WHAT TYPES OF EVIDENCE ARE NEEDED FOR DECISION-MAKERS? KNOWLEDGE MANAGEMENT TO SUPPORT EVIDENCE-BASED SOCIAL POLICY AND PROGRAMS IN DENMARK

STEFFEN BOHNI NIELSEN, CARSTEN STRØMBÆK PEDERSEN AND
PERNILLE GRÜNBERGER
NATIONAL BOARD OF SOCIAL SERVICES, DENMARK

Author note

Corresponding author: Steffen Bohni Nielsen, National Board of Social Services, Landemærket 9, 1060 Copenhagen K, Denmark. E-mail: stb@socialstyrelsen.dk, Phone: +45 4174 0020

Abstract

The paper presents the theoretical, methodological and utilization deliberations and challenges underlying the design of a nation-wide knowledge infrastructure about effective social policies and programs in Denmark. The approach seeks to appreciate that public managers at different levels of government have different requirements in terms of the evidence needed to make decisions. As part of the design the authors compare and contrast the approaches of 24 existing clearinghouses. The authors found that the intended users are instrumental for what kind of knowledge is produced, dissemination strategy and services offered. The authors posit that clearinghouse functions need to be embedded in a borader knowledge translation strategy to become effective.

WHAT TYPES OF EVIDENCE ARE NEEDED FOR DECISION-MAKERS? KNOWLEDGE MANAGEMENT TO SUPPORT EVIDENCE-BASED SOCIAL POLICY AND PROGRAMS IN DENMARK

Introduction

In the past two decades one of the megatrends in public government has been the promotion of evidence-based policy and practice (Leeuw, 2010). In a study of this phenomenon, Bhatti, Hansen & Rieper (2005) note that two elements characterizes the evidence movement; (i) the institutionalization of clearinghouses that gather and disseminate existing research and (ii) the production of reviews of existing research as a particular kind of knowledge production.

As such clearinghouses have spawned around the Western hemisphere for the past two decades. Largely, such efforts have been funded as an institutionalization of, and the promise of, informing evidence-based policy-making and practice.

This growth was further witnessed in March 2013 when the British government announced the establishment of four new what works clearinghouses in the areas of local economic growth, ageing, crime reduction and early childhood intervention. These centres were to complement two already existing clearinghouses, the National Institute for Clinical Excellence (in health) and the Educational Endowment Foundation (in education). In the official communication it was stressed that the centres were to play a key role in the government's Civil Service Reform Plan and a key in a renewed commitment to evidence-based policy making (Cabinet Office & HM Treasury, 2013).

In a recent position paper, NESTA put forward a list on what the new clearinghouses should do (Puttick & Mulgan 2013):

1. Orchestrate all relevant kinds of evidence, not only scientific.

2. Involve the likely users of evidence in the shaping of work programmes, prioritisation and governance.

3. Mobilise evidence for multiple types of use – from policymaking at national or local level to management and front–line activity.

4. Influence the creation of new evidence.

5. Be ready to adapt by being responsive to its own impact. (Puttick & Mulgan 2013).

In short, NESTA argued that the new clearinghouses should embrace a broader range of users, evidence and be more responsive.

However, parallel to these investments in and institutionalization of clearinghouse functions considerable research has documented that getting research to inform policy or practice is no mean task in its own right. The body of literature on knowledge transfer/translation/utilization has grown considerably in recent years.

Further, doubts have been raised, as to what extent proven effective program can be replicated in other contexts (Sundell, Ferrer-Wreder & Fraser, 2013).

In short, this would lead neutral bystanders to ponder whether the very notion of clearinghouses actually meets its promises (Hansen & Rieper, 2010; Leeuw, 2010)?

This intriguing question is not within the scope of this article. However, this article posits that two key requirement for clearinghouses to meet this promise have to be met. First, they must meet differential informational requirements of its intended users. Second, they must be vested in a broader knowledge translation strategy.

To substantiate this we will first explore what kind of evidence that existing clearinghouses actually produce and to whom. Second, we will compare and contrast the

approach of existing clearinghouses. Third, we will explore their implications and subsequent considerations governing the design of a Danish clearinghouse in the social policy domain. Finally, we will discuss its particular challenges. We will do so by situating the Danish clearinghouse in a broader knowledge translation context.

Previous work in the area

As mentioned considerable research has been undertaken in assessing knowledge transfer/translation/utilization within evaluation (Cousins & Leithwood, 1986; Johnson et als, 2009; Weiss, 1998) and in research more generally (Best & Holmes, 2012; Lomas 1993; 2000; Nutley, Morton, Jung & Boaz, 2010; Prewitt, Schwandt & Straf, 2012; Ouimet, Landry, Ziam & Bédard, 2009; Ward, Smith, House, Foy & Hamer, 2010).

Four models of linking research evidence to action has been identified. The models are (i) Push efforts by knowledge producers or purveyors, (ii) Pull efforts by knowledge users, (iii) exchange efforts between knowledge producers or purveyor and a group of users, and (iv) integrated efforts between the producers/purveyors and users by way of a knowledge translation platform (Lavis, Lomas, Hamid & Sewankambo, 2006). The latter will often integrate elements of the other models. Clearly, clearinghouses are, mostly, instances of an integrated model for knowledge transfer.

One attempt to integrate and summarize this body of literature has been done by the, appropriately named, KT Clearinghouse, which is a collaborative effort between St. Michael's Hospital and the University of Toronto in Canada (http://ktclearinghouse.ca/). Its work builds on extensive review of the knowledge translation literature writ large. This research has been translated into the knowledge-to-action cycle (KTA) (Graham et als, 2006). The KTA cycle consists of (i) steps which need to be take to manage knowledge transfer processes (Problem identification, local adoption, assessing barriers, tailoring the

intervention, monitoring use, evaluationg outcomes, sustaining use, and recurrent review of problems) and (ii) a knowledge funnel which contains the actual translation of research evidence from first generation (primary research) to second generation (review of existing research) to third generation knowledge that translate evidence into forms which is actionable for key stakeholders. The two latter generations are often institutionalized in a clearinghouse function. See figure 1 for an overview. Subsequently, we will use the KTA cycle as a conceptual framework for situating the Danish clearinghouse's efforts.

