Developing systematic mapping of the social welfare literature
Another year’s experience!

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Introduction

Background to SCIE
What is systematic mapping and why do it?
Technical and management processes
One year on: Recent developments:
Methodological guidance
Products
Economic evaluation
Rapid outputs
Background to SCIE

Better knowledge for better practice

Launched October 2001 as part of the British Government’s drive to improve social care.
Covers England, Wales and Northern Ireland
Independent registered charity
Service user and practitioner involvement

Background to SCIE: What we do

Better knowledge for better practice

Develop evidence base: commission systematic reviews and practice surveys
Translate knowledge into guides for policy and practice
Disseminate information and promote good practice
Test & disseminate our methodologies (transparency)
Background to SCIE: Products

Social Care Online www.scie-socialcareonline.org.uk
  UK’s most extensive free database of social care information
  Knowledge reviews
  Practice guides
  Research briefings
  E-learning resources
  Resource guides
  see www.scie.org.uk

What is systematic mapping and why do it?

What is systematic mapping of research literature?

Why do systematic maps?

Why have a systematic mapping method?
**What is systematic mapping?**

A method of **describing the research** available in a topic area

Helps **identify where we have good knowledge** to inform national policy and where we need to be cautious

Most useful where the quality and scope of the evidence is uncertain

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**What is a systematic map?**

…a **database of screened references** which can be filtered according to topic areas, types of evidence, or other characteristics.

Systematic maps are the product of **comprehensive, sensitive literature searches**

Search output is **screened** against inclusion criteria, and **described** according to pre-defined keywords

(study type, population, topic, etc)
Why do systematic maps?

Describe the nature, coverage and quality of research in a broad topic area
Identify gaps in the research base
Create a searchable bibliographic database
Inform commissioning of systematic reviews, briefings, etc

How does a map differ from a systematic review?

For a systematic map...

Topic area can be much broader
The map is a foundation for other products which vary depending on resources
Methodological rigour is not the main issue we may want to access descriptive studies, including users’ and carers’ views
Analysis of content is limited
Uses of mapping prior to reviews

Enables **exploration** of a broad programme area

**Appropriate commissioning** of systematic reviews

Research can be commissioned instead (e.g. practice survey) if little has been done

‘**Noise**’ screened out

Government department sponsor helped to decide what to commission

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Technical and management processes

- Pre-map work
- Agree research question
- Develop in/exclusion criteria
- Develop search strategy
- Screen titles and abstracts
- Retrieval of papers
- Keyword tools and coding
- Reports
- Quality Assurance throughout
Pre-map work

- Background scope
- Clear aim - why this topic
- Project team and advisory group – roles
- Convene subject experts/advisory board
- Software training, e.g. on EPPI-Reviewer

Agree research question / topic

- Consider resources (time, staff, etc)
- Define question(s); think about audiences
- Select research sources...journals, databases
- Draft protocol- helps planning and publicity
Develop inclusion / exclusion criteria

Break down question into (topic) components
(e.g. PICOS)

Types of knowledge
- Five types of knowledge
- Research designs
- Outcomes & effectiveness

Inclusion / exclusion limits
- Publication dates, publication types

Consult experts/advisory board members
Pilot criteria extensively

Develop search strategy

Draw on:
- Background scope
- Expert input
- Inclusion / exclusion criteria
- Bibliographic databases
- Research databases

Pilot search strategies
Review findings, adapt and apply to further databases
Record all decisions
Screen titles and abstracts

Pilot inclusion / exclusion criteria on sample
Screen on titles and abstracts
Agreement on double screened sample
Screening is the basis of full text retrievals (expense)

Retrieval of full text papers

Copyright requirements
Usage and storage needs
Costs
Consider access, costs and space required
e.g. free online access, subscription terms
Use loan libraries
e.g. British Library
Retrieval process record-keeping
Keywording tools and coding

Develop tools
- Map specific tool
- SCIE core tool for social care studies

Pilot tools thoroughly

Quality assurance
- Guidance notes compiled throughout
- Blind double coding
- Concordance rates examined

