



REPORT

Use of Evidence to Drive Decision-Making in Government

February 20, 2019

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Submitted to:

Office of Science and Data Policy within the Office of the Assistant Secretary for Planning and Evaluation (ASPE) at the U.S. Department of Health and Human Services

The Assistant Secretary for Planning and Evaluation, Room 415F

U.S. Department of Health and Human Services

200 Independence Avenue, SW

Washington, D.C. 2020

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Contract Number: HHSP233201500035I/HHSP23337015T

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DISCLAIMER

The opinions and views expressed in this report are those of the authors. They do not necessarily reflect the views of the Department of Health and Human Services, the contractor or any other funding organization.

ACKNOWLEDGMENTS

The authors gratefully acknowledge the Office of the Assistant Secretary for Planning and Evaluation's Office of Science and Data Policy for the opportunity to conduct this project. In particular, we would like to thank Amanda Cash and Casey Sullivan for their guidance and support.

We are grateful to Julie Stone, the Mathematica Policy Research lead on Phase 1 of this project, for helping us identify the key informants for Phase 2. At Mathematica, we would also like to acknowledge the authors of previous drafts of the Phase 1 literature review summary of findings and accompanying annotated bibliography: Julie Stone, Armando Yanez, Claire Brindley, Jane Ahn, and Amanda Lee; and thank Matthew Stagner for providing us with valuable feedback as we prepared this report; and Maria Myers, Daryl Martin, and Sharon Clark, for providing critical support in editing and presentation.

Last but not least, we thank the key informants who participated in the Phase 2 interviews, for their generosity with their time and for providing us with very valuable insights that we are able to share in this report.

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CONTENTS

EXECUTIVE SUMMARY	VII
I. OVERVIEW OF THE PROJECT AND GOALS.....	1
II. PHASE 1: LITERATURE REVIEW	3
A. Methodology	3
B. Key findings from Phase 1.....	3
1. Challenges in using evidence in policy decision-making	4
2. Strategies to break down barriers to using evidence.....	5
C. Conclusion	6
III. PHASE 2: SUBJECT MATTER INTERVIEWS	7
A. Methods	7
1. Identify key informants	7
2. Develop interview instrument.....	7
3. Conduct interviews.....	8
4. Analyze interview data	8
B. Findings	8
1. Barriers to using evidence in decision-making within the government	8
2. Facilitators to using evidence in decision-making within the government	12
3. Characteristics of organizations that have used evidence successfully in decision-making within the government.....	15
C. Opportunities to improve the use of evidence in decision-making within the government.....	16
APPENDIX A: ORGANIZATIONAL WEBSITES SCANNED FOR GOOGLE SEARCH.....	19
APPENDIX B: DETAILED SUMMARY OF FINDINGS FROM PHASE 1 LITERATURE REVIEW	25
APPENDIX C: PHASE 1 ANNOTATED BIBLIOGRAPHY ON THE USE OF RESEARCH AND EVALUATION TO DRIVE DECISION-MAKING WITHIN THE GOVERNMENT	39
APPENDIX D: PHASE 2 INTERVIEW INSTRUMENT	73

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EXECUTIVE SUMMARY

This report presents the findings from the Policy Analysis and Decision-Making Capacity project, funded by the Office of Science and Data Policy within the Office of the Assistant Secretary for Planning and Evaluation at the U.S. Department of Health and Human Services (ASPE). During Phase 1 of the project, we conducted a review to assess grey and peer-reviewed literature describing whether and how effectively decision-makers use program evaluation findings to inform their decisions on programs and policies. In Phase 2, we conducted interviews with thought leaders and experts in the fields of evaluation, dissemination, and using evidence to drive decision-making. The purpose of the interviews was to understand the context of how evaluation and research results are used to make decisions within government and to identify opportunities for improvements in that decision-making process in addition to what we found in the literature. Plans for Phase 3 of the project, which may be conducted at a later date, include convening a technical expert panel to further discuss potential opportunities to create or improve a systematic approach to using evidence for decision-making within government, and particularly to the Department of Health and Human Services (HHS).

Phase I: Literature review

In Phase 1 of the project, we conducted a review of the literature to assess the extent to which there was literature, either grey or peer-reviewed, describing decision-makers use of evidence to inform their policy and programmatic work. We defined decision-makers as agents (including but not limited to policymakers), both within and outside of the government, who regularly make decisions about health and human service policies and programs that have the potential to be informed by evidence.

To identify literature for this review, we first defined key words (such as evaluation, research, and evidence) and then applied those key words in a database search for relevant studies (for a list of the databases we searched, see Appendix A). We also conducted a Google Custom Search to identify grey literature. We identified 62 pieces of literature published between 2010 and July 2017. These included domestic and international literature that addressed the use of health or human services research to drive decision-making. In addition, we reviewed 13 studies recommended by the respondents of the interviews we conducted in Phase 2. Appendix B includes summaries of these studies in an annotated bibliography.

Findings from the literature review

The literature review yielded insights on the authors' views about (1) the challenges in using evidence in policy decision-making and (2) the strategies to break down barriers to using evidence. It is worth noting that while these authors provided useful suggestions on ways to overcome barriers to using evidence, the focus of the literature was primarily on identifying barriers and not on how to address them.

a. Challenges in using evidence in policy decision-making

There are misalignments between the research conducted and the evidence that is needed for decision-making. The authors of the literature we reviewed suggested that researchers' questions, timelines, and objectives do not always align with those of decision-

makers. They also noted that decision-makers have difficulty obtaining research findings and that few researchers and decision-makers work to establish mutually beneficial relationships. Additionally, authors suggested that the research conducted in academia often addresses questions that do not align with what program and policy decision-makers want to have answers to. They also noted that research findings are presented in a manner that is not accessible to non-experts, and the products created do not meet the information needs of decision-makers. Authors also pointed out that linking research to decision-making can be resource-intensive, and recognized that government agencies have limited capacity.

During the complicated process of policy decision-making, many other factors can impact the use of research evidence. Authors expressed that decision-making on programs and policy is not linear and there are many inputs influencing decision-makers. In addition, decision-makers are often strongly influenced by anecdotal evidence. In some instances decision-makers are more reliant on anecdotal findings than rigorous research.

Several factors contribute to a divide between evidence producers and decision-makers. Authors noted that researchers and decision-makers rarely use frameworks that bridge the gap between research and practice, such as frameworks for knowledge translation, adapting, and optimizing evidence-based programs, and frameworks for identifying the different information needs of policymakers and other decision-makers.

b. Strategies to break down barriers to using evidence

Improving relationships between evidence producers and decision-makers. As several authors suggested, creating effective and long-term linkages between research evidence and decision-making requires strategic and long-term interpersonal relationships. Authors indicated that many researchers and decision-makers actually have the desire to promote linkages between evidence and decision-making, and that leveraging pre-existing relationships between key players is vital to producing the required evidence in the ideal time frame. To help create stronger connections between evidence and decision-makers, authors suggested using third parties such as knowledge brokers and advocacy groups, training researchers to communicate effectively, training decision-makers on how to expand their use of evidence, and providing joint training for researchers and decision-makers.

Applying evidence in all aspects of decision-making. Authors felt that evidence can have many uses in decision-making within government, including deepening stakeholders' understanding of the problem by showing the relevance of an issue. The authors suggested several strategies to increase the use of evidence in decision-making within government. For example, they recommended that government agencies establish formal capacity for their staff and an infrastructure for accessing relevant research. Also, authors suggested that program administrators should become familiar with how to effectively use evidence-based decision-making and assess whether it is a viable option for them. The authors pointed out that research findings should be concise and presented in a format that decision-makers can easily and effectively share with their audiences, and these research findings should be produced within a timeline that satisfies the needs of decision-makers. Finally, the authors noted that evidence can be more persuasive to decision-makers when it is embedded in a narrative.

Phase 2: Subject matter interviews

The goals of these interviews were to understand how stakeholders use evaluation and research results to make decisions and to identify opportunities for improvements in the decision-making process within government. Specifically, we wanted to understand the extent to which decision-makers used research results and what barriers and facilitators have prevented or helped them use evidence in decision-making. A secondary aim was to understand the characteristics of organizations that have successfully used evidence in their decision-making.

We followed four steps to complete the interviews:

1. **Identified key informants.** We discussed with ASPE and the Mathematica project lead for Phase 1 of this project the potential types of stakeholders to interview. Based on their feedback and additional research, we created an initial list of 22 proposed key informants who represented varying decision-making perspectives (such as a federal or state decision-makers or thought leaders at research agencies) and demonstrated an understanding and/or experience with evidence-based decision-making in their careers.
2. **Developed an interview instrument.** Our interview instrument was based on three research questions: (1) What are the barriers and facilitators to using research evidence to inform decision-making?; (2) Which government organizations/agencies have successfully used research evidence to inform policies or decisions?; and (3) Where are there actionable opportunities to improve the use of research evidence in decision-making? The instrument drew from the findings from the literature review conducted in Phase 1, specifically the barriers and facilitators cited in the literature. Appendix C includes a copy of the interview instrument.
3. **Conducted the interviews.** After finalizing the key informants list, we contacted the potential respondents to request an interview. Eighteen respondents agreed to participate in the interviews. We conducted 14 phone interviews with these respondents (each was approximately 1 to ½ hour in length), with 4 of the 14 interviews including two respondents.
4. **Analyzed interview data.** We developed a matrix to capture and analyze data from each of the interviews we conducted. After each interview, a member of the research team populated responses in the matrix. We then analyzed the interview data to identify themes across barriers and facilitators and opportunities to encourage or improve the use of evidence in decision-making.

Findings from the subject matter interviews

a. Barriers to using evidence in decision-making within the government

Interview respondents provided useful insights on what barriers exist to using evidence for decision-making, however, it is important to note that the interviews focused mainly on identifying barriers and not on how to address them.

While analyzing the interview data to identify barriers to using evidence in decision-making, we gleaned the following overarching themes to group the different types of barriers:

- **Availability of evidence.** Respondents provided two perspectives on the barriers regarding the availability of evidence. First, they discussed the issue of evidence not being available at the time decisions are being made, mainly because research findings take a long time to be produced. This misalignment in timing hinders the utilization of evidence in the decision-making process because by the time evidence becomes available, decisions may have already been made and/or the perception of its usefulness may have diminished. The second perspective shared by respondents is that researchers do not gear their research results to decision-makers. Specifically, respondents indicated there is a mismatch between researchers' and decision-makers' interests. This may result in evidence being difficult to access and understand, in addition to being less relevant to the decision being made. Respondents felt that this barrier occurs due to a lack of communication and coordination across all the relevant actors involved in the process: researchers, agencies and branches of the government, and private funders of research such as foundations.
- **Understanding the theory and application of evidence-based decision-making.** Several respondents felt that many governmental leaders and staff tasked with making program or policy decisions may not understand the purpose and application of evidence. Feedback from the respondents highlighted that this lack of understanding leads to a number of closely tied barriers: (1) a lack of a common understanding of the evidence, (2) a resistance from decision-makers to use the evidence, and (3) misapplications of evidence, such as selectively using research findings to support specific decisions or generalizing research findings to populations when the findings only apply to specific samples.
- **Organizational influences.** Another barrier to evidence-based decision-making is funding constraints within federal or state agencies to support the high upfront cost of using evidence. Additionally, the organizational culture of federal and/or state agencies and their staff's perceptions of how evidence will be applied. In regards to culture within the government, a few respondents noted that there is not a coordinated, functional process to regulate the production and use of evidence. As a result, there is splintered responsibility, whereby a proliferation of people oversee pieces of the governance over evidence production but no one is completely in charge of ensuring coordination of efforts to compile and use the evidence. A few respondents explained that decisions are often made based on how things operated in the recent past, so that decisions to let funds carryover from one year to another for the same program may be driven by anecdote rather than evidence.

b. Facilitators to using evidence in decision-making within the government

Interview respondents pointed out a number of factors that facilitate the use of evidence in decision-making. From our analysis of the interview data, we identified the following four types of facilitators that can help overcome the barriers that we described earlier:

- **Establishing collaborative relationships between evidence producers and decision-makers.** Respondents indicated that researchers generally do not know which areas particular decision-makers within the government have influence on or the complexities of the landscape surrounding programs and policies. Respondents indicated that collaborations with researchers can enhance the decision-makers' knowledge of the available evidence and this knowledge, in turn, can help them incorporate evidence into their decision-making.

Respondents also noted that collaboration between researchers and decision-makers can help create capacity for both parties by creating a cycle of “testing, learning, and asking anew.”

- **Building trust in the evidence that researchers produce and in the decision-makers that use the evidence within the government.** Respondents noted that the data necessary to conduct research and obtain evidence are available only when the public trusts the institutions and the researchers requesting and collecting data. Therefore, researchers and decision-makers within the government should prioritize data security and invest in the development of data regulation. Several respondents also called for a national secure data service that provides the infrastructure to securely link databases and share data across institutions.
- **Improving clarity on how different types of research and their findings can be used in decision-making.** Respondents commented that often, the definition of what constitutes evidence used for decision-making within government is too narrow. For example, one respondent mentioned that what is understood as “evidence” is usually the findings from impact evaluations, and the findings from qualitative studies on program design are often overlooked by decision-makers. To this point, another respondent indicated that research findings about program design and implementation are often the issues on which decision-makers within the government would like to take action. Another respondent noted that the research findings that are more effective at prompting action from decision-makers within the government are those that allow the decision-makers to “move the dial” across a range of options.
- **Having leadership that supports and promotes the use of evidence and buy-in from the organization’s staff.** A majority of respondents indicated that support and promotion from leadership within government institutions is a great facilitator to evidence-based decision-making. Furthermore, a number of these respondents thought that having this leadership is a necessary condition or primary factor for moving towards a “culture of evidence use” within organizations. Respondents also mentioned that staff buy-in is key, as it is not possible to make progress towards systematic use of evidence in decision-making if staff members are not interested in doing so.

c. Characteristics of organizations that have used evidence successfully in decision-making within the government

Interview respondents provided a few examples of successful evidence-based decision-making within the government. All the respondents agreed that the facilitators discussed above promote the use of evidence-based decision-making. In particular, respondents indicated that the organizations within government that have used evidence successfully have at least one of the following characteristics:

- They have partnerships with multiple actors, such as researchers, funding agents, regulatory agents, and/or politicians.
- They have leadership that promotes the use of evidence.
- They have organizational buy-in for using evidence, with staff that recognize the benefits of incorporating evidence in decision-making.

- They set “learning agendas,” that is, they have a clear understanding of the issues on which decisions need to be made and are able to identify the research evidence that can help them in making those decisions.
- They understand that making decisions about programs and policies is a long-term process, and they remain “apolitical.”

Opportunities to improve the use of evidence in decision-making within the government

Throughout our interviews, respondents provided four types of opportunities for addressing barriers and enhancing facilitators for evidence-based decision-making: (1) promote the use of knowledge brokers, (2) establish learning agendas, (3) develop conferences, forums, working groups, and trainings focused on the use of evidence, and (4) promote coordination across the agendas of researchers and policy decision-makers. These activities already take place in some capacity, but respondents felt that opportunity exists because more organizations could participate in doing this work and their activities could be more streamlined. The last two opportunities noted above, evidence based decision-making events and the coordination between researchers and policy decision-makers, may require input from a wide range of stakeholders and additional funding. Below we list each opportunity and describe specific actions to help leverage them.

Opportunity	Actions
Promote the use of knowledge brokers	<ul style="list-style-type: none"> • Translate evidence into digestible formats • Assist decision-makers with crafting research questions they need help answering • Provide guidance to researchers on the type of evidence that is needed for a policy or program decision
Establish learning agendas	<ul style="list-style-type: none"> • Offer trainings on how to create learning agendas (for example, on the appropriate scope, questions, and information types needed) • Champion policy to increase the uptake of learning agendas • Work with policy decision-makers to develop learning agendas
Develop standard definitions and support the use of evidence in decision-making	<ul style="list-style-type: none"> • Identify standard definitions/approaches/frameworks for evidence use to promote uniformity in the field • Conduct evidence-use training for policy decision-makers’ staff, which could include a suite of training protocols that relay what agencies do to produce evidence, how they use evidence, and what evidence is available • Support conferences, forums, and working groups focused on the use of evidence in decision-making
Improve coordination across the agendas and timelines of evidence producers and policy decision-makers	<ul style="list-style-type: none"> • Leverage funding capacity to yield greater production of research products relevant to policy decision-makers • Help decision-makers understand what evidence-based decision-making entails and its potential to influence decisions • Establish infrastructure across government agencies to identify opportunities to use evidence

I. OVERVIEW OF THE PROJECT AND GOALS

An effective and efficient government requires that its decision-makers have access to and use good information to make decisions.¹ Recent important initiatives highlighted the challenges in generating and using evidence, such as the Commission on Evidence-Based Policymaking (U.S. Commission on Evidence-Based Policymaking 2017) and the Bipartisan Policy Center’s Evidence-Based Policymaking Initiative (Hart et al. 2018; Davis et al. 2018). We define evidence as systematically collected data examined using rigorous research methods with the purpose of providing information on how programs and policies work (Hart et al. 2018; U.S. Commission on Evidence-Based Policymaking 2017).

The U.S. Department of Health and Human Services (HHS) Office of the Assistant Secretary for Planning and Evaluation’s (ASPE) Office of Science and Data Policy (SDP) recognizes that the use of evidence is central to effective public policy and decision-making, and believes more attention should be paid to understanding how the federal, state, and local governments use evaluation and research results, as well as to identifying opportunities for improvement in evidence use. To achieve these goals, ASPE contracted with Mathematica Policy Research to conduct the Policy Analysis and Decision-Making Capacity project. Phase 1 of this project consisted of a literature review to assess existing findings about whether and how effectively decision-makers use program evaluation findings to inform their decisions on programs and policies. In Phase 2, we (Mathematica Policy Research) interviewed thought leaders and experts in the fields of evaluation, dissemination, and using evidence to drive decision-making. The purpose of the interviews was to further understand how evaluation and research results are used to make decisions within the government and to identify opportunities for improvements in that decision-making process.

In this report, we present the findings from Phase 1 and Phase 2 of the project. In Chapter II, we describe the methodology of the literature review conducted in Phase 1 and present the findings that emerged from this review. In Chapter III, we describe the objectives of the interviews conducted in Phase 2 and the processes to select interviewees and develop the interview instrument, and present the findings from the interviews. In Chapter IV, we discuss opportunities to improve the use of evidence within government based on the findings from the literature review and the interviews. In the appendices, we provide an annotated bibliography and a copy of the interview instrument we used to conduct the interviews.

¹ Hart, Nick and Sandy Davis. “FACT SHEET: Foundations for Evidence-Based Policymaking Act.” Bipartisan Policy Center blog, November 30, 2017. Available at <https://bipartisanpolicy.org/blog/fact-sheet-foundations-for-evidence-based-policymaking-act/>. Accessed on August 8, 2018.

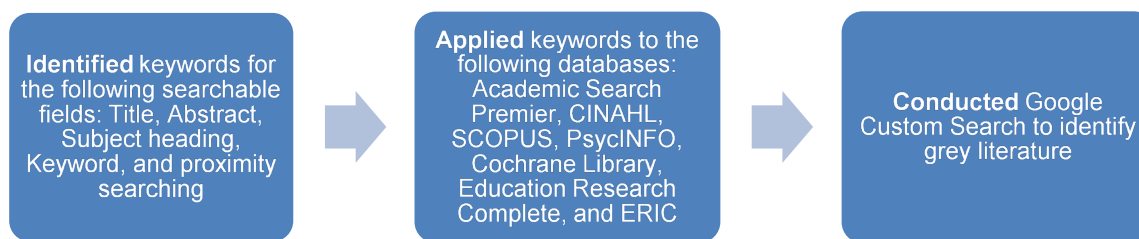
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II. PHASE 1: LITERATURE REVIEW

ASPE requested a review of the literature to assess the extent to which decision-makers use evidence to inform their policy and programmatic work. We defined decision-makers as agents (including but not limited to policymakers) both within and outside of the government who regularly make decisions about health and human service policies and programs that have the potential to be informed by evidence. We reviewed domestic and international literature that addressed the use of health (health care financing, health care delivery, public health, and clinical care) or human services (education, welfare, and labor) research to drive decision-making. We identified 62 pieces of literature published between January 2010 and July 2017. In addition, we reviewed 13 studies recommended by the respondents of the interviews we conducted in Phase 2.

A. Methodology

The search strategy included the following steps:



The keywords used for the Google Custom Search were connected through a text string, (evaluation OR research OR evidence) AND (“decision-making” OR “decision-makers” OR “policy makers” OR “policymakers” OR “public policy”). Since the probability of getting many unrelated articles was high, we limited the search to the organizational websites listed in Appendix A to ensure inclusion of publications from these organizations.

We identified 131 articles from the database search, and 99 from a Google Custom Search. Mathematica staff read the abstracts of each article in RefWorks (a literature review management retrieval system) and screened the articles to find those that discussed, as their primary subject, the linkage between research and/or evidence and policymaking or decision-making. References on federal, state, and local policies were of high interest. We also included international studies to account for lessons learned from international organizations’ use of research to drive public policy and program decision-making. Of the 230 articles identified in the database and Google searches, only 62 discussed as their main subject the linkage between research and/or evidence and policymaking or decision-making. We reviewed these 62 pieces of literature and present a summary of the findings from this review in the next section.

B. Key findings from Phase 1

In this section we summarize the key themes that emerged from the literature review. A more detailed description of the findings from the literature review is provided in Appendix B. Full citations for each article included in this chapter can be found in the annotated bibliography (included in Appendix C).

