

Evidence and Gap Maps (EGMs)



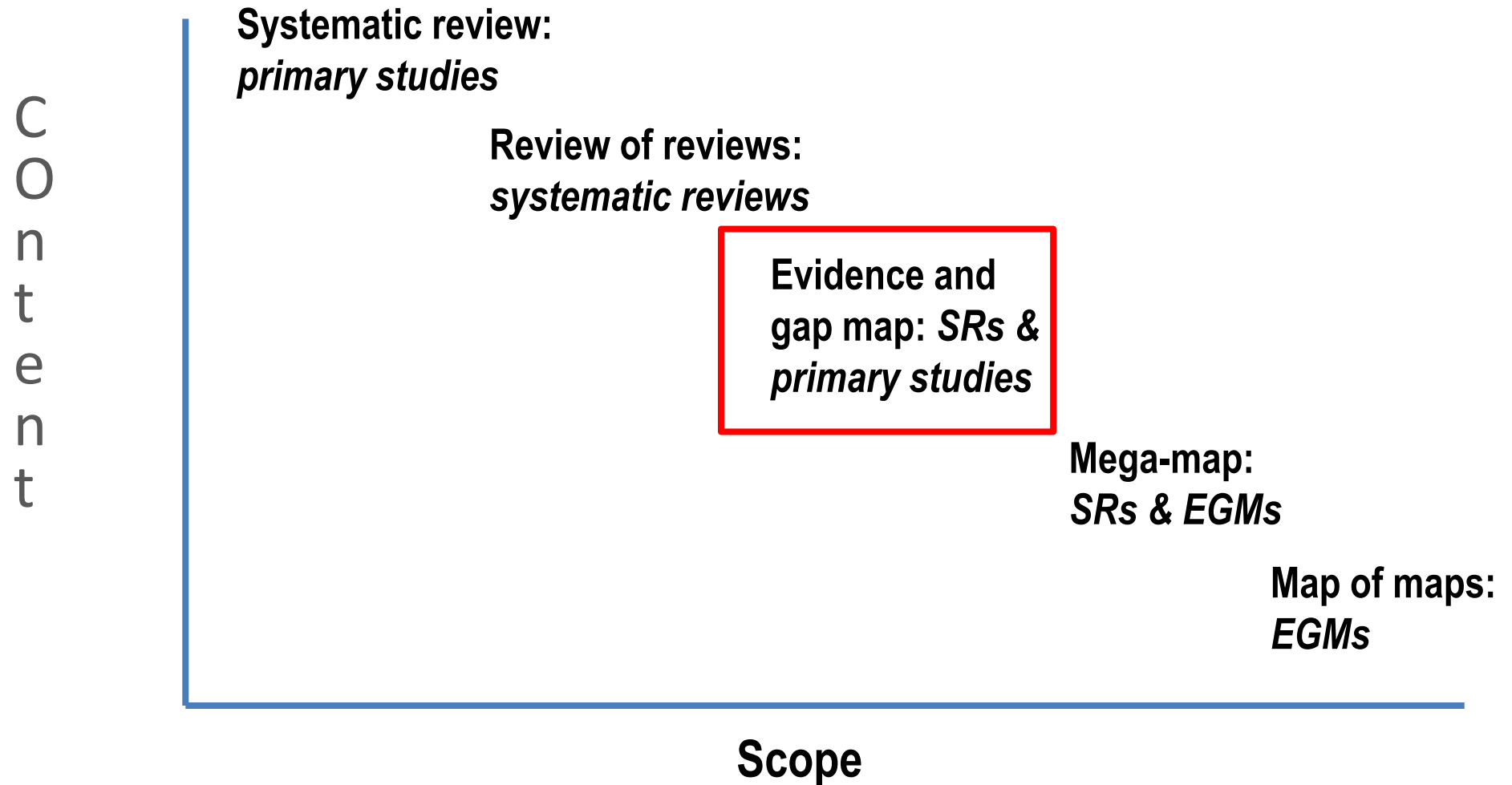
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Campbell Collaboration



@campbellreviews @AshritaSaran

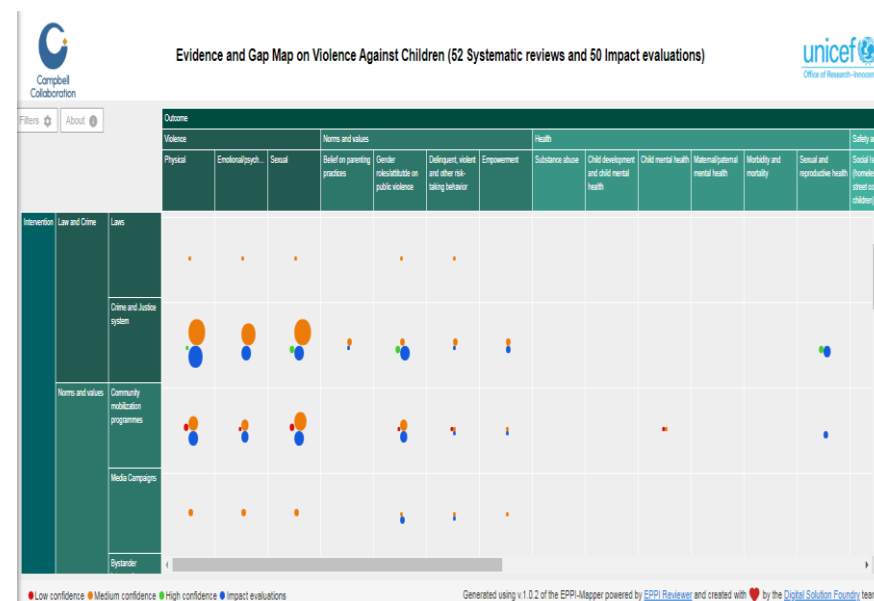
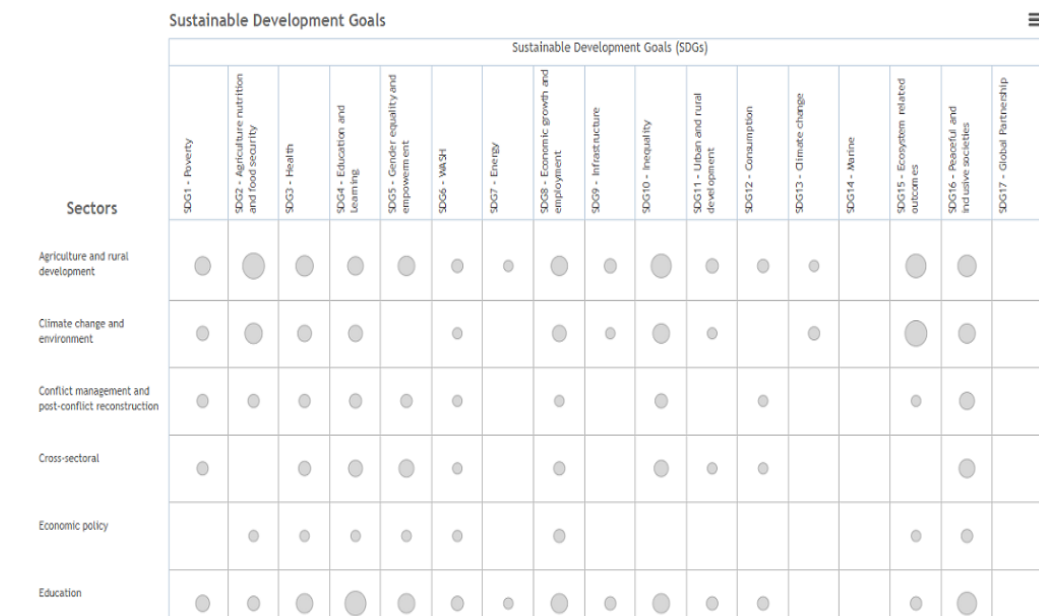
- What are Evidence and Gap Maps (EGMs)
- Different Examples
- Innovations in EGMs
 - ✓ You will learn EGMs can be used for range of research questions!

