Developing and Refining the Methods for a One-stop Shop for Research Evidence about Health Systems

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Background

- Policymakers, stakeholders and researchers have not been able to
  - Find research evidence about health systems in a timely way and using an easily understood taxonomy of topics
  - Know when they have conducted a comprehensive search of the many types of research evidence relevant to them
  - Rapidly identify decision-relevant information in their search results (e.g., quality, recency, applicability)
Methods

To address these gaps we developed an approach to building a ‘one-stop-shop’ for research evidence about health systems in four stages:

1) Developed a taxonomy of health system topics and iteratively refined it by drawing on existing categorization schemes and by using it to categorize progressively larger bundles of research evidence:
   - Drew on WHO’s building blocks of health systems and many domain-specific schemes
   - Coded systematic reviews identified through MedLine and the Cochrane Database of Systematic Reviews
   - Supported by a glossary containing definitions and synonyms and by explicit inclusion criteria for each document type
Methods (2)

2) Identified **research evidence** – initially only systematic reviews, systematic review protocols and review-derived products -- through

- Searches of Medline
- Hand searches of several databases indexing systematic reviews (e.g., DARE, Rx for Change, a database of qualitative reviews, and 15 journals likely to contain qualitative reviews)
- Hand searches of journals
- Continuous scanning of listservs and websites

Two reviewers independently

- Assessed records for eligibility
- Coded records using the taxonomy and complementary approaches (e.g., diseases, technologies, sectors and providers)
3) Developed an approach to providing ‘added value’

- Two reviewers independently
  - Assessed quality of systematic reviews using AMSTAR
  - Documented last year searched or year published
  - Extracted countries in which studies were conducted (and insert links to the studies) or that are the focus of the document
  - Inserted links to user-friendly summaries, scientific abstracts and full-text reports
Methods (4)

3) Developed an approach to providing ‘added value’ (2)
   - We expanded the types of evidence eligible for inclusion
     - Systematic reviews being planned (i.e., registered titles from Cochrane and PROSPERO)
     - Economic evaluations and costing studies (from the Cochrane Library’s Economic Evaluation Database and now the Sick Kids’ Pediatric Economic Evaluation Database too)
     - Health-reform descriptions (from the Health Policy Monitor and now the Health Reform Observer)
     - Health-system descriptions (from the European Observatory, WHO and World Bank)
Methods (5)

3) Developed an approach to providing ‘added value’ (3)

- We also added three sub-portals and built in prompts to encourage movement between the sub-portals and HSE
  - Intergovernmental Organizations’ Health Systems Documents Portal (e.g., WHO health systems guidance)
  - Canada’s Evidence-Informed Healthcare Renewal (EIHR) Portal
  - Ontario Health System Documents Portal
4) Developed an approach to continuously updating the online platform in seven supported languages

- Staff continuously screen, code, enter and upload records and respond to built-in logic checks
- System automatically sends monthly customized evidence services to registered users in their areas of interest
- System automatically generates reports about content and usage
Results

1) Taxonomy

- Focused on policy levers and organized by
  - Governance arrangements (policy, organizational, commercial and professional authority and stakeholder involvement)
  - Financial arrangements (financing systems, funding organizations, remunerating providers, purchasing products and services, and incentivizing consumers)
  - Delivery arrangements (how care is designed to meet consumers’ needs, by whom care is provided, where care is provided, and with what supports is care provided)
  - Implementation strategies (consumer-, provider- and organization-targeted)
Results (2)

2) Research evidence

- Contains a comprehensive inventory of documents (n=9,721)
  - Evidence briefs (n=94)
  - Overviews of systematic reviews (n=50)
  - Systematic reviews of effects (n=3,134)
  - Systematic reviews addressing other questions (763)
  - Systematic reviews in progress (n=425)
  - Systematic reviews being planned (n=237)
  - Economic evaluations (n=2,020)
  - Health-reform descriptions (n=1,093)
  - Health-system descriptions (n=221)
Results (3)

3) Added value
   - Many types of added-value coding that can be used to
     • Search
     • Organize search results
     • Scan search results
     • Learn more
   - Continuously updated and new content is regularly translated into Arabic, Chinese, English, French, Portuguese, Russian and Spanish

4) Continuously updated
Conclusions

- Policymakers and stakeholders can now easily access and use a wide variety of types of research evidence about health systems to inform decision-making and advocacy (as one of many complementary and synergistic approaches to supporting evidence-informed decision-making about health systems).

- Researchers and research funding agencies can now easily identify gaps in the current stock of research evidence and domains that could benefit from primary research, systematic reviews and overviews of reviews.
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Resources

- Health Systems Evidence
  - www.healthsystemsevidence.org
- Evidence-Informed Healthcare Renewal (EIHR) Portal
  - www.healthsystemsevidence.org or www.eihrportal.org
- McMaster Health Forum
  - www.mcmasterhealthforum.org
- McMaster Health Forum Evidence Service