# From Research to Reality: Leveraging Implementation Science to Advance Evidence-Based Policing

**Tamara D. Herold, Ph.D., Texas State University**

## ABSTRACT

The National Institute of Justice's "Evidence to Action" initiative seeks to bridge the gap between research and practice. Supporting this mission, this paper calls attention to a growing scientific field that helps to translate evidence into action—implementation science. The paper provides a brief introduction to implementation science and its tools used to facilitate the adoption of evidence-based practices. It introduces a blueprint based on five core principles—commitment, concordance, co-production, capacity, and culture—to guide police leaders engaged in "first-line research" and help them sustain effective interventions. Drawing from the LEADS scholars' studies presented in this volume, this paper demonstrates how applying these principles offers a practical approach to guiding successful interventions and achieving lasting improvements in policing outcomes.

# Introduction

Over the past several decades, scientific research has garnered valuable insights into which policing strategies are most effective in reducing crime, improving police practices, enhancing officer safety and wellness, and increasing community trust and well-being. However, while evidence-based approaches—such as problem-solving, focused deterrence, and the practices highlighted by studies in this volume—can substantially improve policing outcomes, a clear gap persists between the knowledge generated by researchers and its routine adoption by frontline personnel and high-level decision-makers. This disconnect can stem from agency inertia—including distrust in and resistance to new information, resource constraints, and a lack of systematic processes for learning about and translating research findings into practice. Consequently, even well-documented successes in policing research risk remaining underutilized or poorly implemented, hindering broader benefits for police and public safety.

The National Institute of Justice (NIJ or the Institute), the research, development, and evaluation agency of the U.S. Department of Justice, has generated a great deal of knowledge about what works (and what doesn't) in policing. As noted in Director La Vigne's opening chapter, NIJ endeavors to translate and disseminate research findings to people who can implement real-world changes. In pursuit of this mission, Director La Vigne launched NIJ's "Evidence to Action" (E2A) initiative in 2022 to further narrow the gap between research findings and practical applications in the justice field. The E2A initiative has expanded and enhanced existing NIJ programs that promote police research partnerships—including the Law Enforcement Advancing Data and Science (LEADS) program (see La Vigne, this volume)—while also elevating the role of *implementation science*, drawing greater attention to this emerging multidisciplinary field and its findings, which can help to translate research into concrete, transformative practices across the justice system.

This paper aims to equip police leaders, both practitioners and scholars, with a general understanding of implementation science and its potential to transform evidence into actionable strategies that drive meaningful improvements in policing. The first section explains implementation science and how it builds upon but differs from closely related scientific fields. Drawing on examples of NIJ's LEADS scholars program activities, it explores these distinctions, as well as the tools used in implementation science that set it apart from other types of research. This section shows how implementation science tools can be used to develop different research questions, including those from the LEADS studies featured in this volume.

The paper's second section proposes a blueprint for advancing the use of police research. Grounded in core implementation science principles, the blueprint offers practical guidance for police practitioners looking to engage in research and enhance policing practices by building a more robust evidence base. Examples show how the studies presented in this volume exemplify the blueprint's five components, which serve as guideposts for fostering stronger police research partnerships and generating more impactful, actionable, and compelling findings for police practitioners.

# What Is Implementation Science?

Implementation science is a growing field that focuses on ensuring research findings are effectively applied in real-world settings, including police work. Its main goal is to identify the factors that facilitate or obstruct the adoption, execution, and lasting success of evidence-based programs and interventions (Bauer et al., 2015). By bridging the gap between research and practice, implementation science helps police departments integrate proven strategies into their daily operations, adapt these strategies to fit local needs, and monitor their proper application over time.

Implementation science builds upon the fields of *knowledge utilization* and *research on research use*. All three aim to maximize the impact of evidence, but they approach it differently.[1] *Knowledge utilization* looks at how information and research findings are integrated into decisions, policies, and daily practices within police departments (Blake & Ottoson, 2009). *Research on research* use examines if, why, and how decision-makers choose to use certain types of evidence (Supplee et al., 2003). *Implementation science* takes this further by developing strategies to effectively deliver and apply research-based interventions in policing, ensuring these practices are not only adopted but also successfully integrated into operations and maintained (del Pozo et al., 2024).

