

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

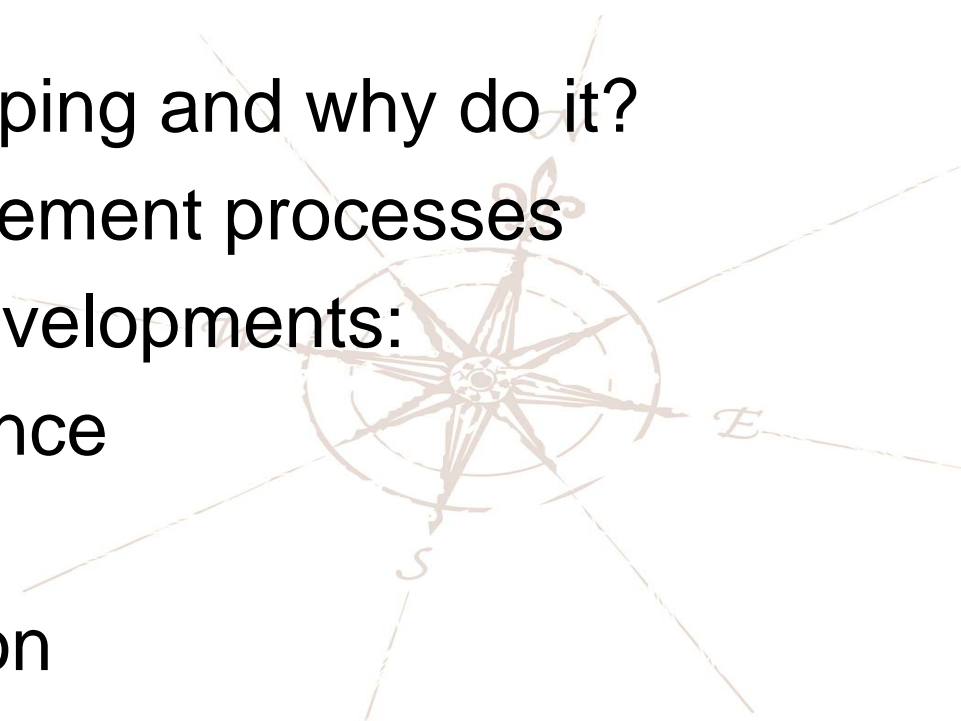
One year on: Recent developments:

Methodological guidance

Products

Economic evaluation

Rapid outputs



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Background to SCIE

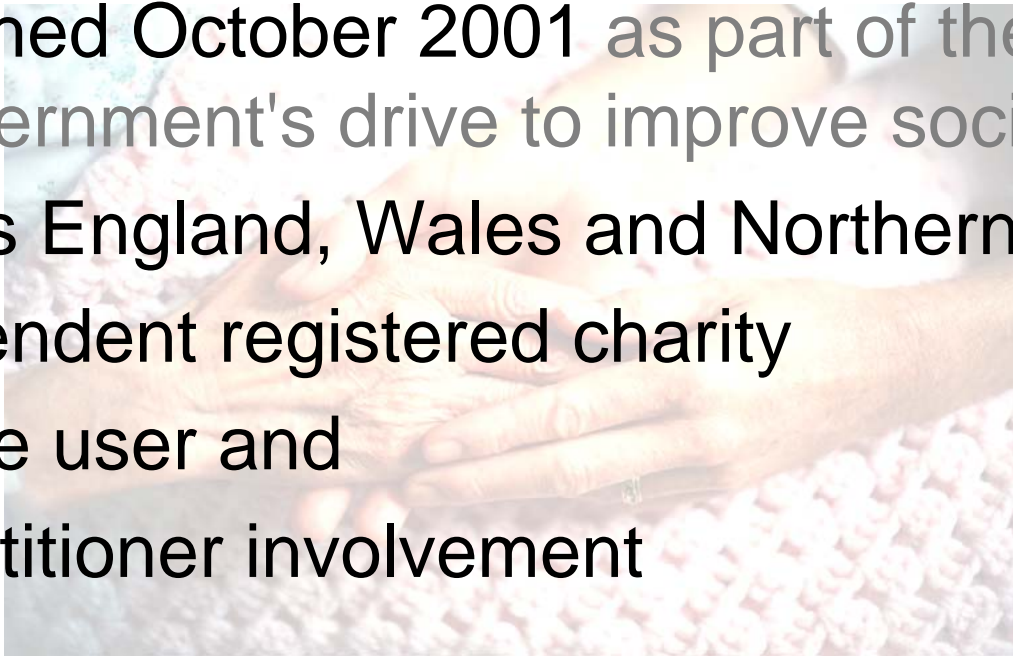
Better knowledge for better practice

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



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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)

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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



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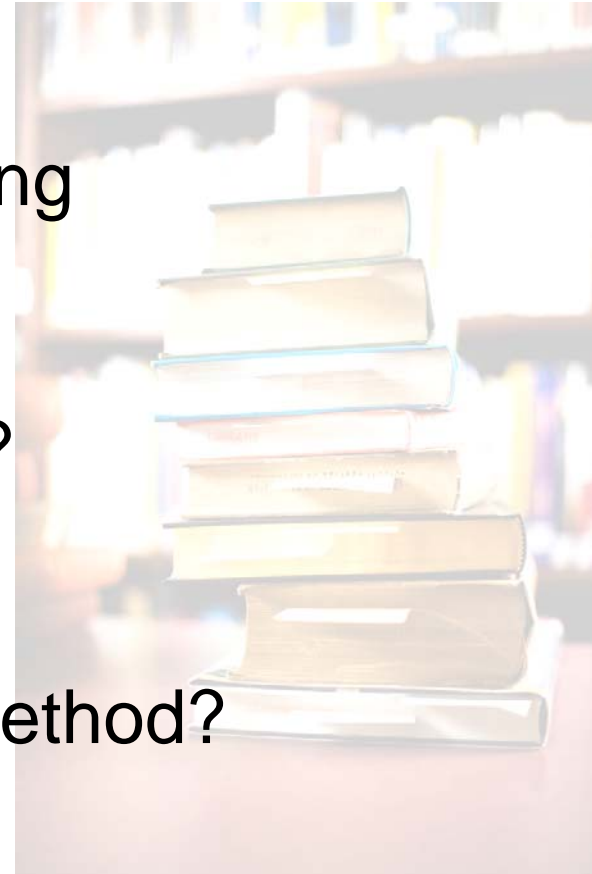


What is systematic mapping and why do it?

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**



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

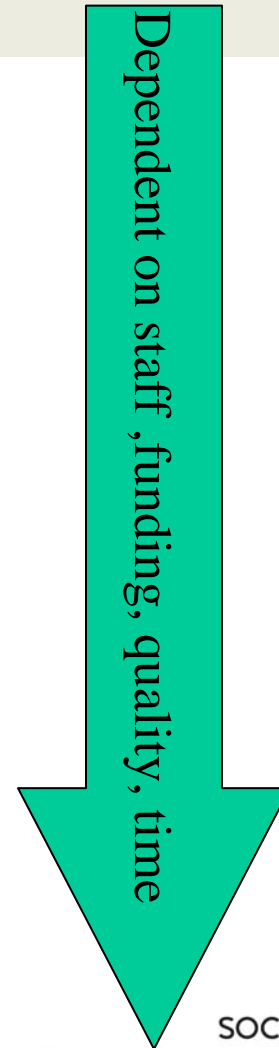
Research can be commissioned instead (e.g. practice survey) if little has been done

'Noise' screened out

Government department sponsor helped to **decide what to commission**

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



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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