Range of evidence synthesis products



A systematic presentation of all available, relevant evidence for a particular sector or sub-sector.

A typical map is a matrix of intervention categories (rows) and outcome domain (columns).



What are evidence and gap maps?

There may be additional filters for study design, location and population sub-group.

Show what evidence is there, NOT what it says

Evidence may be

- Global or for particular region(s)
- Include primary studies and systematic reviews
- Cover different types of evidence (but most examples are of effectiveness studies)

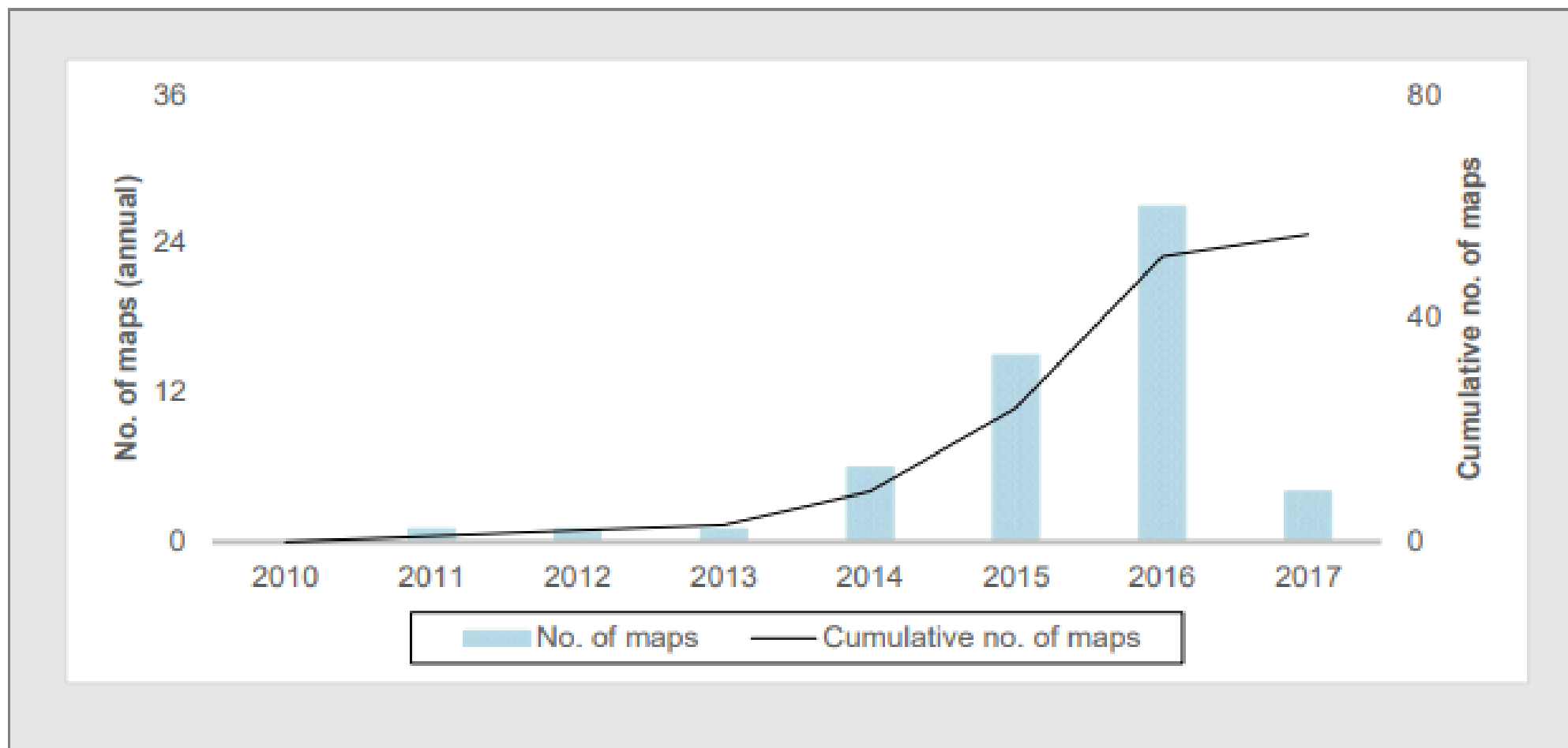
History of evidence mapping

Year	Organization	Brief on its inception
2003	Yale prevention of research	Developed a systematic and replicable 9-step process termed “evidence mapping” (CAM)
2003	Evidence for Policy and Practice Information and Coordinating Centre (EPPI-Centre)	Methodology for systematic mapping developed by EPPI
2006	The Social Care Institute for Excellence (SCIE)	Methodology of EPPI was adopted by SCIE
2010	International Initiative for Impact Evaluation (3IE)	The first 3ie “Evidence Gap Map” was produced which focused on the health and nutritional impact of agricultural intervention
2011	National Trauma Research Institute of Global Evidence Mapping Initiative (GEMI)	Traumatic Brain Injury (TBI) and Spinal Cord Injury (SCI).

History of evidence mapping?

Year	Organization	Brief on its inception
2012	Collaboration for Environmental Evidence (CEE)	Impacts of integrated farm management, organic farming and agri-environment
2012	Epistemonikos Foundation	Epistemonikos has over 250 active collaborators that continuously upload and translate documents
2014	IZA Institute of study of Labour Economics, World of Labour (IZA)	World of Labour publishes literature reviews accompanied by maps
2016	Sightsavers	Visual impairment evidence gap maps (EGMs)
2016	International Rescue Committee (IRC)	Based on a format adapted from the International Initiative for Impact Evaluation's
2017	Campbell Collaboration	Campbell has applied the EGMs to range of research questions.

Rise of evidence mapping in international development: findings from 2017 map of maps



Source: Phillips D, Coffey C, Tsoli S, Stevenson J, Waddington H, Eysers J, White H and Snilstveit B, 2017 A Map of Evidence Maps Relating to Sustainable Development in Low- and MiddleIncome Countries Evidence Gap Map Report. CEDIL Pre-Inception Paper: London

EGMs are systematic

- Have a pre-specified protocol
- Have a systematic search strategy
- Have clear inclusion and exclusion criteria which are systematically applied
- Systematically report all eligible studies

Evidence and Gap Map Examples

Evidence map About

? **HOVER OVER** a bubble to see details with links to studies. **CLICK ON** a link in the axes to see an explanation of the Intervention / Outcome. **SELECT** an area of the chart to zoom in. **TOGGLE** study categories on and off using the legend at the bottom of the chart. **EXPORT** the chart using the menu button at the top right of the chart.