To grasp how these fields promote evidence to action, consider the three levels of knowledge sharing: diffusion, dissemination, and implementation (see Figure 1 and Nilsen, 2015). Each level uses different methods and degrees of involvement to ensure that research findings effectively reach and are used by police practitioners.

1. ***Diffusion or "Letting it happen":*** Information spreads naturally through existing networks without targeted efforts. Knowledge utilization researchers often highlight the importance of knowledge diffusion within social networks because they enable trust-building, peer-to-peer exchange, and iterative feedback loops—factors that make it easier for people to learn about, understand, and apply new information (Valente & Pumpuang, 2007). For example, in line with these principles, the LEADS program forges strong connections between police practitioners and academics, creating a collaborative network that promotes the natural diffusion of new ideas and research findings among LEADS scholars.

1 All three fields have contributed to the understanding of research use across a wide range of disciplines, including healthcare, agriculture, social services, education, information science, public policy, and criminal justice. While they share overlapping methods and goals, they are sometimes conceptualized as distinct fields based on their primary emphasis. Intentionally broad and commonly used definitions of these fields are presented here to help readers distinguish implementation science from other disciplines and to explain why NIJ's E2A initiative has specifically highlighted the field of implementation science.

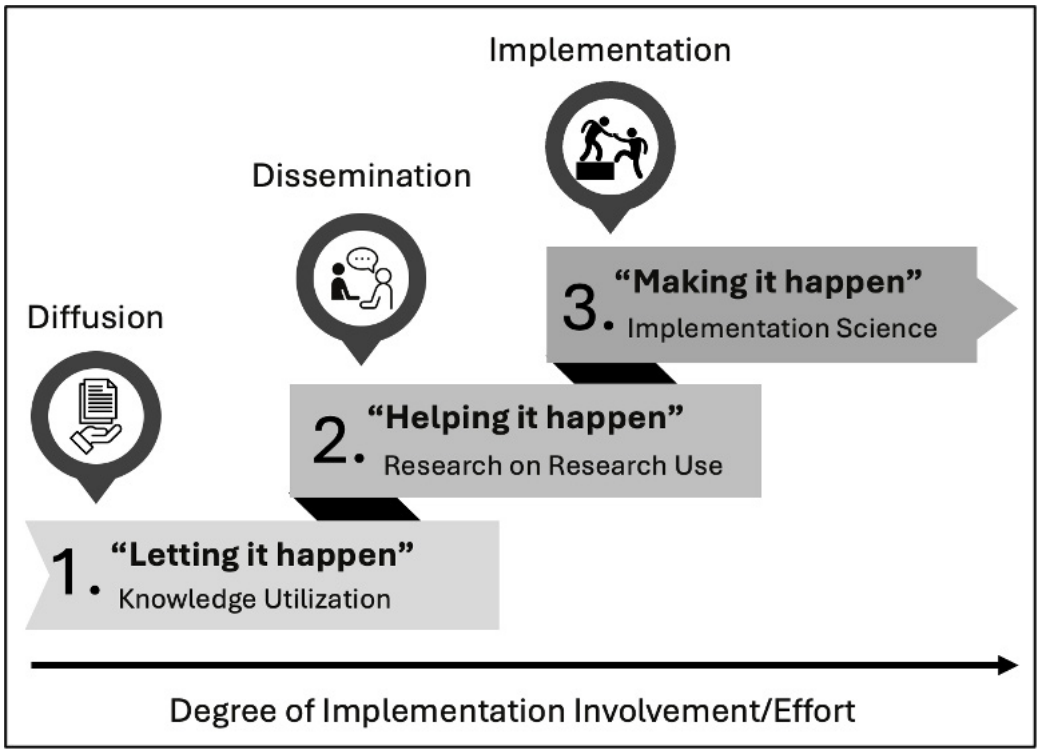


**FIGURE 1.** Knowledge transfer continuum and related disciplines

2. ***Dissemination or "Helping it happen":*** Information is actively shared through specific channels like training sessions, workshops, podcasts, or webinars to reach intended audiences.[2] Researchers who focus on "research on research use" emphasize that actively involving practitioners in dissemination makes evidence more accessible, credible, and actionable. In keeping with this approach, LEADS scholars are actively engaged in dissemination. They receive funding to attend research trainings and workshops, where they learn about new evidence-based tools and techniques. They share their knowledge and research through presentations at major conferences—such as the International Association of Chiefs of Police annual conference. They participate in media interviews and podcasts, and they publish in practitioner-focused outlets, including NIJ publications (like this volume) and policing trade journals, fostering greater access to research among frontline personnel and decision-makers.

