# Key Finding #1—Supply: A Long Supply Chain

#### Many steps

Supplying evidence on effectiveness is not a simple matter. To compile and share evidence, an intervention must first be studied—ideally several times—to determine whether it produces positive outcomes for the target population. Those studies must then be collected, reviewed, and validated by an independent party to ensure the methodology is sound and the outcomes hold across studies. Interventions then need to be rated, or placed along the spectrum of effectiveness, and made available to decision makers and others in a usable format. At this point in the process, it also can be valuable to identify common elements across interventions through synthesis. Decision makers then must be guided on how to select and implement the appropriate interventions based on the available evidence. This process forms a chain for the supply of evidence on effectiveness (see Figure 1).

For this report, we focused on the supply chain steps from the completion of a study through implementation. While developing interventions and studying them are critical steps, we focused primarily on the market for information related to evidence, rather than the creation of interventions and evidence.

Guide Study Share Develop Aggregate Standardize Review Rate Synthesize selection Design and Conduct Ensure Aggregate • Standardize • Review and • Rate or rank • (not neces- • Help guide Help guide intervention validate develop objective study all studies interventions sary for intervention or actually intervention study of imis made conducted presentation, quality and based on intervenselection implement tion use) with clear plemented available/ for an interincluding evidence strength of intervention Provide intended intervention accessible vention descripstandard evidence Synthesize tools or · Include links and effecoutcomes to others tion, target of studies Evaluate Use findings guidance to training population, • Evaluate tiveness in Implement outcomes Submit literature across interfor users or impleand study achieving intervention and effecstudy searches intervention ventions to find mentation findings outcomes in one or tiveness to peerand/or outcomes relevant resources, Extract best more comof implenominations • Categorize and effec- Describe intervenpractices munities mented publication intervention tiveness rationale tions Extract and or themes or outcome Provide intervention or clearingfor rating summarize Include cost Summarize house type key findings evidence estimates. effectivefrom each • Enable summary funding ness of strategies, study search and practices comparison across interacross interventions

Figure 1: Supply Chain for Evidence on Effectiveness

## Many players

Given the many steps along the supply chain, it's no surprise that there are many sources of information (see Figure 2 for definitions and examples). When we use the terms **supply** or **sources**, we mean sources for evidence on effectiveness, which include clearinghouses and others that disseminate and communicate this

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ventions

information to decision makers. While this landscape of information sources may seem crowded, most of these sources play unique and valuable roles.

Starting at the beginning of the supply chain, the **purveyors** include anyone attempting to expand the use of an intervention. They clearly have an interest, albeit biased, in sharing information about the evidence on their interventions. A purveyor may be the developer of an intervention, such as BELL (Building Educated Leaders for Life), or another party responsible for replication and technical assistance.

The **researchers** who evaluate interventions—such as Mathematica Policy Research—often make the results of evaluations available to others.

**Peers** also share interventions with which they have experience. This can be through informal peer-to-peer interactions, as well as more structured forums (e.g., Teachers Pay Teachers in education).

**Clearinghouses** primarily collect, standardize, and validate evidence on effectiveness. For this report, a clearinghouse is an information source that aggregates, standardizes, reviews, and rates the evidence base of interventions. It acts as a repository that provides input into the decision-making process (e.g., What Works Clearinghouse or Blueprints for Healthy Youth Development).

Clearinghouses make information available to other sources, including the **synthesizers** who look across multiple interventions and translate the research into language and implications relevant to decision makers. We found that most synthesizers focus on a specific domain (e.g., Casey Family Programs focuses on child welfare).

**Advisers** help support and guide decision makers through the selection and implementation of effective interventions. We found both public (e.g., Evidence-based Prevention and Intervention Support Center) and private (e.g., Hanover Research) entities playing this role. Some organizations even play multiple roles in providing information, such as Communities in Schools, which acts as both a purveyor of its dropout prevention approach and an adviser to its affiliates.