However, one may argue that the KTA cycle fails to take into account the evaluation capacity of knowledge purveyors and users. An emerging body of literature focusing on evaluation capacity points to its importance to produce and use evaluative knowledge (Bourgeois & Cousins, 2013)
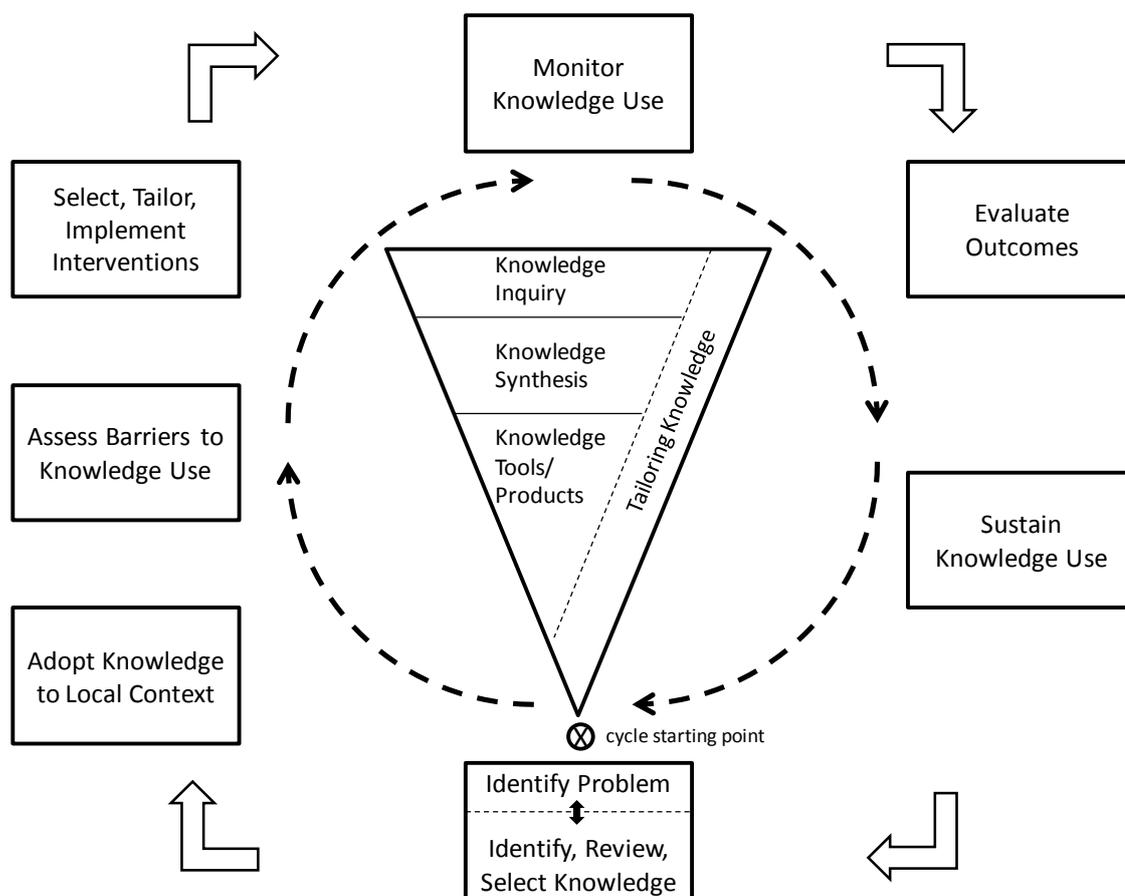

Figure 1 – The Knowledge-To-Action Cycle. (Graham et als, 2006).

Furthermore, we conducted a search of the peer-reviewed literature on the functioning of clearinghouses. This search indicates that little work has been done with regard to comparing existing clearinghouses. Some exceptions exist (Bhatti, Hansen & Rieper, 2005; Puttick & Mulgan, 2013, SFI Campbell, n.d.).

Given the proliferation of clearinghouses in recent years it is striking that there has been relatively little effort to compare the different financial, organisational, methodological, and technological bases upon which such clearinghouses rest let alone assessing their effectiveness. Consequently, we do so and then reflect how these findings informed the establishment of the Danish clearinghouse.

Method

The study met several challenges: (i) Definitional, (ii) methodological, and (iii) practical.

First, what constitutes a clearinghouses is not clearly defined. Various thesaurus definitions suggest it is a central agency for the collecting, classifying, and distributing information. Second, we set up the following criteria for a working definition of clearinghouses:

1. An agency;

2. With a stated mission to collect, classify, and distribute existing evidence;Sponsoring or carrying out meta-evaluations (synthesis or reviews) of existing research;

3. Disseminating findings from such meta-evaluations;

4. Accessible in the English languages;

5. An online platform for dissemination.

6. Focused on social welfare policy domains[i];

Finally, we needed to identify clearinghouses to be included in the study. Our point of departure was the lists of clearinghouses assembled by SFI Campbell (n.d.) and Mulgan & Puttick (2013). Altogether 24 clearinghouses met our criteria. These were:

- Centre for Reviews and Dissemination (CRD)

- California Evidence-Based Clearinghouse for Child Welfare (CEB4CW)

- Health-Evidence (HE)

- Evidence for Policy and Practice Information and Coordinating Centre (EPPI)

- National Registry of Evidence-based Program & Practices (NREPP)

- Cochrane Collaboration (Cochrane)

- Campbell Collaboration (Campbell)

- The Center on Knowledge Translation for Disability and Rehabilitation Research (KTDRR)

- Child Trends / What Works (CT)

- The National Institute for Health and Care Excellence (NICE)

- PsycBite (PsycBite)

- National Center for Evidence-Based Practice in Communication Disorders (N-CEP)

- Blueprints for Healthy Youth Development (Blueprint)

- Research Autism (RA)

- HUD USER (HUD)

- Center for Court Innovation (CCI)

- Project Oracle (PO)

- Promising Practices Network (PPN)

- Washington State Institute for Public Policy (WSIPP)

- Coalition for Evidence-Based Policy (the Alliance for Useful Evidence in UK) (CFE)

- Poverty Action lab (J-PAL)

- Social Care Institute for Excellence (SCIE)

- Early Intervention Foundation (EIF)

- Evidence-Based Prevention & Intervention Support Center (EPISCenter)

Once the clearinghouses were identified data were retrieved from their websites and were subsequently entered into a Microsoft Excel database. The clearinghouses' characteristics were coded in accordance with 13 overarching categories pertaining its origin and organization (country, sponsor, operator, staff, budget), its purpose (mission, level, domains, types of evidence), its methodology (threshold, rating, and review process) and evidence of effectiveness (eg. evaluation reports). One person was responsible for the coding to reduce inter-rater reliability issues. Classifications were subject to discussions with the research team and compared to existing classification for external validation (SFI Campbell, n.d.; Puttick & Mulgan, 2013).

Findings

In this article, we do not intend to explore all details of a comparative analysis, however we present key findings governing the subsequent design of the Danish clearinghouse.

Origin and organization

Twelve of the 24 clearinghouses were based in the United States of America and seven were based in the United Kingdom. The remainder were scattered across other

countries such as Australia, Canada and others. Obviously, the Anglo-Saxon dominance is related to the inclusion criteria stating only English language clearinghouses were included. A host of other clearinghouses exist in other national vernaculars.

In terms of sponsors, it is clear that public funding plays a key role in funding the clearinghouses. Nine of 24 clearinghouses are exclusively funded by public government (national, regional, local). Equally, prevalent is mix of sponsors such as research councils, philanthropies, and public government. Six clearinghouses are exclusively sponsored by non-government funds such as philanthropies or professional societies[ii].

The clearinghouses are predominantly operated by research institutions such as universities (8), think tanks or other independent research entities (5). Five were operated by public institutions and another five by other non-government entities such as the Campbell and Cochrane collaborations.

