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Improving Evidence-Based Policymaking: A Review

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Since 2015, the Robert Wood Johnson Foundation's Policies for Action (P4A) research program has been funding a growing body of work to understand how policies shape the root causes of health and survival, and, in particular, what *policy solutions* are needed to significantly boost population health, well-being, and equity in the United States.

Scholars at the Urban Institute, home of the national coordinating center for P4A, have been working closely with the Robert Wood Johnson Foundation, providing both strategic advice and programmatic support. We developed this review as part of our planning work together, to help sharpen our thinking and oversight of P4A and its potential impact in the policymaking field. We have always understood there is a long pathway between a single policy study (however rigorous or definitive) and a policy change (variously defined). We also know policymaking is rarely based solely on evidence—if it is informed by evidence at all—and that a well-established *body of evidence*, as opposed to a single research study, is a much stronger base on which to craft effective public policy. But for many reasons, even when well-established bodies of consistent evidence *do* exist, policymakers seldom consult or act upon them.

Like the P4A team, many others have been reflecting on evidence-based or evidence-informed policymaking, including how it is defined and understood; what it looks like in theory and practice; what conditions support or undermine it; and what, if anything, researchers (and funders) can do to help policymakers and others find and act on strong evidence. With these questions in mind, we conducted this high-level review of a rich and complex landscape, with the ultimate goal of understanding how evidence-based policymaking can be improved.

This review began in the spring of 2020, a uniquely disruptive and powerful time in our nation's history. The COVID-19 pandemic triggered profound social, economic, and political shocks and exposed long-standing societal fault lines by race and ethnicity, especially for Black Americans. The murders of George Floyd, Breonna Taylor, Jacob Blake, Ahmaud Arbery, and many other Black Americans and the nationwide protests that followed have opened many peoples' eyes to the profound impact anti-Black racism and other forms of oppression and exclusion have had on the lives of racialized and marginalized groups. Further, this racism has been built into most areas of public policy, the same policies that are the central focus of the P4A research program. Racism and its effects also extend into academia, academic publishing, and the research enterprise at large, limiting who has been able to shape research questions and conduct research, what people and places are the subjects of research, how research findings have been interpreted and disseminated, and what has been done

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on the basis of such findings. Viewing the long causal pathway from policy research (generating evidence) to policymaking (acting on evidence) through this lens is critical; without this essential understanding and insight, both the evidence and the policies they hope to inform will be inherently limited.

"Get me everything we have on poor people."

New Yorker cartoon by David Sipress. Reused with permission.

This review aims to unpack what we know about evidence-based policymaking and how it can be improved. This knowledge can advance at least three goals:

1. Increasing the production of sound evidence for policymaking, keeping in mind what constitutes evidence and who is involved in its generation
2. Improving the use of evidence (its ability to be acted upon) at all levels and stages of policymaking
3. Applying a racial equity and justice lens to both the production of evidence and its use in policymaking.

We began our review with a simple search for sources describing evidence-based policymaking (EBP). These sources included organizations with initiatives focusing on EBP, like the Urban Institute, which convened the Evidence-Based Policymaking Collaborative, a group of researchers from Urban, the Brookings Institution, the American Enterprise Institute, and the Pew-MacArthur Results First Initiative; Apolitical; and the William T. Grant Foundation; and scholars like Paul Cairney, Kathryn

Oliver, and Vivian Tseng, who have focused extensively on EBP throughout their careers. Later, as we sought to delve further into EBP's components, we extended our search to topics such as conceptual models of policymaking, democratizing and coproducing research, developmental evaluation approaches, practice-based evidence, social accountability, and bringing a racial equity and justice lens to policy research.

In the sections below, we begin by presenting a few definitions of EBP, along with examples of how it is being operationalized in the field and what barriers exist to EBP. Next, to shed light on how to overcome these barriers, we examine the individual components of EBP: evidence, policy, and policymaking. Finally, we present some ideas to help strengthen the pathway from policy research to evidence-based policymaking, focusing on how EBP can help dismantle oppressive and racist policies.

How Is Evidence-Based Policymaking Defined?

Americans have long shown interest in increasing the use of scientific evidence when developing and implementing public policies: In 1863, President Lincoln established the National Academy of Sciences to gather scientists who could advise the government on scientific and technical problems.[1] In 2016, Congress enacted the Evidence-Based Policymaking Commission Act to study and develop strategies for strengthening government evidence building and policymaking (CEP 2017). Their work paved the way for Congress to pass the Foundations for Evidence-Based Policymaking Act of 2018, which required "[federal] agencies to develop statistical evidence to support policymaking."[2] Alongside federal efforts, a number of individual states have committed to evidence-based policymaking. In 1983, Washington State created the Washington State Institute for Public Policy (WSIPP) to conduct policy research for the state legislature.[3] WSIPP is highly regarded as the model for state-level EBP. According to a Pew-MacArthur Results First Initiative report, 5 states (Connecticut, Minnesota, Oregon, Utah, and Washington) lead in evidence-based policymaking, 11 states have established EBP practices, and 27 have modest EBP practices (Pew-MacArthur Results First Initiative 2017).[4]

No widely shared definitions of evidence-based policymaking exist, but we present two recent definitions here. The Evidence-Based Policymaking Collaborative defines the term as using "what we already know from program evaluation to make policy decisions and to build more knowledge to better inform future decisions" (EBPC 2016). The Pew-MacArthur Results First Initiative defines EBP as "the systematic use of findings from program evaluations and outcome analyses ('evidence') to guide government policy and funding decisions" (Pew-MacArthur Results First Initiative 2017).

Given its central focus on programs and policies of interest to Washington State, WSIPP has developed its own definition of **evidence-based**:[5]

> "A program or practice that has been tested in heterogeneous or intended populations with multiple randomized and/or statistically controlled evaluations, or one large multiple-site randomized and/or statistically controlled evaluation, where the weight of the evidence from a systematic review demonstrates sustained improvements in at least one of the following outcomes: child abuse, neglect, or the need for out of home placement; crime; children's mental health; education; or employment. Further, 'evidence-based' means a program or practice that

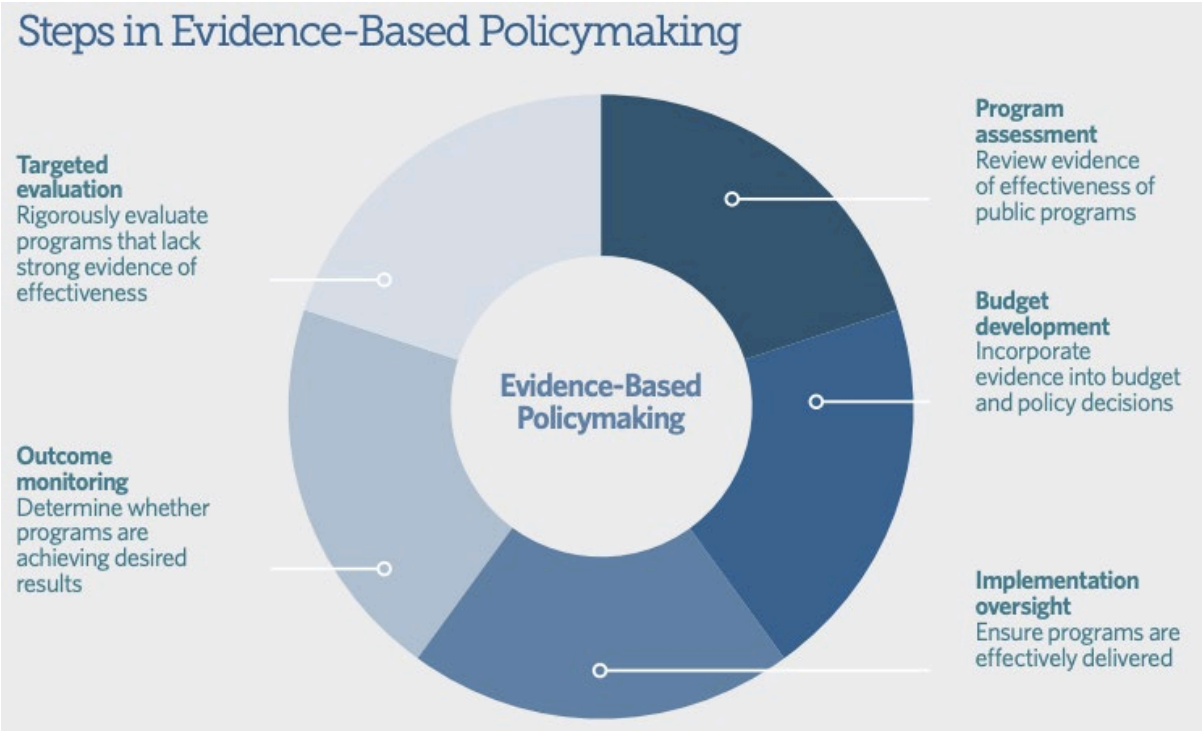
can be implemented with a set of procedures to allow successful replication in Washington and, when possible, has been determined to be cost-beneficial" (WSIPP 2020).

Though these definitions seem relatively straightforward, they reflect underlying principles that relate to both evidence and evidence-based policymaking. Based on a consensus among researchers spanning the ideological spectrum, the Evidence-Based Policymaking Collaborative developed these "first principles" of evidence-based policymaking: (1) "build and compile rigorous evidence about what works, including costs and benefits"; (2) "monitor program delivery and use impact evaluation to measure program effectiveness"; (3) "use rigorous evidence to improve programs, scale what works, and redirect funds away from consistently ineffective programs"; and (4) "encourage innovation and test new approaches" (EBPC 2016).

