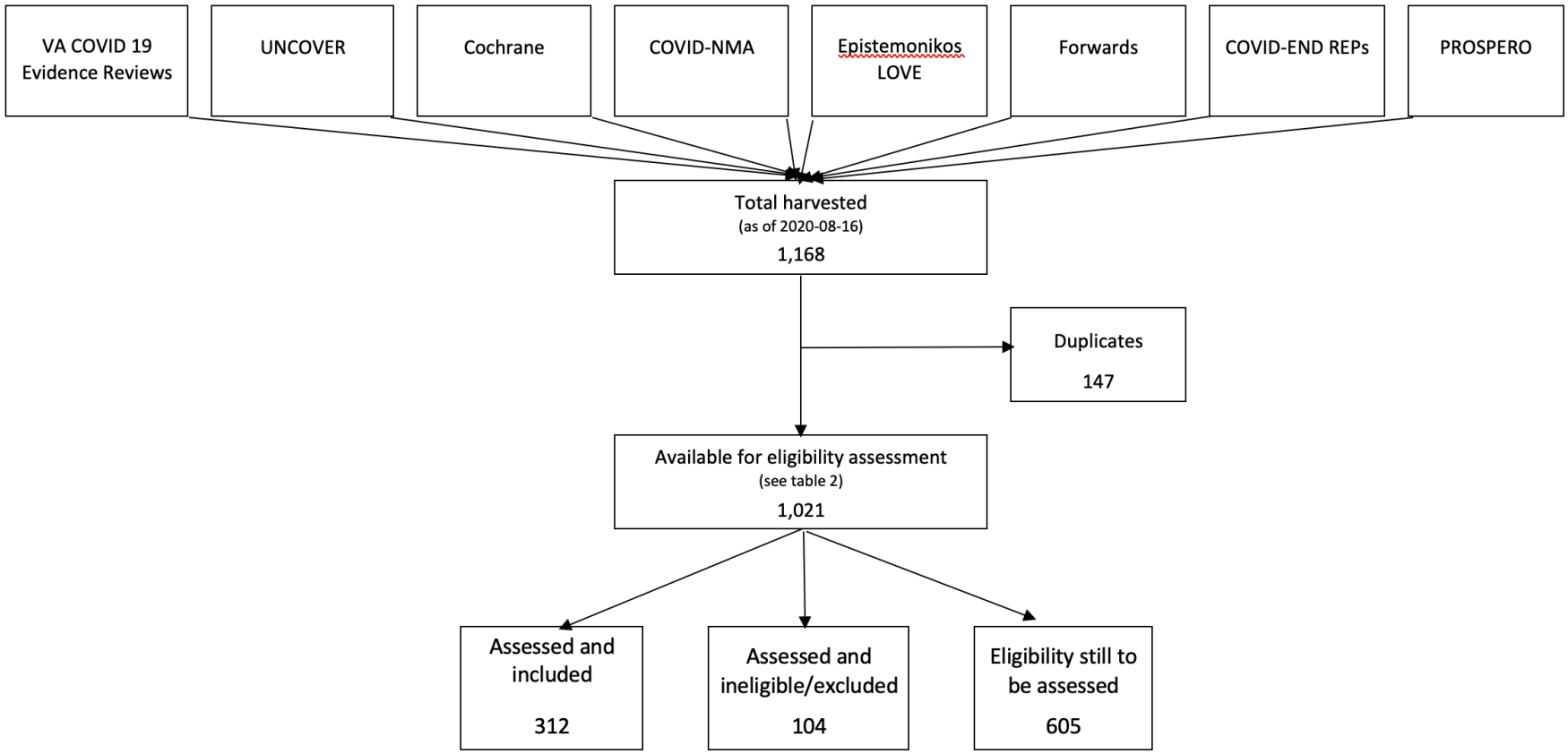
Evidence synthesis during the sprint phase (3)



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Evidence synthesis during the sprint phase (5)

(Health warning – very preliminary results that may change)

- Less than 10% of reviews were living systematic reviews

- We have appraised 191 reviews using AMSTAR 1:
  - 13% in lowest AMSTAR tertile
  - 47% in middle AMSTAR tertile
  - 40% in highest AMSTAR tertile

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Evidence synthesis during the sprint phase (6)

- Current coverage:
  - Clinical management 75%
  - Public health 48%
  - Health system 20%
  - Economic and social 2%

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Evidence synthesis during the sprint phase (6)

Duplication of effort

- NCCMT in Canada undertook rapid review of maternal and fetal risk of COVID exposure in early May.
- When undertaking a planned update in August, they identified more than 50 reviews on the same topic published in the interval!