The clearinghouses tend to be relatively small operations. 15 of 24 clearinghouses employ less than 25 staff. The remainder of the clearinghouses are either embedded in larger organizations or simply larger. We found no clearinghouses with more than 100 employees dedicated to its function. It is important to note that two different models are prevalent: One, an in-house model wherein the clearinghouse staff collates, synthesizes and produces the products (such as systematic reviews). While it is sometimes unclear, which model is applied, at least 19 of the clearinghouse use this model. Two, a sourced model wherein the production of knowledge is contracted to other parties or submitted on a voluntary basis (e.g. the Campbell and Cochrane Collaboration). Budget data are generally not easily accessible on the websites. Mulgan and Puttick's (2013) survey show similar difficulties in retrieving data. Where data is available they document substantial differences in the size of funding.

Purpose

The clearinghouses tend to be fairly specific in the topic that they cover (drug abuse, homelessness etc.). Most (20 of 24) clearinghouses cover between one to three topics. Only few clearinghouses have a broader topical coverage (WSIPP, CFE, Campbell, EPPI)

One can summarize the existing clearinghouses as primary having focus on program level interventions (all) and less so at the policy level (8 of 24).

In terms of the kind of evidence produced, we distinguish between five kinds of evidence: (i) evidence about the target population, (ii) evidence about effects, (iii) evidence about interventions, (iv) evidence about implementation and (v) evidence about costs. See further below. We found, that clearinghouses have a strong focus on the effectiveness of programs in terms of what immediate, intermediate and long-term outcomes they produce (including effect sizes and ratios). The clearinghouses apply differential methodological thresholds (such as accepting only evidence from RCTs) for what counts as credible evidence. 23 of 24 clearinghouses have this focus.

The clearinghouses provide a differential level of detail in the descriptions of the programs' core components. Half of the clearinghouse can be said to describe program content at some length (e.g. description of competencies, phases, activities, duration, dosage, quality standards, supervision, assessments etc). 10 of 24 clearinghouses focus on the wider implementation environment conducive to effective delivery of services (such as systems, organizational, cultural factors).

The focus on program also implies that there is less focus on certain kinds of evidence such as the target population at large, such as providing information about prevalence, incidence, comorbidity etc. One third of the clearinghouses provide such information.

15 of 24 clearinghouses provide information about program or policy costs, such as their relation to efficiency, effectiveness, utility and benefits to costs.

Only two clearinghouses can be said to focus on all five types of evidence (SCIE and PPN).

Methodology

In terms of methodology there is a variance in the methodological thresholds. Not all clearinghouses have clear criteria for what evidence is included. Five clearinghouses explicitly use randomized controlled trials as an inclusion criterion, but the majority apply a borader, and more inclusive approach to research designs. This correlates with a broader scope on the kind of evidence produced.

15 of 24 clearinghouses apply a systematic rating of the strength of evidence. The actual rating scales applied differ.

Knowledge translation

There is some differences in terms of the kinds of outputs. Some clearinghouses only offer, what the KT Clearinghouse coins as second generation knowledge (e.g. systematic reviews, whereas other also produce first generation knowledge (new primary research). Others again produce third generations knowledge (guidelines, manuals, tools etc). Also the approach to dissemination differs from passive (more or less the electronic platform only) to actively using push and pull strategies engaging with users. Consequently, the types of services offered also differs from the platform only to consultancy, training and technical assistance.

Evidence osf effectiveness

Given the fact, that the clearinghouses, generally insist on the importance of knowledge it were to be expected that evidence about the clearinghouses' own effectiveness

was to be found. However, we found no published external evaluation reports or other kind of independent evidence documenting the clearinghouses' outcomes. Two clearinghouses documented stakerholder (user) surveys.

A typology of clearinghouses

Based on this brief overview one can, arguably, distinguish between three types of clearinghouses in the welfare policy field: (i) Research oriented clearinghouses, (ii) Policy oriented clearinghouses, and (iii) Practice oriented clearinghouses. The key differentiators are the primary intended users and the kinds of products and services offered. The distinguishing features are summarized in Table 1.

The *research oriented clearinghouses* largely focus on making available existing research through the synthesis of this evidence in a particular format. Its intended users are researchers, clinicians and health care practitioners. The tend to be more focused on evidence concerning effectiveness and costs. They have clear, objective selection criteria, and often operate with a well defined methodological threshold for what counts as credible evidence. Consequently, the rating of evidence also tends to be systematic. An illustrative example is the Campbell Collaboration. This clearinghouse largely aims at producing and disseminating rigorous systematic reviews. It is a product, given its technical qualities, that requires significant academic training in order to understand its findings and implications. Whilst the website contains sections on implementation and knowledge translation these are scarcely developed. The heart of the Campbell Collaboration remains its database of reviews meeting its methodological requirements.

The *policy oriented clearinghouses* share a number of characteristics with the former, but they are also focused providing evidence useful for policy decision-making. This implies that the intended users are a broader range of social actors, including practitioners. However,

they tend to be in the field of health. They tend to focus on a broader range of evidence and have some level of systematic approach to selection, methodological thresholds, and rating of evidence. The types of products are also broader, but they tend not to be translated into actionable resources for practitioners. In some instances, these clearinghouses actively advocate for certain policies or programs. An illustrative example is the Washington State Institute for Public Policy (WSIPP). The WSIPP was created by the Washington State legislature to carry out non-partisan research supporting legislators in making evidence-informed decisions. Its mission statement indicates that the WSIPP's research should *"benefit the state's policymakers by making available to them timely, useful, and practical research products of the very highest quality… Toward these ends the Institute will... initiate, sponsor, conduct, and publish research that is directly useful to policymakers."* (WSIPP, 2010) Thus, its products, albeit technical, are relatively short (often less than 25 pages), clearly and crisply written with short summaries which makes them accessible to a policy-making readership.

The *practice oriented clearinghouses* tend to focus more explicitly on the professionals as intended users. As the only type of clearinghouses they also produce third generation knoweldge. As such evidence is much more translated, and even transformed, to become amenable to practice. These types of clearinghouses also have less clear selection criteria An illustrative example is the Social Care Institute of Excellence (SCIE) in the United Kingdom. SCIE is an independent charity working in the field of social care for children, adults and families. According to its website SCIE will;

"gather and analyse knowledge about what works and translate that

knowledge into practical resources, learning materials and services

including training and consultancy. Our work helps to improve the

knowledge and skills of those working in care services. This includes

managers, frontline staff, commissioners and trainers. People who use

these services and their families also use our resources to make informed

decisions about their care" http://www.scie.org.uk/about/index.asp

Thus SCIE's focus on practice is equally apparent in the range of products and

services offered which among others include: guidelines, tv channel, e-larning tools, self-

asseessment tools, consultancy and technical assistance.