Map reports

Descriptive report of literature coverage and gaps
Descriptive statistics
Reveals evidence on the review questions
Link to database of references

Next slide shows e.g. of literature flow
Quality Assurance throughout

Piloting
- Search strategy
- Inclusion / exclusion criteria
- Coding (keywording) tools

Double screening / coding
- % of screening on abstracts / titles
- Coding (keywording)

Dealing with discrepancy

QA of map report
One year on: Recent developments
Methodological guidance

Distinction now between the process and compiling methodological guidance

Overall aim is Quality Assurance of process
Compiling a guidance handbook helps organise and clarify methodology
Ensuring method fidelity over time and between workers
Useful for teaching and demonstrating method

Handbook compilation

Helps organise and clarify methodology

A large document
Collaborative writing
Technical and more descriptive sections
Variety of audiences
Sections which could be lifted and used for various purposes
Method fidelity

Long time scales and different team members are involved in the process

Complex method
Some processes take weeks to complete
…and may not be repeated on a subsequent map until much later
People with different backgrounds are involved
(researchers, information professionals, temps)

Teaching and demonstrating

Modular nature of guidance – sections or wording can be lifted out for many different uses
Overview and detailed technical sections – suit different purposes
Collaborative writing team from different backgrounds assures suitability for different audiences (internal or external)
Challenges with compiling guidance

Which purpose? Which audience?
Format?
Collaboration
Time-consuming
Requires ad hoc updates

See www.scie.org.uk/research/maps.asp

Other developments

How we have used maps: Products

Recent experiments in the scope, application and remit of mapping methodology
Economic evaluation
Rapid outputs
How we have used maps: Products

Parental mental health and child welfare
- Reviews, and joint guidance
Mental health recovery and employment
- Knowledge review and position paper
BME older people and depression
- Gap identification, recommendation for further research
See www.scie.org.uk/publications/map/index.asp

Economic evaluation

Why SCIE needed to develop an approach to economic evaluation
How approach developed and incorporated

Output: methodological changes and publication of SCIE’s position on economic evaluation in social welfare (Summer 2009)
See www.scie.org.uk/research/economics/
Importance of economic evaluation

SCIE makes recommendations for social welfare approaches – need to be costed
SCIE developed a methodology for incorporating economic evaluations in our knowledge production processes
Therefore systematic mapping and rapid commission methodologies needed incorporation of economic material

Economic evaluation:
Methodology implications

All products should include some if not all of these steps (depending on product)

Searching: databases
NHS EED
Econlit
In existing search sources

Inclusion / exclusion criteria
Keywording / coding
Analysis
Source material may not be designed for economic analysis

Reporting
Economic evaluation: Quality Assurance

Lack of high quality economic evaluations in social care
-> collate material from a variety of types of study
  Full economic evaluations
  Partial economic evaluations
  Effectiveness studies (containing resource data)

Implications for coding tool development
NB full QA of material is not part of systematic mapping

Rapid outputs from mapping techniques

e.g. Research briefings cf. systematic maps

Reduced process time required by…

More targeted topic – definitions already known
Limited searching - not exhaustive
Tighter inclusion criteria
Not doing coding stage
Rapid outputs methodology

**Similar groundwork for different products**

Procedural sections repurposed

‘What works’

  e.g. team planning and communication

Advocacy to senior managers / decision makers

  allocation of resources

Helped in planning process

  allowing time for less obvious tasks such as supporting
  commissionees

Enables you to be informed when approaching new (but

  similar) methodologies  e.g. scoping studies

Saved development time

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Further information

Bates, S; Clapton, J; and Coren, E. (2007)

  Systematic maps to support the evidence
  base in social care. Evidence and Policy, 3
  (4) pp. 539-551.

Publication of SCIE systematic mapping

guidance, and completed maps 1-3:

  [www.scie.org.uk/research/maps.asp](http://www.scie.org.uk/research/maps.asp)
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SCIE products: freely available at www.scie.org.uk

Your experiences:

Compiling methodological guidance
Economic evaluation
Adapting guidance for range of evidence products
   Especially rapid responses