Figure 2: Landscape of information sources—supply

Type of Source	Description	Primary Supply Chain Steps	Examples in Education	Examples in Child Welfare Chain Steps
Purveyors	Providers or developers who offer products or services to decision makers and often help establish the evidence base	• Develop • Study	Communities in Schools     BELL (Building Educated Leaders for Life)	Multisystemic     Therapy     Services     Functional     Family Therapy     LLC
Researchers	Researchers or evaluators who study the evidence base of an individual program, a particular practice, or a question related to social outcomes	<ul><li>Study</li><li>Share</li><li>Synthesize</li></ul>	Mathematica     Policy     Research     Center for     Research on     Education     Outcomes	Child Trends     Mark Lipsey
Clearinghouses	Information sources that compile and validate the evidence for interventions	<ul><li>Aggregate</li><li>Standardize</li><li>Review</li><li>Rate</li></ul>	What Works Clearinghouse     Best Evidence Encyclopedia	California     Evidence-Based     Clearinghouse     Blueprints for     Healthy Youth     Development
Peers	<ul> <li>Formal or informal networks of peer decision makers who have experience with effective interventions</li> <li>Includes professional associations, which provide resources and platforms for sharing experiences and best practices</li> </ul>	Guide selection	<ul> <li>American         Association         of School         Administrators</li> <li>Teachers Pay         Teachers</li> </ul>	Child Welfare League of America     LinkedIn child welfare professional group
Synthesizers	Organizations, networks, or research centers that synthesize existing research and/ or recommend best practices	Synthesize	National Reading Association     The New Teacher Project	Casey Family Programs     Chapin Hall
Advisers	Organizations, individuals, or networks who assist decision makers in selecting or implementing effective interventions     Includes technical assistance providers and more informal advisers	Guide selection Guide imple-mentation	Area     Education     Agencies     Hanover     Research	Evidence-based Prevention and Intervention Support Center     National Resource Centers

To help decision makers navigate the large and complicated landscape of information sources, organizations are creating lists or guides of the various websites. For example, the Substance Abuse and Mental Health Services Administration is building *A Guide to Evidence-Based Practices* that lists available resources by topic area (including clearinghouses and other sources). Several other organizations provide similar lists, including think tanks (e.g., Social Work Policy Institute's *Evidence-Based Practices Registries* page) and state agencies (e.g., New York State Office of Children and Family Services' *Links to Effective Programs and Practices*, and the Ohio Office of Criminal Justice Services' *Evidence-Based Programs and Practices* list). While such lists are useful, they are also a sign of how difficult it can be to navigate the existing information on evidence on effectiveness. Additionally, the lists often don't help to clarify the type or purpose of each source.

Sharing completed impact studies is a critical step in the supply chain, as it ensures that information compiled about the evidence of interventions is available for all future steps. Currently, there are a large number of both publicly and privately funded impact studies, particularly due to grants that require and provide resources for such evaluations. However, we found that these studies are not always shared publically, which is a breakpoint in the chain. This is often a side effect of the unclear standards for evidence. In particular, the lack of a spectrum or different tiers for interventions can discourage sharing. We heard ambivalence about sharing evidence that's negative or ambiguous when it was unclear how an intervention would be portrayed. One purveyor admitted it is not on a clearinghouse yet because "you can choose when to be rated, so we chose not to until we can get an A rating." Uncertainty about negative portrayal can have this type of chilling effect on those who might otherwise be willing to participate in and share evaluations.

Kathy Stack, the advisor for Evidence-Based Innovation at the US Office of Management and Budget, told us that incentives, particularly from the federal government, could help reduce this chilling effect: "The federal government can be a real leader in providing incentives for people to do research and publish findings even when they are negative. We need to change the value system. It's

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KATHY STACK, ADVISOR, EVIDENCE-BASED INNOVATION, US OFFICE OF MANAGEMENT AND BUDGET

useful to know what doesn't work. We need to push for people to preregister studies. This puts it out in the ether that this work is being done."

We also heard concerns about the quality of studies being shared. While there are some efforts to create guidelines for study development, a few people mentioned the lack of

well-defined or well-known standards for design, completion, and documentation. This is believed to lead to poor quality studies. One interviewee also described how the lack of common standards around evidence can cause researchers to put a positive spin on the way that study results are reported. By not clearly

and consistently acknowledging the importance of interventions with mixed or null results, there can be rather significant consequences on the front end of the supply chain.

## Many clearinghouses

Given our desire to help more decision makers use evidence, we are particularly interested in the role of clearinghouses, which we found to be the primary sources for compiling and disseminating

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evidence on effectiveness (see Figure 2). While they represent only a portion of the overall supply chain, clearinghouses are fundamental to the ultimate selection and use of interventions.

