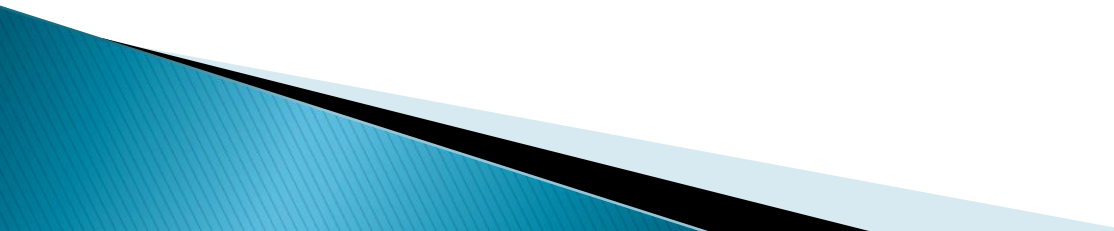


# The Campbell Collaboration Colloquium

***Better Evidence for a Better World***

Oslo, Norway, May 18-20, 2009



Theme:

**Examples on how to summarize and communicate relevant, reliable evidence**

***Parallel Session 2***

***Monday, May 18th, 10:45 - 12:15***

**Title:**

**Grading of evidence in evidence-based clearinghouses**

# Abstract

- ▶ In order to account for the heightened interest in information about evidence-based methods from professionals & policymakers, several evidence-based clearinghouses have emerged in recent years pertaining to evidence-based policy & practice in social care & social welfare
- ▶ Our aim is to present:
  - Overall structure of some clearinghouses
  - Process of assessing outcome studies & how evidence is graded in terms of type & quality of research

# Speakers

## **Haluk Soydan, PhD**

Research Professor and Director of Hamovitch Center for Science in the Human Services,  
University of Southern California, School of Social Work, Los Angeles, CA, USA  
Senior Researcher, IMS, Stockholm, Sweden

## **Jenny Rehnman , PhD**

Institute for Evidence-based Social Work Practice (IMS), Stockholm, Sweden

## **Mike Fisher, PhD**

Professor and Head of Quality & Research at Social Care Institute for Excellence  
(SCIE), London, UK

## ***Chair:***

## **Edward Mullen, DSW**

Willma and Albert Musher Professor of Social Work at Columbia University,  
School of Social Work

Chair, Advisory Committee, Evidence-based Database, Social Work Leadership  
Institute, New York Academy of Medicine, New York, NY, USA