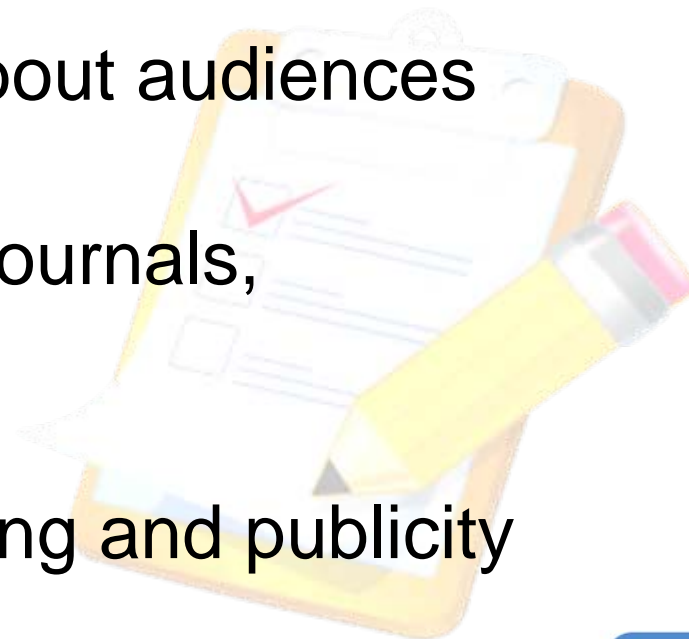
Agree research question / topic

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

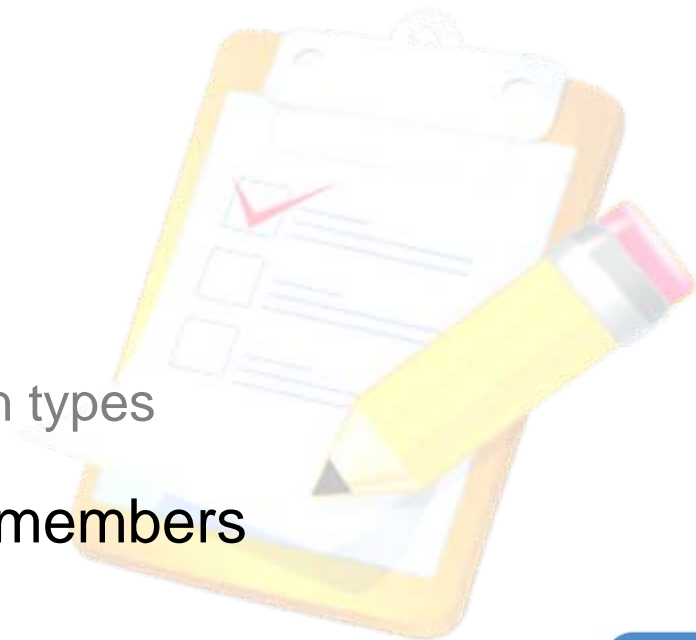
Five types of knowledge
Research designs
Outcomes & effectiveness