The themes and descriptive text in this section summarize the key findings of scientific studies. The views presented in this report do not reflect the opinions of the government agency that commissioned this study or the authors of this report, but rather this product is a synopsis of the findings from sentinel studies in the area of evidence-based decision-making.

The literature review yielded insights on the authors' views about (1) the challenges in using evidence in policy decision-making and (2) the strategies to break down barriers to using evidence. It is worth noting that while these authors provided useful suggestions on ways to overcome barriers to using evidence, the focus of the literature was primarily on identifying barriers and not on how to address them.

1. Challenges in using evidence in policy decision-making

There are misalignments between the research conducted and the evidence that is needed for decision-making. The authors of the literature we reviewed suggested that researchers' questions, timelines, and objectives do not always align with those of decision-makers, that decision-makers have difficulty obtaining research findings, and that few researchers and decision-makers work to establish mutually beneficial relationships (Appollonio 2017; Bennet 2013*²; Brownson 2016; Cairney 2017*; Desmaris 2014; Dodson 2015; Dunsmuir 2013*; Ellen et al. 2016a*; Gross 2015; Gollust 2014; Joanna Briggs Institute 2014*; Moseley 2015; Pesta 2017; Supplee 2014; Vidal 2016; Yamey et al. 2016).

Additionally, authors suggested that the questions often addressed in research conducted in academia are not the questions that program and policy decision-makers want to have answers to. They also noted that the findings from such research are presented in a manner that is not accessible to non-experts, and researchers create products that do not meet the information needs of decision-makers (Baker 2017; Cairney 2017*; Dodson 2015; Ellen et al. 2017; Ellen et al. 2016a*; Gross 2015; Lery 2015; Lubienski 2014; McKinney 2017; Moseley 2015; Pesta 2017; United Nations Development Programme 2015; Yamey et al. 2016).

Authors also pointed out that linking research to decision-making can be resource-intensive, and recognized that government agencies have limited capacity (Bennet 2013*; Dodson 2015; Ellen et al. 2016b*; Hale 2017; Henrick 2016; Li 2015; Lubienski 2014; McKinney 2017; Moseley 2015; Pesta 2017).

In the complicated process of policy decision-making, many other factors can crowd out the use of research evidence. Authors expressed that decision-making on programs and policy is not linear, and at times policy decisions stem from reactions to an unexpected event or crisis, which can impede the use of research. There are also many inputs influencing decision-makers, and sometimes research findings may be left out of policy discussions in place of other factors such as political feasibility, personal priorities, public opinion, social implications, and budget constraints (Appollonio 2017; Bogenschneider 2013; Cairney 2017*; Corlucka 2015; Dodson 2015; Gollust 2014; Jabbar 2014; Lery 2015; Koon 2012*; Moseley 2015; Mosley 2013;

² Citations from international articles are marked with an asterisk.

Model Systems Knowledge Translation Center 2014; McKinney 2017; Pesta 2017; Baker 2017; Gold 2009; Whitty 2016*).

Authors also indicated that decision-makers are often strongly influenced by anecdotal evidence, and in some instances, decision-makers may be more reliant on anecdotal findings than rigorous research (Asen 2013; Jabbar 2014; Mackie 2015; Whitty 2016*).

Several factors contribute to a divide between evidence producers and decision-makers. Authors thought that researchers and decision-makers rarely use frameworks that bridge the gap between research and practice, such as frameworks for knowledge translation, adapting, and optimizing evidence-based programs, and frameworks for predicting the different information needs of policymakers and other decision-makers (Bogenschneider 2013; Supplee 2014). Some authors thought that decision-makers are not always adept at distinguishing between biased and objective research (Corluka 2015*; Dodson 2015; Dunsmuir 2013*; Gold 2009; Jabbar 2014; Lery 2015; Mackay 2013*).

2. Strategies to break down barriers to using evidence

Improving relationships between evidence producers and decision-makers. Several authors suggested that creating effective and long-term linkages between research evidence and decision-making requires strategic and long-term interpersonal relationships. Authors indicated that many researchers and decision-makers actually have the desire to promote linkages between evidence and decision-making, and that leveraging pre-existing relationships between key players is vital to producing the required evidence in the ideal time frame (Appollonio 2017; Baker 2017; Bogenschneider 2013; Brownson 2016; Cairney 2017*; Corluka 2015*; Davis et al. 2018; Ellen et al. 2016a*; Ellen et al. 2016b*; Ellen et al. 2017*; Gold 2009; Henrick 2016; Hyde 2016; JBI Approach; Koon 2012*; Leischow 2013*; Lery 2015; Li 2015; Moseley 2013; Pesta 2017; Smits 2014*; Supplee 2014; USAID Learning Lab 2017; Vidal 2016; Yamey et al. 2016).

To help create stronger links between evidence and decision-makers, authors suggested using third parties such as knowledge brokers and advocacy groups, training researchers to communicate effectively, training decision-makers on how to expand their use of evidence, and providing joint training for researchers and decision-makers (Asen 2013; Bennett 2013*; Bogenschneider 2013; Cairney 2017*; DeBray 2014; Corluka 2015*; Dunsmuir 2013*; Ellen 2016*a; Ellen 2016b; Gold 2009; Gross 2015; Hawkins 2016; Hyde 2016; Koon 2012*; Leischow 2013*; Lubienski 2013; Mackie 2015; Niessen 2012*; Nightingale 2018; Pesta 2017; Scott 2014).

Applying evidence in all aspects of decision-making. The authors felt that evidence can have many uses in decision-making within government, including deepening stakeholders' understanding of the problem by showing the relevance of an issue (Appollonio 2017; Asen 2013; Hyde 2016; Smits 2014*; Supplee 2014; Turner 2013).

The authors suggested several strategies to increase the use of evidence in decision-making within government. For example, authors recommended that government agencies establish formal capacity for their staff and an infrastructure for accessing relevant research. Also, authors suggested that program administrators should become familiar with how to effectively use

evidence-based decision-making and assess whether it is a viable option for them (Abraham et al. 2017; Baker 2017; Gross 2015; JBI Approach; Krueger 2014; Lery 2015; Nightingale 2018; Supplee 2014; Vidal 2016).

The authors pointed out that research findings should be concise and presented in a format that decision-makers can easily and effectively share with their audiences. In addition, the research findings should be produced within a timeline that satisfies the needs of decision-makers. Finally, the authors noted that evidence can be more persuasive to decision-makers when it is embedded in a narrative (Appollonio 2017; Baker 2017; Bennett 2013*; Brown 2014; Brownson 2016; Cairney 2017*; Chatterji 2014; DEXIS 2018; Dodson 2015; Dunsmuir 2013*, Ellen 2016a*; Ellen 2017; Gold 2009; Gollust 2015; Gross 2015; Haby 2016; Henrick 2016; Hollands 2016; Hyde 2016; JBI Approach; Johnston 2013*; Krueger 2014; Lubienski 2014; Model Systems Knowledge Translation Center (MSKTC); Niessen 2012*; Pesta 2017; Supplee 2014; Vidal 2016; Williams 2015*; Wilson 2015*).

C. Conclusion

The literature review revealed an array of potential barriers and facilitators to the utilization of evidence in decision-making, in addition to several strategies to promote the linkage of evidence to decision-making. One key takeaway from the review is the need for additional investigation on how to promote evidence-based decision-making. The literature review findings presented here suggest that future research should examine the similarities and differences between the perceptions of decision-makers and researchers to gain a broader perspective on where the actual issues lie. For example, qualitative interviews with decision-makers within government and with researchers could explain (1) why, to-date, the pursuit of knowledge transfer and exchange (KTE) initiatives has been limited, (2) how their perceptions of each other have influenced their activities related to evidence-informed policy, and (3) provide insights on the types of interventions that should be explored in the future. One study highlighted the need for gearing the development, implementation, and evaluation of interventions towards the goal of providing information to decision-makers in a timely and efficient manner (Ellen et al. 2016). Another study noted that a key avenue of research will be to study how the political, economic, cultural, and social environments in targeted areas come into play in designing and implementing effective KTE interventions (Yamey et al. 2016*).

Phase 2 of the project (described in more detail in Chapter III) consisted of interviews with producers and users of evidence and was aimed to identify their views on the barriers and facilitators to the use of evidence in decision-making within government, and to learn about opportunities for promoting evidence-based decision-making within government.

III. PHASE 2: SUBJECT MATTER INTERVIEWS

The primary purpose of the key respondent interviews was to understand in greater detail how stakeholders use evaluation and research results to make decisions and to identify opportunities for improvements in the decision-making process. Specifically, we wanted to understand how decision-makers use evaluation and research results and what barriers and facilitators have prevented or helped the use of evidence in decision-making. A secondary aim was to understand the characteristics of federal organizations that have successfully used evidence in their decision-making. The main steps in our approach are described below.

A. Methods

1. Identify key informants

To identify potential key respondents, we held initial discussions with both ASPE staff and the Mathematica project lead for Phase 1 about potential types of stakeholders to interview. Based on feedback and research from experts in the evidence-based decision-making field, we created an initial list of 22 proposed key informants that met the following criteria:

- Demonstrated an understanding and/or experience with evidence-based decision-making
- Represented varying perspectives (that is, federal or state decision-making, research agencies, etc.)
- Included both users and producers of evidence

After ASPE review and feedback, Mathematica updated and finalized the list.

2. Develop interview instrument

To assist in achieving our project goals, we created an interview instrument guided by the following research questions:

1. What are the barriers and facilitators to using research and evaluation results to inform decision-making?
2. Which government organizations/agencies have successfully used research and evaluation results to inform policies or decisions?
 - Why were they successful?
 - How can these successes be replicated?
3. Where are there actionable opportunities to improve the use of evaluation and research results in decision-making?
 - Do these opportunities differ depending on the organizations, policy areas, and/or level of government? If so, how?
 - What other stakeholders (that is, foundations, advocacy groups, etc.) have a role in creating actionable opportunities?

The structure of the interview instrument aligned with the three main research questions (barriers and facilitators, opportunities for improvement, and successful use of evidence), with each section including targeted questions and probes. The instrument also drew from the findings from the literature review conducted in Phase 1, specifically the barriers and facilitators cited by authors. After ASPE's review and OMB approval, we updated and finalized the instrument (a copy is included in Appendix D).

3. Conduct interviews

After finalizing the list of key respondents, we contacted each individual to request an interview. We emailed initial interview requests, outlining the purpose of the interview. For those that did not respond, we sent two to three reminder emails. Due to some respondents declining interviews or not responding to our outreach, we updated the list with four new respondents. Overall, we conducted 14 interviews across 18 respondents, of which 6 are federal employees. Four interviews included two respondents.

We conducted 1 to 1.5 hour phone interviews with respondents. One or two Mathematica team members participated in each call, with one member leading the interview and the other taking notes. We used the interview instrument to guide the discussion and help capture data to answer the research questions. There were many instances where we tailored probing questions based on the respondents' response and/or work experience.

4. Analyze interview data

Before conducting interviews, we developed a matrix to capture and analyze the interview data. The matrix was designed to identify cross-cutting themes and develop analytic statements that summarized findings. After each interview, a member of the research team populated responses in the matrix. We then analyzed the interview data to identify both themes across barriers and facilitators and opportunities to encourage or improve the use of evidence in decision-making.

B. Findings

1. Barriers to using evidence in decision-making within the government

While analyzing the interview data to identify barriers to using evidence in decision-making, we gleaned the following overarching themes to group the different types of barriers: (1) availability of evidence, (2) understanding the theory and application of evidence-based decision-making, and (3) organizational influences. Interview respondents provided useful insights on what barriers exist to using evidence for decision-making, however, it is important to note that the interviews focused mainly on identifying barriers and not on how to address them.

a. Availability of evidence

A number of respondents noted that the availability of evidence influences the use of evidence in decision-making. There are two main perspectives respondents described. First, they discussed the issue of evidence not being available at the time decisions are being made, mainly because research findings take a long time to be produced. Second,

"Researchers like to take a lot of time thinking but the speed we get [evidence] really impacts how we can use it."

respondents discussed that the available research may not help in answering the questions decision-makers need answered.

One of the barriers that speaks to the first perspective, and was agreed upon by a majority of the respondents, was the misalignment in timing between the research cycle and policy process. Respondents felt that the misalignment in timing hindered the utilization of evidence because by the time evidence was available, decisions may have already been made and/or the perception of data usefulness may have diminished. One respondent specifically mentioned that some decision-makers regard data as recent as four years old as unusable for making current decisions.

Respondents remarked that the main causes to this barrier included:

- **Timely release of evidence:** The process for the federal government to approve and release research findings is not always timely. For example, evaluation results may not be shared until the end of a demonstration and by that time, it may be difficult to make changes based on the evidence.
- **Administration churn:** Projects may be completed after the administration that commissioned it leaves and the new administration may desire answers to different questions.

Respondents noted that this barrier is further complicated by the fact that rigorous studies take time to yield results. For example, impact evaluation studies can provide evidence on the effectiveness of a program or policy, but the timeline for these kind of studies to yield results may not align with the timing of when findings are needed to make program or policy decisions.

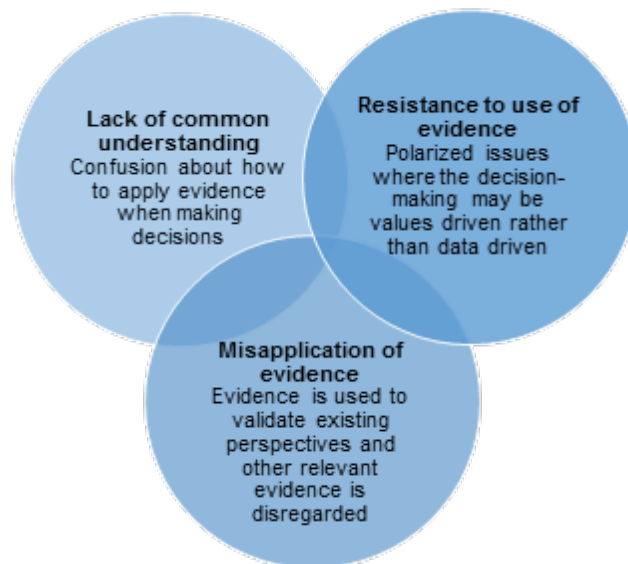
Another barrier, which is related to the impact of evidence availability, is that evidence producers do not gear dissemination of their research results to decision-makers. Numerous respondents added that the incentives for evidence producers, such as publishing in an academic journal, influences how they present the evidence. The way that evidence is presented in academic journals may not be useful or digestible to decision-makers within the government. Similarly, decision-makers may not express the issues they are focused on and what questions they are trying to answer in a way that evidence producers or other stakeholders would find useful. This disconnect between research and policy interests may result in evidence being difficult to access and understand, in addition to the evidence being less relevant to the decision being made. Respondents felt that this barrier occurs because of a lack of communication and coordination across all the relevant actors involved in the process: evidence producers, agencies and branches of the government, and private funders of research such as foundations.

During the interviews, respondents emphasized that the availability and reliability of data helps to accurately inform decision-making, in addition to the quality of data. The concerns with data quality mentioned the most often across respondents is that data may not always be captured using the best methods, and data is sometimes skewed to support a specific bias. One respondent specifically noted that appealing visualizations can also be misleading if the source data is not accurately analyzed or used to answer the right questions.

b. Understanding the theory and application of evidence-based decision-making

While many respondents noted the importance of evidence-based decision-making, they felt that many governmental leaders and staff tasked with making program or policy decisions may not understand the purpose and application of evidence. Feedback from the respondents highlighted that this lack of understanding leads to a number of closely tied barriers: (1) lack of a common understanding of evidence, (2) resistance to use evidence, and (3) the misapplication of evidence.

- Common understanding** – A number of respondents identified a need for a common language to describe evidence because of confusion around what constitutes evidence, why there is a need for evidence, and how to assess the quality. A few respondents alluded to the existence of federal decision-makers who fundamentally do not see the usefulness of evaluations because of a lack of understanding of the role of evidence.
- Resistance to use evidence** – Many respondents noted that decision-makers use various inputs, including anecdotes and opinions of other stakeholders, when making program or policy decisions. There is a perception that sometimes these other inputs help to steer decision-makers in a specific direction, even if available evidence does not support the decision.
- Misapplication of evidence** – Respondents felt that there are times when decision-makers misuse evidence by: (1) intentionally seeking evidence to support a decision without reviewing the full spectrum of available evidence or (2) generalizing research findings to wider populations when the findings only apply to specific samples.



Looking across respondent feedback, the theme that arose is that these barriers may have a domino effect in the decision-making process. Not understanding what evidence is or the varying levels of evidence strength may lead to misinterpretation of evidence to support a decision. Relatedly, not understanding the importance of evidence may lead to varying perceptions of its value and being resistant to using it. Numerous respondents reported one reason they believe these barriers exist is because of political influences, which may dictate if and how decision-makers use evidence.

c. Organizational influences

The first barrier within this theme is the availability of funding within federal or state agencies to support the high upfront cost of producing evidence. A few respondents mentioned that upfront cost can include the cost to contract with outside research organizations if evaluations or research is not conducted in-house. Even when agencies produce their own evidence, respondents cited the limited budgets agencies have to oversee or produce evidence as

a constant hurdle to overcome. A few respondents also highlighted that funding constraints are even more acute at the state level, where one respondent identified this constraint as the principal barrier to using evidence. Respondents noted that the competing priorities agencies face and the value budgetary decision-makers place on evidence are reasons for funding constraints—less value placed on evidence can translate into less funding to produce it.

Another organizational influence that may act as a barrier to evidence use is the organizational culture of federal and/or state agencies and their perceptions of how evidence will be applied. In regards to the culture within the government, a few respondents noted that there is not a coordinated, functional process to regulate the production and use of evidence. As a result, there is splintered responsibility, whereby a proliferation of people oversee pieces of the governance over evidence production but no one is completely in charge of ensuring coordination of efforts to compile and use the evidence. One respondent admitted that although the Department of Health and Human Services (HHS) has a data council, they did not believe enough attention has been given to it for it to be able to function like it should. Several respondents identified that if the leadership within agencies and throughout the government are not promoting a culture of evidence use, this fragmentation will persist. Additionally, respondents noted that some stakeholders within agencies believe evidence will be used to cut or increase funding for specific programs. Respondents felt that decisions made by the executive branch have signaled to programs that they should be wary of evaluations.

Relatedly, the culture of the decision-making process can be a barrier. Specifically, decision-makers use multiple inputs in their decision-making process and respondents noted that many decision-makers regularly use anecdotal evidence. A number of respondents identified this reliance on anecdotal evidence as a concern to evidence-based decision-making. A few respondents explained that decisions are often made based on how things operated in the recent past, so that decisions to let funds carryover from one year to another for the same program may be driven by anecdote rather than evidence. One respondent noted that this can lead to funding of untested programs. However, other respondents cautioned against being too prohibitive on the value of anecdotal evidence. For example, one respondent noted that evidence means something different to stakeholders in the executive branch versus the legislative branch. If a constituent calls a Congressman with a problem, they may view that as a case study and may have more salience because it is one of their constituents. This respondent classified it as a reasonable input to an elected member of Congress that should not be discounted in a democratic society.

Lastly, respondents spoke about the association between the increasing amount of data availability and the increasing risk of data security violations. Respondents noted that this is a current and increasing concern. They highlighted that private sector data breaches have ripple effects for the government because when these breaches do occur, the capacity to re-identify data that the government had released without identifications increases. Respondents viewed data security as an issue that is commonly in the public eye via media coverage and the extent to which individuals perceive their data as being secure may influence the information that they are willing to contribute in data collection endeavors. Thus, there may be direct ramifications for the necessary supply of evidence for decision-making.

2. Facilitators to using evidence in decision-making within the government

Interview respondents pointed out a number of factors that facilitate the use of evidence in decision-making. From our analysis of the interview data we identified the following four types of facilitators that can help overcome the barriers described earlier: (1) establishing collaborative relationships between evidence producers and decision-makers; (2) building trust in the evidence that researchers produce and in the decision-makers that use the evidence within the government; (3) having clarity on how different types of research and their findings can be used in decision-making; and (4) having leadership that supports and promotes the use of evidence and buy-in from the organization's staff on using the evidence.

a. Establishing stronger relationships between evidence producers and decision-makers

Several respondents noted that they believed increased collaboration between evidence producers and decision-makers can facilitate the use of evidence in decision-making within the government. Specifically, they indicated that these collaborations can further decision-makers' knowledge of the available evidence and this knowledge in turn can help them incorporate evidence into their decision-making. Additionally, respondents indicated that, in general, researchers/evidence producers do not know the actual levers over which particular decision-makers within the government have influence nor the complexities of the regulatory landscape surrounding programs and policies. Partnerships between evidence producers and decision-makers can help fill that knowledge gap. Respondents also noted that collaboration between evidence producers and decision-makers can help create capacity for both parties by establishing a cycle of "testing, learning, and asking anew." However, a number of respondents indicated that some separation between government funders and researchers is necessary because independence promotes innovative research. They advocated for the continuation of standard academic research and its value in informing policy and program decisions.



Some of the respondents provided examples of successful collaborations between evidence producers and decision-makers within government. One respondent—a researcher in an institution dedicated to producing evidence on programs and policies—described their

"We did not agree all the time, but they [government agency's staff] had respect for research and they did the translational step ...they met with staff at the Hill [to communicate findings]."

partnership with the staff at a government agency. The respondent noted that they provided expertise on the subject area and the staff in the government agency offered knowledge on the regulatory landscape, so together they were able to bring their research findings to policymakers and enact policy change. One other respondent working at a government agency noted the potential of having greater collaborations between researchers from academia and decision-makers in government agencies, as academics want their knowledge to be put to good use and decision-makers stand to gain expertise on the subject matter.