3. ***Implementation or "Making it happen":*** Hands-on strategies and guidelines are used to integrate and sustain evidence-based practices within police operations.

2 NIJ's Justice Today Podcast, sponsored research articles, the NIJ Journal, CrimeSolutions database emailed updates, and the NIJ "Five Things" Series are examples of active dissemination efforts.

> Implementation science emerged from the recognition that proven interventions often fail to be widely or effectively adopted despite extensive diffusion and dissemination efforts. Implementation is more than just sharing information; it requires deliberate and tailored actions to ensure new programs work effectively within specific police departments (Albers et al., 2020). For instance, within the context of daily police activities, diffusion might involve hearing about a new vehicle pursuit tactic from colleagues, while dissemination would entail describing it in a training bulletin. Implementation, on the other hand, involves changing policies or procedures, among other activities, to embed the new tactic into everyday operations.

Implementation goes beyond diffusion and dissemination. It calls for involving key partners, training officers, and regularly assessing progress to ensure the programs are followed correctly. As described by Mourtgos and Adams (this volume), the Salt Lake City Police Department's successful adoption of an evidence-based crime reduction program required a strategic and multi-faceted approach to address various organizational and operational implementation barriers. Police leaders achieved success by investing in civilian staff to enhance data collection and analysis, providing consistent advocacy from a high-ranking champion, establishing systematic processes to change daily operations, creating consistent leadership and accountability mechanisms, engaging researchers for training, and focusing on succession planning and sustainability.

Implementation science offers various tools—*theories*, *models*, and *frameworks* (TMFs)—to help police departments effectively apply and conduct research (Damschroder, 2020). Here's how each works. *Theories* explain the fundamental reasons why certain implementation strategies succeed or fail. For example, a theory might identify how police attitudes impact the adoption of a new policing tactic. *Models* provide step-by-step plans for implementing new practices. A model might outline the stages or steps a police department should follow to introduce and sustain a new crime prevention program. *Frameworks* organize various factors that affect implementation, helping identify potential challenges and supports. For instance, a framework could list internal factors like staff training and external factors like community engagement that influence the success of a new intervention.

Table 1 provides examples of TMFs along with their purpose and the types of research questions each tool can address. The last row shows how implementation science aligns with the LEADS research topics explored in this volume and can be used to shape future inquiries. By applying implementation science TMFs to guide policing research and implementation efforts, scholars and practitioners can better tackle real-world policing challenges. Using TMFs increases the likelihood that evidence-based strategies are not only introduced but also effectively integrated, sustained, and scaled across diverse settings.

**TABLE 1.** Theories, models, and frameworks (TMFs) examples and explanations

| TMF TYPE | NAME | PRIMARY PURPOSE | EXAMPLE OF RELATED RESEARCH QUESTION | IMPLEMENTATION SCIENCE RESEARCH QUESTIONS FOR CURRENT VOLUME TOPICS |
|---|---|---|---|---|
| ***Theory*** | General Theory of Implementation (May & Finch, 2009) | Broadly explain what factors determine whether a new practice becomes embedded and sustained in routine police work | To what extent do people's attitudes and beliefs about an intervention predict their adherence to it in practice? | Do changes in officers' attitudes after training predict their use of evidence-based interviewing techniques in the field? (See Brimbal et al., this volume) |
| ***Model*** | Stages of Implementation Completion (Chamberlain et al., 2011) | Provide a sequential, milestone-based roadmap to guide agencies through each phase of adopting and integrating an intervention | Which stage in the implementation process most commonly leads to project delays or the end of intervention efforts? | At what project stage should leadership roles and responsibilities be reviewed to keep a crime reduction program working effectively? (See Mourtgos & Adams, this volume) |
| ***Framework*** | Consolidated Framework for Implementation Research (Damschroder et al., 2009) | Categorize and organize the factors that influence whether an evidence-based practice is successfully implemented in different locations and agencies | Which internal agency factors are most likely to hinder or help intervention adoption? | Are there specific employee needs that influence a police agency's ability to successfully implement new evidence-based crime interventions? (See Wojslawowicz, this volume) |

While implementation science offers a powerful approach to evidence-based policing, effectively applying its tools requires specialized knowledge. Implementation science experts can guide the selection and application of appropriate tools, such as specific TMFs, to achieve police leaders' research goals and operational needs. By partnering with implementation scientists, police leaders can ensure that the entire process, from initial research design to the evaluation and translation of findings, is grounded in evidence-based practices and creates lasting improvements in their departments.