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

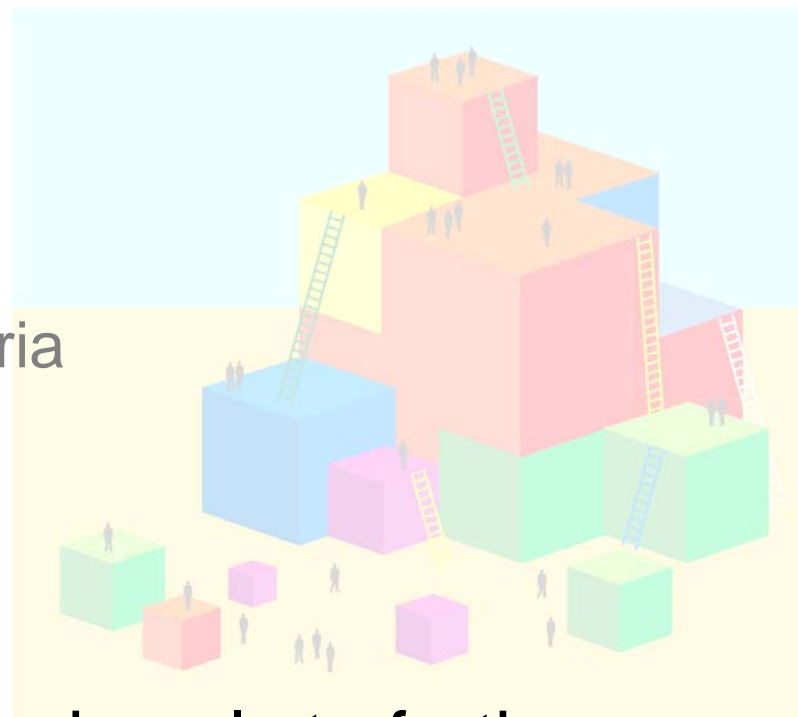
Bibliographic databases

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

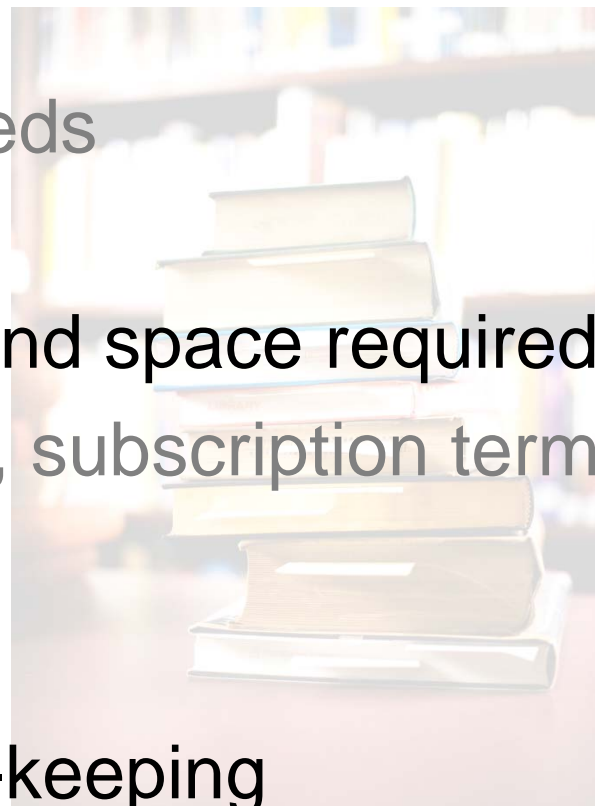
Consider access, costs and space required

