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Mapping the evidence: identifying evidence on natural disasters & humanitarian emergencies for Evidence Aid

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Evidence Aid²

Introduction



- Evidence Aid commissioned KSR Ltd. for mapping searches
- Identification of evidence on natural disasters & other humanitarian emergencies
- Application of systematic (reviews) searching
- Resources included biomedical, health, nursing, economics and social sciences databases
- Analysis of yield of relevant trials by database

What is Evidence Aid ?



- Established after the Indian Ocean Tsunami (Dec 2004)
- Founding members from Cochrane Collaboration
- Co-ordinated, international initiative
- Aim: improve effective & timely access to systematic reviews (SRs) on effects of interventions before, during & after natural disasters & other humanitarian emergencies, to improve health-related outcomes
- Which interventions work ? Which don't? Which need more research ? Which might be harmful ?
- Provide information to agencies and people preparing for, or responding to, disasters
- Team: Mike Clarke, Claire Allen & Bonnix Kayabu

Who are Kleijnen Systematic Reviews Ltd ?



- Independent research consultancy established in 2005 by Professor Jos Kleijnen
- Undertake systematic reviews, health technology assessments, cost effectiveness analyses, support of guidelines development and literature searching
- Training in EBM, systematic review skills & information retrieval
- Variety of commissioners, including NICE, IQWiG, similar organisations in Europe and pharmaceutical companies
- Team of +20 reviewers, health economists, statistician & information specialists
- Info Team: Kate Misso & Caro Noake
- Combination of info retrieval & topic-specific expertise

Remit of the mapping search



- Mapping exercise, not a systematic review
- Identify relevant systematic reviews (SRs) and randomised controlled trials (RCTS)
- Topics... *Earthquakes, tsunami, flood, hurricane, tornado, manmade/nuclear/industrial accidents & disasters, emergency aid, relief workers, displaced populations, refugee camps, mass trauma, ferry & aviation disasters etc.*
- Search as widely as possible: databases from multiple disciplines, registers, websites, grey literature etc.
- Compile a list of relevant organisations & websites for later follow-up
- Limited time available (searches completed in June 2011)

Databases and sources



- RCT & SR study design filters used
- No language limits applied; restricted to human studies
- 23 bibliographic databases searched (inception to June 2011)
 - Medline, In-Process & Daily Update
 - Embase
 - CDSR
 - Central
 - DARE
 - NHS EED
 - HTA
 - PsycINFO
 - SSCI
 - CINAHL
 - HMIC
 - PILOTS
 - CORDIS
 - LILACS
 - CAB Global Health
 - Social Care Online
 - IBSS
 - ASSIA
 - Sociological Abstracts
 - OpenSigle (now called OpenGrey)
 - EconLit
 - C2-SPECTR

Themes



- ‘Seed’ references (n=14) & citation searching
- Explored humanitarian disaster themes (using IFRC & Save the Children classifications for disasters and emergencies, 2011)
- Grouped search facets into five overall themes:
 - Nuclear & industrial incidents
 - Mass casualty incidents (natural disasters & other accidents)
 - Refugees
 - Emergency & planning
 - Emergency & infrastructure
- ‘War & conflict’ theme was not included in mapping exercise (to be investigated at later date)