		Research oriented clearinghouses	Policy oriented clearinghouses	Practice oriented clearinghouses
PURPOSE	**Focus**	Research (scientific articles and systematic reviews)	Research	Program applicable in practice, evaluations and other research
	Intended users	Researchers and highly educated practitioners	Decision-makers, administrators, funders, researchers and highly educated practitioners	Decision-makers, administrators, funders, front line practitioners ELLER practitioners incl. social workers
	Selection criteria	Methodological (objective criteria)	Methodological and (to a lesser extent) political	Methodological and (to a lesser extent) political, specific change agenda
	Level of evidence	Program only	Mainly program, but also policy	Mainly program, but also policy
	Types of evidence produced	Mainly effectiveness and costs	➡	Also focus on implementation
METHOD OLOGY	**Generation**	Second generation. Synthesis of existing research	Second generation and some first generation developing primary research	First, second and third generation
KNOWLE DGE TRANSLA TION	**User involvement in selection**	Methodological criteria only	Methodological criteria and policy focus	Some level of involvement of practitioners and service recipients
	Type of output	Systematic reviews, or dissemination of first	➡	Practice guidelines, protocol, implementation

		order research		guidelines etc.
	Services offered	Database containing research articles		Direct support service: Practice oriented written products, technical assistance training
	Type of dissemination	Passive diffusion. Make accessible scientifically valid information		Active dissemination. Active role in scaling and supporting implementation of certain methods. Advocacy for evidence-based policy-making and selection of proven programs
EVIDENCE OF EFFECTIVENESS	**Evidence of effectiveness**	Not demonstrated	Not demonstrated	Not demonstrated

Table 1 – Typology of clearinghouses

Whereas mission statements tend to be similar for the clearinghouses, the practice is

different. It appears that the primary intended users is a key differentiator in terms of the

dissemination strategies and activities chosen. Consequently the products, or other outputs,

also differ. The research oriented clearinghouses produce systematic reviews and tend to rely

on a passive diffusion approach (Best & Holmes, 2010). This is markedly different from the

practice oriented clearinghouses. Their outputs are more differentiated and some engage

directly in the translation of evidence into practice through training, technical assistance etc.

Also, the range of products is different. Evidence is translated into products deemed

amenable to practice such a guidelines, handbooks, booklets etc. These are communicated in

a non-technical language. These can be said to rely more on an active dissemination approach

(Best & Holmes, 2010).

Products									
Product range — Systematic review and database and direct support and primary research and guidelines						PN		EBC4CW	CCI, PO J-PAL EPISCenter, SCIE, NREPP, CT, Blueprint RA
Systematic review and database and some direct support					PPI, UD	KTDRRE	NICE		
Systematic reviews and database	Cochrane, Campbell	PsycBite		CFE CRD,WSIPP					
	Researcher oriented				Policy oriented			Practitioner oriented	
	Target population								

Early Intervention Foundation has not been inserted due to missing information.

Figure 2 Overview of clearinghouses

The survey of the clearinghouses makes it clear that a number of choices need to be made that profoundly affects the orientation, intended users, and knowledge production of a clearinghouse institution. Figure 2 seeks to classify the surveyed clearinghouses in accordance with the typology developed. Such considerations are particular salient when designing a new clearinghouse and deciding on its mission, intended users, kind of evidence to be produced, and service/product range.

Designing a clearinghouse for Danish Social Policy

Public institutions rarely get to work from a clean slate. For better or worse, institutional or various stakeholders' interest intertwine and trajectories to past decisions, products and institutionalizations, and budgetary constraints, most likely will affect what can be done. Such considerations certainly were salient when considering the architecture of the Ministry of Social and Integration Affairs' knowledge management system which were to guide its clearinghouse function. The National Board of Social Services (NBSS) was assigned the task of developing this system.

Some of the constraining features affecting the design of the knowledge architecture were (i) the existence of a comprehensive target group taxonomy developed by the NBSS), (ii) nomenclature describing target populations among national and local governments and service providers, (iii) a lack of a comprehensive body of rigorous program evaluations and studies and (iv) different stakeholders emphasizing different needs for evidence and differential use of such evidence. Finally, over the years various attempts to design, fund, and implement a clearinghouse had been instituted with mixed results (Oxford Research & KORA, 2012).

In short, the NBSS was given the mission to design a new clearinghouse function that was to support evidence-based practices and policy-making in the social welfare domain in Denmark. No earmarked funding was provided, but the establishment, operations and knowledge were expected to be attained within the Board's overall budget (approximately £ 35 million annually). In terms of knowledge production, it was predominantly an in-house model as the NBSS' 330 staff was expected to contribute to the knowledge production concerning different target populations. In some instances reviews were to be commissioned to external contractors.

Guided by the mission, the NBSS engaged in consultations with stakeholders such as the Ministry of Social, Children and Integration Affairs, local governments, social service providers, user organizations, and researchers. The intention was to identify what kind of evidence key stakeholders demanded.

During these consultations it became clear that, to serve to dual purpose of the mission statement, supporting evidence-based policy AND practice, evidence at two different levels was demanded. Policy level evidence about an entire target population (e.g. homeless) and program level evidence about specific interventions and their characteristics (e.g. Critical Time Intervention – a program targeting homelessness)

An evaluation of previous clearinghouse efforts, suggested that practitioners (especially lower middle management) in local government organizations were central knowledge brokers and should be targeted (Oxford Research & KORA, 2012). In Denmark local governments own and operate the majority of direct social providers in a number of different domains including day care, foster care, long term care for the elderly and disabled, various treatment institutions for drug or alcohol addiction. This implies that decisions on the

delivery of social services, what programs to implement etc lie at the level of local government.

The conceptual infrastructure of the clearinghouse

The consultations also indicated that at both the policy and program level similar questions were asked. These were:

1. What characterizes the target population?

2. What works?

3. Why does it work?

4. How does it get implemented?

5. How much does it cost?

In short the questions were the same, but posed at different levels. Therefore, these were operationalized into five types of evidence that were considered essential for policy and program level decision-making:

- **Evidence about the target population.** This evidence concerned issues such as prevalence, incidence, co-morbidity, risk factors, demographics and socio-economical characteristics of a given target population.

- **Evidence about effects.** This evidence concerned to what extent interventions have been proven to be effective including evidence about effect ratio and size. Also distinguishing between short, intermediate and long-term outcomes.

- **Evidence about interventions.** This evidence concerned programs including description of competencies, phases, activities, duration, dosage, quality standards, supervision, assessments etc.

- **Evidence about implementation.** This evidence concerned conditions known to drive or inhibit implementation such as organizational, inter-personal and individual factors.

- **Evidence about costs.** This evidence concerns the unit costs per output, outcome, and impact as well as cost-benefits of given interventions.

The evidence was categorized in accordance with the taxonomy for target population developed by the NBSS. This taxonomy classifies different types of social problems and functional impairments (www.socialebegreber.dk). Further the NBSS distinguished between different age groups. Target populations with multiple social problems can be cross-indexed.