Similarly, the Pew-MacArthur Results First Initiative lays out five key steps that support evidence-based policymaking (figure 1). Notably, the definitions and principles above and in the figure focus on program evaluation as a major source of evidence for policymaking.

FIGURE 1

The Pew-MacArthur Results First Initiative's Steps in Evidence-Based Policymaking



Source: Pew-MacArthur Results First Initiative, *Evidence-Based Policymaking* (Washington, DC: Pew Charitable Trusts and the MacArthur Foundation, 2014). Reused with permission.

Given that the evidence base is continuously evolving and often inconsistent, some organizations have chosen to elevate the concept of evidence-informed policymaking**.** The Organisation for Economic Co-operation and Development, for example, defines evidence-informed policymaking as "a process

whereby multiple sources of information, including statistics, data, and the best available research evidence and evaluations, are consulted before making a decision to plan, implement, and (where relevant) alter public policies and programmes" (OECD 2020). The organization also uses a broad definition of evidence: "a systematic investigative process to increase or revise current knowledge that encompasses policy evaluation as well as scientific investigations" (OECD 2020).

Who Engages in Evidence-Based Policymaking and under What Conditions?

Given these definitions and principles, we next consider who is responsible for advancing evidence-based policymaking and how. Below, we provide a brief overview of this large and growing knowledge and practice base, which provides useful context for the sections that follow.

Actors

Many actors are involved in evidence-based policymaking, and their capacities, motivations, and relationships inform the roles they play in the complex pathway that links research to policymaking. First and foremost is the **policymaker,** who makes laws, policies, and programs that govern a specific group of people. Policymakers get information from a range of sources, and, as will be explored later, their decisions are affected and constrained by a range of conditions. Policymakers are also influenced by **advocates,** who represent a specific cause or agenda. Advocates often synthesize and gather information and evidence on a certain issue to affect public opinion and sway policymakers in ways that advance specific agendas. Some advocates also sponsor or partner with others to conduct research on a topic, or they conduct their own original research.

Those who produce evidence are another set of actors. Though **research scientists** are the primary producers of policy-related evidence, the boundaries of evidence production and consumption can blur. This is, in part, driven by the vast amount of research available to the typical policymaker today. As Paul Cairney observes, scientists can act as "sifters, synthesizers, and analyzers" to help policymakers who may not have time to consider all of the research and information coming their way.[6] Similarly, policymakers are often expected to know "what works" when selecting policies to achieve various goals.

In addition to those who make policy, governments need **analysts and technical staff** who can help design and evaluate programs. Sometimes, governments use **intermediaries,** or "knowledge brokers," like think tanks, universities, and issue-based collaboratives. These entities can bridge research and policy and produce research tailored to policymakers' needs.[7] In many cases, outsourced contractors (who may also be intermediaries) design and evaluate programs. Sometimes, policymakers access research through hubs or online clearinghouses that aggregate research on specific topics. Also important and less frequently discussed are **funders** of research and **practitioners,** who bring their own agendas, perspectives, and expertise to EBP. Funders can support research specifically oriented toward policy development and analysis, as the Robert Wood Johnson Foundation has done through the P4A research program. Similarly, one study of complex interventions to improve health argues that "knowledge generation comes from the hands of practitioners/implementers as much as it comes from those usually playing the role of intervention researcher" (Hawe 2015). All of these actors may have

different capacities and motives to engage in EBP, and understanding both is critical to strengthening the pathway from policy research to policymaking. Finally, the value of participatory research, which centers **community members**, is increasingly being recognized, as we discuss in a later section.

Enabling Factors

The growing literature on EBP also sheds light on what environments enable the use of evidence by policymakers and their influencers. Pew-MacArthur Results First Initiative (2017) finds states leading in EBP have clear legislative mandates, requirements to report on whether a program or policy is evidence based when making funding requests, registries and databases of evidence-based programs, and technical assistance for programs that do not meet evidence thresholds. Additionally, many states are working to develop interagency data agreements to simplify linking person-level data across agencies and are creating scientific advisory posts and commissions to embed scientific research in policy. An Evidence-Based Policymaking Collaborative report on state-level EBP explicitly states **dedicated staff** and **line items in the state budget** are needed to ensure EBP is sustainable (Scott and Oliver 2018). For example, the report contends governors' offices should dedicate staff to conduct analytical or technical tasks, inform the budget office about their focus on evidence and seek their support with performance measurement, hire staff who understand the value of research and data, and train staff lacking experience or familiarity with data and evidence. WSIPP is a strong state-level example of these requirements in practice. At the direction of the state legislature, WSIPP conducts targeted reviews of the research literature on program impacts, costs versus benefits, and the quality of evidence so policymakers can easily access information on what works, for whom, and at what cost.

Beyond the more concrete operational, staffing, and budgetary infrastructure needed to facilitate EBP, organizations also need to foster an **environment** in which procuring and using evidence is prioritized and a **culture** in which outcomes are monitored and improved based on evidence. Both should be **clearly communicated** to government staff, elected officials, and the public. As Vivian Tseng of the William T. Grant Foundation explained,

> "An infrastructure that supports research use requires installing the **deliberative social spaces** that allow routine engagement with research in policymaking and policy implementation. It also means **setting up the political conditions** that enable research to be productively considered alongside values in our democracy."[8]

An Urban Institute report on state-level EBP found governors need to "successfully message the importance of research and evidence" (Nightingale and Scott 2018). The report suggests governors can do so using (1) a "customer service theme" that touts efficiency and thrift as reasons to evaluate programs or (2) a "social impact theme" that characterizes EBP as a "tool to empower government and its programs to know 'what works,' tackle social ills, and generate positive outcomes for citizens" (Nightingale and Scott 2018). Governors may also establish a "research cabinet" to serve as both a receiving ground for research input and to signal the importance of research and evidence in policymaking.

Approaches

The literature describes at least two approaches for EBP. The first and more common is **evaluating current programs** for evidence of their effectiveness. As shown in figure 2, the Pew-MacArthur Results First Initiative (2017) identifies six actions of EBP. The first two involve defining levels of evidence and inventorying *existing* programs to distinguish between programs that have or have not been evaluated (and classifying those that have by level of evidence). Policymakers can update these inventories and evidence reviews periodically, include information on costs and benefits, and use this information to inform policy and budgetary decisions. WSIPP uses this approach, and it provides a comprehensive summary of what can be an extensive, dynamic, and complex evidence base.

FIGURE 2

The Pew-MacArthur Results First Initiative's Actions of Evidence-Based Policymaking

Source: Pew-MacArthur Results First Initiative, *How States Engage in Evidence-Based Policymaking: A National Assessment* (Washington, DC: Pew Charitable Trusts and the MacArthur Foundation, 2017). Reused with permission.

The second EBP approach involves **generating and introducing new evidence** that can both lead to the creation of entirely new programs and policy approaches and refine existing ones. For example, the Florida Department of Juvenile Justice holds multistakeholder working groups at industry conferences where policymakers and researchers convene to discuss new research or data-sharing goals.[9] Though more common at the federal level, some state agencies have even created **research or learning agendas** that identify specific knowledge gaps and plans for how to fill these gaps by commissioning new research or research reviews. When creating learning agendas, agencies can also gather input from external stakeholders like researchers, interest groups, professional associations, and practitioners (Schupmann et al. 2018). For example, the Tennessee Department of Education partnered with the

Peabody College of Education and Human Development at Vanderbilt University to develop a research agenda to address gaps in teacher development (Reynolds and Ramakrishnan 2018).

What Are Some Challenges or Barriers to Evidence-Based Policymaking?

Opinions differ greatly about what constitutes evidence, or high-quality evidence, for policy development and related uses. In the following sections, we examine debates about what constitutes the three main components of EBP: evidence, policy, and policymaking.

Debates about What Constitutes Evidence

As Paul Cairney has explained, "A reference to *evidence* is often a shorthand for scientific research evidence, and *good* often refers to specific research methods (such as randomized controlled trials)."[10] Lively debates among policy researchers and social scientists, even within the same academic discipline, are common. Prominent scholars often have different interpretations of the same findings or prioritize different limitations to the data or methods in a given study. Sometimes the same data are reanalyzed years or even decades after they were first collected, yielding new findings with new implications for policy and practice. What's more, the differing timelines under which researchers and policymakers operate affect the usefulness of research evidence. It can take years—and sometimes decades—to assess the full impacts of policy or program change. And these longer time frames often conflict with the shorter term limits of policymakers and their staffs.