Respondents also noted that evidence producers and decision-makers within the government can have active roles in establishing productive relationships among them and with other stakeholders such as program administrators. A number of respondents called for researchers to conduct greater outreach to program and policy decision-makers by establishing greater personal connections and listening to the needs of the decision-makers to ensure that all relevant parties are being connected to their research. One respondent indicated that “they [researchers/evidence producers] should be proud of their work, so they should make sure people [program and policy decision-makers] know about it.”

In addition, several respondents emphasized the importance of involving program and policy decision-makers in the process of formulating research questions to create evidence. However, respondents also highlighted the need for realistic expectations in these collaborations. One respondent noted that evidence producers should not simply ask decision-makers about what their needs are, but should engage them in “iterative conversation” to help them bridge the gap between what they are trying to achieve and what they need to know to achieve it. Another respondent indicated that decision-makers (or their staff) should recognize that they have a responsibility to understand the research literature around the programs and policy areas they are involved in, and should take more of an active role (for example, by establishing learning agendas) in identifying what research is most useful for them and conveying those interests to researchers/evidence producers.

Finally, a number of respondents noted that “knowledge brokers” or “translators of evidence” can help in establishing stronger relationships between evidence producers and decision-makers within the government by translating technical language, conducting outreach to researchers, helping policymakers understand the potential uses of evidence and craft research questions, and promoting timing coordination across the researchers’ and decision-makers’ agendas.

b. Building trust in the evidence that researchers produce and in the decision-makers that use the evidence within the government

A number of respondents commented that securing trust from the general public can actually facilitate the use of evidence in decision-making within the government. Respondents noted that the data necessary to conduct research and obtain evidence are available only when the public trusts the institutions and the researchers requesting and collecting their data. Therefore, researchers and decision-makers within the government should prioritize data security and invest in the development of data regulation in their evidence building activities. Several respondents also called for a national secure data service that provides the infrastructure to securely link databases and share data across institutions.

Some respondents noted that regulators should be cautious in their efforts to protect data security so as to not hinder researchers’ and decision-makers’ ability to access relevant data. As one respondent noted, in protecting data security and regulating access to data, “we need to get it as right as possible.” Similarly, as one other respondent noted, strong data regulation and greater access to the data are not mutually exclusive events. This respondent thought that strong regulations, such as those stipulated in the Health Insurance

“Greater regulation can actually promote greater access to data...Researchers can figure out how to live with the rules thrown at them.”

Portability and Accountability Act (HIPAA), allow for the existence of administrative data that are very valuable to researchers/evidence producers but that would not be accessible without having established first a comprehensive regulatory system for the sharing and use of such data. Another respondent emphasized that to maintain public trust in the institutions involved in creating and using evidence to make decisions about programs and policies, it is not enough to report accurate findings and “be open” if mistakes are made; it is also necessary that the government and research institutions (public and private) work actively in engaging with the public to communicate the research findings and why those findings are relevant to the public.

c. Improving clarity on how different types of research and their findings can be used in decision-making

A number of respondents noted that focusing on the type of research that actually answers the questions of concern to decision-makers can facilitate the use of evidence in decision-making within the government. Specifically, respondents commented that often, the definition of what constitutes as evidence that can be used for decision-making within the government is too narrow. For example, one respondent mentioned that what is understood as “evidence” is usually the findings from impact evaluations, and the findings from qualitative studies on program design are often overlooked. Similarly, another respondent indicated that “what is most rigorous it often given preference over what is most useful.” This respondent noted that the findings from impact evaluations do not provide insights about how programs work or how they should be designed, which are often the issues on which decision-makers within the government would like to take action. Another respondent noted that the research findings that are more effective at prompting action from decision-makers within the government are those that allow the decision-makers to “move the dial” across a range of options. As an example, this respondent mentioned that the Congressional Budget Office’s (CBO) scores are very useful to policymakers because they provide information on trade-offs and options for different degrees of investment/expenditures.

d. Leadership in supporting and promoting use of evidence in decision-making, and organizational buy-in on leadership directions

A majority of respondents indicated that the support and promotion from leadership within government institutions is a great facilitator to evidence-based decision-making, and a number of these respondents thought that having this leadership is a necessary condition or primary factor for moving towards a “culture of evidence use” within organizations. For example, one respondent noted that the support from leadership in Congress made the establishment of the U.S. Commission on Evidence-Based Policymaking possible. Several respondents supported the idea of incorporating a chief evaluation officer, a deputy secretary in charge of evaluation, or some other formal staffing infrastructure to establish the utilization of evidence as an organizational priority. However, one respondent noted the need to be cautious about concentrating the evaluation capacity and production of evidence into a small group of staff within an institution or into a small group of institutions within the government.

“It is important to have people in leadership that appreciate the value of evidence, because if you don’t have that, you are working with a handicap from the beginning.”

As noted by a number of respondents, staff buy-in is also key to encouraging the utilization of evidence in decision-making. These respondents noted that it is not possible to make progress

towards systematic use of evidence in decision-making if the staff in organizations are not interested in using the evidence. To promote buy-in from staff, respondents suggested communicating the importance of using evidence in one-to-one meetings between leadership and staff, building initiatives to use evidence from existing research infrastructure, promoting staff engagement in research production, providing training on using evidence, and considering candidates interest in using evidence when hiring new staff.

3. Characteristics of organizations that have used evidence successfully in decision-making within the government

The interview respondents provided a few examples of successful evidence-based decision-making within the government. All the respondents agreed that the facilitators discussed earlier in this report allow organizations to use evidence in their decision-making. In particular, respondents indicated that the organizations within the government that have used evidence successfully have at least one of the following characteristics:

- **They have partnerships with multiple actors.** Several respondents highlighted the success of agencies that worked together with researchers, funding agents, regulatory agents, and/or politicians to promote evidence use in decision-making. As noted earlier, these respondents believe the sharing of information that happens within these partnerships can facilitate using the acquired information and knowledge for decision-making.
- **They have leadership that promotes the use of evidence.** A majority of respondents commented on the importance of support from leadership to the promotion and uptake of evidence-based decision-making within organizations. In particular, respondents noted that having leadership that is invested in the use of evidence facilitates a team's ability to leverage organizational messaging to advance an agenda that is based on data and research findings.
- **They have organizational buy-in for using evidence.** In addition to highlighting the importance of support from leadership, a number of respondents noted that staff buy-in was also essential to the utilization of evidence in decision-making within an organization. Respondents reported that even with directives from leadership, disengaged staff can delay progress of an evidence-based agenda. One respondent highlighted the factors that they believed led to one organization's ineffectiveness in promoting evidence-based decision-making, despite broad authority to conduct high quality evaluations. The respondent noted that a cultural perception within the organization that policy change was rare and that their current actions were adequate, stymied progress. Furthermore, other respondents noted that funding restraints can undermine staff buy-in. Funding cuts hinder an organization's ability to foster staff with institutional knowledge and decrease an organization's capacity for data production and maintenance, thereby corroding evidence's value to staff.
- **They set "learning agendas."** A number of respondents noted that the organizations that are successful at using evidence in their decision-making have a clear understanding of the issue on which decisions need to be made, and therefore they are able to identify the research evidence that can help them in making those decisions. To help focus on the most useful research for decision-making, respondents proposed using learning agendas, which imply clearly defining research questions, the plan for answering those questions, and the expected products from the research activities. One respondent emphasized the importance

of involving decision-makers early on in setting a learning agenda, and noted that learning agendas promote institutional buy-in on using evidence in decision-making.

- **They understand that making decisions about programs and policies is a long-term process, and they remain “apolitical.”** Several respondents called for a long-term view of the impact of evidence on decision-making. One respondent, in particular, addressed this issue at length and noted that evidence’s full impact is underestimated if it is only considered within a point in time or in the context of a particular decision. Promoting the understanding that the impact of evidence may not be observed in the short term could serve to set more realistic expectations among an institution’s leadership and staff, which may in turn increase their appreciation for using evidence in their work. A number of respondents also highlighted the benefits of incorporating evaluations into routine operations and the need to conceive of it as a continuous rather than discrete process toward promoting a “culture of evidence.” Conducting evaluations regularly can bolster the perception of evidence as an integral component of operational functioning and can work to reframe perceptions of their purpose. Within this context, some respondents reported that the federal agencies that have been the most effective in incorporating evidence in their work have been those that have remained relatively apolitical, which may have worked to mitigate fears that the evidence (that is, research findings) will be used against programs in a political manner.

"When you start collecting data they fear it will turn into an audit. So when you are looking to get the data that can be a scary thing for very beloved programs. Culture change is essential to overcoming this barrier."

C. Opportunities to improve the use of evidence in decision-making within the government

Throughout our interviews, respondents provided suggestions for addressing barriers and enhancing facilitators that impact the use of evidence in decision-making. We took those suggestions and analyzed them as opportunities for improving the use of evidence in decision-making. Table 1 lists each opportunity and describes specific activities to help leverage them. These opportunities stem from both respondents’ experiences producing or using evidence and their reflections on organizations that have been successful in evidence-based decision-making.

Activities to grasp these opportunities already take place to some extent. For example, there are organizations who act as knowledge brokers and through their interactions with decision-makers are trying to promote the use of evidence. However, more organizations could participate in doing this work and their activities could be more streamlined. The last two opportunities, evidence-based decision-making events and the coordination between researchers and policy decision-makers, may require input from a wide range of stakeholders and additional funding commitments.

Table 1. Opportunities for improving the use of evidence in decision-making

Opportunity	Description and activities
Promote the use of knowledge brokers	<p>Organizations like ASPE can serve as a translator/knowledge broker for evidence-based decision-making. Specific knowledge broker activities could include:</p> <ul style="list-style-type: none"> • Translating evidence into digestible formats (for example, one-pagers, visualizations, impact summaries) for decision-makers • Assisting decision-makers with crafting research questions they need help answering • Providing guidance to researchers on the type of evidence that is needed for a policy or program decision
Establish learning agendas	<p>The integration of learning agendas into government agencies can encourage organizational buy-in, uptake, and a focus on evidence. Specific activities to help establish and promote the use of learning agendas include:</p> <ul style="list-style-type: none"> • Providing trainings on how to create learning agendas (for example, on the appropriate scope, questions, and information types needed) • Championing policy to increase the uptake of learning agendas • Working with policy decision-makers to develop learning agendas
Develop standard definitions and support the use of evidence in decision-making	<p>Organizations that act as knowledge brokers have an opportunity to increase the use of evidence. These organizations can hold various events, such as conferences, workgroups, or trainings, focused on various topics designed to spread knowledge about using evidence. Specific activities could include:</p> <ul style="list-style-type: none"> • Identifying standard definitions/approaches/framework for evidence use to promote uniformity in the field • Providing evidence training for policy decision-makers' staff. This training could include a suite of training protocols that relay what agencies do to produce evidence, how they use evidence, and what evidence is available
Improve coordination across the agendas and timelines of evidence producers and policy decision-makers	<p>Align incentives between researchers and policy decision-makers. Respondents highlighted the following activities for this opportunity:</p> <ul style="list-style-type: none"> • Leveraging the funding capacity of knowledge brokers to yield greater production of research products relevant to policy decision-makers (for example, visualizations and one-page briefs) • Promoting timing and coordination across the researchers and decision-makers' agendas • Promoting greater investment in the HHS Data Council • Helping decision-makers understand what evidence-based decision-making entails and its potential to influence program or policy decisions • Establish infrastructure between government agencies to identify opportunities to use evidence

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APPENDIX A:

ORGANIZATIONAL WEBSITES SCANNED FOR GOOGLE SEARCH

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Organizational websites scanned for Google search

Organization Types	Names	URL
HHS organizations and departments that produce evaluation studies	• The Administration for Children and Families—Office of Planning, Research, and Evaluation (ACF—OPRE)	• https://www.acf.hhs.gov/opre
	• Office of Inspector General—Office of Evaluation and Inspections (OIG—OEI)	• https://oig.hhs.gov/about-oig/about-us/office-of-evaluation-and-inspections.asp
	• Council of the Inspectors General on Integrity and Efficiency	• http://www.ignet.gov/
	• U.S. Office of Science and Technology Policy, Interagency Task Group on the Science of Science Policy and the National Science Foundation	• http://scienceofsciencepolicy.net/
	• U.S. Corporation for National and Community Service	• https://www.nationalservice.gov/impact-our-nation/evidence-exchange
	• Food and Nutrition Service, Office of Policy Support	• https://www.fns.usda.gov/ops/research-and-analysis
	• Economic Research Service	• https://www.ers.usda.gov/
	• Policy and Program Studies Service (PPSS)	• https://www2.ed.gov/about/offices/list/opepd/ppss/index.html
	• Office of Planning, Evaluation and Policy Development (OPEPD)	• https://www2.ed.gov/about/offices/list/opepd/index.html
	• Institute of Education Sciences (IES)	• https://ies.ed.gov/ncee/
	• Office of Energy Efficiency and Renewable Energy	• https://www.energy.gov/eere/analysis/program-evaluation
	• Children’s Bureau	• http://www.acf.hhs.gov/cb/resource/framework-workgroup
	• Centers for Disease Control and Prevention, Program Performance and Evaluation Office	• https://www.cdc.gov/eval/index.htm
	• Office of the Assistant Secretary for Planning and Evaluation (ASPE)	• https://aspe.hhs.gov/evaluations
	• U.S. Department of Housing and Urban Development (HUD), Office of Policy Development and Research	• http://www.huduser.gov
	• Office of Justice Programs (OJP) the National Criminal Justice Reference Service (NCJRS)	• http://www.ncjrs.gov
	• National Institute of Justice (NIJ)	• http://www.nij.gov
	• U.S. Department of Labor (DOL), Chief Evaluation Office	• http://www.dol.gov/asp/evaluation/
	• U.S. Department of State	• http://www.state.gov/s/d/rm/rls/evaluation/index.htm
	• Bureau of Education and Cultural Affairs, Office of Policy and Evaluation, Evaluation Division	• http://eca.state.gov/impact/evaluation-eca
	• Office of U.S. Foreign Assistance Resources	• http://www.state.gov/f/evaluations/index.htm
	• U.S. Environmental Protection Agency, Office of Strategic Environmental Management, Evaluation Support Division	• http://www.epa.gov/evaluate/

Organization Types	Names	URL
HHS organizations and departments that produce evaluation studies (continued)	<ul style="list-style-type: none"> • U.S. Government Accountability Office • Health Resources and Services Administration—Office of Planning, Analysis, and Evaluation (HRSA—OPAE) • Agency for Healthcare Research and Quality (AHRQ) • Substance Abuse and Mental Health Services Administration (SAMHSA) • Office of Minority Health (OMH) • Administration for Community Living (ACL) • Centers for Medicare and Medicaid Services (CMS) • U.S. Food and Drug Administration (FDA) • National Institutes of Health (NIH) • Indian Health Service--Division of Planning, Evaluation and Research (IHS) 	<ul style="list-style-type: none"> • http://www.gao.gov • https://www.hrsa.gov/about/organization/bureaus/opae/ • https://www.ahrq.gov/ • https://www.samhsa.gov/ • https://minorityhealth.hhs.gov/ • https://www.acl.gov/ • https://www.cms.gov/ • https://www.fda.gov/ • https://www.nih.gov/ • https://www.ihs.gov/dper/
Academic affiliated organizations that may focus on “translation” of research for decision-makers	<ul style="list-style-type: none"> • Brookings Institution • Institute for Policy Research • Institute for Research on Poverty • Institute for Social Research • Institution for Social and Policy Studies • Joanna Briggs Institute (JBI) • Joint Center for Housing Studies • Maryland Institute for Policy Analysis and Research • NORC at the University of Chicago • Public Policy Research Center • Weiner Center for Social Policy • Women & Public Policy Program • University of California • Berkman Klein Center for Internet & Society at Harvard University • National Implementation Research Network • Division of Health Policy and Translation- Department of Emergency Medicine • The University of North Carolina at Chapel Hill Center for Health Promotion and Disease Prevention • University of California San Francisco Philip R. Lee Institute for Health Policy Studies • University of Connecticut Health Disparities Institute • Rutgers Institute for Health, Health Care Policy and Aging Research 	<ul style="list-style-type: none"> • https://www.brookings.edu/ • http://www.ipr.northwestern.edu/ • http://www.irp.wisc.edu/index.htm • http://home.isr.umich.edu/ • http://isps.yale.edu/ • http://joannabriggs.org/ • http://www.jchs.harvard.edu/ • http://mipar.umbc.edu/ • http://www.norc.org/Pages/default.aspx • http://pprc.umsl.edu/ • https://www.hks.harvard.edu/centers/weiner • https://wapp.hks.harvard.edu/ • https://www.universityofcalifornia.edu/ • https://cyber.harvard.edu/node/99639 • http://nirn.fpg.unc.edu/ • http://emhp.bwh.harvard.edu/ • http://hpdp.unc.edu/research/projects/center-trt/ • https://healthpolicy.ucsf.edu/ • https://health.uconn.edu/health-disparities/ • http://ihhpar.rutgers.edu/

Organization Types	Names	URL
Non-academic organizations, including think tanks	<ul style="list-style-type: none"> • Abt Associates • AcademyHealth • American Enterprise Institute (AEI) • Cato Institute • Center for American Progress • Center on Budget and Policy Priorities • Commonwealth Fund • Commonwealth Institute • Heritage Foundation • Institute for Policy Studies • Kaiser Family Foundation • Manhattan Institute for Policy Research • Massachusetts Budget and Policy Center • Mathematica Policy Research • Milken Institute • Model Systems Knowledge Translation Center • National Academy of Public Administration • National Center for Policy Analysis • Patient-Centered Outcomes Research Institute • Pew Charitable Trusts • Pew Research Center • Progressive Policy Institute • Public Policy Institute of California • Rand Corporation • Research Triangle Institute • Urban Institute 	<ul style="list-style-type: none"> • www.abtassociates.com/ • www.academyhealth.org/ • http://www.aei.org/ • https://www.cato.org/ • https://www.americanprogress.org/ • http://www.cbpp.org/ • http://www.commonwealthfund.org/ • http://www.comw.org/ • http://www.heritage.org/ • http://www.ips-dc.org/ • http://www.kff.org/ • https://www.manhattan-institute.org/ • http://www.massbudget.org/ • https://www.mathematica-mpr.com/ • http://www.milkeninstitute.org/ • http://www.msktc.org/ • http://www.napawash.org/ • http://www.ncpa.org/ • https://www.pcori.org/ • http://www.pewtrusts.org/en • http://www.pewresearch.org/ • http://www.progressivepolicy.org/ • http://www.ppic.org/main/home.asp • http://www.rand.org/ • https://www.rti.org/ • http://www.urban.org/

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APPENDIX B:

**DETAILED SUMMARY OF FINDINGS FROM
PHASE 1 LITERATURE REVIEW**

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Key Findings from Phase 1

This appendix describes detailed themes from the literature review conducted in Phase 1, which is summarized in Chapter II of this report.

1. Challenges in using evidence in policy decision-making

Misalignment in research conducted and evidence needed

- a. Authors suggest that researchers often choose study designs and methods that are not well suited to decision-makers' needs.**
 - i. Researchers tend to use rigorous methodology, such as randomized clinical trials, quasi-experimental studies, and single-case designs. However, studies that assess cost-effectiveness and efficiency might be more useful to policymakers and decision-makers (Bennet 2013; Dunsmuir 2013*³).
- b. Study findings suggest that researchers' questions, timelines, and objectives may not align with those of decision-makers.**
 - i. Researchers have priorities and skill sets that are very different from decision-makers (Gross 2015; Pesta 2017). In academia there is an expectation that research questions will be relatively narrow in scope (Gross 2015). Therefore, the academic approach can produce research that is confined to only part of an issue, which may limit decision-makers ability to use the evidence (Bennet 2013; Gollust 2014; Moseley 2015).
 - ii. Decision-makers contend with many questions and must determine how much time and effort to devote to various issues in a time-sensitive environment (Dodson 2015; Gollust 2014; Gross 2015).
 - iii. Scientists are unable to anticipate a demand for information to quickly solve a very specific problem (Cairney 2017*).
 - iv. Research takes time and the findings often come at the end of a program's implementation timeline, when it is too late to integrate the findings into how the program operates, or after decisions have already been made (Appollonio 2017; Brownson 2016; Desmaris 2014; Gross 2015; Ellen 2016a*; Joanna Briggs Institute 2014*; Pesta 2017; Supplee 2014; Yamey 2016).
 - v. Decision-makers report a need for evidence in the preliminary and intermediary stages (policy development and program implementation) of the policy process whereas researchers are less likely to focus on these topics in their investigations (Vidal 2016).

³ Citations from international articles are marked with an asterisk.

- c. Authors felt that researchers rarely present their findings in a manner that is accessible for non-experts and their products often do not meet the information needs of decision-makers.**
- i. Researchers do not often tailor their findings for a policy-oriented audience (Gross 2015; United Nations Development Programme 2015).
 - ii. The information presented in research findings is complex, not generalizable, and may be open to interpretation (Dodson 2015; Ellen 2016a*; Lery 2015; McKinney 2017; Moseley 2015; Yamey 2016).
- d. Several authors felt that decision-makers have difficulty obtaining research findings.**
- i. Research is not readily available, making it difficult for decision-makers to access recent findings (Dodson 2015; Ellen 2017; Lubienski 2014; Pesta 2017; Yamey 2016; Baker 2017).
 - ii. Publishing in academic journals rarely has much impact on policy because much of the information is of a technical nature, decision-makers and practitioners do not often seek out journals, and such articles usually lack clearly stated policy recommendations and implications (Pesta 2017).
 - iii. Some government agencies' communications or public relations departments have little knowledge about how to disseminate research findings (Gross 2015).
 - iv. Research dissemination efforts are often not strategic, and researchers rarely employ strategies that involve more than checking to see if one or two outlets publicized their research (Lubienski 2014).
 - v. Researchers do not have the time, support, resources, or incentives to think through how to effectively disseminate their findings (Cairney 2017*).
 - vi. Conferences are not an especially useful means for disseminating information to decision-makers because such meetings are not generally easily accessible, there are usually participant caps, and they are often limited to particular subjects (Ellen 2016a*).
- e. The literature suggests that linking research to decision-making can be resource-intensive, and government agencies have limited capacity.**
- i. Government agency personnel need more training on using research and understanding evidence-based practices (Bennett 2013*; Hale 2017; Li 2015).
- f. Authors note that few researchers and decision-makers work to establish mutually beneficial relationships.**
- i. Researchers and decision-makers do not naturally engage in mutually beneficial dialogue, during which they would be able to respond to questions, work together to address issues, and establish an ongoing relationship (Dodson 2015; Henrick 2016; McKinney 2017; Pesta 2017).