Region All Country All Study design All Population All Update chart

Outcomes

Interventions

Interventions	Adolescent knowledge, attitudes and empowerment		Adolescent behaviours		Adolescent health						Health services		Enabling environment				Cross cutting themes										
	Knowledge and awareness	Attitudes, self-efficacy and normative change	Sexual behaviour	Contraception and other prevention	Menstrual hygiene	Communication and support-seeking	Pregnancy and births	Abortion	HIV/STI testing and incidence	Sexual and intimate partner violence	Other health outcomes	Accessing and utilising services	Providers and service quality	Education outcomes	Livelihoods	Marital status	Parents and family	Community and CBOs	Laws and policy	Cost analysis	Effects by sex	Effects by marriage status	Effects for very young adolescents	Effects by rural or urban area	Effects for other subgroups		
Provider training and youth-friendly service adjustments														N/A	N/A					N/A							
Commodity distribution and supply chain improvements																			N/A								

Methodological quality of the review

Low confidence

Medium confidence

High confidence

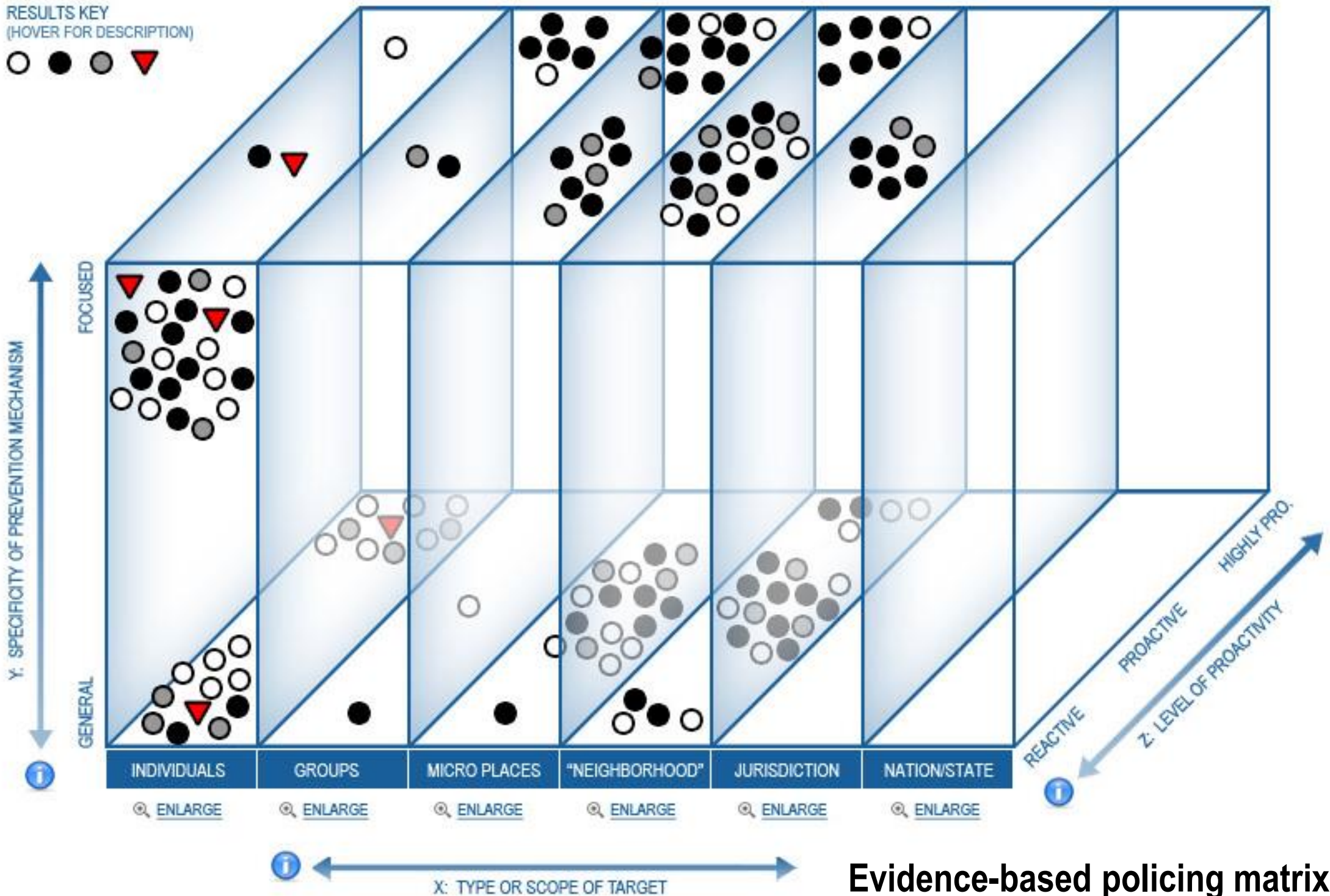
Sectors:	Burden of disease	Biomedical		Service delivery				Health systems				Impact/Economic evaluation	
Strength of Evidence	Epi	Risk and Prevention	Treat	C.detect	QCC	QNCC	Access	Workforce	Financing	Leadership	HMIS		
Strong	<div></div>	<div><div></div><div></div><div></div><div></div></div>	<div><div></div><div></div><div></div><div></div><div></div><div></div></div>		<div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div></div>			<div><div></div><div></div><div></div></div>					
Inconclusive	<div><div></div><div></div></div>	<div><div></div><div></div><div></div></div>	<div><div></div><div></div><div></div><div></div><div></div><div></div></div>		<div><div></div><div></div></div>							<div></div>	
Weak		<div><div></div><div></div></div>	<div><div></div><div></div><div></div><div></div><div></div><div></div></div>		<div><div></div><div></div><div></div><div></div><div></div><div></div></div>								

Strength of evidence: if the review found strong evidence/mixed/no in response to the research question or outcome