The Evidence-Based Policymaking Collaborative borrows its definition of evidence from the *Oxford English Dictionary*: "the available body of facts and other information indicating whether a belief or proposition is true or valid, in this case regarding the impacts of programs" (EBPC 2016). The Pew-MacArthur Results First Initiative (2017) defines evidence as "findings from program evaluations and outcome analyses." The Commission on Evidence-Based Policymaking recognizes evidence is any "information that aids the generation of a conclusion," or more specifically, "information produced by 'statistical activities' with a 'statistical purpose' that is potentially useful when evaluating government programs and policies" (CEP 2017). The commission outlines four different types of evidence:

1. "Descriptive statistics," which describe patterns and circumstances
2. "Performance metrics," which help with evaluating a policy's impacts and effectiveness
3. "Implementation and process studies," which show if policies and programs are being implemented in ways that align with their goals
4. "Impact evaluations," which illuminate whether programs and policies are achieving desired results (CEP 2017)

The global learning platform for government, Apolitical, also categorizes evidence into four groups:

1. Statistical and administrative data (used for government record keeping)
2. Analytical evidence (which emerges from social and natural sciences research to explain causality)
3. Evidence from citizens and stakeholders
4. Evidence from evaluations[11]

Many in the EBP field have developed different *levels* of evidence that reflect varying strength, quality, or reliability. As in the biomedical research field, evidence from randomized controlled trials (RCTs) is considered the most rigorous form of evidence in EBP. RCTs are less common in the policy research field, in part because they have a number of limitations:

- RCTs are expensive, often take a long time, are difficult to replicate, and are limited by ethical considerations (e.g., many health studies exclude people with complex health conditions, rural residents, and people of color).
- RCTs typically rely on quantitative rather than qualitative data and are specific to the contexts within which the evaluated program or intervention is nested; these contexts may not lend themselves to being measured or controlled as part of a scientific experiment, which can be critical to understanding real-world impacts.
- RCTs are often statistically underpowered, leading policymakers and others to interpret the absence of statistical significance as an absence of effect. Studies exploiting big data can identify much smaller effect sizes, but this also privileges the interventions that can be evaluated using big data.
- RCTs do not necessarily generate statistically rigorous, causal evidence in the way many adherents argue, because the results are often not transferable to other contexts. This makes RCT evidence less useful for some policymaking purposes.[12]

When appropriate and feasible, rigorous evaluations based on RCTs and other controlled or natural experiments can provide valuable evidence for decisionmakers and practitioners. As researcher Peter Toon explained,

> "Silver, bronze and stainless steel have their uses as much as gold, and other research designs make their particular contributions to the evidence base of practice too. Also, different research approaches reveal different kinds of insight into the whole picture. Good qualitative research gives insight into 'why' and 'how' questions which no RCT, no matter how well designed, can answer" (Toon 2014).

Broadening the types of evidence used to inform policy beyond RCTs and controlled experiments can improve both the quantity and quality of research important to policymaking. It can also help address traditional power imbalances and inequities within the research enterprise and between researchers and the people or places being studied. We return to this topic in the final section of this paper.

Debates about What Constitutes Policy

Policy is a widely used but rarely defined term. Here we look at various definitions to understand the many dimensions of a policy, especially a public policy.

The Centers for Disease Control and Prevention (CDC) defines **policy** as "a law, regulation, procedure, administrative action, incentive, or voluntary practice of governments and other institutions."[13]

Drawing from Anderson (2003), a recent Urban Institute paper described **public policy** as, "formal actions by governing bodies and officials that establish goals, requirements, and regulations—and in some cases resources and funding—to address past, present, or future public problems and/or community needs" (Fedorowicz et al. 2020).

The Center for Civic Education defines a public policy as "simply what government (any public official who influences or determines public policy, including school officials, city council members, county supervisors, etc.) does or does not do about a problem that comes before them for consideration and possible action."[14] The center also outlines several key attributes of a public policy, saying policy is what the government chooses to do or not do; a law or regulation intended to improve the problem; instituted for the public; intended to achieve specific outcomes; enacted by government, even if the ideas come from outside of it; and part of a continuous cycle of assessment and revision.

The book *Creating Adaptive Policies: A Guide for Policymaking in an Uncertain World* defines policy as a "broad statement of purpose and process for addressing a particular social, economic or environmental issue" (Swanson and Bhadwal 2009). The editors also add the following:

> "The intent of a policy is implemented via policy instruments such as regulatory (for example, laws and regulations); economic (for example, taxes, subsidies); expenditure (for example, research and development, education and awareness, targeted projects and programmes); and institutional instruments (for example, sector strategies)" (Swanson and Bhadwal 2009).

These definitions illustrate the many ways policies are understood in the EBP field. As Paul Cairney has argued,[15] several factors complicate the definition of policy, including that it may refer to the effects of a decision as well as the decision itself, involve elected and unelected policymakers, and even include what policymakers *don't do*.

Debates about What Constitutes Policymaking

Policymaking has been the subject of much research, conceptually and otherwise. Here, we present several models from the literature; some are from policymaking bodies, such as the CDC, some are from nonprofits and community-based organizations, and others come from EBP scholars such as John Kingdon and Paul Cairney. A quick review of these models reveals the breadth and complexity of policymaking and the multiple (potential) roles of evidence within the process.

Many models depict policymaking as a *process* with distinct steps, such as that from the CDC (figure 3).[16] It delineates five distinct (in this case circular) steps for policymaking while centering evaluation

and stakeholder engagement and education. What's more, the arrow representing evaluation and its placement suggest even the very first steps in the process (problem identification and policy analysis) are informed by prior evaluations, and the entire cycle is continuous and iterative. This diagram does not explicitly mention data collection and analysis; rather, the CDC places "reviewing research literature, conducting an environmental scan, and surveying best practices to understand what other communities are doing" as a first step of the policymaking process.

FIGURE 3

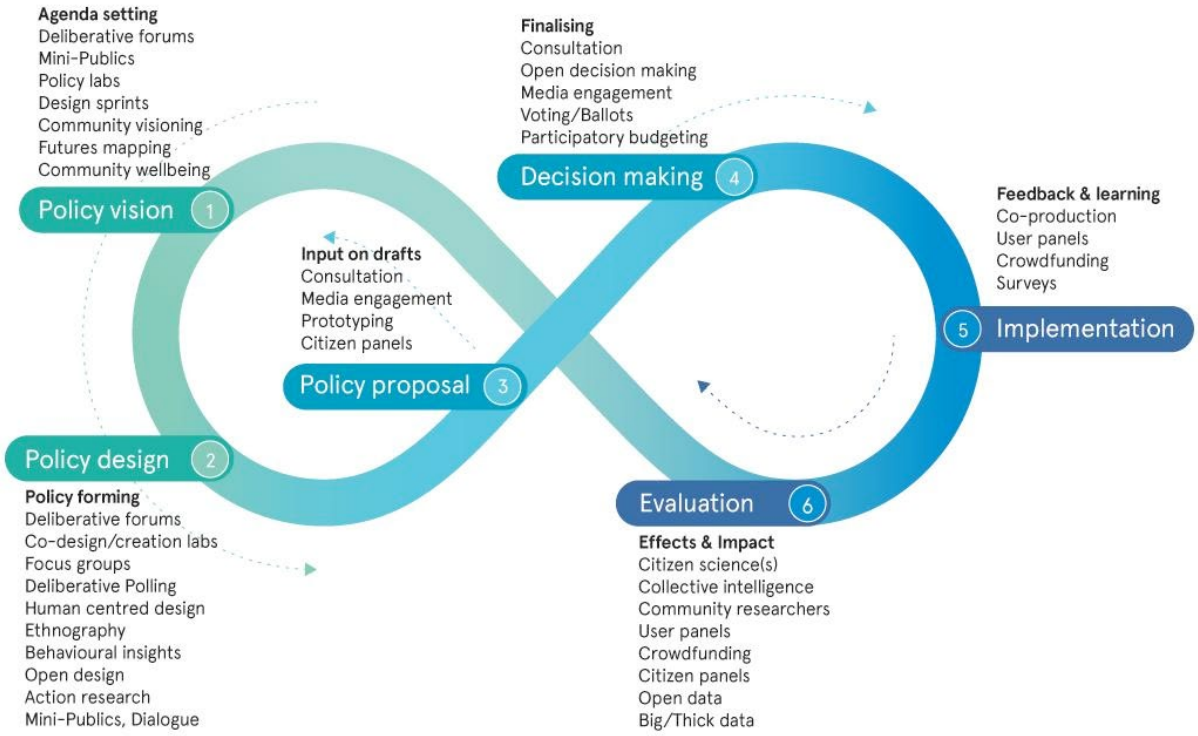
The Centers for Disease Control and Prevention's Policy Process

Source: "Policy Process," Centers for Disease Control and Prevention, last reviewed January 2, 2019, https://www.cdc.gov/policy/polaris/policyprocess/index.html. Reused with permission.

In figure 4, policymaking is again depicted as an iterative process. Like the CDC figure, it depicts how the final phases of policymaking loop back to a new beginning phase. A compelling aspect of this policy change model is that it provides concrete examples of ways participatory decisionmaking can be applied at *every step* in the policymaking process.

FIGURE 4

Simon O'Rafferty's Policy Cycle



Source: Simon O'Rafferty (@simonorafferty), diagram of the policy cycle, Twitter, June 27, 2019, https://twitter.com/simonorafferty/status/1143979896835837952. Reused with permission.

Figure 5 shows Paul Cairney's policymaking model. It differs from the other models in that it does not delineate steps or stages; rather, it depicts the many factors that influence policymaking. At its center is the policymaker's choice (which is, as Cairney argues, based on rational and irrational choices), surrounded by elements of the "policy environment" that constrain or facilitate that choice.[17] Cairney argues all situations where people make decisions exist within an *institution*, which in turn has "formal and written, or informal and unwritten rules of policymaking."[18] Most importantly for our purposes, Cairney finds that evidence alone is unlikely to lead to policy change, precisely because so many environments constrain such action. Cairney and Kathryn Oliver have noted that policymakers typically

use not one but two shortcuts to make decisions: one is rational, "pursuing clear goals and prioritizing certain sources of information," and one is irrational, "drawing on emotions, gut feelings, beliefs and habits to make decisions quickly" (Cairney and Oliver 2017). This is perhaps why Cairney's diagram focuses less on steps and more on environmental contexts and determinants.