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

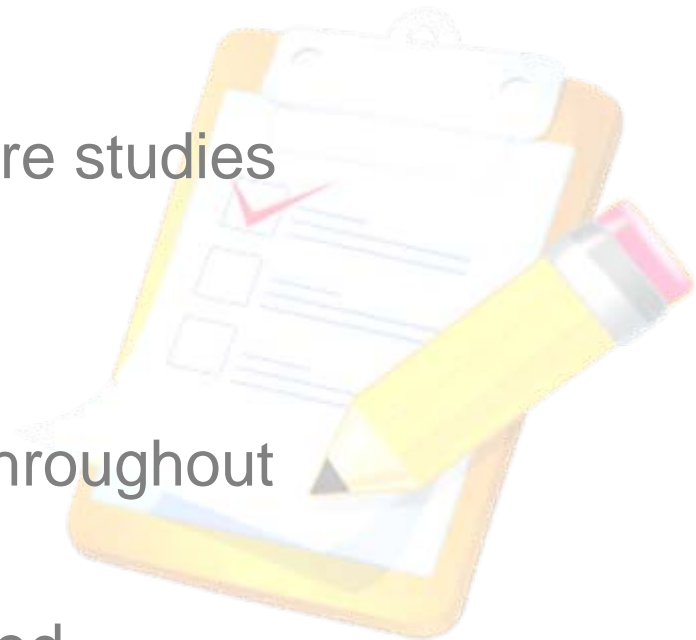
Pilot tools thoroughly

Quality assurance

Guidance notes compiled throughout

Blind double coding

Concordance rates examined



Map reports

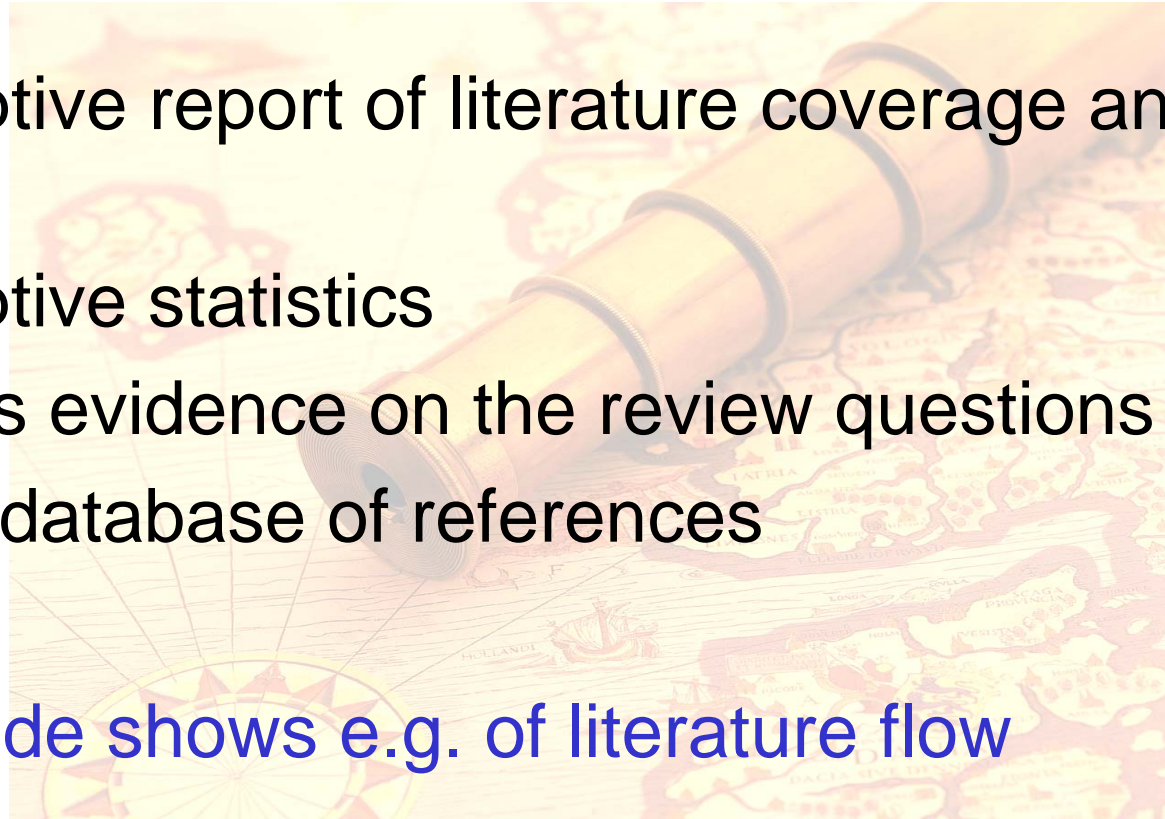
Descriptive report of literature coverage and gaps

