The Social Determinants of Health and the Equity Lens: Methods and Guidance for Systematic Reviews

Maria Benkhalti, Peter Tugwell, Mark Petticrew, Elizabeth Kristjansson, Vivian Welch, Erin Ueffing, Elizabeth Waters, Josiane Bonnefoy, Antony Morgan, Emma Doohan, Michael P Kelly
Objectives

- Overview of WHO Commission on Social Determinants of Health, Knowledge Networks, and MEKN
- Implications for systematic reviews
- MEKN and Equity recommendations
- Next steps
CSDH launched in March 2005

Professor Sir Michael Marmot
FRCP FID FFPHM FMedSci
“We need to understand the causes of the causes”
- Sir Michael Marmot, 2005
9 CSDH Knowledge Networks

1. Early Child Development
2. Employment Conditions
3. Globalization
4. Health Systems
5. Priority Public Health Conditions
6. Social Exclusion
7. Urban Settings
8. Women and Gender Equity
9. Measurement and Evidence Knowledge Network (MEKN)
MEKN: Need for a "revolutionary" approach to reviews

• **Find right information:**
  – on effective interventions, including approaches to work across sectors: that are pro-health, pro-equity, pro-social justice....
MEKN: Need for a "revolutionary" approach to reviews

• Do it right:
  – methodological challenges...time lags, validity, attribution, range of sources, contextual factors...
MEKN: Need for a "revolutionary" approach to reviews

• Make the right impact:
  – communicate desirable actions to those who can make a difference - range of policy and decision makers across different sectors, levels of action and country contexts...as well as civil society groups and others who demand accountability, equity and health opportunity
6 challenges in building evidence base on SDH

- Lack of precision in specifying causal pathways;
- Merging the causes of health improvement with the causes of health inequities;
- Lack of clarity about health gradients/gaps;
- Inadequacies in descriptions of the axes of social differentiation in populations;
- Impact of context on interpreting evidence and the concepts used to gather evidence [extrapolation];
- Challenges of getting knowledge into action.
Objectives

- Overview of WHO Commission on Social Determinants of Health, Knowledge Networks, and MEKN
- Implications for systematic reviews
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www.equity.cochrane.org
What is health inequity?

Difference in Health Outcomes

- Unavoidable
- Potentially avoidable

- Acceptable
- Unacceptable and unjust
PROGRESS +

• Brown & Evans: PROGRESS
  • Place of residence: rural-urban
  • Race/ethnicity
  • Occupation - Out of work
  • Gender
  • Religion-Culture
  • Education
  • SES
  • Social Capital

www.equity.cochrane.org
PROGRESS +

• Kavanagh et al: PLUS
  • Age
  • Sexual orientation
  • Disability

www.equity.cochrane.org
Methods

- Identified methodological challenges for systematic reviews to assess effects on health equity
- Identified exemplar systematic reviews in which these challenges have been addressed
7 crucial components for equity-relevant systematic reviews

• 1) developing a logic model;
• 2) defining disadvantage and for whom interventions are intended;
• 3) deciding on the appropriate study design(s);
• 4) identifying outcomes of interest;
• 5) process evaluation and understanding context;
• 6) analyzing and presenting data; and
• 7) judging the applicability of results.
Seven Recommendations

• Recommendations for addressing the challenges identified
Recommendation 1

• Systematic reviews should include a **logic model**.
• Reviews should incorporate **input from relevant stakeholders** in defining the research question(s).

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Recommendation 2

- Systematic reviews should define population selection criteria based on the question formulation.
- *Truly disadvantaged?*
- **Targeted interventions:** restricted population.
- **Universal interventions:** present data stratified by one or more axes of disadvantage.

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**Recommendation 3**

- Systematic reviews should define selection criteria for study designs according to their **“fitness for purpose”** rather than following an evidence hierarchy. The rationale for the **“fitness for purpose”** should be clearly stated and explained.
Recommendation 4

• Systematic review outcomes should be chosen based on importance and relevance of outcomes across PROGRESS+ categories.
Recommendation 5

- Systematic reviews should include a **process evaluation**, using qualitative methods to assess why, how, when and under what circumstances an intervention is most likely to be effective.
Recommendation 6

• Systematic reviews should analyze data on gaps, gradients and targeted interventions based on the **fitness to purpose of the summary measure** and availability of data. Where possible, **both relative and absolute measures** should be presented.
Recommendation 7

• Systematic reviews should discuss **applicability, transferability, and external validity** using accepted criteria as well as consider context (e.g. using theory and judgment). Thorough attention to understanding context and process evaluation will aid judgments about applicability.
Objectives

- Overview of WHO Commission on Social Determinants of Health and Measurement Knowledge Network
- Implications for systematic reviews
- Cochrane and Campbell Equity initiatives
- Next steps

www.equity.cochrane.org
Implications of MEKN on Campbell and Cochrane SRs: Next Steps

• Manuscript – accepted!

• Cochrane Handbook
THANK YOU!

Ottawa
7 Main Challenges for Systematic Reviews: School Feeding Example

<table>
<thead>
<tr>
<th>Issue</th>
<th>School Feeding</th>
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<tbody>
<tr>
<td>1. Question formulation</td>
<td>Mechanisms of action across dimensions of disadvantage considered in defining question with stakeholders</td>
</tr>
<tr>
<td>2. Population</td>
<td>Disadvantaged children only in HIC and LMIC</td>
</tr>
<tr>
<td>3. Study designs</td>
<td>RCT, ITS, CBA</td>
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<tr>
<td>4. Outcomes</td>
<td>Substitution, attendance, contribution to family income might depend on PROGRESS</td>
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<tr>
<td>5. Process evaluation/context</td>
<td>Process details extracted using a priori framework, contextual factors such as political climate assessed using realist review</td>
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<tr>
<td>6. Data analysis and presentation</td>
<td>Presented results separately for each subgroup, with statistical test of significance of difference (meta-regression)</td>
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<tr>
<td>7. Applicability/extrapolation</td>
<td>Considering consistency of effect across settings of disadvantage (eg HIC and LMIC), types of disadvantage, effects were considered likely to be generalizable to other settings</td>
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</tbody>
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9th KN: Measurement and Evidence
Knowledge Network (MEKN)

- Mike Kelly Co-Chair
- Josiane Bonnefoy Co-Chair
- Francisco Espejo
- Mark Exwothy
- Yan Gao
- Gao Jun

- Ichiro Kawachi
- Johan Mackenbach
- Thelma Narayan
- Jennie Popay
- Peter Tugwell