FIGURE 5

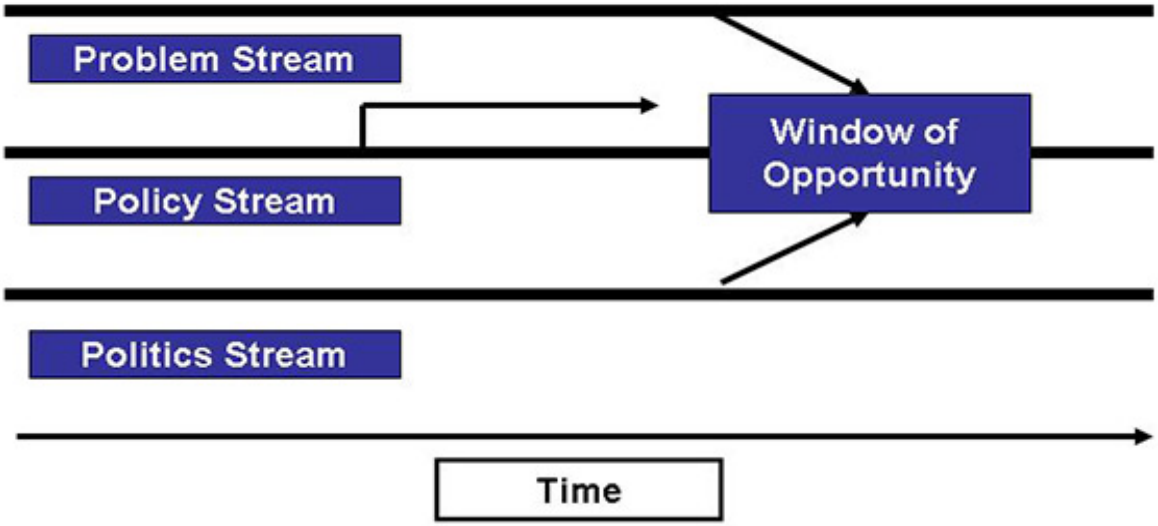
Paul Cairney's Policy Process

Source: Paul Cairney, "5 Images of the Policy Process," *Paul Cairney: Politics and Public Policy* (blog), July 10, 2017, https://paulcairney.wordpress.com/2017/07/10/5-images-of-the-policy-process/. Reused with permission.

Finally, figure 6 depicts the well-known policy change model from Kingdon (1984). It is based on the idea that three streams—problem, policy, and politics—must come together within the same time frame or window of opportunity to shape policy. Like Cairney's model, it avoids displaying policy change as a series of discrete steps. But unlike Cairney's model, it focuses on the *conditions* that seem to facilitate policy change, rather than the cognitive choices that relate to policy change.

FIGURE 6

John W. Kingdon's Policy Change Model



Source: John W. Kingdon, *Agendas, Alternatives, and Public Policies* (Boston: Little, Brown and Company, 1984). Reused with permission.

Together, these models illustrate how policy change is anything but a simple technical or transactional process. Rather, it is complex and dynamic and can depend on factors difficult to control, including political agendas and institutional conditions. Further, evaluation activities can occur at all phases of policymaking (figure 3), inputs and evidence can come from multiple sources and methods (figure 4), many factors and environments influence decisionmakers (figure 5), and timing is often the most important component to whether a policy gets made (figure 6).

Research and evidence often play implicit roles in these models, and different types of evidence can be leveraged at multiple points in the process or across multiple environments. As Vivian Tseng explains, "If we acknowledge that policy and practice will never be based solely on evidence, then we can get on with figuring out how evidence can be better integrated into decision making alongside values and politics."[19] All of these models suggest that though research evidence may compete with other influences on policymakers and policymaking (if it is considered at all), tremendous opportunities exist to bring different research to bear at various stages of policy development. But these opportunities need to be identified and acted on with intention and care.

Rethinking Evidence-Based Policymaking

Frameworks and visuals are necessarily simplifications of complex processes and environments. Still, some themes have emerged related to the three key goals of this review: (1) increasing the production of sound evidence for policymaking purposes, keeping in mind what constitutes evidence and who is involved in its generation; (2) improving the use of evidence (its ability to be acted upon) at all levels and stages of policymaking; and (3) applying a racial equity and justice lens to both the production of evidence and its use in policymaking.

Rethinking Evidence and Policy Research

Traditional approaches to evidence-based policymaking often draw on RCTs, quasi-experimental methods, or cost-benefit analyses to test the effectiveness of interventions already in place. But these studies are often tightly controlled or highly selective and may not benefit from the rich insights of practitioners, community members, or people with lived experiences. Often, the evidence collected focuses on outcomes rather than processes and organizational capacities to implement an intervention. Even implementation studies and evaluability assessments tend to focus more on the ability to implement an established model or intervention with consistency or fidelity to a preestablished model, rather than the ability to adapt the approach to different contexts and circumstances (Blase and Fixsen 2013).

In this section, we present six approaches for broadening the types of evidence that can inform and strengthen policymaking and make it more actionable. Though some of these are aspirational, there are many ways to advance evidence-informed policies, make the policymaking process more inclusive and transparent, and replicate the core components of an intervention without being beholden to exact replication. The first three approaches suggest new sources of evidence for policy research and expand EBP's focus beyond an emphasis on program results to include systems change. The next two address how to make research and evidence gathering more inclusive. The final approach suggests a new role for funders of policy research.

CAPTURE LEARNINGS (AND NOT JUST EFFECTS OR IMPACTS)

Though traditional interpretations of evidence-based policymaking focus on program-level studies and evaluations, many systems science scholars argue EBP currently has too narrow a focus for the complex society we live in. A broader understanding of what constitutes evidence will go beyond outputs and outcomes to look at processes and dynamic implementation. Nora Bateson calls this type of evidence "warm data," or, "information about the interrelationships that connect elements of a complex system."[20] Similarly, Lisbeth Schorr has said, "To get better results in this complex world, we must be willing to shake the intuition that certainty should be our highest priority. We must draw on, generate, and apply a broader range of evidence to take account of at least five factors that we have largely neglected."[21] According to Schorr, those factors are the nuances of successful complex interventions, on-the-ground evidence showing the complexities of implementation, the need to tailor interventions and policies to local contexts, the importance of context to successful interventions, and continuous education to inform future action.

These factors are less likely to be neglected in developmental evaluations. Such evaluations are rooted in two main philosophies: (1) that interventions are complex and should be understood in their local context and (2) that capturing lessons learned from policy implementation differs from capturing impacts or findings and is critical to systems change.[22] The shift from RCTs to developmental evaluations changes evidence from what B. R. Flay described as an "efficacy trial,"[23] or an intervention designed to test "optimum conditions of program implementation and recipient participation," toward an "effectiveness trial," which seeks to understand the "real-world conditions associated with community-level implementation" (Hawe 2015). Better understanding real-world conditions is necessary for policy and systems change and mitigates the harms of one-size-fits-all policies that fail to accommodate highly variable local conditions and capacities.

Organizational development and evaluation expert Michael Quinn Patton states developmental evaluation is "grounded in systems thinking and supports innovation by collecting and analyzing real-time data in ways that lead to informed and ongoing decision making as part of the design, development, and implementation process" (Patton 2010). In particular, developmental evaluations are a good fit for policy change when the path to success is unknown. As one FSG blog post notes, "By focusing on understanding what's happening as a new approach is implemented, [developmental evaluation] can help answer questions such as:

- What is emerging as the innovation takes shape?
- What do initial results reveal about expected progress?
- What variations in effects are we seeing?
- How have different values, perspectives, and relationships influenced the innovation and its outcomes?
- How is the larger system or environment responding to the innovation?"[24]

Finally, developmental evaluation relies heavily on practitioners and program staff during the research process. Under developmental evaluation, researchers benefit from practitioners' deep knowledge about interventions and outcomes, the contextual influences on both, and what measures and data collection tools are most appropriate for the issues and populations involved.[25] It is also important to remember, however, that practitioners and the service systems they work within can face limitations and have their own distinct agendas. Further, their practices and policies may not be based in evidence or in the best interests of those they serve.

EVALUATE INDIGENOUS INTERVENTIONS

Centering real-world conditions can reveal new knowledge and evidence. Indigenous interventions are policies and programs that are developed locally and often have evolved as local resource capacity opportunities and limits dictate, and they "reflect the values of local practitioners and host organizations" (Hawe 2015). Unlike policies and programs first developed and tested by researchers and then disseminated into communities, policy research on indigenous interventions "reverses traditional notions of the point in the knowledge development cycle when external validity is considered" (Hawe 2015). Further, "Rather than investigators being concerned about generalizability

after an intervention is shown to work, relevance and ecological fit (aspects of external validity) are considered first" (Hawe 2015).[26] Research on indigenous interventions is also more likely to capture local organizational capacity to implement programs and ensures "programs are congruent with the values of at least some organizations that also have the capacity to implement them" before programs are implemented in other communities (Miller and Shinn 2005). To put this approach into practice, Miller and Shinn (2005) suggests researchers should, "locate, study, and help disseminate successful indigenous programs that fit community capacity and values."