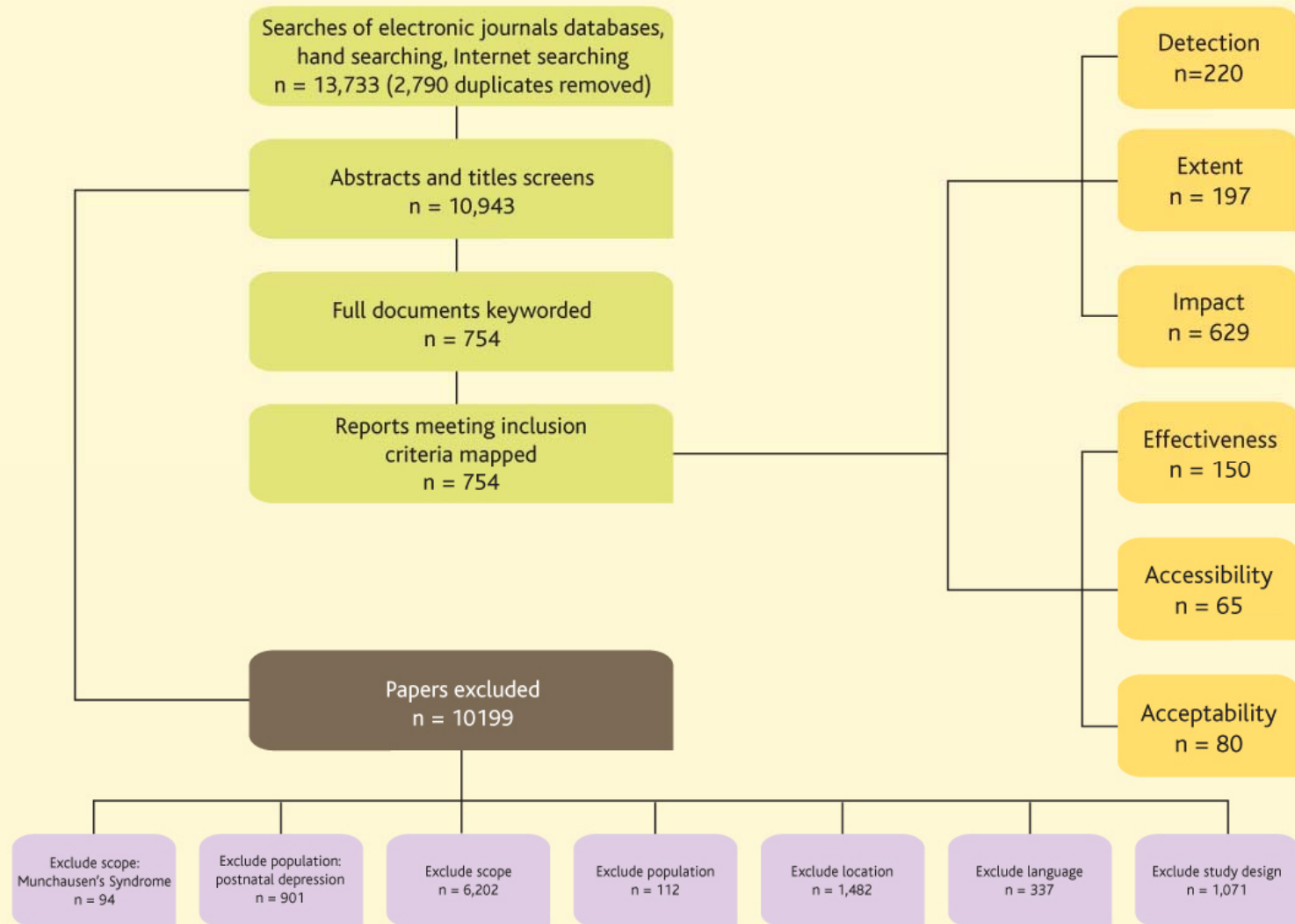
Descriptive statistics

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

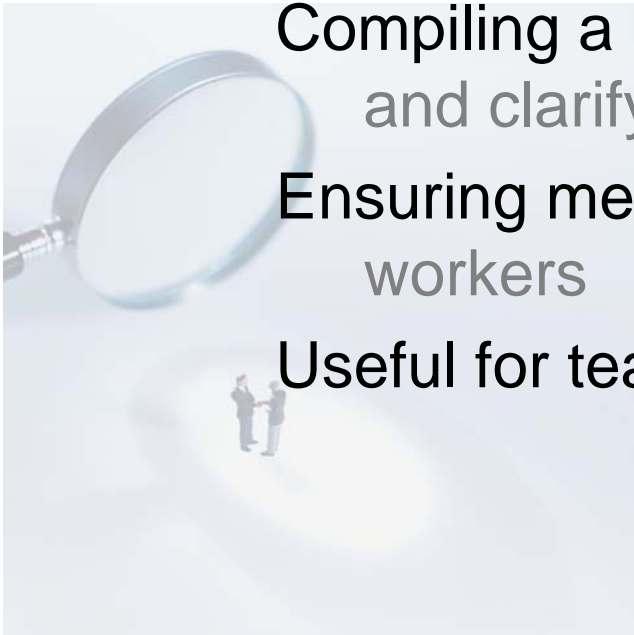
Distinction now between the **process**
and compiling **methodological guidance**