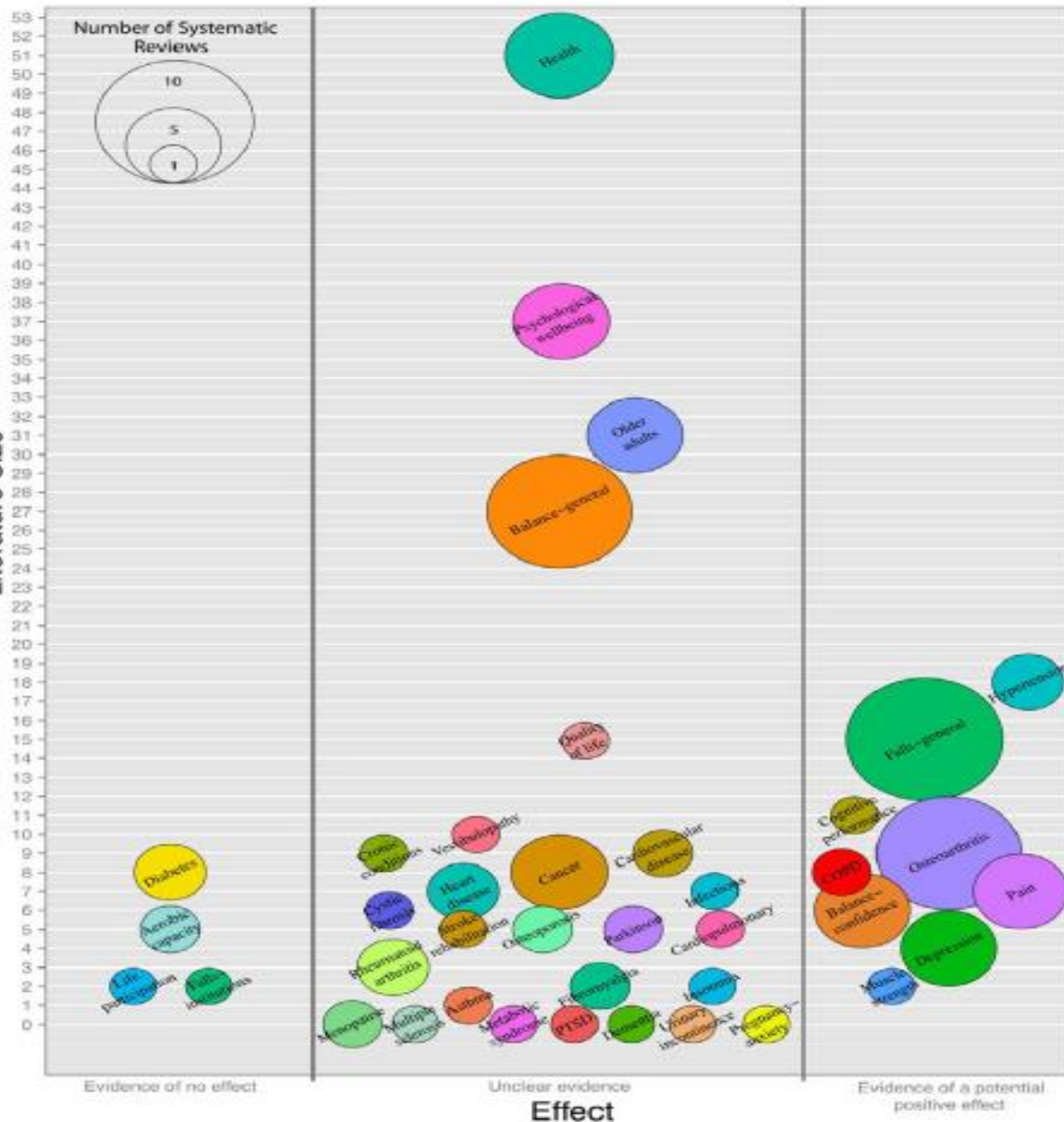
Traffic light signal to identify quality of each review (SURE checklist)

Sightsaver

RESULTS KEY
(HOVER FOR DESCRIPTION)