APPLY CRITICAL RACE THEORY TO POLICY RESEARCH

Many research studies contain a short background section that describes the historical context for the current research. In policy research, these sections describe the historical context for previous policy actions, the previously implemented policies that relate to the policy of interest, and how those policies' successes or failures or new evidence have led to the need for new policy research. In today's policy research environment, many research organizations have begun using these sections to describe how structural and institutional racism, discrimination, and oppressive policies have harmed and held back people of color and other marginalized groups. Historically, these sections have only described the disadvantages faced by people of color, but they increasingly name the forces that created and perpetuate these disadvantages. Though this is a step in the right direction, critical race theory suggests investigation into racist and oppressive policies should not just be part of the background; it should be a core component of the investigation. After all, the policies and programs we research today are still shaped by these forces. As argued by Alan Weil, the executive editor of *Health Affairs*, in a recent blog post, "Despite racism's alarming impact on health, and the wealth of scholarship that outlines its ill effects, preeminent scholars and the journals that publish them, including *Health Affairs*, routinely fail to interrogate racism as a critical driver of racial health inequities."[27]

To operationalize this approach, researchers must acknowledge evidence is not limited to findings from program evaluations and outcome analyses. Evidence also arises from studying the systems, powers, and values that constrain policy development and program uptake. Thus, improving evidence-based policymaking requires interrogating structural racism and oppressive systems and treating them as evidence of why a policy or program may not be effective (or may *appear* less effective for nonprivileged groups than they are for privileged groups). Another way to promote this type of interrogation is encouraging partnerships between research fields (e.g., economists and critical race theorists) to more holistically identify and capture the impacts of structural racism.

Critical race theory also challenges researchers to reflect on "the ways in which race and racism matter for what research is produced, which research is used, and who benefits from the ways research is deployed."[28] For example, much research evidence is based on findings from white communities, and though it might seem obvious, researchers and policymakers often fail to understand or acknowledge that such findings do not translate to communities of color. As David E. Kirkland explains, "The use of research evidence is not only embedded in systems of power, it *is* a system of power" (Kirkland 2019). He further argues data are not neutral, as some might posit. This does not mean that data should not be used but that we should approach them differently. Kirkland, by way of Ibram X. Kendi, suggests

research teams "be composed in ways that allow for checks against all racist impulses and ideas" and says grants should "incentivize researchers to always include diverse and critical perspectives in the conception and design of the work" (Kirkland 2019). Coproducing research with community members, which we discuss later, can contribute toward this goal.

ENGAGE PRACTITIONERS IN RESEARCH DESIGN

An increasing number of scholars now emphasize the importance of including practitioners in evidence production and knowledge generation for policy research, as noted in Hawe (2015). Similarly, a new campaign from Project Evident, the Next Generation of Evidence, highlights that an improved evidence ecosystem for the public sector would center practitioners. Further, the project calls on researchers to partner with practitioners to determine what questions get researched and how findings are used.[29] One more common way practitioners are involved in research design (and, conversely, that researchers can help inform program and policy design) is through technical advisory groups.

Engaging practitioners in research design has some benefits, such as gearing research toward learning and continuous improvement and helping researchers understand whether an intervention has achieved its intended results (and if not, why not). This is perhaps why Lisbeth Schorr lists "practice-based evidence that spotlights the realities and subtleties of implementation that account for success" among the many factors that have been overlooked in evidence-based policymaking in the past.[30] For example, traditional evidence-based policymaking models focus on whether an intervention was effective in achieving results (as in the earlier definitions of EBP). Here, "effective" means the intervention has achieved a greater benefit than cost and has met certain, usually quantitative, targets. However, this model largely considers *if* an intervention is effective and not *how* or *why*.

One *Annual Review of Public Health* article on improving the reach of public health noted that shifting toward practice-based evidence "acknowledges that efficacy or effectiveness is only one of many pieces of information required to make the case that an intervention will ultimately impact public health" (Ammerman, Smith, and Calancie 2014). As the authors explain,

> "Practice-based evidence first requires a deep understanding of the challenges faced by both those who deliver and those who receive the intervention. This method generally requires formative work in the community and the use of partnership models such as community-based participatory research, where both the public health intervention and the research strategy are informed by the combined wisdom and experience of health care consumers, practitioners, and researchers" (Ammerman, Smith, and Calancie (2014).

Engaging practitioners in research design can also increase practitioners' uptake of research evidence more broadly and the many ways they seek to influence policy (e.g., through professional associations and interest groups).

A health impact assessment (HIA) is an example of how to engage practitioners in research design. According to one Urban Institute analysis, an HIA is a "process that involves stakeholder engagement, literature review, quantitative assessment, and the application of public health expertise to identify non–health sector policies or programs" (Stacy et al. 2019). For that analysis, Urban researchers studied

an HIA led by a local neighborhood revitalization nonprofit in Memphis. The HIA included city code enforcement staff and public health experts to examine how to better use municipal code enforcement to promote public health. Engaging practitioners in the HIA's design led the team to identify gaps in service and coordination between the city and county, which would not have been surfaced without the practitioners' engagement (Stacy et al. 2019).

COPRODUCE RESEARCH WITH COMMUNITY MEMBERS

Like many of the approaches above, *coproducing research with community members* acknowledges that research agendas should be more responsive to community needs and that researchers should share power in generating knowledge. People of color and other research users not traditionally included in policy research face barriers to participating in research (Oliver and Boaz 2019). This is especially concerning when we consider that much policy research is (purportedly) intended to benefit underserved populations, for whom many policy interventions are designed. Understanding our power as researchers requires asking questions like, "Who is able to participate in the practice and evaluation of research? Who is able to ask and answer research questions? What questions are being asked and why? Who gets to influence research agendas?" (Oliver and Boaz 2019). It would also be worth exploring how incorporating such questions has affected the research agenda for organizations with longer histories of asking these questions.

Given that racism and other forms of discrimination and marginalization significantly affect many Americans' life circumstances, researchers would be wise to democratize evidence and redress power differentials between researchers and those affected by policy research. This can be done through models like research coproduction and community-engaged research.[31] (Figure 4 shows other ways to engage the public in policymaking.) In these models, community members work alongside researchers to develop research questions and identify the data needed to answer them. Further, community members help collect, analyze, and disseminate the data. These methods do not, however, automatically create equal standing between researchers and community members. Redressing power differentials requires actively acknowledging existing power structures, reconsidering who holds knowledge and expertise, and redistributing resources and responsibilities within a project. A guide on coproducing research from the national advisory group INVOLVE lays out several principles for coproduction: "sharing of power," "including all perspectives and skills ," "respecting and valuing the knowledge of all those working together on the research," "reciprocity," and "building and maintaining relationships" (Hickey et al. 2018).

Coproducing research with community members has several benefits for EBP. It can lead to more culturally responsive research that speaks directly to the opportunities and challenges that communities face, lead to more effective programs and policies and increase program take-up, and empower individuals and communities.[32]

RETHINK THE ROLE OF FUNDERS

Though researchers play a major role in generating evidence for policymaking, funders also play a critical role. By choosing what and who to fund, funders wield tremendous power in shaping research

priorities, and in turn, evidence-based policymaking. Indeed, some funders have adopted "tiered-evidence grantmaking" (Poethig et al. 2018), in which they require grantees to evaluate their work and award more funding to interventions with stronger evidence.

Funders' power extends beyond financial resources. Many—especially philanthropic, corporate, and community-based funders—have substantial influence in the communities in which they operate and can advocate for specific policy priorities. For example, the Anne and Henry Zarrow Foundation funds the Healthy Minds Policy Initiative, a team of policy and mental health experts who collaborate with local and state-level policymakers to develop data-informed policies for the prevention and treatment of mental illnesses in Oklahoma.[33]

Funders can advance equity-oriented policy research in myriad ways, including ways that can inform the creation of long-overdue antiracist policies. First, as Oliver and Boaz (2019) notes, shared empirical and theoretical evidence on the production of evidence and its use in policymaking is scarce. To respond to this gap, the authors suggest funders invest in research about how to better use evidence and how to build the communities needed to act on this knowledge. The William T. Grant Foundation is an exception to this trend; it has a dedicated focus area on improving the use of research evidence in ways that benefit youth, and it issues grants to researchers to identify, build, and test strategies to enhance the use of research evidence.[34]

Second, funders can reflect on their own power and privilege in relation to those of their grantees and work to share decisionmaking with the communities they seek to benefit. According to *Power Moves*, a philanthropy assessment guide for equity and justice created by the National Committee for Responsive Philanthropy, funders "need to be explicit about the goal to advance equity, explore cross-cutting approaches, and stick with it for the long term" as well as "engage with and solicit input from the communities [they] seek to benefit, going beyond the usual suspects."[35]

Finally, beyond their financial resources, funders can deploy their reputational and political capital. To advance equity and justice, *Power Moves* suggests that "in addition to convening, funders need to also play a supportive participant role at other convening tables, and organize and raise awareness by using reputation and expertise to bring visibility to critical issues."[36] These practices allow funders to participate in and support more equitable and inclusive policy research.

Rethinking Policy

Though the policy definitions we present above are somewhat broad, the field of evidence-based policymaking could benefit from a refreshed look at what a policy is and how it is combined with other tools to effect change. In the two approaches presented below, we highlight ways policy researchers can think about what they are studying that could increase policymakers' take-up of their research.

THINK OF POLICY AS PART OF A COMPLEX INTERVENTION

A complex intervention is "an intervention that contains several interacting components" (Craig et al. 2019). As discussed in the section on developmental evaluation, policymakers and practitioners increasingly use complex interventions to tackle today's societal problems. This is because they and

others increasingly acknowledge such problems are not tied to one sector alone but, instead, are cross-cutting and complex. For example, the housing affordability crisis is, in part, an inability of the housing sector to meet the country's housing needs. But it is also connected to systems and policies related to education, employment, transportation, and financial lending. Further, affordable housing issues are also affected by community organizing, nonprofit programs, financial institutions, and philanthropic investments. Therefore, a complex intervention designed to address the affordable-housing shortage might include components from all of these areas.