Retrieval

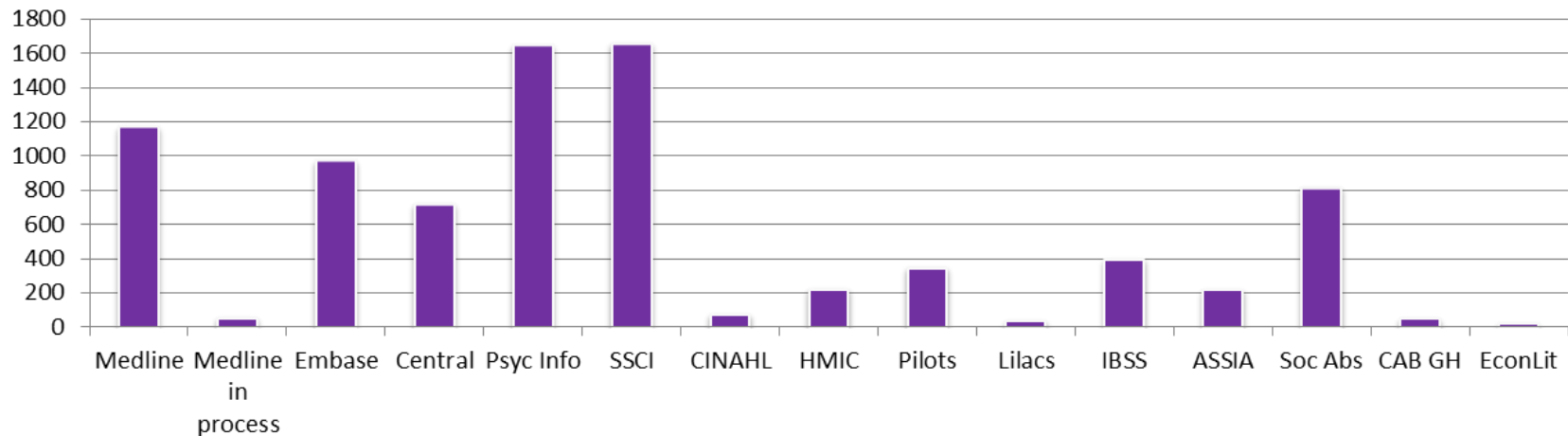


- Where possible, applied objectively-derived methodological filters (identified from InterTASC ISSG Search Filter Resource)
- Total of 14 028 records retrieved from all searches
- Separate search for RCTs (n=8412) and SRs (n=2984) undertaken on 16/23 databases
- Another 7 resources searched without study design filter (n=2632)
- Independently screened by two researchers
- RCT screening completed; SR screening to be completed; first screening of combined search results completed

Database yield & included studies for RCTs

- SSCI highest number of unique includes
- PILOTS lowest number needed to read
- Minimum combination of 9/15 resources needed to find all included studies

Total yield of retrieved studies



- For more detailed analysis, see HLG poster

Challenges of mapping searches



- Time !
- Unique challenges when applying an SR approach to non-health resources for these types of topics
- Outside of health, research methods may be poorly described in text & indexing terms – impacts on retrieval
- Limitations when applying objectively-derived filters combined with Evidence-Aid topic terms e.g. SR filter in PsycINFO

Search Concepts

Nuclear/industrial accident\$

Natural/manmade\$ disaster/catastroph\$

Earthquakes\$/tsunami\$/flood\$/quake\$

Humanitarian emergenc\$/crisis/crises

Tidal wave\$/hurricane\$/tornado\$

Emergenc\$ aid/relief worker\$ etc



(meta-analysis or **search\$**).tw. (55963)

Limitations



- Limited budget for searching & screening
- Large & diverse evidence-base dispersed across multiple disciplines & sources
- Pragmatic, subjectively derived strategy
- Strategy performance variable dependent on resource e.g. high recall on PILOTS database (PTSD content)

Future developments



- Screening of SR search results ongoing
- Potential for analysis of database yield of included SRs
- Gap analysis to prioritise future reviews
- First Evidence Aid review completed in 9 months – Use of electric fans during heat-waves
- Considering development of specialist register of trials
- Ongoing evidence surveillance of *Cochrane Library*
- Update of mapping searches (last searched June 2011)

Get involved in Evidence Aid



- **Read** the Evidence Aid website, leaflet & Annual Report
- **Take** part in the online survey about evidence needs during natural disasters & humanitarian emergencies
- **Help** select priority areas for systematic reviews for Evidence Aid
- **Send** relevant information & funding opportunities to the EA Team
- **Identify** information & funding opportunities to the EA Team
- **Prepare & maintain** systematic reviews for Evidence Aid
- **Identify** systematic reviews and trials for Evidence Aid

<http://www.EvidenceAid.org>



Thank you for listening



- Evidence Aid

<http://www.EvidenceAid.org>

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