- ii. Distrust is cited as a barrier for connecting the research and policymaking communities (Pesta 2017).
- iii. Decision-makers are not receptive to findings that are politically unfavorable or inconsistent with their policy position (Ellen 2016b).

The complicated process of policy decision making can crowd out the use of research evidence.

a. Authors expressed that policymaking is not linear and that many inputs influence decision-makers.

- i. At times, policy decisions stem from reactions to an unexpected event or crisis, and that can impede the use of research (Appollonio 2017; Pesta 2017).
- ii. Research is one of many factors that decision-makers consider when making choices. Research—no matter how rigorous or relevant—may be left out of policy discussions in place of other factors such as political feasibility, personal priorities, public opinion, social implications, and budget constraints (Appollonio 2017; Cairney 2017*; Gollust 2014; Koon 2012*; Moseley 2015; Mosley 2013; Model Systems Knowledge Translation Center 2014; McKinney 2017; Pesta 2017; Baker 2017; Gold 2009).
- iii. Decision-makers have shortcuts for making decisions; they have their own ways of prioritizing their sources for information or they make choices based on emotion or “gut feelings” (Cairney 2017*).
- iv. Pressure from various agencies and organizations influence some of the decisions officials make (Whitty 2016*).

“As a member of the House of Commons Public Administration Select Committee once put it, ‘much of our policymaking is evidence-free, prejudice-driven and hysteria-driven (particularly hysteria generated by the press).’ – Whitty 2016*

b. The literature suggests that decision-makers are strongly influenced by anecdotal evidence.

- i. Many politicians rely more heavily on anecdotal than research evidence (Whitty 2016*).
- ii. State decision-makers frequently endorsed the adoption of research evidence when global knowledge of the problem (for example, national administrative data) aligned with local knowledge (for example, state-specific data) (Mackie 2015).
- iii. Decision-makers’ references to research may come from an advocate’s recollection of an item he or she saw in a newspaper, conversations with co-workers or neighbors, or some other source (Asen 2013).
- iv. Instead of relying on research, decision-makers may access evidence through their personal and professional networks, drawing on a handful of academics, intermediaries, and think tanks that generally tend to support their policy agendas. They may also rely on non-peer-reviewed reports and anecdotes, and seem to conflate “data” with “research.” This results in an overreliance on trend or descriptive data—

often internally produced—rather than making use of independent assessments of policy initiatives (Jabbar 2014).

Several factors contribute to a divide between evidence producers and decision makers.

- a. A few articles report that frameworks to bridge the gap between research and practice are rarely used by researchers and decision-makers.**
 - i. Although frameworks for knowledge translation, adapting, and optimizing evidence-based programs exist, a sufficient infrastructure for bridging the gap between evidence-based research and practice does not yet exist (Supplee 2014).
 - ii. Frameworks for predicting the different information needs of policymakers and other decision-makers exist but researchers tend to focus their work on a single policy actor (Bogenschneider 2013).
- b. Numerous authors felt that decision-makers are not adept at distinguishing between biased and objective research.**
 - i. Decision-makers are unsure how to find unbiased and high quality reports to cite in their policy decisions (Dodson 2015; Dunsmuir 2013*; Lery 2015; Mackay 2013*).
 - ii. Many researchers lack credibility with decision-makers who perceive them as biased (Jabbar 2014).
 - iii. When decision-makers use research to inform their work it is often research that their own team or other government organizations conducted, which may be biased (Corlucka 2015; Jabbar 2014).
 - iv. Findings are more likely to catalyze action if they lead to straightforward inferences and feasible activities (Gold 2009).
- c. Decision-makers perception and use of evidence varies.**
 - i. Decision-makers are not always convinced of the value of using research findings in their work; some are disinterested in using research (Corlucka 2015; Dodson 2015; Jabbar 2014; Lery 2015).
 - ii. There is often a disconnect between what decision-makers say about their use of research and the types of research they actually use (Bogenschneider 2013).

2. Strategies to break down barriers to using evidence

Improving the link between evidence and decision making

- a. The literature suggests that many researchers and decision-makers want to promote linkages between evidence and decision-making.**
 - i. Decision-makers would like tools designed to help them navigate complex policy issues (Bogenschneider 2013).
 - ii. Making information more accessible to decision-makers is an important task for research institutions (Koon 2012*).

- iii. Individuals with lengthier government service are most likely to perceive research as being useful (Bogenschneider 2013).
- iv. Decision-makers with training in research interpretation are better able to make decisions about whether to include evidence in policy decisions (Appollonio 2017).
- v. There is generally significant interest in learning agendas within federal agencies. Learning agendas are most effective when they are aligned with organizational strategic goals, receive support from leadership, and are well resourced (USAID Learning Lab 2017).
- vi. All states have undertaken some evidence-based decision-making activities, although the strength and breadth of those actions vary (Davis et al. 2018).
- vii. Defining levels of evidence, producing inventories of existing programs, contrasting program costs and benefits, incorporating program outcomes into budgetary documentation, targeting funds to programs that are evidence-based, and utilizing the law to compel action are key activities for states to advance evidence-based decision-making (Davis et al. 2018).
- viii. Congress has demonstrated a growing interest in evidence-based decision-making. Perception, institutional, and systemic barriers impede progress, but capacity enhancements, institutional modifications, and process changes all hold the potential to further evidence use in Congress (Davis 2018).

b. Numerous authors suggest that creating effective and long-term linkages between research evidence and decision-making requires strategic and long-term interpersonal relationships.

- i. Researchers should continue follow up with decision-makers and track the fidelity of the evidence-to-policy process to achieve optimal outcomes. They should study the required duration of the engagement to ensure that the information from the research remains a driving consideration in future policy formation, implementation, and short- and long-term outcomes (Yamey 2016).
- ii. Researchers can improve the researcher decision-maker relationship by creating and championing a mandate within the organization of interest and helping to facilitate institutional arrangements that link research activities to future political considerations (Corluka 2015*).
- iii. Officials should develop strategies to more effectively integrate researchers into knowledge transfer and exchange (KTE) initiatives (Ellen 2016b).
- iv. Establishing a national task force or working group, led by a decision-maker and a researcher or knowledge broker with ample access to key stakeholders, can be an effective strategy. The working group should be chaired by a representative of government (Ellen 2017).
- v. Forming a group of stakeholders (researchers, decision-makers in governmental agencies that address the issues at hand, and individuals from the public at large) to review the results of an assessment and the priority problems identified by the

assessment may be effective towards promoting evidence-based decision-making (Ellen 2017).

- vi. Researchers and decision-makers should schedule regular interactions to build trust and reciprocity. Interaction is necessary and effective for knowledge translation (Pesta 2017; Corluka 2015*; Henrick 2016; Leischow 2013*).
 - vii. There should be collaboration at all phases of research projects, from foundation to recommendations, as that produces more meaningful findings for all parties (Pesta 2017; Smits 2014*; Baker 2017; Vidal 2016).
 - viii. Partnerships constructed to systematically collect data, analyze data, and report the data in forums and formats that are publicly available will facilitate implementation of evidence-based policy (Moseley 2013).
 - ix. Strong relationships between practitioners and researchers can bolster the use of research in policymaking (Ellen 2016a*; Corluka 2015*; Lery 1015; Li 2015; Gold 2009).
 - x. Officials might find that convening deliberative dialogue through work groups, bringing together stakeholders and using experienced facilitators, can enhance a discussion (Ellen 2017).
- c. The literature suggests that leveraging relationships between key players is vital to producing evidence.**
- i. Researchers can leverage personal connections to the issues to facilitate cooperation and identify priority areas (Hyde 2016; JBI Approach).
 - ii. Advocates in certain communities can help disseminate research findings and validate the importance of the data in question. Funders can provide support to pre-identified researchers. Therefore, poor relationships between research producers and key stakeholders, such as advocates and funders, can undermine the impact of the knowledge transfer process (Mosley 2013; Ellen 2016b; Brownson 2016).
 - iii. Policy must have local buy-in, and researchers must adapt to local circumstances. Therefore, decision-makers should align their methods to existing key players in order to achieve the highest level of success possible (Cairney 2017*; Supplee 2014; Gold 2009).
 - iv. Different organizations have different ways of thinking and framing problems. Therefore, they have a limited range of solutions they will contemplate. If someone with strong persuasion skills presents the new evidence, attitudes are more likely to shift (Cairney 2017*; Mackie 2015; Bogenschneider 2013).
 - v. There are trade-offs between local, central, and national governments in policymaking. Any strategies must take into account local autonomy and policy flexibility (Cairney 2017*; DeBray 2014; Corluka 2015*; Niessen 2012*; Hyde 2016).
 - vi. Researchers should take time to build networks across disciplines—not only to facilitate decision-making, but also to test policies in the correct contexts (Hawkins 2016; Koon 2012*; Leischow 2013*).

- vii. The strength of connections and capacity combine to help embed research into networks of decision-makers in institutions (Koon 2012*).
 - viii. Technology and social networks are important to leverage for research understanding and dissemination (Lubienski 2013; Mackie 2015).
- d. Authors suggest that third parties can help connect decision-makers to evidence.**
- i. Decision-makers must consider the positions of various stakeholders, all of whom can have different reactions to research findings and cite their own information sources during policy deliberations (Asen 2013; Ellen 2016b; Scott 2014).
 - ii. Outside organizations with recognized credibility, both inside and outside the government, can promote uptake of evidence within organizations both through evidence connection and production (Gold 2009).
- e. The literature suggests that training researchers to communicate effectively and training decision-makers on how to expand their use of evidence might improve outcomes.**
- i. To continue to serve as intermediaries, researchers must have the skills to engage in dissemination activities. Moreover, a range of research methods will be required to address the full set of questions about policy issues (Dunsmuir 2013*; Gold 2009).
 - ii. Training knowledge producers and knowledge users in effective dissemination and use of research findings is important (Ellen 2016*a).
 - iii. Support for evidence-based solutions depends on several levels of networks within a given system. Scientists should take time to learn the language and framing of these networks to present evidence in the best ways and secure an audience (Cairney 2017*).
- f. Authors note that strategic training sessions (that is, cross-training) for researchers and decision-makers might be impactful.**
- i. A worthwhile approach might be to have academics attend practitioner conferences to disseminate their research findings more directly and succinctly to decision-makers, and to generate policy- and practice-relevant recommendations (Pesta 2017).
 - ii. Training graduate students to work with decision-makers and practitioners and to conduct program evaluations of local policies and interventions is a strategy that several researchers have recommended (Pesta 2017).

“Let us teach, encourage, and fund good research, but let us also teach how to marshal the arguments to lobby a finance minister or a minister of trade. This is so important, it should not be left to chance.”
– Mackay 2013*

“Some researchers recommended including policy research as a factor in tenure decisions. In addition, researchers should be encouraged to work in policymaking and practitioner environments.” – Pesta 2017

“Training can help develop stronger research skills within government, but also coalesce networks that traverse policy and research fields.” – Bennet 2013

- iii. Training government officials in health research and supporting their linkages to the research community would likely advance evidence-based decision-making (Bennett 2013*, Nightingale 2018).

g. Research findings suggest that investing in formal partnerships might spur progress.

- i. Coordination between health centers and decision-makers with research institutions is an important first step in establishing priority research topics. This requires a budget dedicated to effort and monitoring the process (Corluka 2015*).
- ii. State agencies that seek to work with university-based researchers would be wise to clearly set several expectations. What is the expected timeline for the work? Does the state want briefings on preliminary results or an opportunity for agency staff to work alongside the university-based researchers? Should the researchers plan to present findings at state board meetings or at other public forums? An up-front investment in clarifying roles and responsibilities can contribute to a great deal to establishing productive, enduring partnerships (Gross 2015).
- iii. In cases of limited funding, agencies can leverage nonfederal free analytic or technical staff resources—for example by acquiring interns with expertise paid by outside funders or collaborating with other agencies (Nightingale 2018).

Applying evidence in all aspects of decision-making

a. Authors felt that in the early stages of policymaking, the same evidence can be used in different ways to help concerned parties understand the issues at play.

- i. Evidence can have many uses in policymaking, including deepening stakeholders' understanding of the problem by showing the relevance of an issue (Hyde 2016; Smits 2014*).
- ii. Mixing research and anecdotes is an effective means of helping decision-makers with decisions (Appollonio 2017; Asen 2013).
- iii. Factors other than research, such as implementation readiness, resources, and feasibility, come into play in policymaking (Supplee 2014).
- iv. Often evidence's role in decision-making is conceived of too narrowly, specifically evidence's role is considered within a specific point in time or in relation to whether a program as a whole should be funded or defunded. However, evidence should be incorporated at multiple stages of the decision-making process: to identify problems and their causes, create new options, demonstrate impact, monitor implementation across settings, and analyze the long-term effects (Turner 2013).
- v. Considering the numerous and diverse applications of evidence, policymakers can ask researchers to employ a range of research tools and methodologies (for example, randomized control trials, microsimulation models, administrative data analysis, performance measurement, and qualitative research). No one approach is sufficient (Turner 2013).

b. Authors recommend that government agencies establish formal capacity for accessing relevant research.

- i. External partners can give states unbiased and politically neutral research results that are independent of the state's policy environment. One author felt they could add to (and complement existing) analytic capacity. They integrate both policy and academic approaches to analysis and problem solving. They can provide needed specialized expertise to support state policy (Gross 2015).
- ii. Federal agencies should create evaluation policy statements to outline their approach and principles for research and evidence (Nightingale 2018)
- iii. Agencies should have a high-level official who is responsible for program evaluation and can do the following:
 - Develop and manage the agency's research agenda
 - Conduct or oversee rigorous and objective studies
 - Provide independent input to agency decision-makers on resource allocation and to program leaders on program management
 - Attract and retain talented staff and researchers, including through flexible hiring authorities such as the Intergovernmental Personnel Act
- iv. Refine program performance measures, in collaboration with program managers and the performance improvement officer (Krueger 2014; Abraham et al. 2017)
- v. Because wide-scale use of evidence-based programs (EBPs) is an interdisciplinary undertaking, there must be consistent and sufficient financial support from federal and state agencies in public health, mental health, and education. Agencies should fund the infrastructure for scaling up and implementing EBPs. A trained workforce committed to EBPs and their effective implementation to staff is necessary (Supplee 2014).
- vi. It is possible to increase access to confidential data without sacrificing privacy by employing a strong legal framework and security technology. Increasing access to data (via a National Secure Data Service) is essential to promoting evidence-based decision-making (Abraham et al. 2017).

c. The literature suggests that program administrators should become familiar with how to effectively use evidence-based decision-making and assess whether it is a viable option for them.

- i. Researchers should assess whether their professional practice or programs can support those recommendations and make the necessary changes to allow successful implementation (JBI Approach; Supplee 2014).
- ii. Normalize the use of evidence, and provide training and technical assistance to support the use of evidence-informed decision-making (Lery 2015; Baker 2017; Vidal 2016).

d. Authors recommend that research designs and explanations of findings should be tailored to the intended audience.

- i. Each partner should have defined deliverables and timelines. Research partners must be aware of the importance of descriptive statistics and graphical representations, and there should be regular times for researchers to present ongoing findings to leadership (several times a year to help break the information into manageable pieces). Research partners should provide six-month updates outlining their ongoing work and deliverables. Preserving researchers' independence and their ability to publish is vital to protecting academic freedom and researchers' professional development (Gross 2015).

“Stronger training programs, more stringent hiring criteria, and programs to support staff in reading, understanding, and applying research and local data-based evidence have been suggested as ways to ensure critical reading and interpretation skills.” – Lery 2015
- ii. Because decision-makers can define problems differently, evidence can be more effective when it is geared toward constituents (Appollonio 2017; Chatterji 2014; Baker 2017).
- iii. Research designs should be more policy relevant by focusing on identifying solutions to problems and convincing decision-makers that their solutions are effective (Appollonio 2017; Bennett 2013*; Dunsmuir 2013*, Krueger 2014).
- iv. Replication studies may provide useful sensitivity analysis on policy recommendations by determining if study results are replicable, testing the robustness of the original findings, and exploring findings through a theory of change perspective (Brown 2014).

“Descriptive and correlational studies are more able to align with everyday contextual and environmental circumstances which are more useful in guiding policy decisions and program designs as opposed to studies on what works that were conducted under experimental conditions.” – Chatterji 2014

“Case studies, for example, can distinguish between impacts that might be subject to differences based on the length of an intervention and can also shed light on the advantages and rationale behind program models that are locally customized versus system-wide applications of interventions.” — Johnston 2013*
- v. Cost-effectiveness analysis may be more appropriate for informing decision-makers' programmatic work (Hollands 2016; Niessen 2012*).
- vi. Case studies provide useful information about how one policy can be implemented in multiple ways across various geographic locations. Furthermore, they provide specifics about the methods used in implementation (Johnston 2013*).
- vii. Researchers who use shortcuts in their study designs to reflect decision-makers' time constraints should be transparent about those shortcuts when disseminating their findings (Haby 2016).

- e. The literature suggests that research design and deliverables should be tailored to meet the information needs and timetables of decision-makers.**
- i. Researchers should promote alignment of research with decision-makers' needs—enabling research agendas to be developed locally—and integrate decision-makers into advisory groups and governing structures of research grants (Bennet 2013).
 - ii. Researchers should coordinate their research with decision-makers' organizational timelines. If a decision must be made by a certain time in the year, researchers can incorporate this deadline into their data collection and analysis and still produce empirically solid findings (Henrick 2016).
 - iii. Researchers should assess decision-makers' commitments and priorities. Are decision-makers committed to developing capacity to use research when making decisions? Would it be possible to add a specific goal to the organizational strategic plans that emphasizes improving the capacity to use research? Are decision-makers committed to prioritizing and allocating time and resources for partnership activities? Would it be possible to identify a liaison to coordinate and support partnership work between decision-makers' organizations and researchers? These are all matters to consider (Henrick 2016).
- f. Authors report that evidence can be more persuasive to decision-makers when it is compelling and embedded in a narrative.**
- i. Successful engagement requires combining scientific evidence with persuasion, including translating complex evidence into stories. Researchers should recognize that decision-makers might base their decisions on beliefs and emotions, figure out where research/evidence is likely to be used, be prepared to engage in long-term strategies to influence policy, and determine when persuasion becomes cynical manipulation (Cairney 2017*; DEXIS 2018).
 - ii. Research results must function as stories that lead to a clear conclusion. If it is impossible to put together a list of bulleted take-away points that elucidate a series of potential project implications, the researcher has not taken all the steps necessary to make the research relevant (Gross 2015).
- g. Authors note that research findings should be concise and presented in a format that decision-makers can easily and effectively share with their audiences.**
- i. Research information should be relevant to decision-makers' constituents and should be presented in a brief, concise format (Brownson 2016; Dodson 2015; Dunsmuir 2013*; Ellen 2017; Ellen 2016a*; Gross 2015; Haby 2016; Hyde 2016; Model Systems Knowledge Translation Center [MSKTC]; Supplee 2014; Williams 2015*; Wilson 2015*; DEXIS 2018; Vidal 2016; Gold 2009).

“When determining the format in which to share information with legislators, researchers and practitioners should design targeted information (for example, policy briefs, ‘one-pagers,’ handouts) that may include stories and/or statistics, and should be short, utilize bullet points, not exceed one page, and include cost or economic data whenever possible.” – Dodson 2015

- ii. Effectively presenting research with the intent of driving policy requires constructing an actionable narrative built upon meaningful data to create a lasting framework that organizes departmental thinking and policymaking within a particular area (Gollust 2015).

h. Authors believe that research should be easily accessible to its intended audiences.

- i. Mass media, public speeches, and networking activities are effective means of disseminating research findings (Dunsmuir 2015; Ellen 2017; JBI Approach; Lubienski 2014; Pesta 2017; Supplee 2014).
- ii. A central source of information where decision-makers can access information pertinent to their work should exist (Dodson 2015).

APPENDIX C:

**PHASE 1 ANNOTATED BIBLIOGRAPHY ON THE USE
OF RESEARCH AND EVALUATION TO DRIVE
DECISION-MAKING WITHIN THE GOVERNMENT**

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This appendix provides annotations of the 62 articles we screened in for inclusion. The list of articles described herein was supplemented during Phase 2 of this work to include relevant articles published after the end of Phase 1 and articles recommended by our interview respondents. Analysis of the full set of articles together with key respondent interviews and a technical expert panel will inform the development of recommendations for researchers and federal policymakers in the health and human services sectors. These recommendations will provide concrete steps that can be taken to strengthen evidence-based decision-making within the administrative and legislative branches at the federal level.

Below we list the domestic, international, and key informants-recommended references, in alphabetical order by first author.