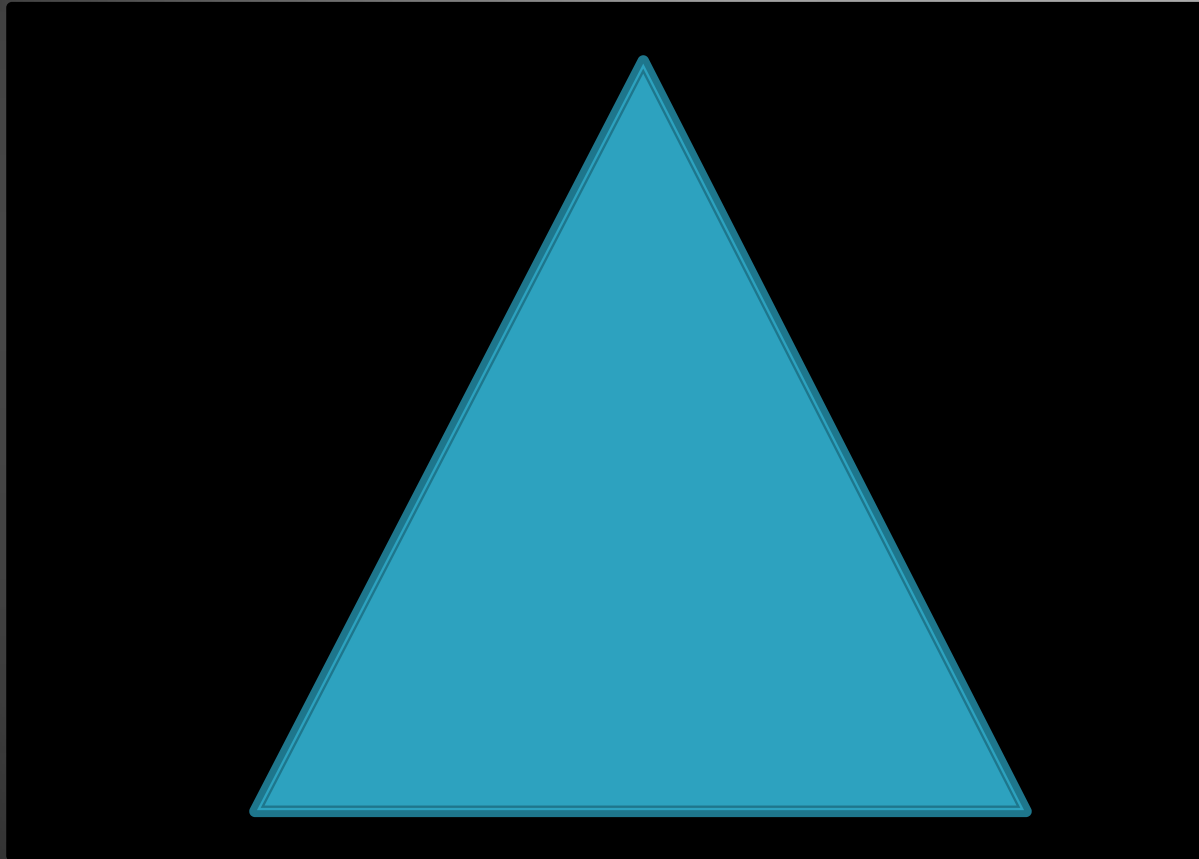
# Clearinghouses

- ▶ California Evidence Based Clearinghouse for Child Welfare Practice: Organization, Products, Ongoing Developmental Work - *Haluk Soydan*
- ▶ Institute for Evidence-based Social Work Practice (IMS), Stockholm, Sweden: Organization, products, ongoing developmental work, the process of evaluating studies and grading - *Jenny Rehnman*
- ▶ Social Care Institute for Excellence (SCIE): Availability of Quality Evidence; User Views; Economic Evaluation; Understanding Intervention Process; Drawing Evidence from Practice - *Mike Fisher*
- ▶ New York Academy of Medicine, Social Work Leadership Institute, Evidence Based Database – *Ed Mullen*

# Clearinghouses in Context

Clearinghouses can facilitate  
dissemination & implementation of evidence for  
evidence-based policy & practice

# The “5S” levels of organization of evidence: Where do Clearinghouses Fit?



Systems

Summaries

Synopses

Syntheses

Studies

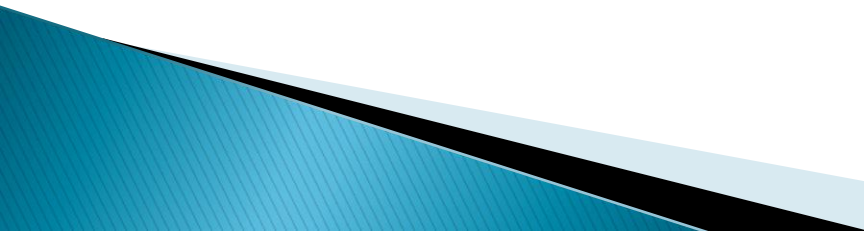


Reproduced from: Haynes, R Brian. 2006. Of studies, syntheses, synopses, summaries, and systems: the “5S” evolution of information services for evidence-based health care decisions. *ACP Journal Club* 145 (3):A-8 - A-9.

# Types of Clearinghouses for Evidence-based Policy & Practice

- ▶ Bibliographic:
  - Citations & abstracts in topic area
- ▶ Descriptive:
  - Detailed descriptions of studies & reviews of studies in topic area
    - Systematic mapping of studies in topic area
- ▶ Evaluative may:
  - Include descriptive information
  - Include assessment of risk of bias
  - Include assessment of quality & strength of evidence
  - Provide summaries of evidence
  - Provide systematic reviews of evidence
  - Provide guidelines or recommendations for action

# How do Clearinghouses Grade Evidence in Terms of Type & Quality of Research?

- ▶ How Does the Clearinghouse Assess Risk of Bias in Individual Studies?
  - ▶ How Does the Clearinghouse Assess & Report Quality, Strength, & Relevance of Evidence?
  - ▶ Are the Grading Systems Tailored to Fit the Character of Studies in the Topic Area?
- 