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



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Handbook compilation

Helps organise and clarify methodology

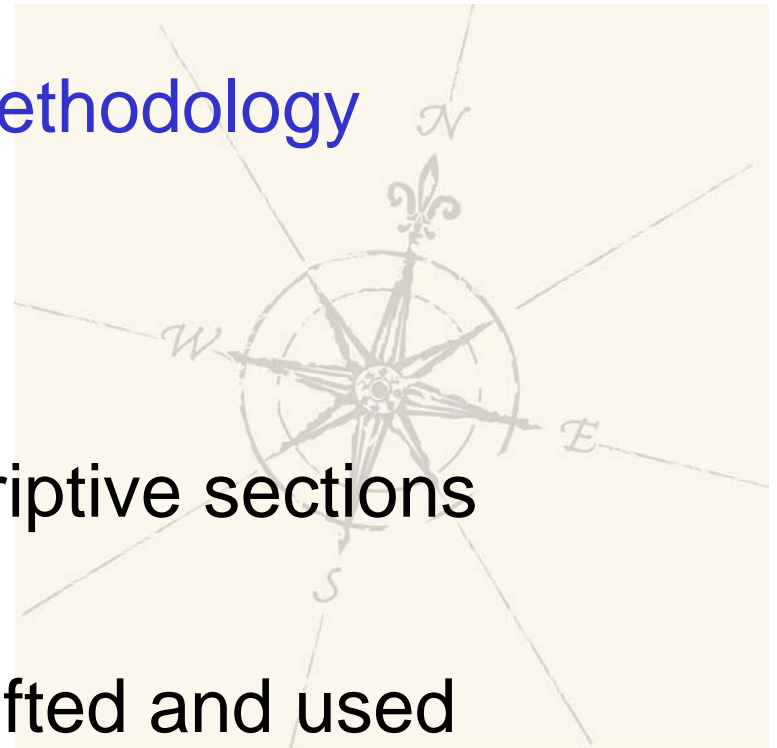
A large document

Collaborative writing

Technical and more descriptive sections

Variety of audiences

Sections which could be lifted and used
for various purposes



Method fidelity

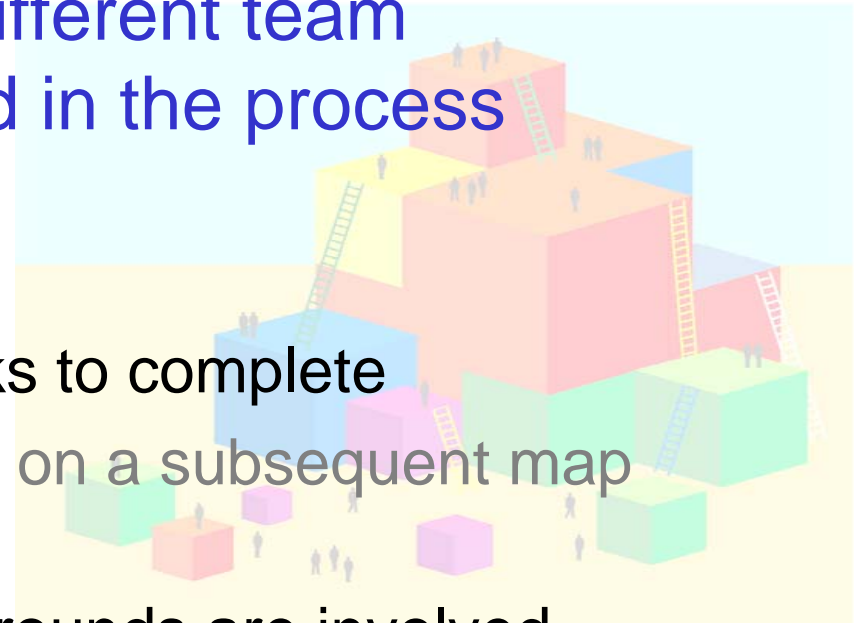
Long time scales and different team members are involved in the process