A. Domestic references

Akhavi, Negar, and Brandon Pustejovsky. “Leveraging Data and Evidence to Drive Decision Making at USAID.” May 6, 2016. Available at <https://blog.usaid.gov/2016/05/leveraging-data-and-evidence-to-drive-decision-making-at-usaid/>. Accessed on July 17, 2017.

In this blog, the United States Agency for International Development (USAID) describes how the agency has made progress in using evaluations and open data to make budget, policy, and management decisions. USAID’s open data policy systematically collects agency-funded data such as program performance, survey data, and USAID information system data in a central repository, documenting the data to make it easy to locate and use, and making the data available to the general public, while ensuring rigorous protections for privacy and security. Additionally, the blog describes how USAID collaborates with other agencies to share and make more data publicly available. The blog links readers to resources on this process including USAID’s open data policy, which provides a framework for collecting agency-funded data, documenting the data, and making it available to the public.

Apollonio, D. E., and L. A. Bero. “Interpretation and Use of Evidence in State Policymaking: A Qualitative Analysis.” *BMJ Open*, vol. 7, no. 2, 2017, p. e012738.

In this observational study, the authors interviewed 24 policymakers in the United States who had been trained to interpret scientific research in an evidence-based workshop. The authors asked policymakers to describe cases in which they had made health policy decisions and provide examples in which they used research, either successfully or unsuccessfully. The study assessed which of the strategies proposed by researchers in evidence-informed policymaking had been most effective. The authors found that policymakers who had been trained in interpreting research maintained a strict definition of what constituted evidence, and used this definition to discredit what they perceived as poor quality or misleading evidence. Policymakers found evidence was most valuable in identifying solutions to problems and convincing policymakers that these solutions were effective. Policymakers found that linking stories to research and providing simplified guidelines to assess the quality of evidence encouraged the creation of evidence-informed policy.

Asen, Robert, Deb Gurke, Pamela Conners, Ryan Solomon, and Elsa Gumm. “Research Evidence and School Board Deliberations: Lessons from Three Wisconsin School Districts.” *Educational Policy*, vol. 27, no. 1, 2013, pp. 33–63.

This observational study examined the type and use of research evidence in the deliberations and decision-making of three Wisconsin school boards. Researchers attended and recorded 160 school board meetings and identified the use of evidence as research- or non-research-based. The authors discovered that board members used research-based evidence, compared with non-research-based evidence, infrequently. When present, research brought to these meetings tended to consist of district-initiated studies and, less frequently, outside scholarship. The circulation, meaning, and function of research depended importantly on the interests and backgrounds of advocates, the composition of audiences, and the values and contexts of decision-making. Advocates whose backgrounds taught them to use research as part of decision-making referred to research comparatively more often. More technical homogenous audiences permitted advocates to use more specialized forms of evidence. Diverse audiences generated challenges for school board members and district staff, who had to negotiate potential conflicts between policy issues and value differences. Local policymakers did not have dedicated staff to help them acquire and evaluate relevant information.

Bogenschneider, Karen, Olivia M. Little, and Kristen Johnson. “Policymakers’ Use of Social Science Research: Looking Within and Across Policy Actors.” *Journal of Marriage & Family*, vol. 75, no. 2, 2013, pp. 263–275.

This study used exploratory cluster analysis to examine how randomly selected agency officials, legislators, and legislative staff in agencies and the legislature in Wisconsin valued, sought, and used social science research. Respondents filled out a survey asking about their use of and beliefs about research. The authors compared the resulting clusters of staffers and agency officials with an earlier, parallel study of New York and Wisconsin. The study found that more agency officials than legislators or staff were so-called enthusiastic high users of research, possibly because of institutional culture (including less need to compromise) and the fact that many had higher levels of education and longer job tenure, compared with legislators and legislative staff. To effectively reach enthusiastic users, social scientists should consider the political relevance of research questions. They should also learn how to communicate research results in ways that are politically feasible and that capitalize on the effectiveness of using real-life stories and catchy phrases for legislators.

Brown, A. N., D. B. Cameron, and B. D. K. Wood. “Quality Evidence for Policymaking: I’ll Believe It When I See the Replication.” *Journal of Development Effectiveness*, vol. 6, no. 3, 2014, pp. 215–235.

This paper argues that internal replication research is an important strategy in producing evidence in evidence-based policymaking, especially in low- and middle-income countries. Internal replication research attempts to reproduce the published data from an article and reexamine the article’s methods and conclusions. Replication research should be part of the process for translating research findings into evidence for policy and not as a way to catch or call out researchers who, in all likelihood, have the best of intentions when conducting and submitting their research, but face understandable challenges. These challenges include the

inevitability of human error; the uncontrolled nature of social science, reporting and publication bias; and the pressure to derive policy recommendations from empirical findings. The article offered a typology of replication approaches. The study argued that replication helps to ensure that a study fully explores possible theories of change, thereby enabling appropriate conclusions and recommendations for policymaking and program design.

Brownson, R. C., E. A. Dodson, J. F. Kerner, and S. Moreland-Russell. “Framing Research for State Policymakers Who Place a Priority on Cancer.” *Cancer Causes and Control*, vol. 27, no. 8, 2016, pp. 1035–1041.

This study used a telephone survey of U.S. state legislators elected to state houses or senates to understand how to better disseminate research information to influence state legislators’ policy choices, especially regarding those who prioritize cancer as a policy issue. Legislators who prioritized cancer were more likely to rate characteristics that make research information useful compared to colleagues who did not prioritize cancer. Legislators prioritizing cancer rated higher: three items in the source domain (relevance, delivered by someone respected, and supports one’s own position); one item in the presentation domain (telling a story related to constituents); and two items in the timeliness domain (high current state priority and feasible when information is received). Similarly, these legislators were 80 percent more likely to rate research information as one of their top reasons for choosing an issue on which to work. This suggests that producing unbiased and credible (source), understandable (presentation), and timely information is important for policymakers to use research.

Bushouse, Brenda K. “Leveraging Nonprofit and Voluntary Action Research to Inform Public Policy.” *Policy Studies Journal*, vol. 45, no. 1, 2017, pp. 50–73.

This report identifies intersections between public policy and the nonprofit and voluntary action (NVA) field that can generate knowledge. Nonprofit organizations are the target population for policy (state incorporation and tax laws and federal tax laws), the mediating institutions for delivering government services, and the advocates for target populations that receive government services. The paper discussed opportunities for research collaborations to connect NVA with policy process literature. Policy design, advocacy, and the role of foundations were three areas in which the NVA and nonprofit sectors can work together to advance knowledge of public policy. The author found there have been important cross-field publications and collaborations that have advanced knowledge, especially in the field of policy advocacy. The author argued for the forging of scholarly networks that can grow into research collaborations with publications in both NVA and public policy journals.

Chatterji, Madhabi, Lawrence W. Green, and Shiriki Kumanyika. “L.E.A.D.: A Framework for Evidence Gathering and Use for the Prevention of Obesity and Other Complex Public Health Problems.” *Health Education & Behavior*, vol. 41, no. 1, 2014, pp. 85-99.

This report summarizes L.E.A.D. (Locate the evidence, Evaluate the evidence, Assess the evidence, and inform Decisions), a comprehensive, systems-oriented framework developed by an Institute of Medicine (IOM) expert consensus committee. L.E.A.D is intended to improve the use of evidence sources to address population-wide obesity problems and other social-behavioral

public health problems. The article describes how to use the framework, showing how the evidence typology can help specify relevant research questions and tie questions to specific research methodologies and sources of evidence. Users, who could be researchers, funders, practitioners, or policymakers, specify questions, then use the framework to move through the process of finding and evaluating evidence to help inform policy decisions. The article emphasizes that in population-based contexts, the term evidence must be viewed more broadly than in clinical medicine, to include more types of information. This allows for the use of a vast array of study designs, including quantitative (i.e., experimental, quasi-experimental, or observational studies), qualitative, or mixed methods approaches.

DeBray, Elizabeth, Janelle Scott, Christopher Lubienski, and Huriya Jabbar.

“Intermediary Organizations in Charter School Policy Coalitions: Evidence from New Orleans.” *Educational Policy*, vol. 28, no. 2, 2014, pp. 175-206.

This study explores research use through an advocacy coalition framework and the concepts of “supply side” (mainly organizations) and “demand side” (policymakers). The authors draw on analyses of social media usage, existing research studies and reports, and interviews about charter school reforms in New Orleans since 2005, to understand (1) intermediaries’ role in producing information and research syntheses for policymakers, (2) policymakers’ demand for research and information, and (3) the extent to which national coalitions of intermediary organizations influence research use. The study finds low research use and capacity within intermediary organizations, little demand for evidence from state policymakers, and a lack of credible and non-partisan research groups studying charter school reforms. Findings suggest that available research is distrusted or discounted as affiliated with a particular agenda or merely descriptive. The authors recommend that future research focus on understanding the specific policies in the New Orleans context, and exploring the relationships and tensions between the intermediary organizations involved.

Desmarais, B. A. and J. A. Hird. “Public Policy's Bibliography: The Use of Research in US Regulatory Impact Analyses.” *Regulation and Governance*, vol. 8, no. 4, 2014, pp. 497-510.

This study examines United States regulatory agencies’ use of scientific citations in 104 regulatory impact analyses (RIAs) from 2008-2012, to understand how evidence was used to support policy decisions, and how RIAs develop and justify US federal regulatory decisions. Citations vary, and include scientific studies, laws, legal precedents, government reports, and miscellaneous material, such as newspaper and magazine articles. The study finds that some agencies make more extensive use of science in RIAs than others: some agencies, including the Environmental Protection Agency and the Department of Health and Human Services, average more than 10 references to scholarly journal articles per RIA, compared to several agencies that average less than one. However, regulatory policymakers do make greater use of research published in highly cited scholarly journals. The authors conclude that it appears regulators care about the quality of science, and that some agencies use this quality science to support their policymaking.

Dodson, Elizabeth A., Nora A. Geary, and Ross C. Brownson. “State Legislators’ Sources and Use of Information: Bridging the Gap Between Research and Policy.” *Health Education Research*, vol. 30, no. 6, 2015, pp. 840-848.

In this study the authors conducted key-informant interviews with 25 U.S. state legislators holding health committee leadership positions to understand why they work on health issues, what information they find most useful, what sources of information they use, and what information was difficult to find. This work was part of a larger study designed to increase dissemination among state-level policymakers of evidence-based information to control cancer. The study found most legislators sought data and statistics, specifically mentioning population demographics, prevalence rates, causes of health issues, and health disparity information. Many legislators begin looking for information on the Internet. The most trusted sources of information include government sources, advocacy, lobby, and industry groups; some also mentioned universities and healthcare professionals. Policymakers had difficulty finding unbiased, accurate, current, local and economic data. The article concludes with recommendations policymakers have for researchers on facilitating data and information acquisition. Many recommendations relate to strengthening and centralizing communications between sources of information (for example, researchers and universities) and legislators.

Gollust, Sarah E., Hanna A. Kite, Sara J. Benning, Rachel A. Callanan, Susan R. Weisman, and Marilyn S. Nanney. “Use of Research Evidence in State Policymaking for Childhood Obesity Prevention in Minnesota.” *American Journal of Public Health*, vol. 104, no. 10, 2014, pp. 1894-1900.

This qualitative study analyzed the use of scientific evidence in legislative materials related to 13 obesity-related bills introduced between 2007 and 2011 in the Minnesota legislature. The authors used state archives to analyze content of 109 materials for their use of research evidence and non-research-based information. Materials included audio and visual testimony, print documents including new articles, fact sheets, policy briefs, reports, and letters. Scientific evidence was not frequently used in the legislative materials: only 41 percent of legislative materials used research-based evidence; conversely 92 percent of materials presented non-research-based information such as expert beliefs, constituent opinion, and anecdotes. Despite low rates of evidence usage, materials often used best practices for translating health research to policymaking, such as being two pages or less and using bullet points. Recommendations included using evidence alongside more narrative forms of communication and other persuasive strategies.

Grande, David, Sarah E. Gollust, Maximilian Pany, Jane Seymour, Adeline Goss, Austin Kilaru, and Zachary Meisel. “Translating Research for Health Policy: Researchers’ Perceptions and use of Social Media.” *Health Affairs*, vol. 33, no. 7, 2014, pp. 1278-1285.

In this study, the authors conducted a survey of health policy researchers to examine their beliefs about and the use of social media and two traditional channels (traditional media and direct outreach) to disseminate research findings to policymakers. The authors found that researchers rated all three methods similarly in terms of efficacy. However, social media was rated lower in three domains: researchers’ confidence in their ability to use social media, peer’s

respect for the use of social media, and social media's perception in academic promotion. Researchers described social media as being incompatible with research, high-risk professionally, and something with which they were unfamiliar. First, more research is needed to understand if social media is an effective way to communicate evidence to decision-makers. Second, for researchers to use social media effectively, they will need training, technological support, and infrastructure.

Gross, Betheny, and Ashley Jochim. "The SEA of the Future: Building Agency Capacity for Evidence-Based Policymaking. Volume 5." San Antonio, TX: Building State Capacity and Productivity Center, Edvance Research, November 2015.

In this collection of essays, the authors explore how state education agencies (SEAs) can improve their ability to use research and data to drive policy decisions. Through the experiences of agency staff from Massachusetts, Michigan, and Tennessee, and the work of the Regional Comprehensive Centers, the document provides practical tools and suggestions for working with external research partners and to improve internal capacity and use of data. The volume includes tips for working with academics, improving a state's research capacity, using forward-looking policy design analysis, and performing ongoing implementation analysis. The authors also emphasize the importance of clear presentation, suggesting products should have an actionable narrative, use meaningful figures, and include frameworks that anchor main ideas.

Hale, Sylvie, Lenay Dunn, Nikola Filby, John Rice, and Lori Van Houten. "Evidence-Based Improvement: A Guide for States to Strengthen their Frameworks and Supports Aligned to the Evidence Requirements of ESSA." San Francisco, CA: WestEd, 2017.

The use of evidence-based decision-making is encouraged under the Every Student Succeeds Act (ESSA). This implementation guide for state education agencies (SEAs) builds upon non-regulatory guidance issued in September 2016 by the U.S. Department of Education (ED). The objectives are to (1) increase understanding of the expectations and opportunities for evidence-based school and district improvements in the context of ESSA, (2) encourage understanding of the elements of evidence-based decision-making, and (3) offer guiding information and six tools emphasizing the process of selecting evidence-based interventions. An intervention can be any strategy, policy, practice, or program implemented to ultimately improve education in some way. The guide includes specific recommendations, descriptions of processes, and tools, on how to effectively choose and implement an intervention, how to perform an intervention evidence review, and how to compare evidence based interventions. Taken together, these recommendations can help SEAs successfully implement evidence-based decision-making.

Hawkins, Summer S., and Christopher F. Baum. "Invited Commentary: An Interdisciplinary Approach for Policy Evaluation." *American Journal of Epidemiology*, vol. 183, no. 6, 2016, pp. 539-541.

This editorial discusses the limitations of observational studies for policy evaluation, and proposes a multidisciplinary approach as a potential solution. Using observational studies to evaluate policies cannot identify directionality (problem of reverse causation), and cannot completely control for background changes that occur over time. Using two examples, the effects of cigarette taxes and the effects of the 1996 welfare reforms on various health outcomes, the

authors show how the difference-in-difference (DDD) method can address these limitations. The DDD analysis, by disentangling relationships between variables, may also uncover other unintended effects of a policy. The DDD analysis concluded that the welfare reforms were associated with an increase in binge drinking and a decrease in being able to afford medical care. The authors recommend that policymakers and researchers work collaboratively to understand both the intended and unintended consequences of a policy.

Henrick, Erin, Marco A. Munoz, and Paul Cobb. “A Better Research-Practice Partnership.” *Phi Delta Kappan*, vol. 98, no. 3, 2016, pp. 23-27.

This op-ed, published in a professional magazine focusing on K-12 education issues, proposes a relationship model for researchers and district leaders called Research-Practice Partnerships (RPPs). The authors argue that as district leaders work on complex problems of practice, and manage accountability pressures and declining resources, research work must directly support their mission to improve schools. RPPs use intentional strategies to forge a relationship between researchers and district leaders so that research is relevant and meaningful for all parties. In a RPP district, leaders and researchers collaboratively determine research goals and use findings to make informed decisions. The authors provide recommendations to contribute to a successful RPP, including co-designing professional development, coordinating research and district timelines, allocating ample time for ongoing meetings, and embracing uncertainty.

Hollands, Fiona M., Michael J. Kieffer, Robert Shand, Yilin Pan, Henan Cheng, and Henry M. Levin. “Cost-Effectiveness Analysis of Early Reading Programs: A Demonstration with Recommendations for Future Research.” *Journal of Research on Educational Effectiveness*, vol. 9, no. 1, 2016, pp. 30-53.

This study describes a cost-effectiveness analysis on two early reading programs, and discusses the challenges of applying the method in practice. The authors obtained effectiveness data from the summary of effectiveness of educational interventions provided by the What Works Clearinghouse. The authors estimate costs for a pair of programs within a single domain (alphabetic) to illustrate the potential value of cost-effectiveness ratios for decision-makers choosing among alternative programs. However, the lack of comparability of available effectiveness data on multiple reading outcomes prevented additional estimates and comparisons. Therefore, the authors recommend that the design and inclusion of cost analyses are considered simultaneously with determinations of program effectiveness. This would ensure better data are available to conduct cost-effective analyses to aid policymakers in decision-making.

Hyde, Justeen K., Thomas I. Mackie, Lawrence A. Palinkas, Emily Niemi, and Laurel K. Leslie. “Evidence use in Mental Health Policy Making for Children in Foster Care.” *Administration and Policy in Mental Health and Mental Health Services Research*, vol. 43, no. 1, 2016, pp. 52-66.

In this case study, authors examined the types of evidence state child welfare administrators acquired, reviewed, and used as they responded to federal legislation mandating state oversight of psychotropic medications for children in child welfare custody. The authors conducted semi-structured interviews with policymakers in child welfare agencies in the 50 states and the District

of Colombia to understand their use of evidence. They found that respondents used research evidence when they explained their overall understanding of the issue of the use of medication for children in foster care. However, there was variation in the types of evidence participants used when trying to mobilize stakeholders to take part in the development of policy actions (for example, testimonials or statistics), and the same evidence was used in different ways. Evidence use did not always align with a single theoretical model or ideology suggesting that the understanding of evidence use is not complete. Therefore, expanding the understanding of evidence use in public policy making will require moving beyond isolated typologies.

Jabbar, Huriya, Priya G. La Londe, Elizabeth Debray, Janelle Scott, and Christopher Lubienski. "How Policymakers Define "Evidence": The Politics of Research use in New Orleans." *Policy Futures in Education*, vol. 12, no. 8, 2014, pp. 1013-1027.

This study explores the use of evidence in education reforms in New Orleans following Hurricane Katrina. The authors conducted interviews with key local and state policymakers and intermediary organizations, observed dissemination events (such as town halls and panels), and collected existing research. The interviews are a subset taken from ongoing work looking at evidence use in policymaking in New York, New Orleans, and Denver. The authors found that a set of contextual factors in New Orleans, namely the fact that very little nonpartisan research from which to draw exists, and the diminishing power of traditional actors such as school boards and districts, create an environment where intermediary organizations are able to broker evidence. On the supply side, intermediaries use evidence selectively to push their own agendas and influence state legislative decisions. On the demand-side, policymakers have difficulty finding and accessing non-partisan information, and end up relying upon non-peer reviewed "snippets" of evidence from think tanks and intermediary organizations.

Krueger, Alan B. "The Department of Labor at the Intersection of Research and Policy." *ILR Review*, vol. 67, 2014, pp. 584-593.

This editorial describes the role that the Department of Labor (DOL) has played in using research to inform policymaking and in developing policy-relevant research. The author argues that the DOL has helped address two failures in the production of actionable, policy-related research. First, while government agencies and the public benefit from policy-related research on topics such as the benefits and costs of job training, researchers have little private incentives to produce this research. Second, academic researchers do not always understand the research needs or policies of policymakers. The DOL helps fill these gaps by setting up internal and external institutions for the production of this research and by building research capacity. Examples include a dissertation grant program, and with the Ford Foundation and a consortium of federal departments, the founding of Manpower Demonstration Research Corporation. Internally, three DOL offices have been central to this effort: The Office of the Assistant Secretary for Policy Evaluation and Research, the Chief Economist's Office, and the Chief Evaluation Office. The author suggests that agencies should strengthen their evaluation capacity, and offers recommendations for how to do this. Some of these include having a high-level official who is responsible for evaluation and can develop the research agenda, conduct/oversee rigorous studies, provide input on program management, and attract talented staff and researchers.

Lery, Bridgette, Wendy Wiegmann, and Jill D. Berrick. “Building an Evidence-Driven Child Welfare Workforce: A University-Agency Partnership.” *Journal of Social Work Education*, vol. 51, no. 2, 2015, pp. S283–S298.

This report explains an effort by a public child welfare agency and private university partnership, Cal-Child Welfare Leadership Training (Cal-CWLT), for developing and executing continuous quality improvement activities. This partnership includes, San Francisco Human Services Agency, the University of California, at Berkeley School of Social Welfare, and Seneca Family of Agencies. The authors recommend that managers exemplify evidence-based decision-making in their daily decisions to influence an environment that prioritizes evidence-based decision-making. As an example of modeling behaviors, the authors describes how the Cal-CWLT principal investigator and child welfare analyst started attending meetings, where attendees reviewed figures to assess practices for improving San Francisco foster care outcomes and agency’s performance data for guiding the discussion of whether to reintroduce certain agency activities or not.