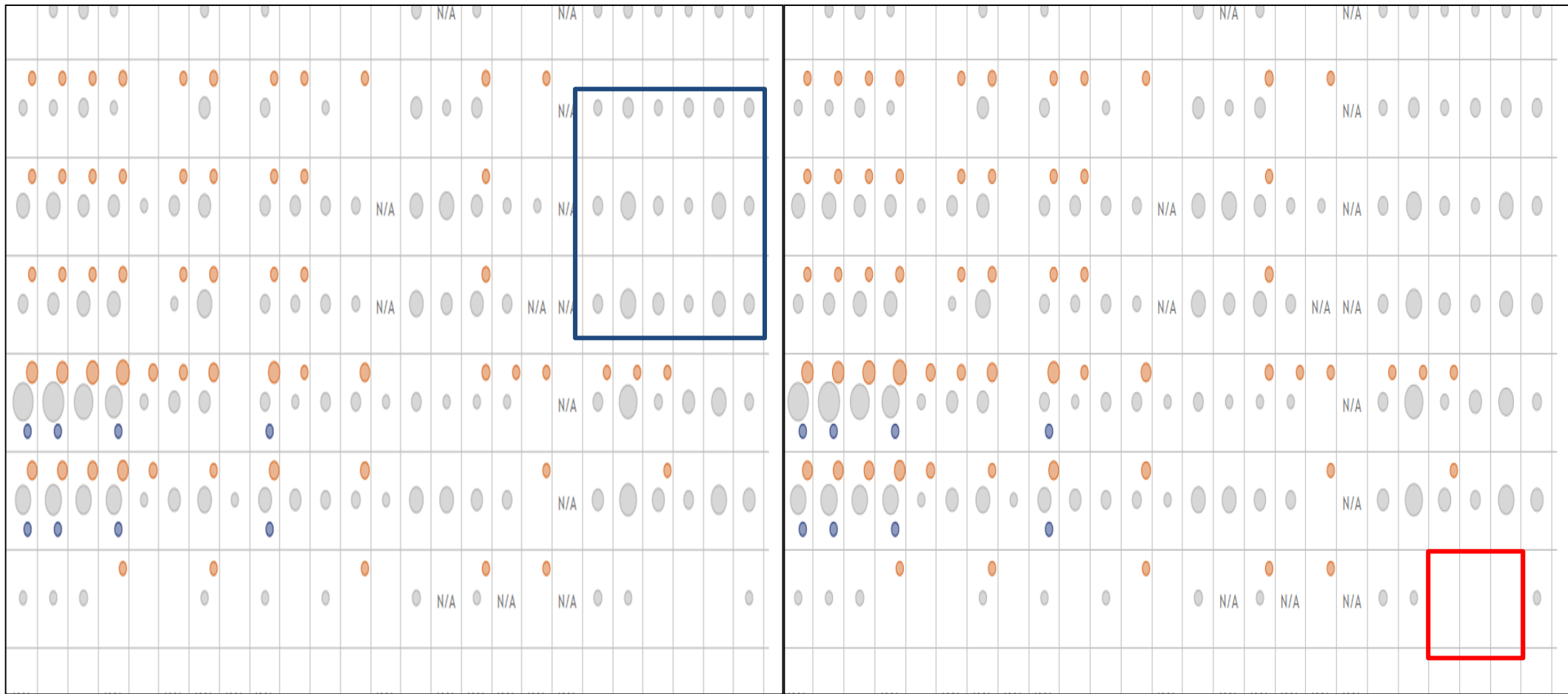


Evidence-based policing matrix



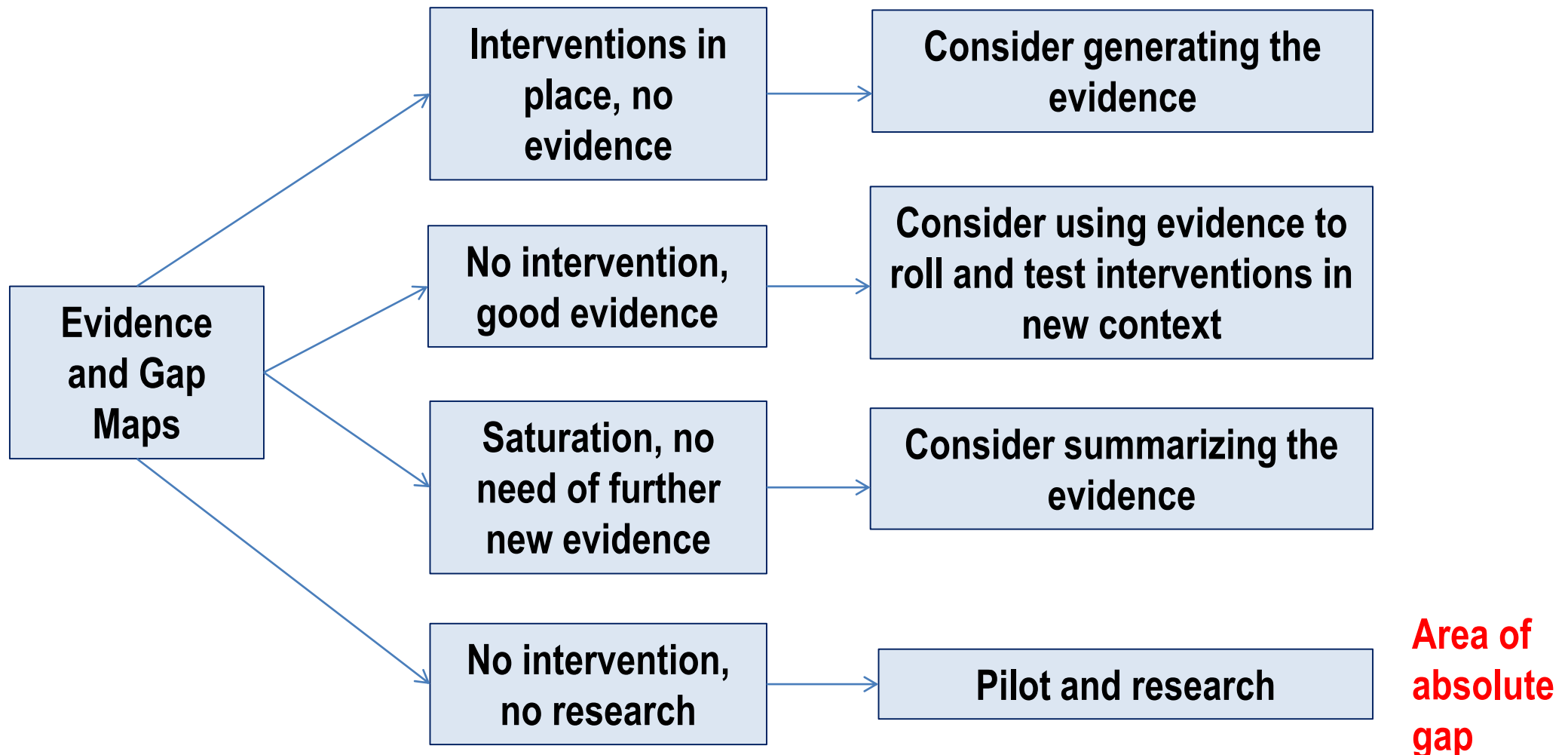
Evidence Based Synthesis Program

Interpret and EGM?

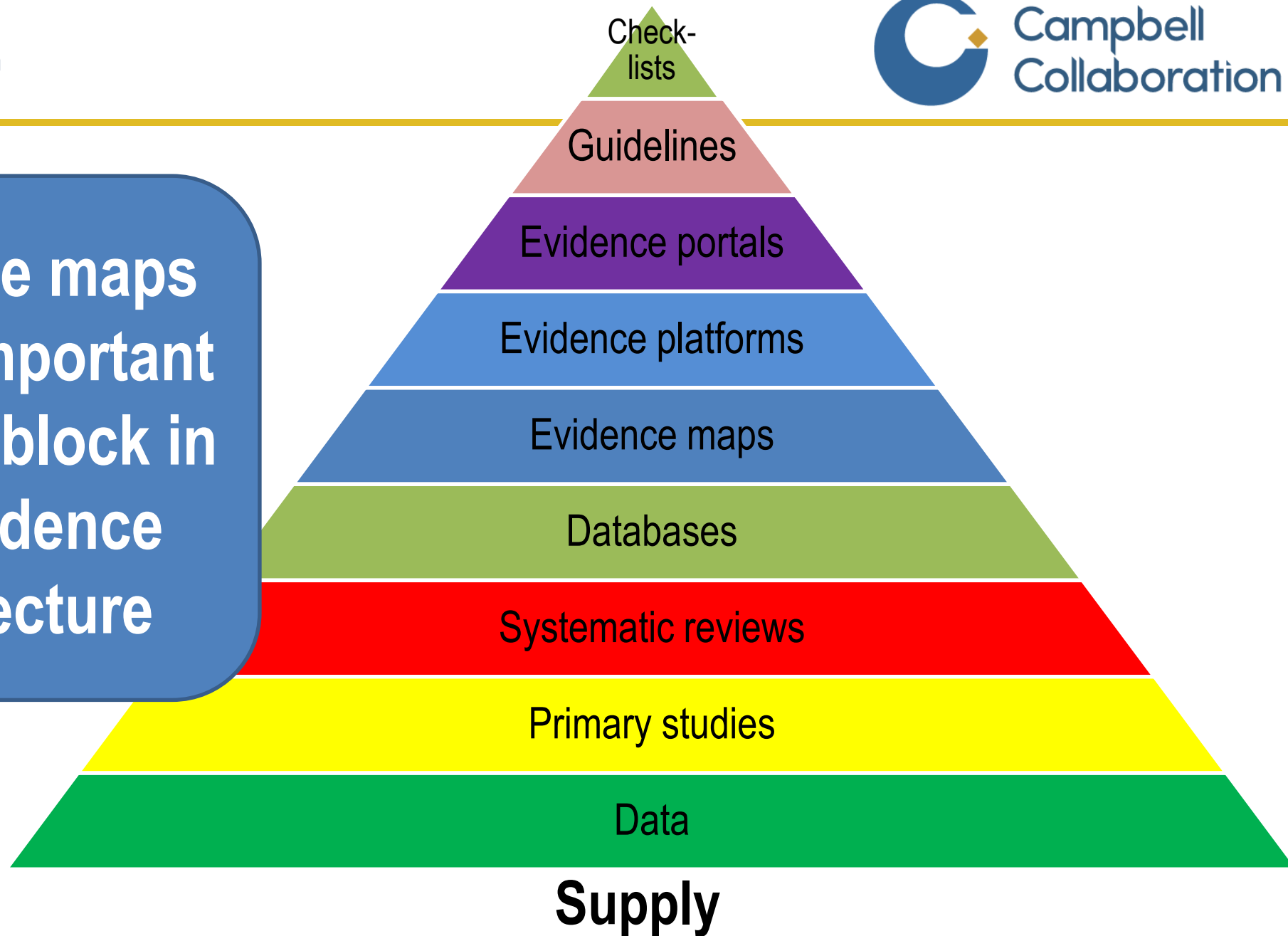


3IE adolescent and reproductive health map

Mapping evidence: Why?