## Implementation Science Principles: A Blueprint for Advancing Police Research

Five key principles extracted from the implementation science literature offer essential guidance for police leaders seeking to engage in research and adopt evidence-based policing practices. Using these principles as "guideposts" can both strengthen policing's evidence base and improve operational effectiveness. Adhering to these principles as part of "**first-line research**"—

projects in which police initiate and coordinate research to determine what works—naturally fosters "**justice from the ground up**." Rather than adopting "off-the-shelf" evidence-based practices and driving implementation from the top down, leaders can empower their personnel and research partners "on the ground" to adapt evidence-based solutions to local contexts and evaluate their impact. This approach helps to ensure greater relevance, acceptance, and sustainability of new practices while preventing the unintended consequences that often emerge from poorly implemented strategies. Five principles—commitment, concordance, co-production, capacity, and culture—presented in Figure 2 and described in the section that follows, offer a blueprint for police leaders who seek to engage in first-line research.


**FIGURE 2.** An Implementation Science Blueprint to Advance Policing Research

*Commitment* means ensuring that programs are evaluated in ways that align with the values that police leaders should seek to uphold. For example, it is not enough to find out whether a new practice effectively reduces crime. It is also essential to ensure that strategies do not unintentionally harm people or communities in other ways. For instance, while heavy patrol activities are likely to prevent crime, if not conducted in a manner that is efficient, ethical, and equitable, they can also

waste scarce resources, damage police-community relationships, and increase distrust in the police among populations disproportionately impacted by crime.

Police leaders play a crucial role in upholding the principle of commitment by embedding its four values—effectiveness, efficiency, ethics, and equity—into their department's vision, mission, and research activities. Leaders must demand comprehensive program evaluations that measure outcomes associated with commitment's four values. For example, as Phiri and Alan (this volume) illustrate, successful police recruitment strategies do not simply attract large numbers of new officers. Effective recruitment efforts can become costly and inefficient if they fail to prioritize officer retention. By committing to the value of efficiency, a successful recruitment strategy is redefined as one that will also preserve agency training investments by attracting officers likely to stay once employed. A successful recruitment strategy should also be ethical (e.g., promote transparency by involving the community in the candidate selection process) and equitable (e.g., intentionally addressing entry barriers for underrepresented groups). When conducting research, police must evaluate both the effectiveness of an intervention (did it produce its intended outcome?) and also its broader impact on resources, police personnel, and communities, ensuring that outcomes are genuinely improved for all stakeholders involved.

*Concordance* refers to achieving consensus around research goals. Those involved in or affected by police research activities can have conflicting agendas. For example, a police leader might be attempting to resolve political pressures, while a research partner is pursuing access to publishable data, and a community member is seeking relief from persistent crime problems. For police departments engaged in research, concordance helps to prevent conflict, which hinders the implementation of research findings and ultimately undermines a project's success. When all parties agree upon common objectives, research projects are more likely to address the genuine needs and concerns of those most impacted by existing problems (Sullivan et al., 2013).

Police leaders can foster concordance by establishing clear objectives from the outset, promoting open communication, and involving all stakeholders early in the research process. Miner (this volume) demonstrates the importance of concordance by describing how redefining our goal—from incarcerating those who commit crimes to preventing future criminality—can generate understanding and support for non-traditional approaches. Working under this objective, police practitioners and the larger population are better positioned to support evidence-based cognitive-behavioral approaches rather than less effective incarceration sentences for arrested nonviolent offenders. By aligning research activities with mutually shared priorities, research findings become more relevant to those who will implement the new practices. Consequently, research findings that arise from concordance are more likely to be widely accepted, effectively implemented, and sustained over the long term, leading to meaningful improvements in policing outcomes.