Using this logic the five types of evidence can be applied for different target populations as exemplified in the figure below. In this example evidence about homeless, 13-18 year old concerning its characteristics, effective interventions, implementation, effects and costs can be accessed.
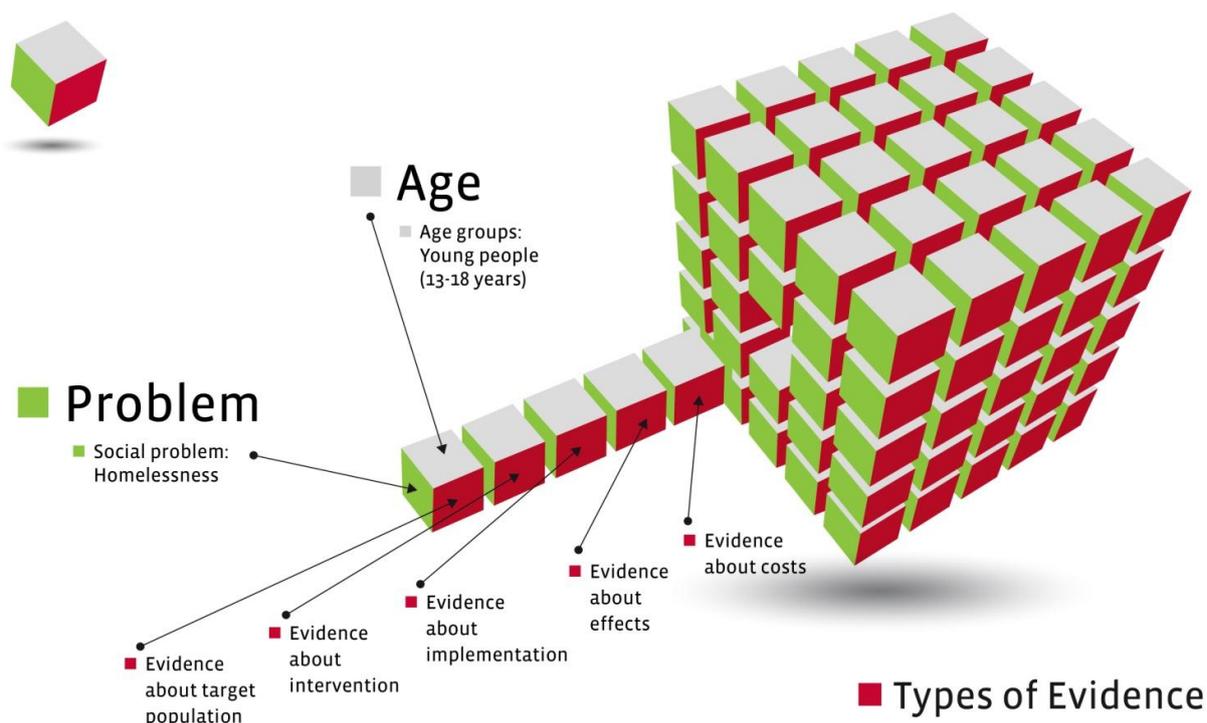
Figure 3 – Illustration of the logic underlying the social policy evidence base.

A similar structure was applied when focusing on a single program. Here the available evidence about the program's target population (e.g. inclusion criteria), its content (e.g. theoretical framework, duration, dosage, competencies, quality assurance), implementation, effects and costs was presented.

The wider knowledge translation efforts in the Danish social policy domain

Whilst the considerations above concern the conceptual structure of the clearinghouse it says little about the wider knowledge translation strategy and context within which it is embedded. Let us therefore return to the KTA cycle (described above). This will act as a framework to describe current efforts by the NBSS. An overview is presented in figure 4 below.
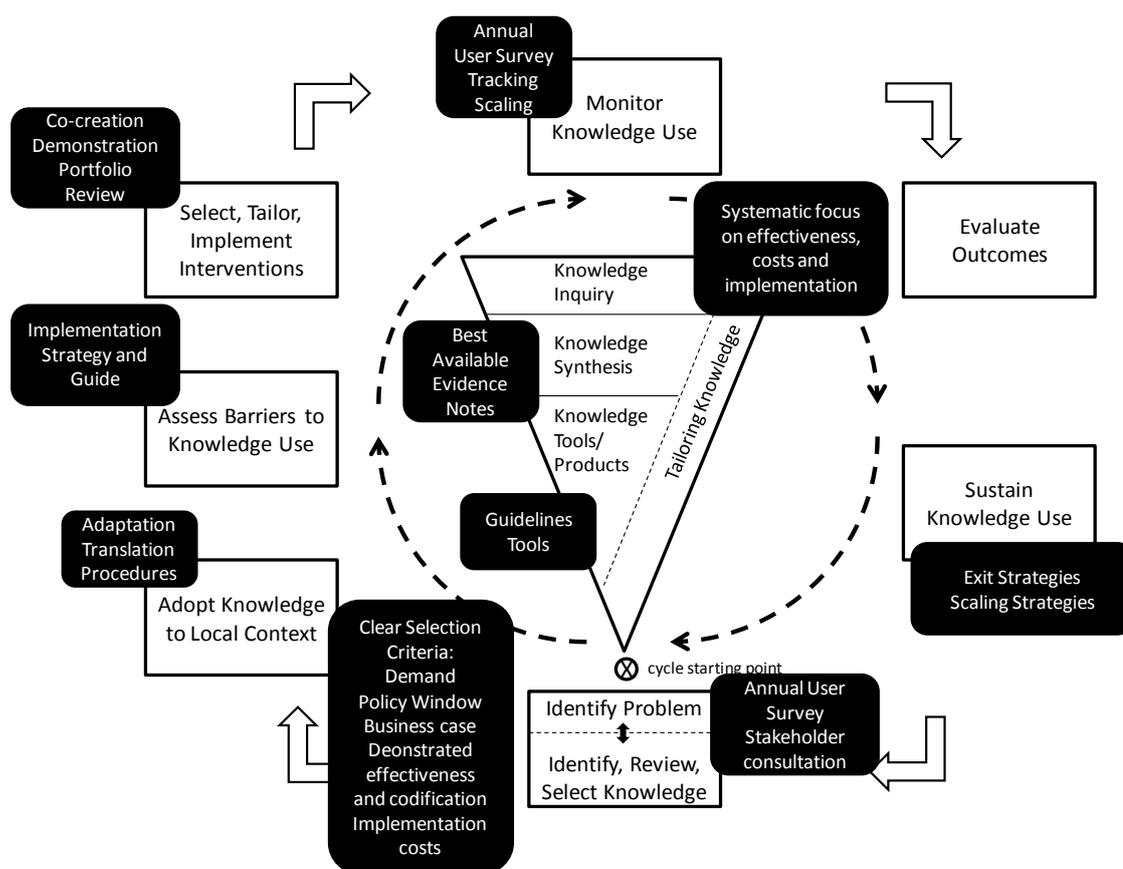
Figure 4 – Central Knowledge Translation Efforts in the Danish Social Policy Domain

Knowledge funnel

The knowledge funnel represents the tailoring and customization of knowledge to the requirements of intended users whether frontline professionals or decision-makers. As mentioned this consists of three generations of knowledge production.