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Evidence synthesis during the marathon phase (1)

The world will be best served by:

- A global stock of high quality, accessible and actionable, living systematic reviews addressing the most important healthcare, public health, **health system, economic and social** issues faced by decision makers.
- Evidence synthesis capacity to undertake high priority syntheses efficiently where needed (where high quality living systematic reviews are not available)

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Evidence synthesis during the marathon phase (2)

The world will be best served by:

- Local evidence support initiatives to enable decision makers to find, interpret and contextualise the best evidence to meet their needs
- A global evidence infrastructure that builds on existing organisations to deliver coordination and prioritisation, and ensure efficient conduct and sharing of high-quality evidence syntheses
- Secure funding to support the entire evidence eco-system

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Whole system needs to be built around the needs of evidence users (1)

Supply side

- Evidence synthesists, guideline developers, HTA agencies

Demand side

- Policy makers and policy support
- Healthcare professionals
- Citizens searchers
- Primary researchers

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Whole system needs to be built around the needs of evidence users (2)

- Multiple formats
- Multiple channels
- Linguistic accessibility

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Living evidence syntheses (1)

- Given the rapid accumulation of COVID research, rapid and systematic reviews quickly become out-of-date. Need to develop living evidence syntheses for priority questions that will likely remain current for the next 18-24 months. These would allow evidence users to focus on the contextualization of findings to their settings
- Need to ensure coverage of key questions across clinical management, public health, health system and economic and social areas
- Need minimum standards and quality assurance for systematic reviews
- Need standardized meta-data to facilitate discoverability

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Living evidence syntheses (2)

- **Implications:**
  - We need to prioritise key questions that need living systematic reviews
  - Need a major push on health system, economic and social areas
  - Need some methodological and technological standardisation

  - Individual evidence synthesis organisations may undertake fewer (rapid) reviews but contribute high value living evidence resources to global stock of priority living systematic reviews

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Global equity for evidence synthesis and support

- Majority of known evidence syntheses are undertaken by researchers based in the high-income countries
- Missed opportunity to take advantage of existing capacity in LMIC

- Potential risks:
  - Insufficient priority for reviews relevant to decision makers in LMICs
  - Insufficient contextualisation of reviews to LMIC settings
  - Failure to strengthen research systems in LMIC settings

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Open science perspective

- Prospective registration of reviews
- Publicly available (PRISMA-P compliant) protocols
- Publicly available (PRISMA compliant) final reports (permanent DOIs)
- Data sharing (eg search results, data abstraction, evidence tables)
- For more immediate access to critical knowledge – use of preprint servers
- Publication in Open Access journals

- Encourage re-use of review findings (and data) (with credit)

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Supportive global infrastructure

Strengthen existing institutions providing key global infrastructure:

- Evidence inventories
- Software platforms (EPPI-reviewer, Covidence, Distiller, Grade PRO, MAGIC, Revman)
- Synthesis registration infrastructure (PROSPERO)
- Build capacity for evidence synthesis and evidence support in LMIC (3ie, African Evidence Network, Cochrane, EVIP-NET, Global Evidence Synthesis Initiative, Joanna Briggs Institute)
- Translation support for linguistic accessibility (Cochrane, Evidence Aid)

- Explore opportunities for efficiencies through collaboration

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Funding

- Work with governments and funders to adequately fund next evidence synthesis phase

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Summary

- The explosion of primary COVID related research needs to appraised and summarized in evidence syntheses
- Opportunity to move **FROM** initial high '**NOISE**-to-signal' evidence phase (rapid reviews, variable quality, quickly out-of-date, huge duplication of effort, pick-your-own) **TO** high '**SIGNAL**-to-noise' evidence phase (curated, high-quality, living evidence syntheses and evidence-support initiatives)
- Requires evidence synthesis and evidence support organizations to co-ordinate activities with key decision-making bodies (eg WHO) and funders globally