# Cochrane Handbook

*Chapter 8 provides guidance on  
assessing risk of bias for individual  
studies (internal validity)*

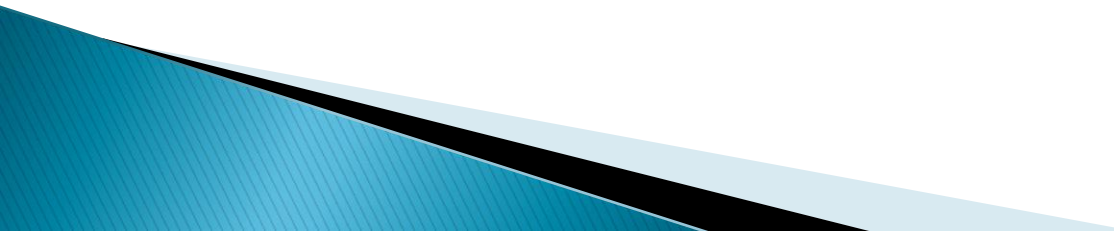
# Cochrane Handbook Recommends the GRADE Approach for Quality Assessment

- ▶ The assessment of the quality of the body of evidence should make use of GRADE approach
- ▶ This awards a grade of 'high', 'moderate', 'low' or 'very low' for each outcome, taking into account:
  - Limitations in design & implementation of available studies (i.e. risk of bias)
  - Indirectness of evidence (indirect population, intervention, control, outcomes)
  - Unexplained heterogeneity (inconsistency) of results (including problems with subgroup analyses)
  - Imprecision of results (wide confidence intervals)
  - High probability of reporting bias

# Criteria for Assessing Sensibility of Grading Systems (GRADE Working Group, 2004)

1. Is approach applicable to different types of questions?
2. Can system be used with different audiences?
3. How clear & simple is system?
4. How often will information not usually available be necessary?
5. Extent subjective decisions needed?
6. Are dimensions included that are not within construct (level of evidence or strength of recommendation)?
7. Are important dimensions excluded?
8. Is the way in which included dimensions aggregated clear & simple?
9. Is way in which included dimensions aggregated appropriate?
10. Are categories sufficient to discriminate between different levels of evidence & strengths of recommendations?
11. Is system likely to discriminate between high & low evidence levels or strong & weak recommendations?
12. Are assessments reproducible?

# Additional Criteria to Consider for Assessing Clearinghouses

- ▶ How User Friendly is the Site  
(e.g., finding and navigating site)
  - ▶ How Specialized is the Clearinghouse
  - ▶ How Transparent is Clearinghouse  
(e.g., bias, methods used)
  - ▶ How idiosyncratic are the assessment methods used  
(may be difficult to generalize from systems that are too site specific).
  - ▶ More??
- 

# The Social Work Leadership Institute's Evidence-Based Database

The following PowerPoint was authored by  
Joseph Shuluk, BA  
EBD Project Coordinator & Reviewer



# The New York Academy of Medicine's Social Work Leadership Institute

## The New York Academy of Medicine (NYAM)

The New York Academy of Medicine is an independent, non-partisan, non-profit institution that has been advancing the health of people in cities since 1847.

## The Social Work Leadership Institute (SWLI)

A national program that supports healthy aging by ensuring America's older adults receive the care they need to stay independent and in charge that of their lives.

SWLI works to achieve the goals of supporting improved **long-term care services, care coordination** and **workforce development**



# SWLI's Evidence-Based Database

- Developed by an interdisciplinary team of professionals based at the New York Academy of Medicine's Social Work Leadership Institute
- Designed to provide access to available evidence on social work intervention outcomes particularly as related to serving the aging population
- Its targeted user audiences are public policy makers, academics, researchers, students, clinicians, & advocacy groups
- This work is funded by a generous grant to NYAM-SWLI from the Atlantic Philanthropies

# Goals of the Evidence-Based Database

- Assist in translating research into policies and procedures
- Expand publicly accessible evidence-based databases
- Assess the overall strength of a body of evidence
- White papers
- Synthesis studies

# Topics Included in Database

While the database focus is specific to interventions with older adults we considered it important to first examine what is known about the ***general effectiveness of social work interventions***

The second topic, specific to interventions with older adults, is ***care coordination***

The third topic will focus on interventions to enhance the professional ***workforce for geriatric social work practice.***

# Population of SWLI's EBD

## Currently available on SWLI EBD website:

- *Social Work Effectiveness:*
  - 2103 studies retrieved from searches
  - 19 systematic reviews identified
  - 317 abstracts posted
  - 115 reviews completed and posted
- *Care Coordination:*
  - 4402 studies retrieved from searches
  - 985 abstracts posted
  - 60 reviews completed and posted
- *Workforce Development:*
  - Search strategy under development

# Using the EBD: SWLI's Policy Work on *Care Coordination*

In order to enhance our work on care coordination, a white paper is being developed by locating effective models based upon the review and analysis of experimental and quasi-experimental studies that have been included in our database.