Li, Yan, Nan Kong, Mark Lawley, Linda Weiss, and Jose A. Pagan. “Advancing the Use of Evidence-Based Decision-Making in Local Health Departments with Systems Science Methodologies.” *American Journal of Public Health*, vol. 105, 2015, pp. S217-S222.

This study explores how local health departments (LHDs) can use systems science methodologies to implement evidence-based decision-making (EBDM) in addressing population health issues. Using the New York Academy of Medicine Cardiovascular Health Simulation Model, the authors assessed the outcome of a hypothetical program aimed at decreasing unhealthy habits (for example, smoking and not exercising). The authors compared the hypothetical outcomes to the natural progression of outcomes estimated with survey data from the Behavioral Risk Factor Surveillance System. They found that, if implemented, the program would have significantly decreased the population with an unhealthy BMI and smoking rates. From this, the authors stress that systems science methodologies are a tool to adopting EBDM at LHDs. However, EBDM implementation depends on the level of adoption among leaders and other factors. The study identified strong leadership, workforce capacity, and resources as key factors related to EBDM adoption. They recommend building collaborative partnerships with research entities and businesses with technical expertise to accelerate implementation of EBDM.

Lovelace, Kay A., Robert E. Aronson, Kelly L. Rulison, Jeffrey D. Labban, Gulzar H. Shah, and Mark Smith. “Laying the Groundwork for Evidence-Based Public Health: Why Some Local Health Departments Use More Evidence-Based Decision-Making Practices than Others.” *American Journal of Public Health*, vol. 105, 2015, pp. S189-S197.

This study explores how evidence-based decision-making (EBDM) varies across U.S. local health departments (LHDs), and how resources, personnel, and governance predict this variance. Using data from various LHDs and the U.S. Census, the authors modeled information to pinpoint resources, personnel, and governance at the state and local levels that could predict how EBDM is used across LHDs. They found that workforce was actually the strongest predictor. Thus, the methodology in using resources could be more important than the resources themselves for evaluating EBDM practices. Future research should take into account the individual skills,

background, and influence of staff in key positions to create an efficient mix of personnel for optimal public health delivery. Improving resource use is not sufficient to improve dissemination and implementation of EBDM. The authors recommend partnerships among LHD in large jurisdictions, the use of practice-based research networks, and policymakers making EBDM a funding requirement as strategies to improve dissemination and implementation.

Lubienski, Christopher, Janelle Scott, and Elizabeth DeBray. “The Politics of Research Production, Promotion, and Utilization in Educational Policy.” *Educational Policy*, vol. 28, no. 2, 2014, pp. 131-144.

This report provides an overview of research use in education, reflecting on how changing historical conditions can affect research production, promotion and use. The article argues that the use of evidence has changed over the past 50 years, with an increasing use of non-empirical research, suggesting that many reports are primarily about advancing a political agenda, regardless of the evidence. The authors also highlight the increasing role of private philanthropies and foundations in policy-debates, playing a large role in setting agendas and funding projects. The author asks: How can institutions use evidence on different policy options? How do decision-makers sort through competing claims? Are there new processes to shape research use? The authors conclude that there is a need to expand and explore new theoretical frameworks and methodologies. University and think tank researchers must work to disseminate their findings to policymakers, advocates, and public if their research is to influence policy.

Mackie, Thomas I., R. C. Sheldrick, Justeen Hyde, and Laurel K. Leslie. “Exploring the Integration of Systems and Social Sciences to Study Evidence use among Child Welfare Policy-Makers.” *Child Welfare*, vol. 94, no. 3, 2015, p33-58.

In this study, the authors use a case study approach in conjunction with a literature review, an advisory panel, and stakeholder interviews to develop a systems science model that explains the diffusion of research evidence. Broadly speaking, their model applies Bass Diffusion Model, which is a model of growth and decay, to evidence use in child welfare policymaking. The authors find that factors beyond social networks alone influence evidence use, there is a “competitive marketplace” for different types and sources of evidence, policymakers use evidence for multiple purposes, and the timing of evidence is important—essentially creating discrete “policy windows.” The authors conclude that to understand policymakers use of evidence, research must move away from linear models of policy adoption to transactional models that account for complexity of policymaking and evidence development and use. These dynamic models can provide insights to facilitate the best use of research evidence to affect policymaking.

Mckinney, M., H. E. Fitzgerald, D. M. Winn, and P. Babcock. “Public Policy, Child Development Research and Boys at Risk: Challenging, Enduring and Necessary Partnership.” *Infant Mental Health Journal*, vol. 38, no. 1, 2017, pp. 166-176.

This report presents frameworks to help researchers and clinicians integrate into the policy making process, and suggests the use of theoretical models of human development to inform policymaking. The authors state that research rarely informs policy change because research findings are not actionable. The authors underscore the importance of using a mixed methods

approach in research, as qualitative and quantitative research findings are complimentary to one another. Furthermore, the findings should be presented in policy-relevant forums, and disseminated through social media. The authors also provide a list of recommendations for how researchers can be more embedded and impactful in the policy-making processes. The recommendations include: (1) providing training opportunities to researchers so that they can learn to communicate to public audiences, (2) developing a policy network with pertinent policymakers and stakeholders, and (3) engaging policymakers as panelists and participants of group sessions at conferences centered on specific topics.

Mier, Nelda, Matthew L. Smith, David Irizarry, Genny Carrillo-Zuniga, Chanam Lee, Laura Trevino, and Marcia G. Ory. "Bridging Research and Policy to Address Childhood Obesity Among Border Hispanics: A Pilot Study." *American Journal of Preventative Medicine*, vol. 44, no. 3, 2013, pp. S208-214.

This study examines knowledge transfer among local policymakers regarding childhood obesity among low-income Mexican-American children. The authors disseminated primary research data to policymakers along the Texas-Mexico border. They told public meeting goers about their research project, and 74 stakeholders completed a questionnaire asking respondents what agencies/organizations could do and what policies could be pursued that support physical activity in children. The study surfaced four key policy themes: (1) implementing robust local health programs, (2) enhancing neighborhood safety, (3) expanding park access, and (4) helping local organizations in educating parents and children about health issues. The authors found that disseminating research findings and mobilizing stakeholders to generate policy recommendations at public meetings is an effective means of transferring knowledge about childhood obesity policy development to local policymakers. After generating policy recommendations, stakeholders should implement concrete plans for neighborhood improvements, leading to healthier and more active communities.

Model Systems Knowledge Translation Center. "The value of model systems research in the policy-making process."

http://www.msktc.org/lib/docs/KT_Toolkit/Health_Policy_Fact_Sheet_508.pdf

Accessed on July 17, 2017.

This toolkit was designed to complement the knowledge translation process developed by the authors, and aims to provide tips to researchers on how to engage with policymakers. The toolkit recommends that researchers should invest time and resources into developing relationships with policymakers. Additionally, the toolkit recommends that to start the process of building relationships with policy makers, researchers should: become informed about the policy-making process, remain updated on issues affecting areas of research, and use media to disseminate research. To then engage with policy makers, researchers should learn who the members of Congress are and which committees they sit in, and schedule meetings with Congress and their staff. Lastly, the toolkit recommends that to convey messages to policy makers, researchers should identify the policy question, translate the research into a brief, jargon-free format, tailored to policy makers, and include personal narratives about patients when appropriate.

Moseley, Charles, Harold Kleinert, Kathleen Sheppard-Jones, and Stephen Hall. “Using Research Evidence to Inform Public Policy Decisions.” *Intellectual and Developmental Disabilities*, vol. 51, no. 5, 2013, pp. 412-422.

This report delves into the subject of using research for policymaking by exploring the use of the National Core Indicators (NCI). NCI is a national data set for driving changes to the Intellectual and Developmental Disabilities (IDD) waiver. The authors note how Kentucky National Core Indicators Quality Improvement Committee formatted reports in a manner that is easily understood by various stakeholders and this is encouraged as policymakers try to understand the implications of the data on individuals’ lives. The authors explain that a wide range of strategies are needed for bringing about a systems change for the IDD population receiving waiver services, including policy change. The authors explain that partnerships among universities and developmental disability agencies are critical for evidence-based policy making as universities produce credible research that agencies can use for improving the lives of the IDD population.

Mosley, J. E., and K. Gibson. “Strategic use of Evidence in State-Level Policymaking: Matching Evidence Type to Legislative Stage.” *Policy Sciences*, 2017, pp. 1-23.

In this case study, the authors examine the policy process leading to the passage of California’s 2010 Fostering Connections to Success Act. Authors observed the legislative process by sitting in stakeholder and implementation meetings, attending open conference calls, reviewing documents (legislative history, rules of the court, press releases, meeting agendas), and conducting interviews with stakeholders such as, state legislators and their staff, state and county administrators, judges and judicial staff, and advocates. The authors hoped to understand (1) why certain types of evidence are more effective at certain parts of the legislative process, (2) the impact budgetary constraints have on evidence, and (3) the relationship between evidence and narrative during the policymaking process. The authors found that under budget constraints evidence about costs may be at least as important as evidence about whether something works. For this case study, the research that was primarily used to move the bill was research that highlighted a problem, addressed how the policy both solved the problem and saved the state money, and was disseminated by third party cosponsors through press releases, press conferences, and one-page summaries. This case study suggests that relationships between researchers and advocates are important in producing timely evidence that is useful for decision-makers.

Pesta, George B., Javier Ramos, J. W. Andrew Ranson, Alexa Singer, and Thomas G. Blomberg. “Translational Criminology – Research and Public Policy: Final Summary Report.” Final Report to the National Institute of Justice, February 2017. Available at <https://www.ncjrs.gov/pdffiles1/nij/grants/250597.pdf>. Accessed on July 17, 2017.

In this summary report, the authors provide findings from a case study describing the knowledge translation and implementation process of research evidence by state-level decision-makers in Florida. The case study used by the authors included interviews and surveys from various stakeholders in the juvenile and adult corrections fields including state agencies, policymakers, and academic researchers. Challenges identified include: research is too difficult to use and interpret, lack of engagement between decision-making agencies and researchers,

fiscal constraints, and competing ideologies and public opinions which suggest why research evidence is not translated into practice by decision-makers. The author's recommend strategies for researchers and decision-makers to consider to improve the use of research to inform policy. These strategies include: investing in research, supporting partnerships between researchers and practitioners, implementing task forces comprised of researchers and agencies, researchers reaching out to practitioners to disseminate findings, and cross training researchers and practitioners so that agency staff could conduct research, and researchers could work within decision-making agencies.

The Pew-MacArthur Results First Initiative. "How Policymakers Prioritize Evidence-Based Programs Through Law: Lessons From Washington, Tennessee, and Oregon." Washington, DC: The Pew Charitable Trusts, April, 2017. Available at http://www.pewtrusts.org/~media/assets/2017/04/rf_how_policymakers_prioritize_evidencebased_programs_through_law.pdf. Accessed on July 17, 2017.

This brief highlights the experiences and lessons learned from Washington, Tennessee, and Oregon, which implemented laws mandating the use of evidence-based programs and practices. The laws affected agencies implementing programs related to children's mental health, child welfare, juvenile and criminal justice, and behavioral health. The findings suggest that the mandates helped promote the use of evidence-based policymaking by encouraging dialogue about evidence-based programs, generating baseline information on current services and their effectiveness, creating new data systems, and prioritizing evidence-based programs when making decisions. When mandating the use of evidence-based programs and practices, the authors suggest states should: engage stakeholders to build support from state agencies and contracted service providers, require monitoring program fidelity, and consider the available resources to implement evidence-based programs.

Scott, Janelle, and Huriya Jabbar. "The Hub and the Spokes: Foundations, Intermediary Organizations, Incentivist Reforms, and the Politics of Research Evidence." *Educational Policy*, vol. 28, no. 2, 2014, pp. 233-257.

In this study, the authors examine interview data and documents using a hub and spoke framework to understand the role of intermediary organizations in the national policymaking process. The authors find that foundations are in a central position to help other intermediary organizations gather, package, and disseminate data and research; produce their own research; and advocate for policies. Additionally, the authors find evidence for how foundations are currently involved in the policymaking process by funding meetings to convene intermediaries and policymakers, and by packaging and disseminating data. For example, although one foundation does not conduct its own research, it funds initiatives to build relationships between policymakers and researchers.

Stamatakis, Katherine A., Adriano A. Ferreira Hino, Peg Allen, Amy McQueen, Rebekah R. Jacob, Elizabeth A. Baker, and Ross C. Brownson. "Results from a Psychometric Assessment of a New Tool for Measuring Evidence-Based Decision Making in Public Health Organizations." *Evaluation and Program Planning*, vol. 60, 2017, pp. 17-23.

In this study, the authors test the psychometric properties of a new measurement tool to assess evidence-based decision-making (EBDM) in public health practice settings. The authors (1) identified a set of specific measures representing different components of EBDM by testing four models, (2) confirmed the factor structure of these measures, (3) estimated the relationships among these factors, and (4) demonstrated overall goodness of fit for the measurement models. The authors used a multi-phase dissemination study with a cluster randomized trial component designed to examine the effect of dissemination strategies on enhancing organizational capacity and support for evidence-based chronic disease prevention in State Health Departments (SHD). A model including the covariance terms: capacity to conduct evaluations, expectations and incentives for using EBDM, access to evidence and resources for EBDM, participatory decision-making, and leadership support and commitment was found to have high validity in measuring EBDM. The tool may be of interest to public health agencies looking for ways to measure their capacity and implementation of evidence based practices.

Supplee, Lauren H., and Allison Metz. “Opportunities and Challenges in Evidence-Based Social Policy. Social Policy Report. Volume 28, Number 4.” Ann Arbor, MI: Society for Research in Child Development, 2014.

In this report, the authors focus on the role of child development researchers to highlight what has been learned about implementing and scaling up evidence-based programs. The authors suggest that there is a need for infrastructure, including information-rich documentation, to support the dissemination and utility of evidence-based programs. The authors find that research evidence is not the only factor in decision-making, and that decision-makers use various data sources such as administrative data, experience, stakeholder input, and research. The authors suggest that providing decision-makers with a broad synthesis of evidence along with information on implementation, acceptability, and feasibility are important factors for the evidence-based policy movement. Furthermore, the uptake of evidence in decision-making requires interactions between service providers, policymakers, and other key stakeholders.

B. International references

Bennett, Sara, Ligia Paina, Freddie Ssenooba, Douglas Waswa, and James M. M’Imunya. “The Impact of Fogarty International Center Research Training Programs on Public Health Policy and Program Development in Kenya and Uganda.” *BMC Public Health*, vol. 13, no. 1, 2013, pp. 1–11.

This study describes two exploratory case studies in Kenya and Uganda that sought to understand if and how the Fogarty International Center (FIC) training programs influenced national and global health policy and practice. The study explored impacts using semi-structured interviews with 53 respondents, 29 focus group participants, structured surveys of trainees, and document review, including a review of evidence cited in policy documents. The study found that work conducted by numerous FIC trainees did influence national and global health policies, particularly on HIV/AIDS. Tuberculosis, sexually transmitted infections, and maternal health policies were also affected. Influences were facilitated primarily through strengthening research skills of scientists, participation of policymakers in technical working groups, and development of national networks. These investments coincided with concurrent investments by the National Institutes of Health, the U.S. government, and the broader global community in HIV/AIDS, tuberculosis, and malaria. Recommendations include promoting alignment of research with country needs, enabling research agendas to be developed in country, and integrating policymakers into advisory groups and governing structures of research grants.

Cairney, Paul, and Kathryn Oliver. “Evidence-Based Policymaking is Not Like Evidence-Based Medicine, So How Far Should You Go to Bridge the Divide Between Evidence and Policy?” *Health Research Policy & Systems*, vol. 15, 2017, pp. 1-11.

This editorial offers a perspective on how to bridge the evidence-policy gap and produce research with greater impact. The authors ask how far scientists should go to persuade policymakers to act on their evidence, and how far scientists should go to defend a hierarchy of evidence to deliver policy solutions. Using secondary data sources, including systematic reviews, critical analysis, and policy theories of evidence-based policymaking primarily from westernized countries, the authors develop models of evidence-based policymaking and identify how scientists can influence policy. Next, they analyze the dilemmas that the models present for scientists, place possible policy responses on a spectrum from “purist” to “diplomatic,” and identify pragmatic responses that combine scientific evidence with governance principles. The authors find that successful engagement requires combining scientific evidence with persuasion, including translating complex evidence into stories. Researchers should recognize that policymakers may base judgments on beliefs and emotions, figure out where research/evidence is likely to be used, be prepared to engage in long-term strategies to influence policy, and determine when persuasion tips into cynical manipulation.

Corluka, Adrijana, et al. “Survey of Argentine health researchers on the use of evidence in policymaking.” *PloS one* 10.4 (2015): e0125711.

This article presents the results of a self-administered online survey of 226 health researchers in Argentina. The survey asks about researchers’ perceptions of facilitators, and barriers to evidence-based policymaking, as well as their publication activities, and research environment satisfaction. Survey questions are based on a preceding qualitative study of health

researchers in Argentina and scientific literature. The study found researchers viewed decision-maker self-interest, the government budget, and personal contact between researchers and decision-makers as primary facilitators of evidence-based policymaking. The lack of interaction between researchers and policymakers was perceived as an important barrier. Researchers had a strong interest and willingness to contribute their work to Argentine health policy development, but over 80 percent said they had never been involved. Recommendations include improving the researcher-policymaker relationship, creating and championing an organizational mandate, and facilitating institutional arrangements to link research activities to the political level.

Dunsmuir, Sandra, and Thomas R. Kratochwill. “From Research to Policy and Practice: Perspectives from the UK and the US on Psychologists as Agents of Change.” *Educational & Child Psychology*, vol. 30, no. 3, 2013, pp. 60-71.

This study reviews the development of educational psychology in the UK and the US, exploring the role psychologists can play in influencing practice through contributions to research, training, and policy development. The article traces factors that have influenced the development of psychology over the past 100 years through the lens of the work of Cyril Burt. The paper addresses the extent to which political decisions are informed by evidence, the demand for evidence-based practice, and the challenge for psychologists to navigate and serve as intermediaries between research and policy. The authors recommend that to inform policy, research must be accessible to policymakers, have practical relevance, and be conducted to the highest standards and methodological rigor. To continue to serve as intermediaries, psychologists must have the skills to access, read, and assess the research, and engage in dissemination activities. Lastly, a range of research methods will be required to address the full set of questions about policy issues.

Ellen, M. E., E. Horowitz, S. Vaknin, and J. N. Lavis. “Views of Health System Policymakers on the Role of Research in Health Policymaking in Israel.” *Israel Journal of Health Policy Research*, vol. 5, no. 1, 2016, p. 24.

This study explores the perceptions of health system policymakers and senior executives in Israel. Authors administered a survey and conducted interviews with 32 health policymakers to explore their views of health systems and policy research (HSPR) in health policymaking, the barriers and facilitators to the use of evidence, and recommendations for improving the use of evidence in policymaking. The study finds that two thirds of respondents agreed that evidence from HSPR helps policymakers identify policy alternatives, and almost half agree that HSPR helps raise awareness on policy issues. While policymakers perceive that they have strong relationships and collaborations with researchers, gaps between evidence and policy still remain. Recommendations from policymakers include improving dissemination of research through consolidation (for example, through a website, newsletter, or email blasts) and using concise, clear language in communications. Policymakers also suggested stronger relationships between researchers and policymakers to better align research and policy needs.

Ellen, M. E., J. N. Lavis, and J. Shemer. “Examining the Use of Health Systems and Policy Research in the Health Policymaking Process in Israel: Views of Researchers.” *Health Research Policy and Systems*, vol. 14, no. 1, 2016, p. 66.

In this descriptive study, authors administered a survey and interviews to explore the views of health system researchers in Israel regarding health systems and policy research (HSPR) and the facilitators and barriers to the use of evidence in the policymaking process. Over half (54 percent) of the respondents perceive that evidence does help policymakers identify or chose policy alternatives. However, many respondents felt that the actual use of evidence was hindered due to practical constraints and lack of coordination between researchers and policymakers (68 percent and 59 percent of all respondents respectively). Additionally, the study found that researchers perceive challenges in government/provider relations, policymakers lacking expertise for acquiring, assessing, and applying HSPR, and priorities in the health system as drawing attention away from HSPR. The authors recommend finding strategies to better integrate researchers into knowledge transfer and exchange initiatives with health insurance funds and physician organizations, which are some of the strongest influencing groups.

Ellen, Moriah E., Ulysses Panisset, de C. Araujo, James Goodwin, and John Beard. “A Knowledge Translation Framework on Ageing and Health.” *Health Policy*, vol. 121, no. 3, 2017, pp. 282-291.

This study presents the World Health Organization (WHO) framework for Knowledge Translation. The authors conducted a review of the literature and convened an expert panel to develop the framework. The Knowledge Translation framework involves building relationships between users and researchers, creating timely and relevant knowledge, disseminating knowledge in appropriate formats, and using evidence in policymaking. The authors include a proposed application of the framework through a four step process to support the use of evidence in policymaking: (1) use context/climate mapping, (2) identify priority topics in ageing and health, (3) hold a workshop to develop policy briefs, and (4) convene a deliberative dialogue.

Haby, Michelle M., Evelina Chapman, Rachel Clark, Jorge Barreto, Ludovic Reveiz, and John N. Lavis. “Designing a Rapid Response Program to Support Evidence-Informed Decision-Making in the Americas Region: Using the Best Available Evidence and Case Studies.” *Implementation Science*, vol. 11, 2016, pp. 1-12.