Understanding the complexity of today's challenges is integral to dismantling racist and oppressive policies, or policies that preserve or increase inequities by race and other dimensions of marginalization or exclusion. Racism, discrimination, and oppression are deeply embedded in most areas of American policymaking; it is nearly impossible to solve challenges in one policy sector without solving a challenge in at least one other sector or to solve challenges using only one tool. Consequently, policymakers and their partners increasingly discuss systems change (rather than program change), using complex interventions (rather than single policies), and forming collective impact collaboratives (rather than working solo).These new approaches can be challenging and costly, but so, too, are the many unattended problems they seek to address.

Complex interventions have many components. When studying the policies that constitute a complex intervention, researchers should consider why a specific policy has been included in the intervention. To do this, they might consider how the policy connects to

- the problem the intervention seeks to solve,
- other policies that have been or are being used to address the problem, or
- the other policies and programs that make up the complex intervention or context for the intervention.

This final connection leads to another component of complex interventions researchers can investigate: understanding how *linking* a set of policies and programs might change outcomes. Here researchers might investigate whether linkage

- changes relationships among stakeholders;
- aligns and amplifies other related efforts;
- extends reach to people or places that have been otherwise excluded or marginalized;
- delivers cost savings or rebalances investments toward bettering human potential and well-being (e.g., supportive services as opposed to surveilling and policing);
- addresses multiple levels of a community problem (e.g., individual, organization, and systems levels); and
- expands or redirects resources so they can be used in new, empowering ways, especially to the benefit of people or places that have long endured disinvestment or marginalization.

We can also apply these questions to our examination of EBP. If researchers think of EBP as part of a broader policy solution, agenda, or complex intervention, they must also examine the *interconnection* of policies and try to find evidence of how related policies (and their enabling environments) contribute to or undermine a given policy's ability to solve a problem. In other words, evidence gathered to determine a policy's effectiveness should examine not only the policy itself but how it connects to other policies and programs and changes relationships among stakeholders to bring about systems-level change.

GATHER EVIDENCE TO ENABLE CREATING ADAPTIVE POLICIES

In addition to using complex interventions, policymakers, practitioners, and scholars increasingly acknowledge many policies are too static and inflexible to solve society's complex and systemic problems. In response, some scholars have called for the development of more adaptive policies, or "policies that have both (a) internal instruments or methods to respond to changes over time and (b) an explicit learning orientation for the people charged with policy implementation" (Carey et al. 2015).

Similarly, Swanson and Bhadwal (2009) notes that adaptive policies can adapt to anticipated *and* unanticipated outcomes. Carey and colleagues (2015) outlines four key features of adaptive policies taken from Swanson and Bhadwal (2009). In essence, adaptive policies

- function well in expected conditions without requiring modifications,
- have systems for monitoring and flagging changes that will affect performance,
- include adjustment prompts (e.g., review processes) that allow the policies to continue or cease performance, and
- ideally, can adapt to unexpected changes in context.[37]

Because they are more flexible and responsive, adaptive policies can more quickly redress unintended consequences that arise from their implementation. However, like all policies, adaptive policies must be designed carefully to fulfill their intended goals. If the goals center equity (racial or other), the policy must be designed and refined with these goals in mind. Adaptive policies can produce positive outcomes, especially if strong evidence is used to design monitoring systems and adjustment triggers.

Rethinking Policymaking

Multiple definitions and conceptual models of policymaking confirm policy change is complex and dynamic and influenced by various actors, environments, choices, and constraints. Further, evidence is rarely the sole or even primary impetus for a policy change. This insight alone has important implications for how to better connect evidence—and the broader policy research enterprise—to policymaking. The three approaches below describe how policymakers and research scientists can better work together to promote the use of evidence.

REASSESS HOW POLICYMAKERS USE EVIDENCE

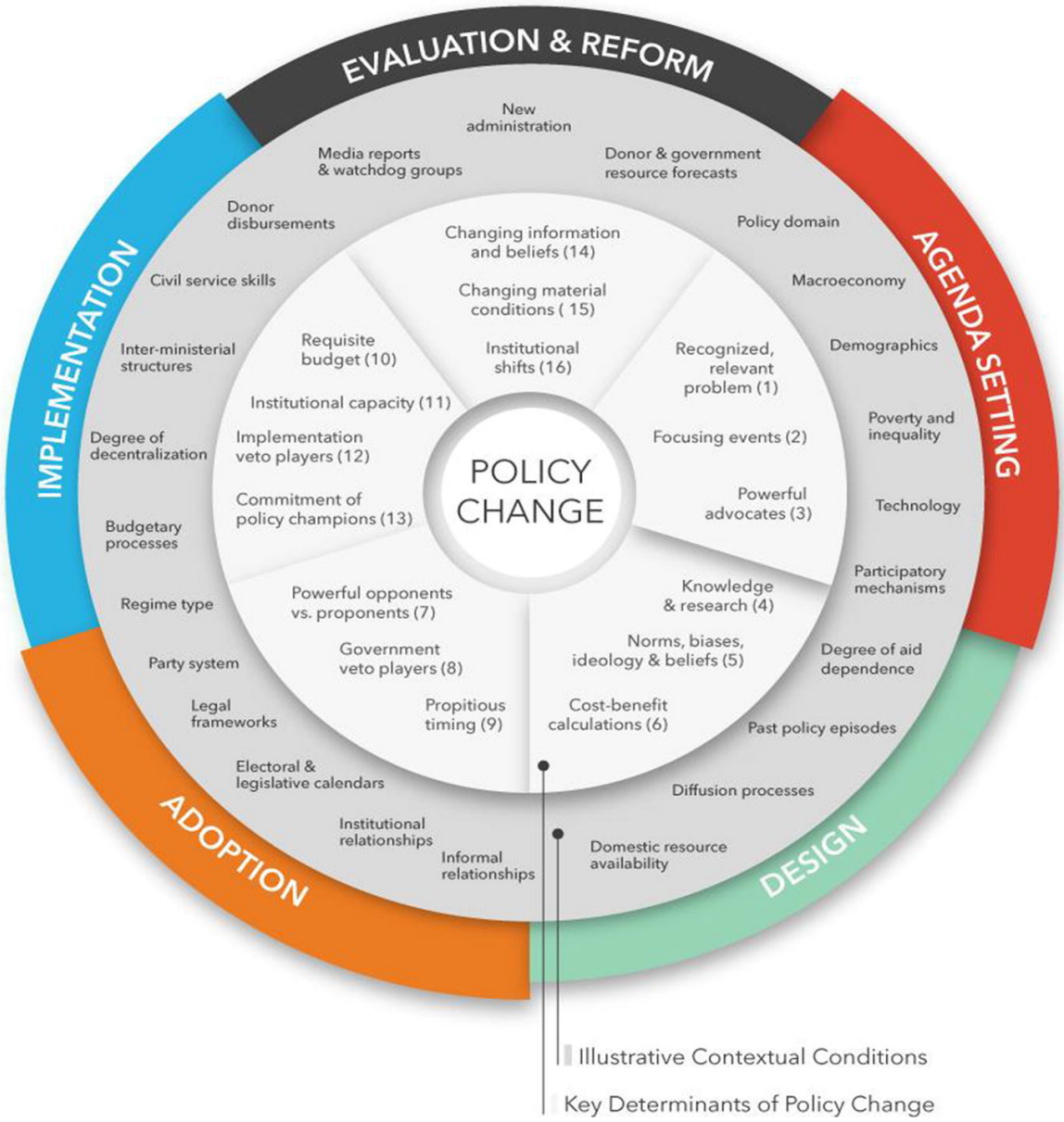
In their investigation into the "evidence-policy gap" in the health policy field, Cairney and Oliver raise two important dilemmas:

> "First, effective actors combine evidence with manipulative emotional appeals to influence the policy agenda—should scientists do the same, or would the reputational costs outweigh the policy benefits? Second, when adapting to multi-level policymaking, should scientists prioritise 'evidence-based' policymaking above other factors? The latter includes governance principles such as the 'co-production' of policy between local public bodies, interest groups and service users. This process may be based primarily on values and involve actors with no commitment to a hierarchy of evidence" (Cairney and Oliver 2017).

Based on these dilemmas and our examination of what constitutes policymaking, it seems clear that researchers should approach EBP with an understanding that policymaking is never *just* evidence based; it can also be based in lived experiences, values, or anecdotes, be politically motivated, or be revenue seeking. Starting from the foundation that evidence is usually just one input (or sometimes not an input) into a policy decision, researchers and knowledge brokers can then position their findings in a broader context that anticipates how their work will be weighed against other inputs. The Kaleidoscope Model, shown in figure 7, illustrates this point and shows the determinants and conditions that influence policy change (Resnick et al. 2018). It contains the stages of the policy cycle (similar to the CDC and O'Rafferty models in figures 3 and 4) but also captures how policy change occurs within certain conditions and is shaped by certain determinants, such as knowledge and research. Understanding that evidence is one of many influences on policymaking might change how policy-oriented research projects are conceptualized, designed, conducted, and communicated. In turn, this may improve the quality of research and its usefulness to policymakers, practitioners, and others.

FIGURE 7

Resnick and Colleagues' Kaleidoscope Model of Policy Change



Source: Danielle Resnick, Steven Haggblade, Suresh Babu, Sheryl L. Hendriks, and David Mather, "The Kaleidoscope Model of Policy Change: Application to Food Security Policy in Zambia," *World Development* (September 2018) 109:101-120, https://doi.org/10.1016/j.worlddev.2018.04.004. Reused with permission.