# Assessing Evidence with the SWLI EBD: *Current Methods*

## Current methods for assessing best available evidence:

- Search by coded areas:
  - Research design
  - Outcomes
  - Service settings
  - Demographics
- Reviews capture sample size/method, recruitment, follow-up, participant flow to assess validity
- Findings and relevant statistical levels to assess effect size

# Assessing Evidence with the SWLI EBD: *Systematic Mapping*

**SWLI is currently working on implementing a mapping system to support quicker retrieval of evidence for topical reports**

- Adopted from concept originally developed by the EPPI-Center (Bates, 2007; Peersman, 1996; Oakley, 2005)
- Add coding to the current content that is captured in our reviews to facilitate information retrieval
- Add frequency and cross-tabulation functions to reviews
- Adds the ability to investigate the distribution of available evidence

**Produce detailed reports with frequency charts based upon the user selecting captured content such as research design, outcomes, service settings, demographics, sample size/method, recruitment, follow-up, participant flow, effect size.**

# Assessing Evidence with the SWLI EBD: *Systematic Mapping (Beta)*

Graph - Randomization

Random sequence generation	Count	Percentage
<a href="#">Yes</a>	23	17%
<a href="#">No</a>	63	45%
<a href="#">Not Stated</a>	53	38%

Allocation concealment	Count	Percentage
<a href="#">Yes</a>	10	7%
<a href="#">No</a>	70	50%
<a href="#">Not Stated</a>	59	42%

Implementation	Count	Percentage
<a href="#">Yes</a>	3	2%
<a href="#">No</a>	63	45%
<a href="#">Not Stated</a>	73	53%

# Assessing Evidence with the SWLI EBD: *Grading the Evidence*

## GRADE approach (Schünemann, 2008; Guyatt, 2008)

### ● Strength of Recommendation:

- Strong recommendation for using an intervention 1▲
- Weak recommendation for using an intervention 2▲
- Weak recommendation against using an intervention 2▼
- Strong recommendation against using an intervention 1▼

### ● Quality of Evidence:

- High quality: further research unlikely to alter level of confidence in estimate of effect A
- Moderate quality: further research likely impact on confidence, may change estimate B
- Low quality: further research very likely impact on confidence, likely to change estimate C
- Very low quality: any estimate of effect is uncertain D

# Assessing Evidence with the SWLI EBD:

## *Grading the Evidence*

**SWLI is assessing implementing the GRADE approach** (Schünemann, 2008; Guyatt, 2008) **for rating the quality of the evidence for the experimental studies in the EBD**

- Adding to our current system for reviews, using 2 reviewers and a referee, SWLI would assess the current reviewed experimental studies according to the GRADE criteria.
- Each outcome would be assessed and graded with a number for Strength and a letter for Quality of evidence (i.e. B,2▲)

# Assessing Evidence with the SWLI EBD: *Grading the Evidence -Quality*

**Criteria that can be evaluated to determine the confidence in the quality of a study:** (Schünemann, 2008)

- Study design
- Study limitations
- Inconsistency of results
- Indirectness of evidence
- Imprecise results
- Reporting bias

# Assessing Evidence with the SWLI EBD:

## *Grading the Evidence - Strength*

**Key factors to consider when determining the strength of a recommendation:** (Guyatt, 2008)

- What is the balance between the desirable and undesirable consequences of the alternative management policy?
- How certain are you regarding the magnitude of the benefits?
- Is there uncertainty regarding variability in values and preferences?
- Will resource allocation affect the strength of the determination?

# 2009 EBD Advisory Committee

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**Julia Littell, PhD**  
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Reviewer

**Carin Tinney, LMSW**

Reviewer

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Reviewer

[www.socialworkleadership.org](http://www.socialworkleadership.org)