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/publications/researchresources/rr03.asp



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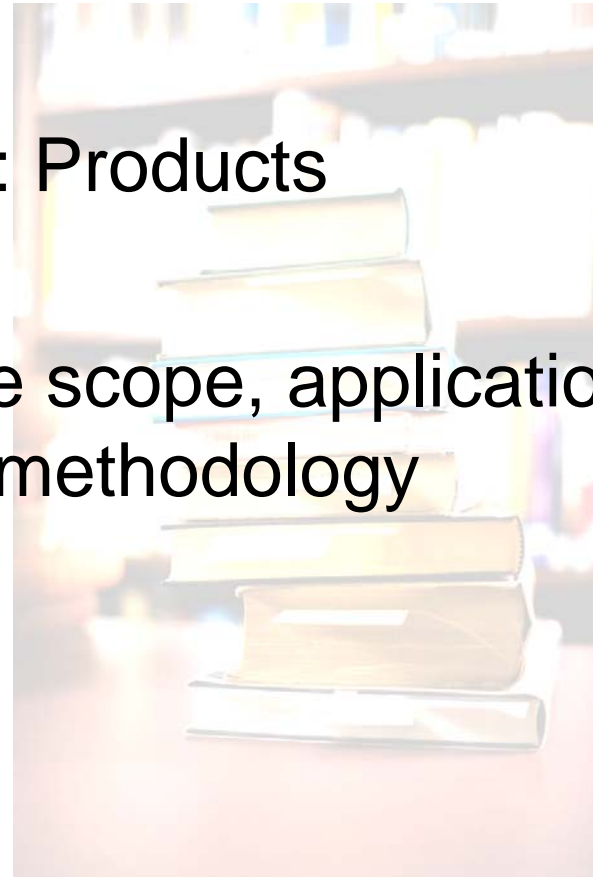
Other developments

How we have used maps: Products

Recent experiments in the scope, application
and remit of mapping methodology

Economic evaluation

Rapid outputs



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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/

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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

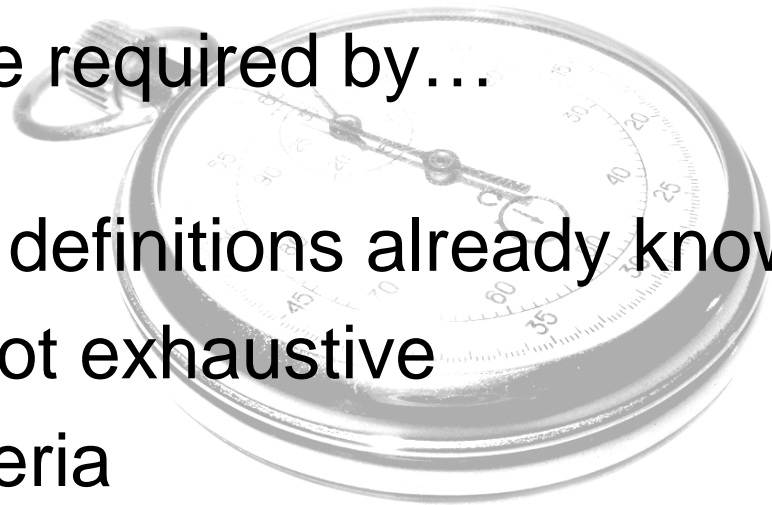
Reduced process time required by...

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

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

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SCIE products: freely available at

www.scie.org.uk

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Your experiences:

Compiling methodological guidance

Economic evaluation

Adapting guidance for range of evidence
products

Especially rapid responses

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