**Evidence maps
are an important
building block in
the evidence
architecture**



Evidence Mapping initiatives

EGMs can be applied to range of research question







































































Some examples:

- Map of Maps
- Mega Map
- Effectiveness Map (Homelessness)
- Homelessness Process map
- Uganda country EGM
- IMMANA EGM (methods and metrics)

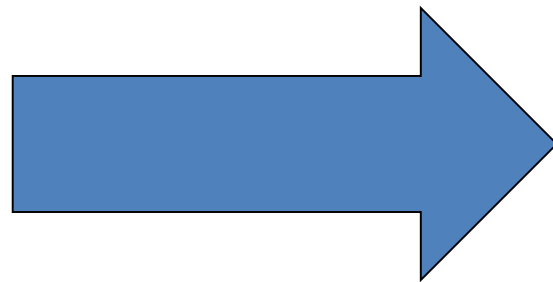
Map of Maps for the Effectiveness of International Development Interventions: Scope and methodology

- Evidence and gap map
- But extra-extra large scope
- Includes only EGMs

**55 completed
and 18 on-
going EGMs**

Sectors	Sustainable Development Goals (SDGs)																
	SDG1 - Poverty	SDG2 - Agriculture nutrition and food security	SDG3 - Health	SDG4 - Education and Learning	SDG5 - Gender equality and empowerment	SDG6 - WASH	SDG7 - Energy	SDG8 - Economic growth and employment	SDG9 - Infrastructure	SDG10 - Inequality	SDG11 - Urban and rural development	SDG12 - Consumption	SDG13 - Climate change	SDG14 - Marine	SDG15 - Ecosystem related outcomes	SDG16 - Peaceful and inclusive societies	SDG17 - Global Partnership
Agriculture and rural development																	
Climate change and environment																	
Conflict management and post-conflict reconstruction																	
Cross-sectoral																	
Economic policy																	
Education																	

Developments/Next steps from Map of Maps



**Use map to identify
priority Evidence
and Gap Maps**

Resulting maps being produced by CEDIL:

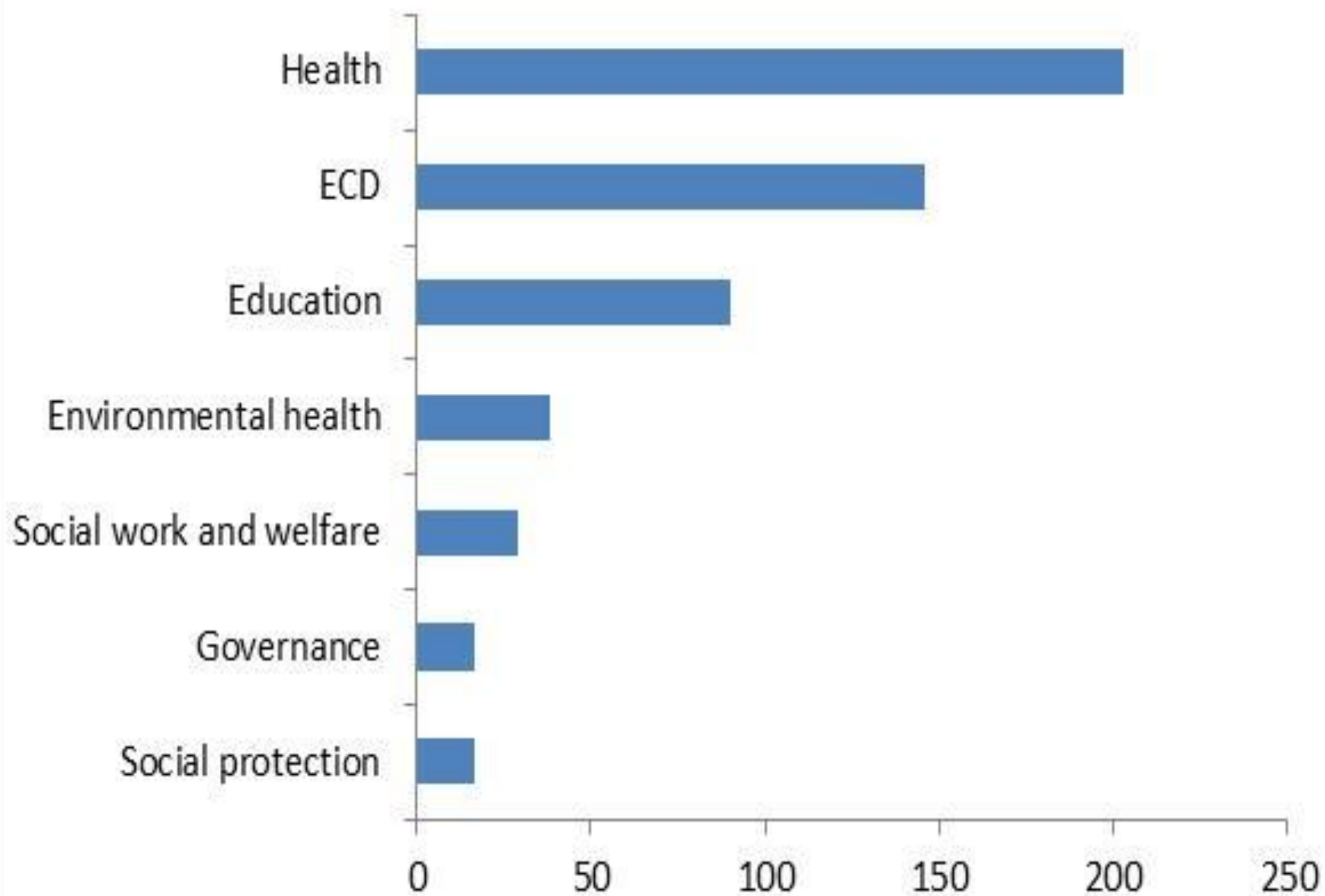
- **Disability**
- **Transport**
- **Access to justice**

**Mega map on child welfare in
low and middle income
countries:
a map of systematic reviews**

- Evidence and gap map
 - But extra large scope
 - Includes EGMs and Systematic reviews
-

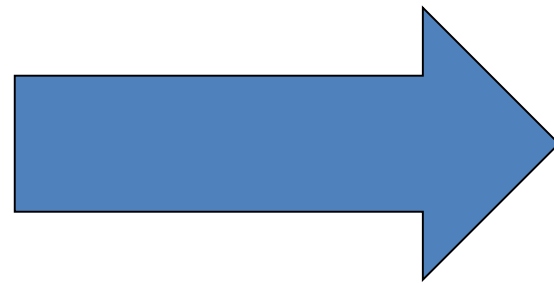
Filters 

			Health impacts						Healthy development						Learning and development		
			Mortality	Morbidity	Disability and childhood illness	Immunization coverage	Mental Health and psychosocial improvement	Nutrition	Antenatal and postnatal care including breast-feeding	Cognitive development	Utilization of health services like immunization, child care	Gender roles/decision making	Diet and physical activity	Parent reported-Behavior change	Enrolment	Attendance	Dropouts and Truancy
	Early childhood development	Early childhood health interventions															
		Early childhood nutritional interventions															
		Early childhood education and parenting															
		Maternal Education and empowerment															
		Antenatal care and post natal care by TBA/SBA															



Developments/Next steps from Mega Map

- Social work / child abuse
- Governance / child rights / trafficking
- Equity



**Commissioning
violence
against
children EGM**

Evidence and Gap Homelessness effectiveness map

- Evidence and gap map
 - Includes effectiveness studies
 - Critical appraisal of all included studies
-