TRAIN RESEARCHERS AND POLICYMAKERS TO WORK TOGETHER

Much of the literature on how to improve evidence-based policymaking relates to how to improve the relationship between research scientists and policymakers, how to help them better communicate, and how to support their separate but potentially overlapping agendas.

As with all relationships, both groups must understand where the other is coming from and how various factors (e.g., policy environment, motivation, funding, comfort with evidence, reputation, time constraints, and institutions) affect their abilities to engage in EBP. Paul Cairney suggests researchers should, "devote considerable energy to finding where the 'action' is (and someone specific to talk to)," but cautions researchers that "even if you find the right venue, you will not know the unwritten rules unless you study them intensely."[38] He adds:

> "Some networks are close-knit and difficult to access because bureaucracies have operating procedures that favour some sources of evidence. Research advocates can be privileged insiders in some venues and excluded completely in others. If your evidence challenges an existing paradigm, you need a persuasion strategy good enough to prompt a shift of attention to a policy problem and a willingness to understand that problem in a new way."[39]

Policymakers also must work to strengthen the pathway to EBP. As noted, several enabling factors can help policymakers and governments feel comfortable using evidence to inform policy. As the Organisation for Economic Co-operation and Development has stated, "Effective civil service capacity support should ideally encompass a range of interventions: from developing skills, values and norms to promote EIPM [evidence-informed policymaking] at an individual level, to supporting the adoption of procedures, incentives and resources, financial and human, to enhance use of evidence" (OECD 2020).

Given the many influences and constraints that limit what policymakers can do, the onus to lift up evidence about what works might seem to fall to researchers. However, both groups have a role to play, as shown in the Eight Skills Cluster Model, developed by the Joint Research Centre of the European Commission (figure 8). For example, the "advising policymakers" cluster lists "enhanced capacity to address scientific uncertainty, risks, and inconvenient results" as a learning outcome for researchers and "increased awareness about scientific uncertainty, risks, and inconvenient results" as a learning outcome for policymakers (Joint Research Centre 2017).

FIGURE 8

Better Evidence-Informed Policies, According to the European Commission's Joint Research Centre

Source: European Commission, Joint Research Centre, "Skills for Evidence-Informed Policy Making: Continuous Professional Development Framework" (Ispra, Italy: European Commission, Joint Research Centre, 2017). Reused with permission.

CREATE SYSTEMS OF MUTUAL ACCOUNTABILITY

Given that much of the transformational work needed to advance social and economic equity are deeply rooted, multisectoral, dynamic, and complex, the policies and practices needed to shift systems and norms must be adaptive. The systems that must change have many interacting components, can self-organize and adapt, and often reflect emergent patterns not influenced by any one leader or change agent. For these reasons, systems of mutual accountability are needed. As a recent piece on strengthening mutual accountability explains, "Whereas responsibility refers to the obligations to be fulfilled by one actor, accountability involves one actor answering to another actor" (Swinburn et al. 2015). The authors present an accountability framework that emphasizes (1) accounting for the available evidence and its effectiveness for a specified goal, (2) sharing that evidence equitably, (3) empowering people to strive toward the goal, and (4) observing and acting on policies and practices that support the goal.

As the authors note, the third component, which they call "holding account," is typically the weakest link in an accountability system; the implicit nature of enforcement and the absence of concrete mechanisms for holding account are problematic. As they further explain, many mechanisms exist "that enable governments to hold the private sector to account and that allow civil society (the least economically powerful stakeholder) to hold both public and private sectors to account" in moving toward shared goals (Swinburn et al. 2015). Among these mechanisms are legislative steps that span voluntary and quasi-regulatory efforts and more formal policies designed to regulate or compensate for free market conditions.

Other work on the emerging field of social accountability has important implications for understanding what kinds of research and evidence can best inform policymakers and other decisionmakers. As Jonathan Fox has argued, "the comparative method has a great deal to offer the 'what works and why' research agenda, but it has been persistently crowded out by the dominant qualitative-quantitative debate" (Fox 2015). Fox also argues that "research lags significantly behind practice, and theoretical and conceptual work lags even further behind research."

At the heart of accountability studies are questions about how systems effect change toward a given goal, which aligns with the goals of evidence-based or evidence-informed policymaking. A more nuanced understanding of how these changes actually happen (or not) can only strengthen the research and evidence base on which policymakers and their influencers can draw.

Conclusion

For this high-level review, we set out to better understand how research programs and researchers can improve evidence design to inform policies and policymakers. As straightforward and simple as the term "evidence-based policymaking" sounds, it is neither, nor is the complex policymaking process that evidence seeks to inform. As this review finds, people hold differing definitions for and understandings of evidence, of what a policy is, and of how (and why) policymaking happens. In addition, policymakers and others involved in EBP are thinking innovatively about how policies and policymaking (and the evidence that underpins them) can or should happen in the real world, which has implications for both policy development and research. The need for policy research, evidence generation, and the use of both are as great as they have ever been, even if what evidence is produced (and how) must be broadened and reenvisioned. This need is especially important for bringing a racial equity and justice lens to policy research and policies themselves. The opportunities for centering equity and justice are great, especially as the US grapples with the twin pandemics of COVID-19 and systemic racism.

Notes

[1] Frederick Seitz, "A Selection of Highlights from the History of the National Academy of Sciences, 1863–2005," National Academy of Sciences, accessed March 8, 2021, http://www.nasonline.org/about-nas/history/highlights/.

[2] Foundations for Evidence-Based Policymaking Act of 2018, H.R. 4714 (Jan. 4, 2019).

[3] More information about the Washington State Institute for Public Policy is available at https://www.wsipp.wa.gov/.

[4] For a fuller discussion of the history of evidence-based policymaking, see CEP (2017).

[5] This definition was suggested specifically for evaluating children's services programs.

[6] Erik Stokstad, "Do's and Don'ts for Scientists Who Want to Shape Policy," *Science*, February 9, 2017, https://www.sciencemag.org/news/2017/02/dos-and-donts-scientists-who-want-shape-policy.

[7] Gai Moore, "Can Knowledge Brokering Bridge the Gap between Government and Academia?," Apolitical, May 1, 2020, https://apolitical.co/en/solution_article/can-knowledge-brokering-bridge-the-gap-between-government-and-academia.

[8] Vivian Tseng, "Vivian's Voice: Evidence Use across Sectors, around the Globe, and Back at Home," William T. Grant Foundation, September 17, 2019, http://wtgrantfoundation.org/vivians-views-evidence-use-across-sectors-around-the-globe-and-back-at-home.

[9] "How to Break Down Silos and Share Data Better in Government," Apolitical, June 2, 2020, https://apolitical.co/en/solution_article/how-to-break-down-silos-and-share-data-better-in-government.

[10] Paul Cairney, "The Politics of Evidence-Based Policymaking: ANZSOG Talks," *Paul Cairney: Politics and Public Policy* (blog), October 11, 2018, https://paulcairney.wordpress.com/2018/10/11/the-politics-of-evidence-based-policymaking-anzsog-talks/.

[11] "Evidence in Policymaking: The Basics," Apolitical, accessed March 8, 2021, https://apolitical.co/fieldguides/article/evidence-based-policymaking-how-to-find-quality-evidence-without-going-mad/.

[12] Timothy Ogden, "Experimental Conversations: Angus Deaton," October 13, 2015, https://medium.com/@timothyogden/experimental-conversations-angus-deaton-b2f768dffd57.

[13] "Definition of Policy," Centers for Disease Control and Prevention, accessed March 8, 2021, https://www.cdc.gov/policy/analysis/process/definition.html.

[14] "What Is Public Policy?" Center for Civic Education, Project Citizen, accessed March 8, 2021, https://www.civiced.org/project-citizen/what-is-public-policy.

[15] Paul Cairney, "What Is Policy?," *Paul Cairney: Politics and Public Policy* (blog), March 4, 2016, https://paulcairney.wordpress.com/2016/03/04/what-is-policy-3/.

[16] "Policy Analysis," Centers for Disease Control and Prevention, last reviewed January 2, 2019, https://www.cdc.gov/policy/polaris/policyprocess/policy_analysis.html.

[17] Paul Cairney, "5 Images of the Policy Process," *Paul Cairney: Politics and Public Policy* (blog), July 10, 2017, https://paulcairney.wordpress.com/2017/07/10/5-images-of-the-policy-process/.

[18] Paul Cairney, "Evidence-Based Policymaking and the 'New Policy Sciences,'" *Paul Cairney: Politics and Public Policy* (blog), October, 25, 2018, https://paulcairney.wordpress.com/2018/10/25/evidence-based-policymaking-and-the-new-policy-sciences-2/.

[19] Tseng, "Vivian's Voice: Evidence Use across Sectors, around the Globe, and back at Home," William T. Grant Foundation.

[20] Nora Bateson, "What Is Warm Data?" Warm Data Lab, accessed March 8, 2021, https://www.warmdatalab.net/warm-data.

[21] Lisbeth B. Schorr, "Reconsidering Evidence: What It Means and How We Use It," *Stanford Social Innovation Review*, January 8, 2016, https://ssir.org/articles/entry/reconsidering_evidence_what_it_means_and_how_we_use_it.

[22] Marcie Parkhurst, Hallie Preskill, Jewlya Lynn, and Marah Moore, "The Case for Developmental Evaluation," FSG blog, March 1, 2015, https://www.fsg.org/blog/case-developmental-evaluation.