Knowledge inquiry

A practical concern is the limited amount of research in the Danish social welfare sector. A recent report assesses that the annual spending on research in the social welfare domain constitutes less than 3% of the public spending on research and development (Ministry of Research, Innovation & Higher Education & Ministry of Social and Integration Affairs, 2012). This should be compared to the fact that annual expenditures exceed 246 billion danish kroner (£ 28 billion) and constitute around 35% of public spending

(www.sm.dk). While this estimate may underestimate the actual amount of knowledge production it reflects a real problem; the disproportionate relationship between expenditures to the sector and the public investments made in R&D. This is not exclusively a Danish challenge, it is illustrative that the Cochrane Collaboration's database contains around 4000 systematic reviews and another 2000 protocols under way. In comparison the Campbell Collaboration's database contains less than 60 (Konnerup & Kongsted, 2012). This reflects both a scarcity of research in general and in particular if methodological thresholds concerning experimental designs were strictly enforced.

Further, efforts are being made to establish a network with the research community and educational institutions to further both the supply of and demand for the evidence disseminated by the clearinghouse. It is a continuous process to ensure that the commissioned research and evaluations focus on generating evidence that contributes to the existing evidence base (se figure 3). In order words, the key task is to ensure that first generation knowledge production has the right scope in terms of the research questions it poses.

NBSS has also identified measures to be consistently used in outcomes research and evaluation (i.e. addiction severity). The intention is that all programs focusing on a particular outcome area will use the same measures (e.g. validated rating scales such as EurAddiction Severity Index). In the future, this initiative will improve accuracy, enable comparison, costing analysis and future target setting (Kramer, Parkhurst & Vaidyanathan, 2009).

Knowledge synthesis

Second generation knowledge production is concerned with how existing research is collated and synthesized. Here, the issues of methodological thresholds, format, and review process are particularly salient.

As indicated from the mapping of existing clearinghouse the types of evidence gathered and methodological thresholds applied differ. Much has been said about the appropriateness of experimental designs in impact evaluations (e.g. White, 2010) but some consent exists as to the hierarchy of different research designs to answer the attribution question (Bhatti, Hansen & Rieper, 2005; Rieper & Hansen, 2007). However, when considering other types of evidence what constitutes rigor and the appropriateness of different research design is open to debate. Rieper and Hansen (2007) have elsewhere discussed the appropriateness of different research designs compared to typical evaluation questions.

Consequently, the NBSS categorized all types of evidence are between A-D epending on the strength of credible evidence. This was inspired by the GRADE rating system used for clinical guidelines (Guyat et als, 2008). However the GRADE rating system solely focuses on the attribution question. Whilst guidelines were developed to support ratings, and inter-rater reliability, this issue remains a critical challenge to the approach of the NBSS.

Consultations with the target population indicated clearly that, albeit most Danes are conversant in English, the format of systematic reviews, in English was too long, too technical and too difficult to understand for Danish social workers. How to communicate to intended users constituted a particular challenge.

Therefore a template of "best available evidence" notes was created. Each note was to focus on different target populations (such as persons with substance abuse). Each note is 20-25 pages long and written in a non-technical, accessible language. The content is structured by the five types of evidence presented above. The template has been tested by intended readers, lower middle management in local governments, and all have been subjected to review by researchers. These notes provide a policy level overview of the target population whilst hyperlinks to detailed descriptions of specific methods will be provided.

Currently, eight such notes have been published (NBSS, 2013a-h). Further twelve notes are expected to be completed by the end of 2014. The notes will be updated every three years.

As mentioned, as a conceptual framework the KTA cycle does not deal directly with evaluation capacity. In reality, building such capacity within the NBSS and in the wider social policy environment is critical. In example, the task of carrying out systematic literature reviews is novel to NBSS staff. It requires evaluation competencies. Therefore the NBSS has instituted new competency-based job descriptions in which this is defined as a prerequisite competency. Further a HRD program has been defined which is aimed at acquiring these methodological competencies.

Knowledge tools/products

Third generation knowledge consists highly translated knowledge which is channeled and formed to the informational needs of intended users and to influence their practice.

Currently, effort are being undertaken to revamp the NBSS' clearinghouse for children, youth, and at risk families (http://vidensportal.servicestyrelsen.dk/). It is the intention that the clearinghouse will host data for all target populations and structured in accordance with the five evidence types outlined above (see figure 3). The platform will not go online before a critical mass is compiled.

Furthermore, guidelines for particular methods and assessments of their evidentiary base will be made accessible. This implies that decision-makers at all levels can access knowledge that will enable them to make informed decisions on whether to implement particular interventions and if so, how to do it.

Finally, it has been a important to recognize that not all methods in the social welfare domain rests on a strong evidentiary basis. This is not the same as dismissing these methods as ineffective. Simply, their results are not demonstrated and should be subject to evaluative

scrutiny. Therefore, the NBSS is in the process of developing an evaluation toolkit that enables service providers and municipal government in assessing results from particular interventions through documenting basic data about its recipients' baseline and endline as well as purpose, duration, dosage etc about the intervention itself. The can be considered further evaluation capacity building efforts.

The knowledge-To-Action Cycle

Problem identification

The NBSS engages in dialogues with the local governments, user organizations and experts on the needs and prioritization of different target populations. However, it is ultimately the decision of government which interventions should be prioritized and financed. Here evidence about the target population will be critical informing decision-makers on the prevalence and incidence of a given social problem. To this end five criteria for selecting existing interventions have been chosen.

1. Demand. There needs to be an effective demand by local government, service providers and user organizations for a new intervention

2. Policy Window. There must be a policy window in which the new intervention can be framed.

3. Business case. There needs to be a compelling business case suggesting that the intervention will create better outcomes for the same, or less investment, or at least the same outcomes for less.

4. Demonstrated effectiveness and codification. There needs to be a solid evidentiary basis demonstrating consistent results from more than two rigorous impact evaluations. Outcomes should be socially meaningful, not just statistically

significant. Also, the intervention needs to be well codified in order to facilitate translation and adaptation into a Danish context.

5. Implementation costs. The intervention should, at best, be implemented at a relatively low cost in terms of initial investments, operational budget, licensing etc.

Adopt knowledge to local context

When replicating interventions across different sites, particularly across cultural and linguistic boundaries, translation and adaptation are particularly salient issues. A key challenge is to have identified the core components of an intervention which should not be changed versus those components that can be adapted to local context (reference PPV texts).

In the words of Sundell, Ferrer-Wreder & Fraser: *"Making these kinds of cultural adaptations while preserving other features of [evidence supported interventions] is emerging as a crucial challenge in the globalization of evidence-base practice."* (2013: 9. Our insertion). To this end the ADAPTE Collaboration prescribes a systematic adaptation procedure (http://www.adapte.org/www/), which has informed NBSS considerations on this issue.

Assess barriers to knowledge use

Implementation research has documented the importance of a number of factors to the successful implementation of innovations, including evidence-based programs (Durlak & Dupre, 2008; Dusenbury, Brannigan, Falco & Hansen, 2003; Fixsen, Naoom, Blasé, Friedman & Wallace, 2005). Factors, external to the intervention itself, which are particularly salient are leadership, organization and competencies. To this end, the NBSS has developed implementation guidelines. A critical component herein is a tool which seeks to assess the

readiness of organizations when engaging in the pilot or implementation of a new intervention.