A section of the homelessness effectiveness map

Next steps/developments from the map

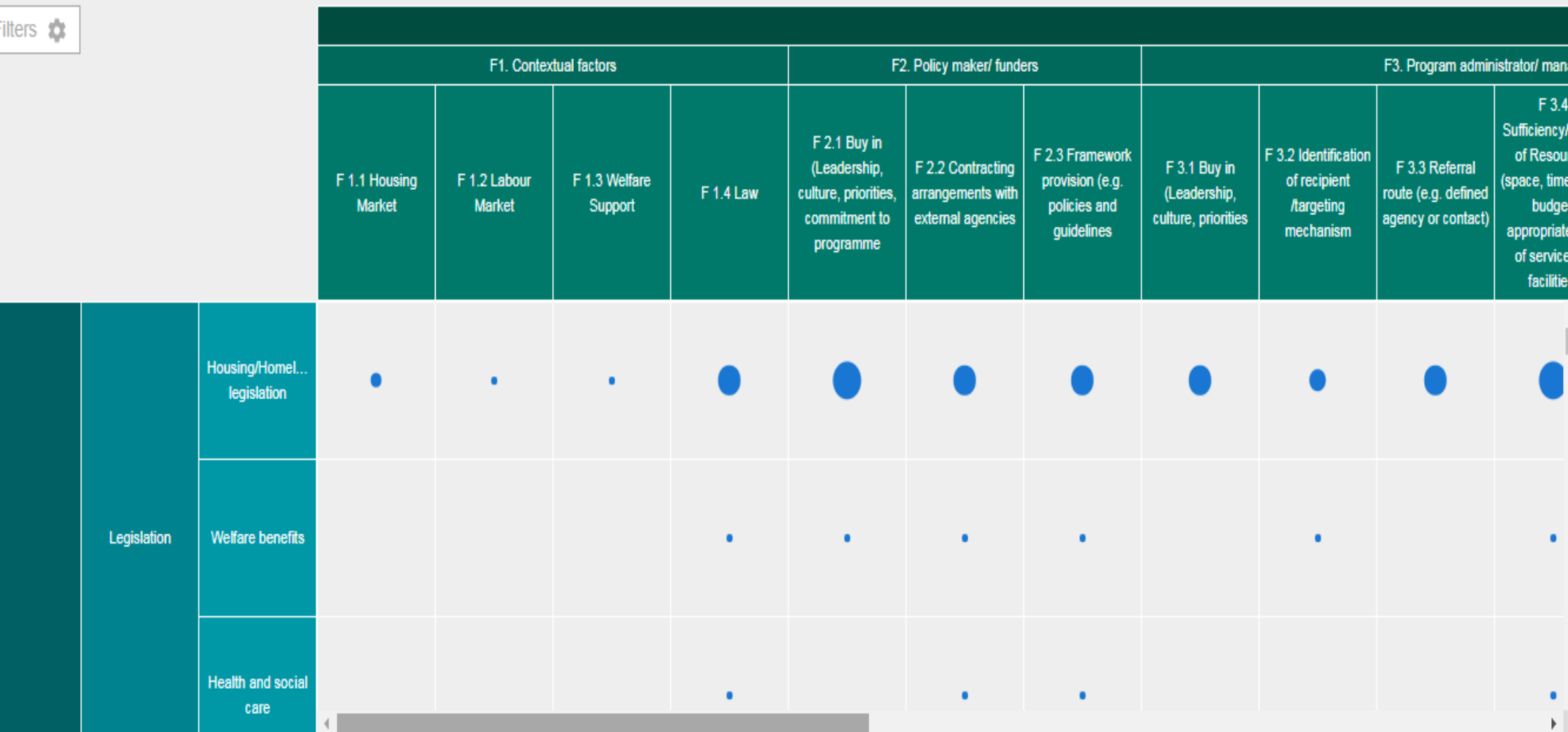
- Identification of additional studies
- Evidence summaries for interventions
- Commissioning mixed methods systematic reviews




**On-going reviews
identified using
studies identified in
evidence maps**

Evidence and Gap Map- Process Evaluation-Barriers and Facilitators (Homelessness)


- Evidence and gap map
- Large scope
- Includes Implementation studies:
barriers and facilitators (nearly all is
grey literature obtained through website
searches not database searches)












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A section of the homelessness ‘facilitator’ map

Filters 

Filters 

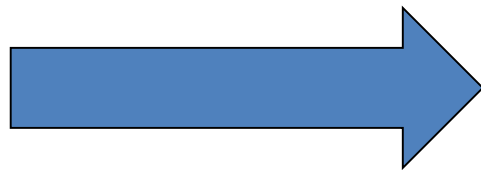
			B1. Contextual factors				B2. Policy makers/funders			B3. Program administrator/ manager			
			B1.1 Housing market	B1.2 Labour Market	B 1.3 Welfare support	B 1.4 Law	B 2.1 Buy-in (Leadership, culture, priorities, commitment to programme)	B 2.2 Contracting arrangements with external agencies	B 2.3 Framework provision (e.g. policies and guidelines)	B 3.1 Buy in (Leadership, culture, priorities)	B 3.2 Identification of recipient /targeting mechanism	B 3.3 Referral route (e.g. defined agency or contact)	B 3.4 Sufficiency/Ad of Resource (space, time, s budget)
	Legislation	Housing/Homel... legislation											
		Welfare benefits											
		Health and social care											

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A section of the homelessness 'barriers' map

Next steps/developments from the homelessness maps

- Evidence summaries for interventions
- Commissioning mixed methods systematic reviews



**Building
Intervention tool**

FILTER BY NAME OF INTERVENTION	STRENGTH OF EVIDENCE	COST EFFECTIVENESS	IMPACT <small>v</small>
<h2>Access to Health Services</h2> <p>Interventions that provide access to health care may be through mobile street outreach, access to health professionals in a non-traditional setting, or treatment for mental and physical health.</p>	 <p>At least 3 RCT or 5 other studies with combined sample size of 300</p>	 <p>To be determined</p>	 <p>3 or more RCTs showing positive effect. No studies showing adverse effect</p>
<h2>Discharge</h2> <p>Discharge programmes coordinate services for people at risk of homelessness who are being discharged from institutions such as hospitals, prisons or the military.</p>	 <p>At least 2 RCTs or 3 other studies with combined sample size of at least 200</p>		 <p>At least one RCT or 2 other studies showing positive effect and no study showing adverse effect.</p>
<h2>Housing First</h2> <p>Housing First is a housing intervention that provides accommodation with minimal conditionality for people with complex needs.</p>			

Evidence and Gap Map- Uganda Country EGM

- Evidence and gap map
- Large scope
- Includes all evaluation studies: Process evaluations, impact evaluations and formative evaluations