The authors conducted two rapid reviews, four case studies, and a literature search to inform the design of a rapid response program to support evidence-informed decision-making in health policy and practice. The main questions were: (1) What are the best methodological approaches for rapid reviews of research evidence?; (2) What other strategies are needed to facilitate evidence-informed decision-making in health policy and practice?; and (3) What is the best method to operationalize a rapid response program? The authors found there is no agreed upon definition of, or methodology to conduct, rapid reviews. Effective strategies were identified mostly in the practice domain, and included “push,” “facilitating pull,” and “pull” activities. The case studies evaluated did not report in sufficient detail the methods used, preventing a quality assessment. The authors found no support that rapid reviews alone are effective in promoting the use of research in policy. They recommend using rapid reviews in conjunction with other knowledge translation strategies such as targeted messaging and dissemination activities.

Researchers should also provide more transparency when reporting the methodology of rapid reviews.

Independent Evaluation Office, United Nations Development Programme. “Evaluation of the Contribution of the Global and Regional Human Development Reports to Public Policy Processes.” May, 2015. Available at <http://web.undp.org/evaluation/evaluations/thematic/hdr.shtml>. Accessed on July 17, 2017.

This report intends to guide the United Nations Development Programme (UNDP) in refining the contribution and usefulness of global and regional human development reports (HDRs) by presenting the outcomes of an evaluation conducted by the Independent Evaluation Office (IEO). The evaluation was intended to understand observed utility, usefulness, and impact of the HDRs, which are reports intended to connect human development concepts to policies on public policy processes. A survey of key development actors and interviews with policymakers were conducted along with country case studies to inform HDR contributions to regional and global-level intergovernmental policy decisions. Chapter four in particular discusses HDR’s contributions to the policy process. The IEO finds that global HDR policy recommendations contributed to public policy processes when they were clear and bold. However, in the previous five years, the report was perceived as undercutting critical messages, and thus had a more narrow impact on public policy processes. In most cases, global HDRs tended to offer nonviable avenues for addressing development obstacles. Further, the County Offices saw the human development index (HDI), a part of the global HDR reports, as being most helpful among development actors; however, in some cases they perceived the HDI as unintentionally averting focus from development gaps.

Joanna Briggs Institute. “The JBI Approach.” 2014. Available at <http://joannabriggs.org/jbi-approach.html>. Accessed on July 17, 2017.

This report focuses on the Joanna Briggs Institute’s (JBI) model for clinical decision-making, and details an evidence transfer approach that is useful for transferring evidence to decision-makers at both the practice and policy levels. JBI views evidence-based health care as a cyclical process with four major steps, where evidence is developed, summarized, transmitted, and implemented. The JBI model provides information on the evidence transfer portion of this process. JBI notes that since research is not available for every health care service, clinicians ought to seek other resources to make the most informed decision. Further, no singular approach to transferring evidence into policy exists, so the following principles are critical for this work: culture, capacity, collaboration, and communication. JBI highlights the importance of actively disseminating research evidence by utilizing a blended communication strategy, active dissemination approach (i.e., social media), and formats that would increase participation (i.e., infographics), and champions. Also, JBI explains that educational programs can effectively translate evidence to practice. JBI underscores the importance of conducting a situational analysis to drive change, utilizing a wide range of methods to address any resistance to change, and creating plans for assessing and sustaining change.

Johnston, Andrea L. K. “To Case Study Or Not to Case Study: Our Experience with the Canadian Government's Evaluation Practices and the Use of Case Studies as an Evaluation Methodology for First Nations Programs.” *Canadian Journal of Program Evaluation*, vol. 28, no. 2, 2013, pp. 21-42.

This study presents the experience of Johnston Research Inc.'s (JRI) First Nations case studies. JRI is an Aboriginal owned and operated evaluation firm in Canada. JRI interviewed both First Nations' contacts to learn about how case studies helped them share their opinions and improve their programs, and Canadian government contacts about how case studies helped served their evaluation process. The article includes examples of how case study data have been translated into policy-level change. Some departments reported that case studies influenced funding decisions, helped make the case for pilot studies, and contributed to future policy changes. Other government respondents were more skeptical of the value of case studies, for example, noting the different renewal and evaluation cycles which caused evaluation case studies to be labeled as “special studies” and diminishing the value for evaluation purposes. The authors offer recommendations for when to use case studies, and ways to make results more useful for First Nations case study participants.

Koon, Adam, Devaki Nambiar, and Krishna D. Rao. “Embedding of Research Into Decision-Making Processes.” Geneva: Alliance for Health Policy and Systems Research, World Health Organization, 2012.

This study presents the results of a literature review, interviews with researchers and policymakers, and case studies from multiple countries to understand and encourage the embedding of research in the health policy-making domain among low- and middle-income countries (LMIC). The authors present a conceptual model of research embeddedness in health policy. Using case studies, the authors tried to validate the model and to understand institutional arrangements that promote the use of research. The authors present findings using the World Health Organization (WHO) building blocks—service delivery, health workforce, information, medical products, financing, and governance. Respondents from the interviews identified institutionalizing the use of evidence in policymaking, linking relevant evidence to decision-making, strong relationships between research institutions and policymakers, and collaborations between these groups all as ways to promote the use of evidence in policymaking. Overall, the authors hypothesize that four factors influence research embeddedness: reputation, capacity, quality, and quantity of connections to decision-makers.

Leischow, Scott J., Olalekan Ayo-Yusuf, and Cathy L. Backinger. “Converging Research Needs Across Framework Convention on Tobacco Control Articles: Making Research Relevant to Global Tobacco Control Practice and Policy.” *Nicotine & Tobacco Research*, vol. 15, no. 4, 2013, pp. 761-766.

This report summarizes recommendations about the research needed to effectively inform policy and implementation of the World Health Organization (WHO) Framework Convention on Tobacco Control (FCTC). A team of scientists from the Society for Research on Nicotine and Tobacco commissioned scientific experts to analyze relevant sections of the FCTC to identify critical gaps in research and submit drafts of papers that fulfilled these research needs. The identified research needs and recommendations aim to inform decision-making to improve the

effectiveness of FCTC implementation. Research recommendations included sampling strategies to deal with potential under-reporting of tobacco usage among certain subgroups and increasing research and attention to low- and middle-income countries. In addition to specific research topics and methodologies, the article includes broader recommendations such as fostering collaborative networks and promoting communication and collaboration across local researchers, academic institutions, and government agencies.

Lenihan, Ashley T. “Institutionalising Evidence-Based Policy: International Insights into Knowledge Brokerage.” *Contemporary Social Science*, vol. 10, no. 2, 2015, pp. 114-125.

This exploratory study reviews organizational tactics of CPB Netherlands Bureau for Economic Policy Analysis (Dutch CPB) and the Washington State Institute for Public Policy (WSIPP) to link and translate their research findings for policymakers. The author conducted semi-structured interviews with researchers and senior staff at CPB, WSIPP, and Pew MacArthur Results First Initiative (RF). RF worked with WSIPP to validate its cost benefit analyses approach and improve its capability. The author finds that credibility plays an important role in the use of research by policymakers. However, it is challenging to create and maintain credibility, as it requires developing and managing a policy network, and legitimizing subject matter expertise. Second, the author notes that utility of research is an important contributor to the uptake of research by policymakers, specifically the pertinence of policies examined and timeliness of report completion. Timeliness of report completion can be challenging as legislators may set unrealistic deadlines for researchers, unaware of processes involved. Lastly, the author finds that clearly and succinctly conveying research results affects the use of research by policymakers.

Mackay, Judith. “The Role of Research on the Development and Implementation of Policy.” *Nicotine & Tobacco Research*, vol. 15, no. 4, 2013, pp. 757-760.

This editorial discusses the current ideologies and challenges around positioning tobacco research towards policy. The author notes that many epidemiologists who attended the World Congress on Epidemiology conference expressed concern that the conference focused excessively on policy. The author comments that some scientists believe that it’s in the interest of researchers to not be a part of politics so that they can objectively present their report findings. Additionally, the author explains that most policymakers do not have the scientific knowledge to assess research claims and methodologies. Although there is a substantial amount of quality tobacco research, the author recommends that it is important that this research be used for influencing members in the government.

Niessen, L. W., J. Bridges, B. D. Lau, R. F. Wilson, R. Sharma, D. G. Walker, K. Frick, and E. B. Bass. “Assessing the Impact of Economic Evidence on Policymakers in Health Care—A Systematic Review.” Baltimore, MD: The Johns Hopkins University Evidence-based Practice Center, 2012.

In this systematic review, the authors reviewed studies documenting healthcare institutions and policymakers’ use of economic evidence from a cost-effectiveness or cost-utility analysis in the U.S. and elsewhere. The authors’ search was guided by their own framework describing the inclusion of economic evidence in systematic reviews. The authors find that while policymakers

used economic evidence to inform their decisions, the source of this evidence varied from formal documents to verbal reports. In the U.S., evidence relating the use of economic evidence to decision-making was relatively weak. Challenges affecting the use of economic evidence include: the absence of economic information, lack of relevance, and the reputations of research or decision-making agencies. The authors recommend that to increase the use of evidence in decision-making, researchers should communicate their findings clearly, understand the context of decisions being made, and discuss with decision-makers how their findings may be used. Policy and decision-makers could aid researchers by making their decision-making processes more transparent.

Nongrum, Melari S. “The Response of Social Work Research to the Needs of Decision Makers in Meghalaya, India.” *Social Work Review/Revista De Asistenta Sociala*, vol. 15, no. 3, 2016, pp. 37-45.

In this study, the author utilizes two studies, one assessing single mothers’ and the other on women’s overall status in the state. The studies were conducted in Northeastern India and were used as reference points to describe how social work research contributes to the needs of policy decision-makers in India. The authors find that social work researchers depend on external funding sources that may dictate the research design and methods. This influence might not necessarily align with the interests of the researchers, or be the most appropriate research design and methods for a study. Additionally, social work research is often not a priority in state budgets, limiting the ability to conduct comprehensive research projects. To address these challenges the authors recommend that social work researchers should engage with funding agencies or policymakers about participatory approaches to research to convey how the practice promotes the idea of inquiry into issues that are of interest to the people directly affected by the problem policymakers are hoping to solve.

Ongolo-Zogo, Pierre, John N. Lavis, Goran Tomson, and Nelson K. Sewankambo. “Climate for Evidence Informed Health System Policymaking in Cameroon and Uganda before and After the Introduction of Knowledge Translation Platforms: A Structured Review of Governmental Policy Documents.” *Health Research Policy & Systems*, vol. 13, no. 1, 2015, pp. 33-60.

In this review of governmental policy documents, the authors assess whether the knowledge transfer platforms established in Cameroon in 2006 are having an influence on evidence informed health system policymaking (EIHSP). The review was guided by content analysis techniques and a policy sciences analytical framework while simultaneously implementing a mixed-methods approach. The approach consisted of a quantitative exploration of the usage statistics of research-related words and constructs, the types of evidence and budgets for research-related activities, and an interpretive exploration of the context, the value of research, and the action proposals for EIHSP using a deductive thematic analysis to uncover the institutions, interests, ideas, and external factors within documents. The authors find that evidence use to inform health system policymaking is sparse. The authors recommend that decision-makers increase their use of systematic reviews as an evidence source when developing policies. Additionally, researchers should adopt the methods used in this study, to determine a country’s climate for EIHSP.

Rodríguez, D. C., J. Shearer, A. R. E. Mariano, P. A. Juma, S. L. Dalglish, and S. Bennett. “Evidence-Informed Policymaking in Practice: Country-Level Examples of use of Evidence for iCCM Policy.” *Health Policy and Planning*, vol. 30, 2015, pp. ii36-ii45.

In this editorial, the authors identify factors both hindering and supporting policy and program development related to integrated community case management (iCCM), an equity-focused strategy that extends the reach of public health services by providing timely and effective treatment. The authors cite several case studies in their editorial, and find that health policy is often influenced by available funding and influential political leaders, while policy entrepreneurs, academic communities, and power analyses are often omitted in the decision-making process. The authors recommend that practices such as policy analysis, political economy analyses, and implementation research be implemented to address the gap between policy development and implementation. Additionally, global health actors and national decision-makers should play a role in supporting these practices.

Whitty, Geoff. *Research and Policy in Education: Evidence, Ideology and Impact*. London, UK: Trentham Books, Institute of Education, 2016.

This book begins with the statistic that 90 percent of education reforms in the U.K. lack proper evaluation. The book then explores the extent to which research evidence is actually used in education policy within the U.K. and discusses how evidence could be more effectively used. By comparing politicians’ speeches with the extent to which government publications use research evidence, the author differentiates anecdotal claims of evidence-based policymaking from actual use of evidence. He argues that political ideologies are often a stronger driver of education policy than research evidence with three case studies: reforming teacher training, using evidence in international policy, and policies aiming to close the gap between social class achievement and participation. The author suggests thinking of research’s relationship to policy in a different way—that research helps policymakers challenge assumptions and approach problems in new ways. Thus, research is not instruction for action, but rather a way to expose and confront personal biases. Overall, this book recommends lowering expectations for evidence-based policy, and emphasizes wider conversation on research beyond its use in policy.

Williams, Val, and Beth Tarleton. “Editorial: Looking Back Over 25 Years of Research: Reflections on Impact.” *British Journal of Learning Disabilities*, vol. 43, no. 2, 2015, pp. 83-85.

This editorial examines the past 25 years of research on learning disability in the U.K. to ascertain its effect on both individuals and policy. The authors emphasize that both government agencies and funders expect researchers in the U.K. to demonstrate impact, tracking their work’s “real societal value.” The authors recount their research over the years, and the societal changes that have taken place over the same period. They indicate that their research has always sought to influence policy, and cite specific examples. They acknowledge that in discerning the effects of their research, it had the most impact through process rather than product. They underline that periodic reflection on research impact over time is important in improving research methods and having a measurable effect on the lives of those with learning disabilities. The authors stress that research is most effective when it is relevant to the lives and interests of the people it revolves around, rather than strictly having policy as an end goal.

Smits, Pernelle A., and Jean-Louis Denis. “How Research Funding Agencies Support Science Integration into Policy and Practice: An International Overview.” *Implementation Science*, vol. 9, no. 1, 2014, pp. 1-22.

In this study, the authors examine how health research funding agencies support the integration of science into policy and practice. The authors questioned professors, researchers, members of funding agencies, managers, and health service providers to compare the intentions, actions, and benefits of integrating science into policy and practice across funding agencies in six countries: Australia, France, Canada, the Netherlands, England, and the United States. The authors find that agencies typically use one or two models: push, pull, or linkage/exchange (L&E) knowledge transfer models to incorporate science in the decision-making process. The funding agencies used the L&E model by convening researchers and users to explore prospective subjects of interest, and inviting researchers to participate in decision-making settings. The push model was used to transfer existing research to decision-makers through publications. The pull model was used when decision-makers’ urgent needs influenced the topics studied by researchers.

Stevens, Alex, and Alison Ritter. “How can and do Empirical Studies Influence Drug Policies? Narratives and Complexity in the use of Evidence in Policy Making.” *Drugs: Education, Prevention & Policy*, vol. 20, no. 3, 2013, pp. 169-174.

In this editorial, the authors question existing assumptions about how evidence influences policy. The authors develop theoretical ideas about policy impact on empirical research, and introduce articles to illustrate how drug policy analysis may be relevant to policy making. To accomplish this, the authors use three narratives of policy process from Ritter’s plenary along with ideas of the usefulness of narratives in policymaking. The authors suggest that there are three different narratives that use evidence to influence policies: authoritative choice, policymakers apply their own use of evidence; structured interaction, decisions emerge from the interplay between organizations and stakeholders; and social construction, policymaking creates an understanding of the problem and how it is framed. The author’s suggest that researchers entering into policy discussions should be aware that the narratives their findings take will depend on whether policymakers view policy as authoritative choice, structured interaction, or as social construction.

Wilson, Michael G., Jeremy M. Grimshaw, R. B. Haynes, Steven E. Hanna, Parminder Raina, Russell Gruen, Mathieu Ouimet, and John N. Lavis. “A Process Evaluation Accompanying an Attempted Randomized Controlled Trial of an Evidence Service for Health System Policymakers.” *Health Research Policy & Systems*, vol. 13, 2015, pp. 1-8.

In order to assess whether a “full-serve” evidence service would encourage policymakers in the Ontario Ministry of Health and Long-Term Care to use research more consistently, the authors developed a Health Systems Evidence (HSE)-based service, which is a database of research evidence on health systems implementation strategies. They began with a two-pronged randomized controlled trial (RCT) comprising of policy analysts and advisors but stopped after not meeting the recruitment target. Then they conducted a qualitative process evaluation with the same target group, using an interview guide geared toward exploring varying participation factors, HSE usage, and individual HSE experiences. Six factors were salient in using HSE: (1)

study relevance to individual work, (2) knowing the researchers, (3) personal opinion on using research in policy, (4) academic background, (5) supervisor support, and (6) colleague participation. Based on this, the authors recommend redesigning HSE to facilitate identifying and utilizing research evidence in reforming health systems and delivery. As for their own RCT experience, they suggest future recruitment center on divisions, rather than individuals.

Yamey, G., H. Horváth, L. Schmidt, J. Myers, and C. D. Brindis. “Reducing the Global Burden of Preterm Birth through Knowledge Transfer and Exchange: A Research Agenda for Engaging Effectively with Policymakers.” *Reproductive Health*, vol. 13, no. 1, 2016, p. 26.

This review focuses on the gap between knowledge of preterm birth (PTB) and intervention strategies among policymakers. The researchers center on using knowledge transfer and exchange (KTE) to close this gap. They conducted a systematic review of 145 studies about KTE among policymakers, and consider why there has been little progress in decreasing PTB mortality. They found that there is a lack of knowledge around the causes of PTB, as opposed to the risk factors. This impedes creating prevention and treatment methods, and has led to low coverage rates of existing interventions. Based on the literature review, the researchers developed a circular framework for PTB evidence-based policy making. They suggest the ideal components of informed policy-making are (1) understanding the context, (2) systematic review of evidence for transferal to policymakers, (3) utilizing the most efficient KTE strategies for that transferal, (4) post-transfer engagement, and (5) assessing whether policy actually used evidence.

C. References recommended by respondents to the interviews conducted in Phase 2

Ahearn, Laura, and Matthew Baker. “Landscape Analysis of Learning Agendas: USAID/Washington and Beyond.” Washington, DC: USAID, 2017. Available at <https://usaidlearninglab.org/library/landscape-analysis-learning-agendas-usaidwashington-and-beyond>. Accessed on August 21, 2018.

This report is a landscape analysis of learning agendas used both within and outside of USAID. This analysis draws from 60 interviews with USAID staff and staff from five other federal agencies as well as two focus groups made up of USAID and Bureau for Policy, Planning, and Learning (PLL) staff. The report is intended to assist in the development of the learning agenda initiative that is being handled by USAID’s Office of Learning, Evaluation, and Research in the PLL. The authors of the report define a learning agenda as “a set of broad questions directly related to the work that an agency conducts; when answered, they enable the agency to work more effectively and efficiently, particularly pertaining to evaluation, evidence, and decision-making.” The authors conclude the following from their investigation: (1) there is significant interest in learning agendas within the federal government, (2) the language used in learning agendas varies, learning agendas often incorporate multiple sources of knowledge, and (3) collaboration is key to a learning agenda’s efficacy. The authors also highlight the following key considerations for the creation, implementation, and dissemination of an agenda: (1) attempt to link agendas to organization’s strategic objectives and goals, (2) support from leadership and adequate resources are key factors in a learning agenda’s success, and (3) learning agendas tend to have benefits that extend beyond the production of knowledge.

Baker, Matthew, and Monalisa Salib. “Cracking the Evidence Conundrum: Four Ideas to Get People to Use Evidence.” Washington, DC: USAID, December 18, 2017. Available at <https://usaidlearninglab.org/lab-notes/cracking-evidence-conundrum-four-ideas-get-people-use-evidence>. Accessed on August 21, 2018.

This web posting, created by USAID’s Learning Lab, highlights four options to promote the use of evidence in organizations. The first option is advancing the engagement of decision-makers in the production and analysis of evidence. This option would ideally promote the creation of evidence that is better suited to decision-makers’ needs. Second, the authors recommend embedding the use of evidence into institutional structures and processes. For instance, the authors cite learning agendas as a means to tie evidence to organizational goals and priorities. Third, the authors discuss renewing the investment in dissemination activities, i.e., adopting a proactive approach to sharing and translating evidence. Finally, the authors note that other ways to encourage the use of evidence are to promote messaging on the benefits of evidence and to build a staff’s capacity to use it.

U.S. Commission on Evidence-Based Policymaking. “The Promise of Evidence-Based Policymaking.” Final Report to Congress and the President. Washington, DC, September 7, 2017. Available at <https://bipartisanpolicy.org/wp-content/uploads/2017/10/CEP-Final-Report.pdf>. Accessed on February 19, 2019.

This report was produced by the Commission on Evidence-Based Policymaking for the President of the United States, the Speaker of the House of Representatives, and the President of the Senate. It includes recommendations on (1) how the federal government can create a secure infrastructure for accessing data, (2) the means to improve privacy protections and to promote transparency on the applications of data in evidence-building, and (3) strategies for enhancing institutional capacity for generating evidence. To develop these recommendations, the Commission consulted with subject matter experts (researchers, government leaders, public and private organizations); reviewed public comments; and held internal deliberations. As a result of this process, the Commission found that expanding access to secure data promotes evidence based policy-making and is increasingly feasible through the advent of innovative technology, advances in statistics, and legal protections. Among other provisions, the Commission recommended the following key provisions to promote federal evidence building: (1) establish a National Secure Data Service in the Department of Commerce that is responsible for promoting access to data and for ensuring security for specific projects, (2) amend the Privacy Act and the Confidential Information Protection and Statistical Efficiency Act (CIPSEA) to require risk assessments of the security implications of releasing confidential, de-identified data to the public, (3) instate a chief evaluation officer in each federal department who would lead evaluation and policy research efforts and collaborations, and (4) direct the Office of Management and Budget to coordinate interdepartmental evidence-building collaborations.