Select, tailor and implement interventions

A pivotal feature in the readiness assessment is to identify barriers to implement and thereby address these in the design of the intervention. As the NBSS and the national level of government does not have the responsibility for direct delivery of social services, it is pivotal to co-create the implementation process with those organizations involved. This involves designing and planning the minutiae of the implementation with the organizations charged with the delivery of the intervention.

However, in the experience of NBSS a tailored design is rarely enough. The concerted focus on executing the intervention according to (an agile) plan is at least as important. As the NBSS operates its portfolio of approximately 150-200 demonstration projects with partners in municipal government, and sometimes consultancies, a continuous monitoring and review of the portfolio is crucial. Every three weeks the portfolio is reviewed against nine variables; (i) will time plan, (ii) budget, (iii) resources, (iv) competencies, (v) stakeholders, (vi) consultant delivery, (vii) process and product quality, (viii) likely goal attainment, and (ix) likely benefit realization. The review is conducted in order to make timely and corrective actions if needed (Hatry & Davies, 2011).

Monitor knowledge use

Simply put, the NBSS will fail its strategy if the local governments and direct service providers fail to find use for the knowledge it disseminates. Consequently, this notion is manifested in the performance contract between the NBSS and the Ministry of Social Affairs, Children and Integration. Moreover, this also implies that an outside-in perspective on the NBSS' activities is crucial. Other than frequent dialogues with key stakeholders, two

activities are relevant. First, as of 2014 NBSS conducts an annual user survey assessing the timeliness, relevance, responsiveness and accuracy of its knowledge products and services. This survey also informs about emergent needs for different target populations and which ones should be prioritized according to local government. Second, for key strategic interventions, the NBSS regularly tracks the scaling of these interventions. Scaling targets form part of the performance contract with the Ministry.

Evaluate Outcomes

As mentioned above, there is now a systematic focus on the effectiveness, costs and implementation of all interventions instituted by the Ministry of Social Affairs, Children and Integration. As outcomes measures have been standardized this will eventually enable the comparison of the cost-effectiveness of different interventions for the same target population. Also, individual data from the demonstration projects will be stored in a data warehouse. This will allow researchers to access these data for longitudinal studies also. This particular effort will ensure that the long-term impact can be documented. More often than not, these are not documented in impact evaluations (in which long-term impacts are defined in 1-3 year time horizon).

Sustain knowledge use

The NBSS is engaged in the business of demonstrating interventions' effectiveness and bringing these interventions to scale. It is this uptake and use which is crucial to its mission. This implies that there is a key focus on which scaling strategy to apply. This may vary depending on the characteristics of the intervention itself and in wider environment where the intervention will be replicated (Bloom & Smith, 2010). At the time of writing the NBSS is developing an concept paper describing various scaling strategies such as dissemination, branching and affiliation (Dees, Anderson & Wei-Skillern, 2004).

Equally, important the NBSS' role in the demonstration phase is often through technical assistance, training, consultations. Once, the intervention becomes integral to operations these efforts will be phased out. Therefore, the NBSS' exit strategy and ability to ensure a sustainable professional environment is critically important.

Identify, review, select knowledge

As mentioned the annual user survey as well continuous consultations with key stakeholders, and the constitution of an advisory board helps the NBSS identify new needs, informs prioritizations.

Discussion and conclusion

The first part of this article surveyed clearinghouses within the field of social welfare. Despite their global proliferation there is surprisingly little evidence as to their effectiveness as a vehicle for knowledge translation. In this study, we identified three different kinds of orientations; research, policy, and practice oriented. Albeit, little variation in the mission statement, these orientations affected the kind of evidence produced, the level at which evidence was collated and the type of products and services offered by the clearinghouses. There is little research as to the effectiveness of these different orientations.

The second part of this article, presented how these findings reflected on the establishment of a new social welfare clearinghouse in Denmark and what, we consider, general concerns when designing such institutions embedded in a wider knowledge translation approach. The results of these efforts remain to be seen. Initally, we presented NESTA's list of principles that the new British clearinghouses should follow (Puttick & Mulgan 2013).

Incidentally, these positions very much reflect the approach taken by the NBSS when designing the Danish clearinghouse.

First, it made the conscious choice to include all five types of evidence and not operate with a methodological threshold excluding evidence.

Second, it has involved key stakeholders in conceptualizing what work programme should be prioritized and how evidence should be presented. This involvement will be ongoing through the establishment of an advisory board, annual user surveys, and informal meetings with key stakeholders.

Third, the clearinghouse contains evidence at both policy and program level in order to meet the needs of different users of evidence in both central and local government as well as direct service delivery.

Fourth, the NBSS seeks to influence the creation of new evidence through direct dialogue with knowledge producers, such as academic institutions, consultancies, educational institutions as well as other commissioners of research and evaluation.

Fifth, the clearinghouse' users will be asked to provide feedback on the performance of NBSS including the relevance and usefulness of the evidence provided by the clearinghouse. This will help the NBSS to constantly adapt to changing needs.

It is ironic that little evidence exists as to the effectiveness of clearinghouses as a vehicle for research dissemination and translation into practice as it is exactly this kind of certainty which is proposed by its advocates. This emphatically calls for further evaluation of the effectiveness of clearinghouses.

References

ADAPTE Collaboration (http://www.adapte.org/www/)

Best, A. & Holmes, B. (2010). Systems thinking, knowledge and action: Towards better models and methods. *Evidence & Policy,* vol. 6(2): 145-59

Bhatti, Y., Hansen, H.F. & Rieper, O. (2005). *Evidensbevægelsen kortlagt* (UK: Mapping of the Evidence Movement). Copenhagen: AKF Forlaget

Bloom, PN & Smith, BR. (2010). Identifying the Drivers of Social Entrepreneurial Impact: Theoretical Development and an Exploratory Empirical Test of SCALERS. *Journal of Social Entrepreneurship*. Vol. 1(1): 126–145

Bourgeois I & Cousins, BJ (2013) Understanding Dimensions of Organizational Evaluation Capacity. *American Journal of Evaluation*, 34(3) 299-319

Cabinet Office & HM Treasury, (2013). *New world leading evidence centres to drive better decisions across £200 billion of public services*. Press Release. Retrieved July 2013 at https://www.gov.uk/government/news/new-world-leading-evidence-centres-to-drive-better-decisions-across-200bn-of-public-services

Cousins, J. B., Goh, S. C., Clark, S., & Lee, L. E. (2004). Integrating evaluative inquiry into the organizational culture: A review and synthesis of the knowledge base. *Canadian Journal of Program Evaluation*, 19(2), 99-141.

Cousins, J.B. & Leithwood, K.A. (1986). Current Empirical Research on Evaluation Utilization. *Review of Educational Research Fall,* 56(3): 331-364

Dees GJ, Anderson BB, Wei-Skillern J (2004). Scaling Social Impact. *Stanford Social Innovation Review*, Vol. 1(4).