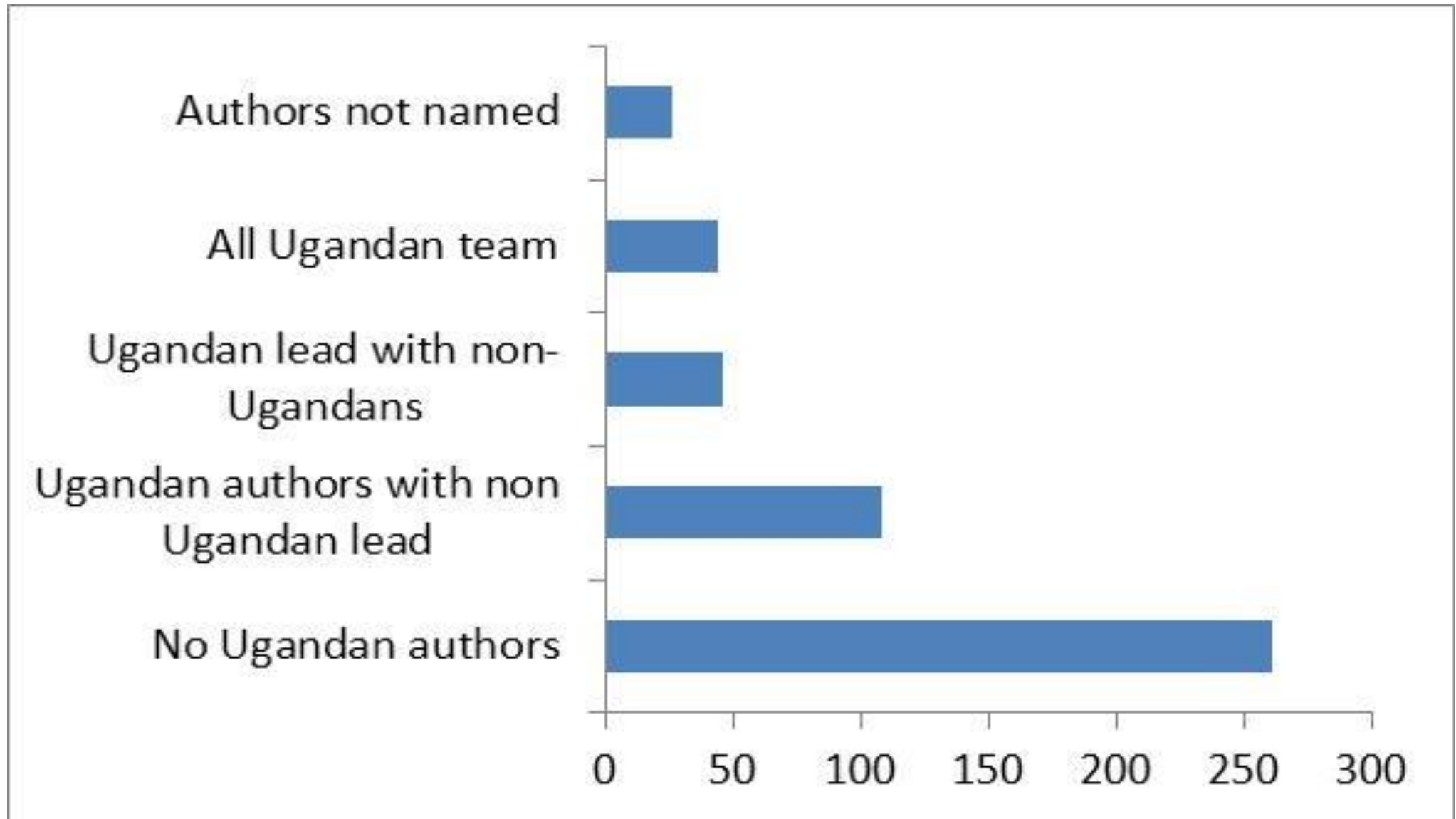
The Uganda country evidence and gap

269 process evaluations, 207 impact evaluations and 7 formative evaluations



Uganda country evidence and gap





Commission more evaluations in the areas of evident gaps

Country-level synthesis in areas with a lot of evidence

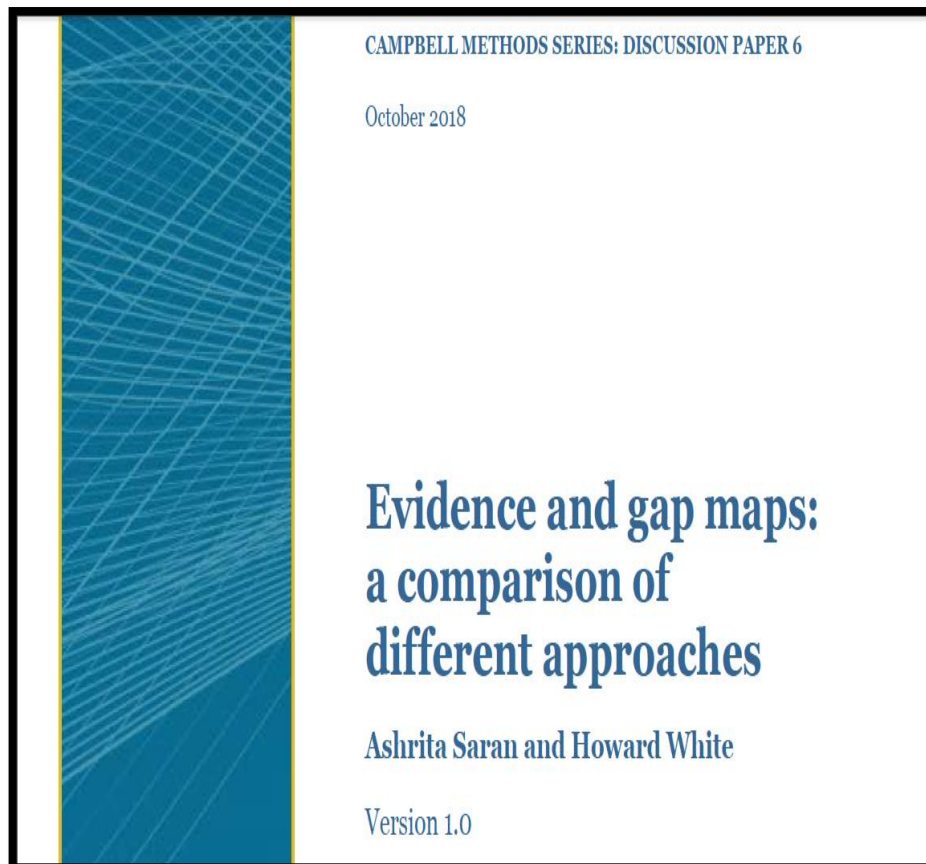
List of Campbell EGMs

- Mega Map on Child welfare (LMIC)
- People with disabilities in LMICs
- Violence against children in LMICs
- Homelessness Implementation & effectiveness (HIC)
- Child neglect (HIC) & child neglect (LMIC)
- Social protection (LMIC)
- Social intervention for Mental disorder (Global)
- Transport (LMIC)
- Intervention for adult in war and armed conflict
- Institutional responses to child maltreatment (Global)
- Pathways between agriculture and nutrition
- Access to justice (LMIC)
- WASH (LMIC)
- Tobacco control
- Gender equality in reproductive health
- Improving functional ability if older adults

**We have titles for
18 EGMs Published
in Campbell
Library now**

- ✓ EGMs can be applied to a range of research questions.
 - ✓ The relevant evidence (factual or counterfactual, quantitative or qualitative) depends on the question.
-

Read more on maps



<https://www.campbellcollaboration.org/library/evidence-and-gap-maps-comparison-of-different-approaches.html>

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