[23] Here Hawe (2015) cites Flay (1986).

[24] Parkhurst, Preskill, Lynn, and Moore, "The Case for Developmental Evaluation," FSG.

[25] Katelyn Mack, "What Does Developmental Evaluation Look Like?" FSG blog, April 10, 2013, https://www.fsg.org/blog/what-does-developmental-evaluation-look.

[26] Here Hawe (2015) summarizes points from Miller and Shinn (2015).

[27] Rhea W. Boyd, Edwin G. Lindo, Lachelle D. Weeks, and Monica R. McLemore, "On Racism: A New Standard for Publishing on Racial Health Inequities," *Health Affairs Blog*, July 2, 2020, https://www.healthaffairs.org/do/10.1377/hblog20200630.939347/full/.

[28] Tseng, "Vivian's Voice: Evidence Use across Sectors, around the Globe, and back at Home," William T. Grant Foundation.

[29] More information about the campaign is available at https://www.projectevident.org/updates/2020/7/14/project-evident-launches-the-next-generation-of-evidence-campaign.

[30] Schorr, "Reconsidering Evidence: What It Means and How We Use It," *Stanford Social Innovation Review*.

[31] "Community Engagement Methods at Urban," Urban Institute, accessed March 8, 2021, https://www.urban.org/research/data-methods/community-engagement-methods-urban.

[32] "Community Engagement Methods at Urban," Urban Institute.

[33] More information about the Healthy Minds Policy Initiative is available at https://www.healthymindspolicy.org/about/.

[34] "Research Grants on Improving the Use of Research Evidence," William T. Grant Foundation, accessed March 8, 2021, http://wtgrantfoundation.org/grants/research-grants-improving-use-research-evidence.

[35] "Inside Power Moves," National Committee for Responsive Philanthropy, accessed March 8, 2021, https://www.ncrp.org/initiatives/power-moves-philanthropy/inside-the-guide.

[36] "Inside Power Moves," National Committee for Responsive Philanthropy.

[37] For examples of adaptive policies, see Swanson and Darren (2009).

[38] Cairney, "Evidence-Based Policymaking and the 'New Policy Sciences,'" *Paul Cairney: Politics and Public Policy*.

[39] Cairney, "Evidence-Based Policymaking and the 'New Policy Sciences,'" *Paul Cairney: Politics and Public Policy*.

References

Ammerman, Alice, Tosha Woods Smith, and Larissa Calancie. 2014. "Practice-Based Evidence in Public Health: Improving Reach, Relevance, and Results." *Annual Review of Public Health* 35:47–63. https://doi.org/10.1146/annurev-publhealth-032013-182458.

Anderson, James E. 2003. *Public Policymaking: An Introduction*. Boston: Houghton Mifflin Company.

Blase, Karen, and Dean Fixsen. 2013. "Core Intervention Components: Identifying and Operationalizing What Makes Programs Work." Washington, DC: US Department of Health and Human Services, Office of the Assistant Secretary for Planning and Evaluation.

Cairney, Paul, and Kathryn Oliver. 2017. "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 and Systems* 15, no. 35. https://doi.org/10.1186/s12961-017-0192-x.

Carey, Gemma, Brad Crammond, Eleanor Malbon, and Nic Carey. 2015. "Adaptive Policies for Reducing Inequalities in the Social Determinants of Health." *International Journal of Health Policy Management* 4 (11): 763–67. https://dx.doi.org/10.15171%2Fijhpm.2015.170.

CEP (Commission on Evidence-Based Policymaking). 2017. *The Promise of Evidence-Based Policymaking*. Washington, DC: Commission on Evidence-Based Policymaking.

Craig, Peter, Paul Dieppe, Sally Macintyre, Susan Michie, Irwin Nazareth, and Mark Petticrew. 2008. *Developing and Evaluating Complex Interventions: The New Medical Research Council Guidance. BMJ* 337:a1655. https://doi.org/10.1136/bmj.a1655.

EBPC (Evidence-Based Policymaking Collaborative). 2016. "Principles of Evidence-Based Policymaking." Washington, DC: Urban Institute.

Fedorowicz, Martha, Joseph Schilling, Emily Bramhall, Brian Bieretz, Yipeng Su, and Steven Brown. 2020. *Leveraging the Built Environment for Health Equity*. Washington, DC: Urban Institute.

Flay, B. R. 1986. "Efficacy and Effectiveness Trials (and Other Phases of Research) in the Development of Health Promotion Programs." *Preventive Medicine* 15 (5): 451–74. https://doi.org/10.1016/0091-7435(86)90024-1.

Fox, Jonathan A. 2015. "Social Accountability: What Does the Evidence Really Say?" *World Development*, 72: 346–61. https://doi.org/10.1016/j.worlddev.2015.03.011.

Hawe, Penelope. 2015. "Lessons from Complex Interventions to Improve Health." *Annual Review of Public Health* 36:307–23. https://doi.org/10.1146/annurev-publhealth-031912-114421.

Hickey, G., Brearley, S., Coldham, T., Denegri, S., Green, G., Staniszewska, S., Tembo, D., Torok, K., and Turner, K. 2018. *Guidance on Co-producing a Research Project*. Southampton, England: INVOLVE.

Joint Research Centre (European Commission, Joint Research Centre). 2017. "Skills for Evidence-Informed Policy Making: Continuous Professional Development Framework." Ispra, Italy: European Commission, Joint Research Centre.

Kingdon, John W. 1984. *Agendas, Alternatives, and Public Policies*. Boston: Little, Brown and Company.

Kirkland, David E. 2019. "No Small Matters: Reimagining the Use of Research Evidence from a Racial Justice Perspective." New York: William T. Grant Foundation.

Miller, Robin L., and Marybeth Shinn. 2005. "Learning from Communities: Overcoming Difficulties in Dissemination of Prevention and Promotion Efforts." *American Journal of Community Psychology* 35 (3–4): 169–83. https://doi.org/10.1007/s10464-005-3395-1.

Nightingale, Demetra Smith, and Molly Scott. 2018. "Building Evidence Culture and Capacities in Federal Agencies." Washington, DC: Urban Institute.

OECD (Organisation for Economic Co-operation and Development). 2020. *Building Capacity for Evidence-Informed Policy-Making: Lessons from Country Experiences*. Paris: Organisation for Economic Co-operation and Development.

Oliver, Kathryn, and Annette Boaz. 2019. "Transforming Evidence for Policy and Practice: Creating Space for New Conversations." *Palgrave Column* 5. https://doi.org/10.1057/s41599-019-0266-1.

Pew-MacArthur Results First Initiative. 2014. *Evidence-Based Policymaking*. Washington, DC: Pew Charitable Trusts and the MacArthur Foundation.

———. 2017. *How States Engage in Evidence-Based Policymaking: A National Assessment*. Washington, DC: Pew Charitable Trusts and the MacArthur Foundation.

Poethig, Erika, Justin Milner, Keith Fudge, Courtney Jones, Aaron Shroyer, and Ron Haskins. 2018. "Supporting Access to Opportunity with a Tiered-Evidence Grantmaking Approach." Washington, DC: Evidence-Based Policymaking Collaborative.

Resnick, Danielle, Steven Haggblade, Suresh Babu, Sheryl L. Hendriks, and David Mather. 2018. "The Kaleidoscope Model of Policy Change: Application to Food Security Policy in Zambia." *World Development* 109: 101-120. https://doi.org/10.1016/j.worlddev.2018.04.004.

Reynolds, Kathryn, and Kriti Ramakrishnan. 2018. *Evidence-Based Policymaking at the State Level: A Guide for Governors*. Washington, DC: Urban Institute.

Schupmann, Will, Keith Fudge, Kathryn Reynolds, and David Whyman. 2018. "Engaging Stakeholders in Learning Agenda Development: A Playbook for Federal Agencies." Washington, DC: Urban Institute.

Scott, Molly, and Wilton Oliver. 2018. "Staffing to Support Evidence Culture and Capacity in the Federal Government." Washington, DC: Urban Institute.

Stacy, Christina Plerhoples, Joseph Schilling, Ruth Gourevitch, Jacob Lowy, Brady Meixell, and Rachel L. J. Thornton. 2019. "Bridging the Housing and Health Policy Divide: Lessons in Community Development From Memphis and Baltimore." *Housing Policy Debate* 29 (3): 403–20. https://doi.org/10.1080/10511482.2018.1539858.

Swanson, Darren, and Suruchi Bhadwal, eds. 2009. *Creating Adaptive Policies: A Guide for Policy-Making in an Uncertain World*. Washington, DC: SAGE Publications. http://dx.doi.org/10.4135/9788132108245.

Swinburn, Boyd, Vivica Kraak, Harry Rutter, Stefanie Vadevijvere, Tim Lobstein, Gary Sacks, Fabio Gomes, Tim Marsh, and Roger Magnusson. 2015. "Strengthening of Accountability Systems to Create Healthy Food Environments and Reduce Global Obesity." *Obesity* 385 (9986): 2534–45. https://doi.org/10.1016/S0140-6736(14)61747-5.

Toon, Peter. 2014. "What Is Evidence?" *London Journal of Primary Care* 6 (5): 95–97. https://dx.doi.org/10.1080%2F17571472.2014.11493425.

WSIPP (Washington State Institute for Public Policy). 2020. *Updated Inventory of Evidence-Based, Research-Based, and Promising Practices*. Olympia, WA: Washington State Institute for Public Policy.

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