Durlak J and DuPre E (2008) Implementation matters: a review of research on the influence of implementation on program outcomes and the factors affecting implementation. *American Journal of Community Psychology* 41: 327–50.

Dusenbury L, Brannigan R, Falco M and Hansen W (2003) A review of research on fidelity of implementation: implications for drug abuse prevention in school settings. *Health Education Research* 18(2): 237–56.

Fixsen D, Naoom SL, Blasé KA, Friedman RM and Wallace F (2005) *Implementation Research. A Synthesis of the Literature*. Tampa, FL: University of South Florida.

Graham, I.D., Logan, J., Harrison, M.B. Straus, S.E,. Tetroe J, Caswell, W, Robinson, N. (2006). Lost in knowledge translation: time for a map? *Journal of Continuing Education in the Health Profession.* Vol 26(1):13-24.

Guyatt, G.H., Oxman, A.D., Vist, G.E., Kunz, R.*,* Falck-Ytter, Y.*,* Alonso-Coello, P.*,* Schünemann, H.J. (2008). GRADE: an emerging consensus on rating quality of evidence and strength of recommendations, *British Medical Journal*. 336: 924

Hansen, H.F. & Rieper, O. (2010). Institutionalization of Second-Order Evidence-Producing Organizations. In Olaf Rieper, Frans L. Leeuw and Tom Ling (Eds.). *The Evidence Book. Concepts, Generation, and Use of Evidence*. (pp 27-51). London: Transaction Publishers

Hatry, H. P., & Davies, E. (2011). *A guide to data driven performance reviews.* Washington, DC: IBM Center for the Business of Government.

Johnson, K., Greenseid, L.O., Toal, S.A., King, J.A., Lawrenz, F. & Volkov, B. (2009). Research on Evaluation Use. A Review of the Empirical Literature. From 1986 to 2005. *American Journal of Evaluation*, 30(3): 377-410

Konnerup, M. & Kongsted, H.C. (2012). Do Cochrane reviews provide a good model for social science? The role of observational studies in systematic reviews. *Evidence and Policy*. 8(1): 79-96

Kramer, M., Parkhurst, M. & Vaidyanathan, L. (2009). *Breakthroughs in Shared Measurement and Social Impact*. Seattle, WA: FSG Social Impact Advisors

KT Clearinghouse (http://ktclearinghouse.ca/).

Lavis, JN, Lomas, J, Hamid, M & Sewankambo, NJ (2006). Assessing country level efforts to link research to action. *Bulletin of the World Health Organization*, 84: 620-28

Leeuw, F.L. (2010)? On the Contemporary History of Experimental Evaluation and its Relevance for Policy Making. In Olaf Rieper, Frans L. Leeuw and Tom Ling (Eds.). *The Evidence Book. Concepts, Generation, and Use of Evidence*. (pp 11-26). London: Transaction Publishers

Lomas J (1993). Retailing Research: Increasing the Role of Evidence in Clinical Services for Childbirth. *The Milbank Quarterly*, vol. 71(3): 439-475

Lomas J (2000). Connecting Research and Policy. *Canadian Journal of Policy Research*, vol. 1(1): 140–44

Ministry of Research, Innovation and Higher Education & Ministry of Social and Integration Affairs (2012). *Kortlægning af dansk social- og velfærdsforskning* (UK: Mapping of Danish Social and Welfare Research). Copenhagen: Ministry of Research, Innovation and Higher Education.

Mulgan, G. & Puttick, R. & (2013). *Making Evidence Useful. The case for new Institutions*. London: Nesta

National Board of Social Services (2013a). *Mennesker med psykiske vanskeligheder. Sociale indsatser der virker* (UK:). Odense: Socialstyrelsen

National Board of Social Services (2013b). *Mennesker med stofmisbrug. Sociale indsatser der virker* (UK:). Odense: Socialstyrelsen

National Board of Social Services (2013c). *Voksne, som lever med vold i nære relationer. Sociale indsatser der virker* (UK:). Odense: Socialstyrelsen

National Board of Social Services (2013d). *Voksne med senfølger efter seksuelle overgreb. Sociale indsatser der virker* (UK:). Odense: Socialstyrelsen

National Board of Social Services (2013e). *Mennesker som er ramt af hjemløshed. Sociale indsatser der virker* (UK:). Odense: Socialstyrelsen

National Board of Social Services (2013f). *Socialt udsatte mennesker med alkoholmisbrug. Sociale indsatser der virker* (UK:). Odense: Socialstyrelsen

National Board of Social Services (2013g). *Mennesker, der prostituerer sig. Sociale indsatser der virker* (UK:). Odense: Socialstyrelsen

National Board of Social Services (2013h). *Ældre i risiko for tab af funktionsevne. Sociale indsatser der virker* (UK:). Odense: Socialstyrelsen

Nutley S, Morton S, Jung T & Boaz A (2010). Evidence and policy in six European countries: Diverse approaches and common challenges. *Evidence & Policy,* vol. 6(2): 131-44

Ouimet M, Landry R, Ziam S & Bédard PO (2009). The absorption of research knowledge by public civil servants. *Evidence & Policy,* vol. 5(4): 331-50

Oxford research & KORA (2012). *Evaluering af Socialstyrelsens vidensportal på området for socialt udsatte børn og unge* (UK: Evaluation of the National Board of Social Service's knowledge platform for at risk children and youth). Odense: Socialstyrelsen

Prewitt, K., Schwandt. T.A. & Straf, M.L. (2012). *Using Science as Evidence in Public Policy*. Washington, DC: The National Academies Press

Puttick, R. & Mulgan, G. (2013). *What should the "What Works Network" do?* London: Nesta

Rieper, O. & Hansen, H.F. (2007). *Metodedebatten om evidens.* Copehagen: AKF forlaget

http://www.scie.org.uk/about/index.asp

SFI Campbell (n.d.). International Sites. Retrieved July 2013 at http://www.sfi.dk/internationale_sites-7660.aspx

Sundell, K., Ferrer-Wreder, L. & Fraser, M.W. (2013). Going Global: A Model for Evaluating Empirically Supported Family-Based Interventions in New Contexts. *Evaluation and the Health Profession*. first published online January 4, 2013 as doi:10.1177/0163278712469813

http://vidensportal.servicestyrelsen.dk/

Ward V, Smith S, Foy R, House A & Hamer S. Planning for knowledge translation: a researcher's guide. *Evidence & Policy*, vol. 6(4): 527-41

Washington State Institute for Public Policy (2010). *Bylaws*. Retrieved October 2013 at http://www.wsipp.wa.gov/BYLAWSJune2010.pdf

Weiss, CH (1998). Have We Learned Anything New About the Use of Evaluation? *American Journal of Evaluation*, vol. 19(1): 21-33.

White, H. (2010). A contribution to current debates in impact evaluation. *Evaluation, 16*(2), 153-164.

Footnotes

---

[i] Due to its amenability with the Danish clearinghouse.
[ii] The sponsorship of The Early Intervention Foundation remains unclear.