DEXIS Consulting Group. “Applying Evidence: What Works?” Washington, DC, March 21, 2018. Available at <https://usaidlearninglab.org/sites/default/files/resource/files/pa00sxt9.pdf>. Accessed on August 21, 2018.

This rapid literature review summarizes the findings from 137 documents on the use of evidence in decision-making. The literature includes specific recommendations on how to improve evidence-based decision-making, and it highlights the influence of contextual factors on the use of evidence. Approaches that were most commonly cited include assessing the organizational context, embedding the use of evidence into organizational structures and processes, investing in dissemination, building staff capacity to use evidence and to understand its benefits, and increasing collaboration between researchers and decision-makers. The majority of the literature in this area comes from the health care, education, social services, and criminal justice sectors. However, the authors report that the literature does not provide definitive support for the claim that evidence-based decision-making leads to improved outcomes. The authors also found that the definition of “evidence” also varies and few specific approaches or interventions have been substantiated. Furthermore, research on applying evidence in international development is lacking.

Frueh, Sarah. “Examining the Mistrust of Science: Proceedings of a Workshop-in Brief.” June 2017. National Academies of Sciences, Engineering, and Medicine. “Examining the Mistrust of Science: Proceedings of a Workshop–In Brief.” Washington, DC: The National Academies Press, 2017. doi.org/10.17226/24819.

This brief summarizes the lectures presented at The Government-University-Industry Research Roundtable held from February 28, 2017, to March 1, 2017. The lectures focused on the public’s perception of science, potential causes of the public’s mistrust of science, and

possible cross-sector collaborations that would promote the public's trust in science. Keynote speaker Shawn Otto, co-founder of the U.S. Presidential Science Debates and author of the *War on Science*, reviewed the history of the intersection of science and politics in the United States. His analysis revealed that the public's opinions on science are not static but shaped by the contemporary context and events. Otto also noted the importance of the public's understanding of scientific to the preservation of democratic institutions and decision-making. Speaking on "the role of science in society," Arati Prabhakar, former director of the Defense Advanced Research Projects Agency, concluded the meeting with a message about the importance of science to humanity.

Gold, Marsha. "Pathways to the Use of Health Services Research in Policy." *Health Services Research*, vol. 44, no. 11, 2009.

This article identifies 10 pathways through which evidence can permeate the decision-making process. The author reports that the policy process is influenced by numerous factors, which researchers can manipulate to varying degrees. She notes that the likelihood of evidence being used increases when findings are converted into messages that resonate with decision-makers. She also uses social science theory and draws both on her experiences in the field and on findings from a review of the literature to identify the following pathways from evidence to policymaking: (1) The "Big Bang" occurs when a single study shifts a paradigm in the field, often because it is published in a prominent journal, or it captures media attention. (2) "Gradual Accumulation and Diffusion" ensues when researchers build upon prior findings, and although the findings are not formally disseminated, decision-makers ultimately note the shift. (3) "Gradual Accumulation and Formal Synthesis" moves beyond the previous pathway when a body of evidence receives enough support to initiate syntheses of the key findings. (4) The "Researcher as Messenger" pathway can facilitate the use evidence in decision-making by promoting relationships between decision-makers and those who produce evidence so that when decision-makers have evidence that is pertinent to their inquiries, they have an expert to consult. (5) "Formal Intermediary-Brokered Translation" involves federal agencies that are tasked specifically with translating evidence into policy. (6) "Press Publicizes and May Generate Own Research Findings" occurs when the press brings attention to evidence and conducts its own influential primary analysis. (7) "User Defines Topics for Synthesis of Accumulated Research" arises when researchers and decision-makers collaborate to identify topics for investigation, which promotes buy-in on both sides. (8) "User Participates in Peer Review of Research Proposals" stimulates the production of evidence tailored to decision-makers' needs. (9) "Users Contract for Particular Studies" indicates situations in which the government collaborates with independent agents to investigate a specific topic. And finally, (10) "Researcher as User – When Policy Makers Have Research Skills" involves placing researchers into decision-making roles to encourage the use of evidence in an organization and to promote knowledge sharing. The author makes it clear that multiple pathways can be used simultaneously and that no pathway is singularly superior; their value is dictated by context.

Hart, Nick, Edward "Sandy" Davis, and Tim Shaw. "Evidence Use in Congress, Volume 1: Challenges for Evidence-Based Policymaking." Washington, DC: Bipartisan Policy Center, March 2018. Available at <https://bipartisanpolicy.org/wp-content/uploads/2018/03/BPC-Evidence-Use-in-Congress.pdf>. Accessed on August 8, 2018.

Davis, Edward “Sandy,” Tim Shaw, Nick Hart, and G. William Hoagland. “Evidence Use in Congress, Volume 2: Options for Charting a New Direction.” Washington, DC: Bipartisan Policy Center, March 2018. Available at <https://bipartisanpolicy.org/wp-content/uploads/2018/04/BPC-Evidence-Use-in-Congress-Volume-2.pdf>. Accessed on August 8, 2018.

This two-part report examines the barriers and facilitators associated with the use of evidence in Congress. The authors posit that Congress plays a key role in promoting the use of evidence in the federal government and that it has demonstrated an interest in increasing the use of evidence (via its bi-partisan establishment of the U.S. Commission on Evidence-Based Policymaking). In Volume 1, the authors categorize barriers into three groups: perception barriers, institutional barriers, and systemic barriers. Perception barriers refer to the negative views held by members of Congress and their staff on the utility, credibility, and relevance of evidence. Institutional barriers include congressional processes that do not invite the use of evidence (e.g., collaborative decision-making, functional alignments, and coordination with the executive branch). Systemic barriers originate in congressional norms and influence the timing, incentives, supply, and resources available for the use of evidence in a negative way. In Volume 2, the authors identify three kinds of options for increasing the use of evidence: capacity enhancements, institutional modifications, and process changes. Capacity enhancements cover the means to expand the resources for gathering and analyzing evidence. Institutional modifications include the possibilities for promoting transparency around the use of evidence by Congress and federal agencies. Process changes encompass options through which Congress can adapt their operations to promote the use of evidence as a priority.

Maynard, Rebecca, Naomi Goldstein, and Demetra S. Nightingale. “Program and Policy Evaluation in Practice: Highlights from the Federal Perspective. In L. R. Peck (Ed.), *Social Experiments in Practice: The What, Why, When, Where, and How of Experimental Design and Analysis*. *New Directions for Evaluation*, no. 152, 2016, pp. 109–135.

This paper is intended to provide guidance to those who produce evidence on how to make their products most useful for decision-makers. Operating from the vantage point of federal agencies, the authors investigate opportunities to shape evaluation methods in a way that maximizes the value of evidence; they also identify two critical functions of evidence for decision-makers in federal agencies: program oversight and resource allocation. In addition, the authors note that three factors raise significant challenges for the use of evidence in federal agencies: (1) balancing empirical best practices with the decision-makers’ need for timely information, (2) an evaluation’s inevitable focus on past outcomes instead of on program administrators’ interest in future program performance, and (3) variation in the audiences’ familiarity with evaluative methods. The authors advocate for the use of information databases, such as clearinghouses, because it is difficult for decision- to access current evidence. The authors come to two main conclusions. First, sophisticated research designs, geared toward producing findings that can be generalized without compromising rigor, should be adopted. Second, evaluators should strike a balance between methodological ideals and resource/time constraints. The authors also recommend that evaluators develop a greater understanding of the policy context, incorporate into their work the decision-makers’ need for evidence, develop a plan for disseminating findings, and, when conducting analyses, consider how their findings might be used in the future.

Nightingale, Demetra M., and Molly M. Scott “Building Evidence Culture and Capacity in Federal Agencies.” Washington, DC: The Urban Institute. Available at <https://www.urban.org/research/publication/building-evidence-culture-and-capacity-federal-agencies>. Accessed on August 21, 2018.

This brief builds on the third recommendation of the Commission on Evidence-Based Policymaking—to improve evidence-building capacity in federal agencies—by assessing strategies through which federal agencies can create, maintain, and expand evidence-building activities. The authors report that evidence from a combination of three types of sources form a knowledge base for decision-makers: evaluations, data analyses, and performance management information. They also emphasize the benefits of using many different forms of evidence. In addition, the authors make the following recommendations for expanding an organization’s capacity to produce and utilize evidence: (1) promote a culture of evidence, (2) formalize responsibility for and processes to advance evidence related activities (i.e., chief evaluation officers, learning agendas and sub-agency plans for evidence creation and incorporation), (3) create an evaluation policy statement that outlines an organization’s approach and key principles for evidence use, (4) invest in research projects, and (5) prioritize the dissemination of findings. The brief also notes that a number of existing resources can be leveraged to expand agency’s capability to invest in evidence by, for example, employing staff funded by outside sources, collaborating with other agencies, and seeking assistance from the General Services Administration’s Office of Evaluation Sciences on behavioral insights testing. Finally, the authors report that investing in evidence production and incorporation can improve the quality of knowledge available, enhance performance measurement, and ultimately build up an evidence base that is tailored to the organization’s needs.

O’Brian, Ellen, and Enrique Martinez-Vidal. “Evidence-Based State Health Policymaking: Research and Policymaker Perspectives.” Washington, DC: Academy Health, June 2016. Available at <http://www.academyhealth.org/sites/default/files/AH%20Evidence%20Based%20State%20Health%20report.pdf>. Accessed on August 22, 2018.

This study examined the role of research in health policy decision-making at the state level. The researchers disseminated two web-based surveys, one geared toward state government officials and another designed for researchers working on state policy issues. AcademyHealth identified participants from its mailing lists and received responses from 138 policymakers and 79 state health policy researchers. The authors found that there is a significant demand for information and evidence among policymakers and that researchers believe that state policymakers are capable of using evidence in decision-making. However, incomplete data, lack of access to high quality data, and poor communication between researchers and policymakers inhibits evidence-based decision-making. The authors recommended the following strategies to promote evidence-based policymaking at the state level: strengthening state data and analytics, maintaining a policy research clearinghouse, and establishing communication pathways between researchers and policymakers.

Patsalides, Melissa. “What USAID Is Doing to Learn from Evidence.” Washington, DC: USAID, 2018. Available at <https://usaidlearninglab.org/lab-notes/what-usaid-doing-learn-evidence>. Accessed on August 21, 2018.

This web posting summarizes USAID’s current activities in advancing evaluation quality and promoting utilization of evaluation findings. The author reports that USAID relies on a range of diverse approaches to, and has made significant strides in, using evidence. For example, the agency created and is using a learning and adaptive management system called Collaborating Learning and Adapting (CLA). CLA is a set of practices that both promote collaboration between staff and institutionalize learning in program management. USAID has also adopted learning requirements in their strategic planning and program management processes. The agency developed a number of monitoring, evaluation, and learning toolkits to bolster its staff’s and its partners’ capacity to use evidence. In terms next steps toward promoting evidence use, USAID plans to work on increasing the use of learning agendas and on improving the dissemination of evaluation findings to its partners, including making its products more user-friendly and actionable and digestible.

The Pew-MacArthur Results First Initiative. “How States Engage in Evidence-Based Policymaking: A National Assessment.” Washington, DC: The Pew Charitable Trusts, January 2017. Available at http://www.pewtrusts.org/~media/assets/2017/01/how_states_engage_in_evidence_based_policymaking.pdf. Accessed on August 22, 2018.

This study examines the use of evidence-based policymaking at the state level in the following areas: behavioral health, child welfare, criminal justice, and juvenile justice. The authors analyzed publicly available documents as well as internal and state-supplied documents, and they disseminated an email survey to 200 state officials, which they used to assess the breadth of evidence-based decision-making activities at the state level. The authors identified six actions that are critical to evidence-based policymaking: (1) defining levels of evidence, (2) taking inventory of existing programs, (3) comparing program costs and benefits, (4) reporting outcomes in the budget, (5) targeting funds to evidence-based programs, and (6) requiring action through state law. In their analysis, the authors focused on the extent to which states carry out these six actions. They identified 5 states as “leading” in evidence-based policymaking, 11 states as “established” because they demonstrated they use of evidence, 27 states as “exhibited modest engagement,” and 7 states as “trailing.” Based on the data they collected, the authors identified the following best practices for promoting evidence-based policymaking at the state level: facilitate dialogue, promote data infrastructure, and work to build analytical and technical capacity.

Turner, Margery Austin. “Evidence-Based Policymaking Requires a Portfolio of Tools.” Testimony submitted for the record to the Subcommittee on Human Resources, Committee on Ways and Means, United States House of Representatives, July 17, 2013. Available at <https://www.urban.org/sites/default/files/publication/24451/904598-Evidence-Based-Policymaking-Requires-a-Portfolio-of-Tools.PDF>. Accessed on April 13, 2018.

This testimony describes tools that policymakers and practitioners can use to more effectively advance evidence-based policy. Specifically, this testimony assesses the relative uses of various research tools across multiple stages of the policymaking process. The testimony notes that randomized control trials are often conceived of as the “golden standard” for evaluations but advocates for the use of a more diverse set of methodologies depending on the research need. The testimony highlights the applicability of microsimulation models to situations in which it is

necessary to form predictions across a range of possibilities and examines the robust uses of the systematic linking of administrative data. The testimony also describes a performance measurement tool that the Urban Institute and its partners were developing in 2013 for human services professionals. Finally, the testimony endorses the necessity of qualitative research in expanding on statistical findings.

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APPENDIX D:

PHASE 2 INTERVIEW INSTRUMENT

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USING EVALUATION RESULTS – PHASE 2 INTERVIEW INSTRUMENT

Research questions

The goal of this study is to conduct interviews with thought leaders and experts in the fields of evaluation, dissemination, and using evidence to drive policy and program decision-making. Through these interviews, we would like to understand the extent to which decision-makers use evaluation and research results (i.e. evidence) to make decisions and identify opportunities for improvements in the decision-making process. The following research questions reflect that goal and served as the starting point for developing the interview questions listed below.

1. What are the barriers and facilitators to using research and evaluation results to inform decision-making?
2. Where are there actionable opportunities to improve the use of evaluation and research results in decision-making?
 - Do these opportunities differ depending on the organizations, policy areas, and/or level of government? If so, how?
 - What other stakeholders (i.e. foundations, advocacy groups, etc.) have a role in creating actionable opportunities?
3. Which government organizations/agencies have successfully used research and evaluation results to inform policies or decisions?
 - Why were they successful?
 - How can these successes be replicated?

Interview questions

We will conduct one hour interviews with each respondent. We will use the questions listed below to guide the discussion and help capture data to answer the research questions listed above. Please note that there may be instances where we tailor probing questions based on the respondents' response and/or work experience.

According to the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number. The valid OMB control number for this information collection is 0990-0421. The time required to complete this information collection is estimated to average 60 minutes per response, including the time to review instructions, search existing data resources, gather the data needed, and complete and review the information collection. If you have comments concerning the accuracy of the time estimate(s) or suggestions for improving this form, please write to: U.S. Department of Health & Human Services, OS/OCIO/PRA, 200 Independence Ave., S.W., Suite 336-E, Washington D.C. 20201, Attention: PRA Reports Clearance Officer.

Introduction

Thank you for agreeing to speak with us today. As you know, we are working closely with ASPE to gain a better understanding of whether research and evaluations results are being used to help inform decision-making, and the reasons why it may or may not be used. We wanted to speak to you specifically because of your role as an [researcher/evaluator/evidence producer OR decision-maker] and wanted to capture your insights on this important topic. [Add in additional reasoning based on the respondent's background and experience].

During this interview, we will focus on capturing your insights on what may be facilitating or hindering the use of research and evaluation results in decision-making within the government, your thoughts on what strategies can be used to improve the use of evaluation results and research evidence, and lastly, what organizations have successfully used evaluation results and research evidence to make important policy decisions.

If there are any questions you feel you do not have the expertise to address, or need to get back to us about, please let us know and we can move on. We'll be speaking with multiple people about these topics to develop a balanced view of how evidence is being used to make decisions.

We will not reveal the names of our interview respondents or attribute comments to specific individuals in any reports, or share our notes with anyone outside of our research team. If it is okay with you, we'd like to record our discussion to ensure that we capture your comments accurately. If there is anything you share that you wish not to be recorded, please let us know so that we can take additional measures to keep it confidential. The recording will not be shared with anyone outside of Mathematica's and ASPE's research team.

Do you have any questions before we begin?

A. Warm-up

Please tell me about what you do here at [insert organization name].

B. Feedback on Barriers and Facilitators to Using Evidence

Now we'd like to spend some time discussing barriers and facilitators to using evidence to make decisions. We describe evidence as research, analysis, or evaluation results.

B1. There has been increased attention on evidence-based decision-making and we conducted a literature review to understand, given this shift, what barriers still exist to using evidence. Our review of the literature provided numerous suggestions for why there may be a divide between policy/program decision-making and the use of evidence.

Before we share our findings from the literature review, we want to know what you think have been the main barriers to using research and evaluation results in the decision-making process?

B2. Here are some of the barriers we identified in our literature review. Which of these findings resonate with you?

- Researchers do not gear their research towards decision-makers (e.g. researchers often choose research designs and methods not well suited to the needs of decision-makers; researchers' questions, timelines, and objectives seldom align with those of decision-makers; funders may dictate the topics and types of studies researchers conduct, and funders' and decision-makers needs may not align)
 - The complicated process of policy decision-making can crowd out the use of research (e.g. decision-making is not linear; decision-makers use many inputs; anecdotal evidence rather than more rigorous research may significantly influences decision-making)
 - Linking research to evidence can be resource-intensive, and government agencies have limited capacity
 - Few researchers and decision-makers work to establish mutually beneficial relationships
- B3. What other barriers do you think exist but we have not discussed? *Probe on whether any of the barriers are faced exclusively by decision-makers, evidence producers, or both. Also probe on why these barriers exist.*
- B4. Which of these barriers do you think most influences the way in which decision-makers use evidence? Why?
- B5. Which of these barriers do you think most influences the way in which researchers and evaluators conduct research? Why?
- B6. Thinking about [insert barrier mentioned above], how can decision-makers/those who produce evidence overcome this barrier? *Probe on other barriers discussed in question B1 and B2.*
- B7. What factors must be in place to promote successful use of research and evaluation results to drive decision-making at the federal, state, and local government level? *Probe on whether these factors exist at all three levels of the government, the degree of interaction between researchers and decision-makers, and how decision-makers are made aware of the availability of evidence.*

C. Opportunities to Improve Use of Evidence

Now that we have discussed the existence of certain challenges to using research or evaluation results, we wanted to spend some time discussing what solutions can be used to address these challenges.

- C1. Besides the responses mentioned earlier when I asked how barriers could be overcome, what other solutions do you believe can help address the challenges with using research and evaluation results to make decisions?
- C2. Our review of the literature also identified specific solutions to overcome some of the barriers we discussed earlier, such as:

- Designing tools to help decision-makers navigate complex policy issues
- Making information more accessible to decision-makers (i.e. disseminating research findings through the mass media and at networking activities)
- Mixing research and anecdotes because evidence can be more persuasive to decision-makers when it is compelling and tucked into a narrative
- Establishing formal capacity for accessing relevant research within government agencies (i.e. assign a high-level official who is responsible for program evaluation within government agencies)
- After an evaluation, establish a working group of key stakeholders (i.e. researchers, policymakers in governmental agencies that address the issues at hand, and individuals from the public at large) to meet and review the results of an evaluation and the any issues identified by the evaluation, and choose one to five major issues that require evidence-informed policy change

Which of these solutions seem feasible to bridging the gap between evidence and decision-making?

C3. What strategies can be used to build relationships between decision-makers and researcher and evaluators, both in the government and in private research organizations, so that decision-makers lean on research or evaluation results more regularly? *Probe on which stakeholders would be involved in implementing these strategies. Also probe on whether knowing the information needs of decision-makers can help improve the use of evidence.*

- How can researchers and evaluators better disseminate their research findings? How can decision-makers make their research needs more well-known? *Probe on how organizations like ASPE can support decision-makers.*

C4. One of the barriers we noted earlier was that funders may dictate the topics and types of studies researchers conduct, and funders' and decision-makers' needs may not align. What role can funding agencies play in increasing the use of evidence? What other stakeholders can play a role? *Probe on the role of advocacy groups or organizations promoting the evidence-based decision-making.*

D. Successful Use of Evidence

Now we would like to discuss those federal and/or state agencies that have successfully used evidence to inform decision-making.

D.1. What organizations or federal and/or state agencies do you think have been effective in using evidence for decision-making? Why have they been effective? *Probe on relationships between researchers and decision-makers at chosen organization, specific organizational characteristics, such as a "culture of learning and evidence-based decision-making," and the types of tools that have played a role in making organizations or state/federal agencies successful at using evidence (e.g. discussions/panels with experts, contracted evaluations,*

databases, data visualization tools, systematic reviews of evidence). Probe on the consistency of using evidence (one-time vs. ongoing use).

D.2. How would you replicate these strategies in other agencies/policy areas? *Probe for what elements are necessary to start and/or maintain a “culture of learning and evidence-based decision-making.”*

E. Wrap-up

E.1 [All respondents] What haven't we covered today that you think is important for us to know?

Thank you for your time and thoughtful feedback. Our plan is to analyze the data we captured today and in other interviews and put together a report for ASPE. The report will outline some opportunities and challenges with using evidence for decision-making/policymaking. We're also hoping to put together a technical expert panel on this topic sometime this fall. So stay tuned for more information about the report and panel.

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