Clearinghouses essentially assess the rigor of evidence for and impact of an intervention—a task that few decision makers have the capacity or capabilities to do. Such an assessment requires identifying and sifting through all research studies for an individual intervention, evaluating whether this research is valid, and then determining whether the research proves the intervention is effective in achieving certain outcomes.

Using our definition of a clearinghouse, we identified a large and crowded landscape. We reviewed 36 US-focused websites as part of this work (see Appendix 3), including:

- 15 clearinghouses primarily run and funded by federal, state, or local governments;
- 9 clearinghouses primarily funded by governments but run independently; and
- 11 nongovernment clearinghouses.

We also identified a sample of 15 international clearinghouses, primarily UK-based, which can serve as reference points for their US counterparts (see Spotlight: The United Kingdom's What Works Network and Appendix 3).

Within the US landscape, there are some well-known and relatively high-trafficked sites, such as the Department of Education's What Works Clearinghouse, with approximately 8,000 daily visitors. There are also many less-visited clearinghouses. In fact, even a few of the more well-known clearinghouses cited only between 200 and 700 total visitors per day (see Appendix 4 for web analytic information).

Some US clearinghouses target one or only a few social policy domains, while others cover a broad range of policy domains. For example, the Campbell Collaboration and the Coalition for Evidence-Based Policy look at interventions across several different areas of social programs (see Appendix 5 for comparison of clearinghouses by policy domains).

#### **Spotlight: The United Kingdom's What Works Network**

The What Works Network is an initiative launched in 2013 by the Government of the United Kingdom. The initiative is based on the principle that good decision making should be informed by robust evidence on what has been shown to work, or not work, in the past.

The Network builds on the successful model of the National Institute for Health and Care Excellence (NICE), which was set up in the 1990s to inform health spending and clinical decisions by carrying out robust assessments on the impact and cost effectiveness of medical interventions. NICE is now one of the seven independent What Works Centres that make up the Network. The others are: Education Endowment Foundation, What Works Centre for Crime Reduction, Early Intervention Foundation, What Works Centre for Local Economic Growth, and two that are in progress—Centre for Ageing Better and What Works Centre for Wellbeing. Each Centre is funded by a combination of government and nongovernment sources, and the Network is supported by a team in the UK Cabinet Office; however, all of the centres are operationally independent of government.

The ultimate objective is for policy makers, practitioners, and commissioners in these policy areas to make decisions informed by evidence on impact and cost effectiveness, alongside other considerations. This will allow them to use resources as efficiently as possible. As such, all of the centres are working to balance the provision of evidence online with direct practitioner/commissioner engagement to ensure that this information is actually used on the ground. It is challenging but crucial to reach decision makers directly. While the initiative is still new, and each centre is at a different stage of development, this unique approach should be watched closely and potentially leveraged in other countries.

For more information: https://www.gov.uk/what-works-network

Even within a given domain, there can be multiple relevant clearinghouses. For example, the California Evidence-Based Clearinghouse for Child Welfare directly targets decision makers in child welfare, but other clearinghouses also cover parts of this domain, including Blueprints for Healthy Youth Development (Blueprints), Substance Abuse and Mental Health Services Administration's National Registry of Evidence-based Programs and Practices, and others. In education, the What Works Clearinghouse is the largest clearinghouse, but the Best Evidence Encyclopedia and National Dropout Prevention Center/Network are also important sources.

About the proliferation of resources, one clearinghouse interviewee said, "They are all different. They have different goals, policies, procedures, and criteria. These differences aren't necessarily better or worse. [They] just [have] different purposes." The breadth or focus of a given clearinghouse is driven by the mission of the organization in which they are situated. For example, FindYouthInfo.gov was developed by the federal Interagency Working Group on Youth Programs to provide tools and resources for a range of youth-oriented programs.

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Each clearinghouse has criteria for its own review and rating process. Most clearinghouses document their criteria on their websites. However, the criteria are not consistent across clearinghouses due to the current lack of industry-wide standards. Some, such as the What Works Clearinghouse, provide ratings on

individual dimensions of evidence (e.g., one rating on the extent of evidence and one rating on effectiveness). Others, like Blueprints, provide a single rating across all dimensions (e.g., Promising Practices is a single rating based on dimensions of intervention specificity, evaluation quality, intervention impact, and dissemination readiness). There is also variation within a given dimension. For example, quality or rigor of evaluation can be based on the type of study (e.g., randomized control trial versus quasi-experimental design) or the number of sites studied. Several additional types of inconsistencies exist, making it difficult to compare across websites.