*Co-production* means ensuring that researchers, police officers, community members, and other stakeholders work together as equal partners throughout the entire research and intervention process. The principle of co-production enhances research by fostering collaboration where

everyone contributes their knowledge and perspectives from project planning to execution and evaluation, helping partners recognize and address real-world complexities (La Vigne, 2025). This approach enhances the rigor and comprehensiveness of research designs and makes it more likely that research findings will be used to develop practical solutions. Moreover, co-production sidesteps common research pitfalls, including inaccurate or misleading conclusions drawn by researchers who simply analyze data and lack a thorough understanding of why data was first gathered, who collected it, how it was collected, or the context in which it was recorded.

Police leaders can promote the principle of co-production by acting as "boundary spanners" —individuals who bridge the gap between different groups, organizations, or sources of knowledge by facilitating communication and collaboration (Neal et al., 2022).[3] Boundary spanners operate by building relationships and sharing information between various stakeholders, including researchers, police personnel, community organizations, and other relevant groups. Police leaders should emphasize the value of diverse perspectives, encouraging officers and community members to share their lived experiences and practical knowledge. As Kilmer and colleagues (this volume) found, incorporating officer input and perspectives throughout an entire peer support program evaluation process generated useful insights and new lessons learned. To ensure meaningful engagement, police leaders may need to address and overcome skepticism or negative perceptions stemming from prior encounters with research partners who were less collaborative or disengaged. By cultivating trust and emphasizing the value of all stakeholder input, police leaders can build stronger partnerships that drive innovation and produce more valid and useful research findings.

*Capacity* refers to the skills, resources, and systems necessary to engage in research and sustain new practices (Brownson et al., 2024). For police departments involved in research, those with robust capacity are better positioned to embrace innovation, minimize resistance, and manage the complexities of implementing new initiatives. Strong capacity allows organizations to be adaptive and tailor the core elements of evidence-based practices to fit their unique settings, thus avoiding implementation failures.

Police leaders can support capacity-building activities by strategically allocating resources, fostering professional development, and creating processes and infrastructures to support evidence-based practices. This may include training officers in new tactics or strategies, improving data management systems, or developing leadership skills within the department. As an example, Hall and Hoard (this volume) determined that critical incident training should be supplemented by additional capacity building. Specifically, agencies must also build leadership and post-threat management skills among personnel tasked with critical incident response. By investing in capacity building, police practitioners are better equipped to implement and assess evidence-based practices, adapt to evolving challenges, and improve overall effectiveness.

3 The term "boundary spanner" is used to describe various roles in the implementation science literature. Police leaders familiar with evidence-based policing, implementation science, police operations, and stakeholder needs are best positioned to serve in this capacity and build effective implementation and evaluation teams.

*Culture*, in the context of implementation science and policing, refers to the conditions that shape how officers and other police personnel think, interact, and make decisions. Culture influences everything from daily routines to long-term goals. As an implementation science principle, culture refers to behavioral expectations established by a police agency's processes for monitoring performance, providing and responding to feedback, and holding people accountable for aligning their actions with organizational values, policies, and objectives.

To create a culture conducive to research and the adoption of evidence-based practices, police leaders must focus on shaping the organizational environment to support continuous improvement and learning. Poorboy and Quinby (this volume) found that active listening skills among hostage negotiators can only be fully developed if frequently practiced while receiving expert assessment and feedback. Police leaders must recognize and reward behaviors that align with research-informed practices, foster a mindset of curiosity and adaptability, and create safe spaces for innovation and experimentation. Leaders should actively promote transparency by sharing both successes and lessons learned from research and implementation efforts, demonstrating that setbacks are opportunities for growth rather than failures. By normalizing research-driven approaches and creating a culture where learning is celebrated, police leaders can pave the way for sustained progress and improved outcomes.

## Conclusion

Bridging the gap between research and practice in policing is no longer an aspirational goal—it is an urgent necessity. As highlighted at the outset, the knowledge generated by scientific research offers transformative potential for police operations, crime reduction, officer safety and wellness, and community trust and well-being. Yet, without effective mechanisms to translate these insights into actionable practices, their impact remains limited.

Implementation science offers proven tools for overcoming agency inertia, fostering meaningful collaboration, and embedding evidence-based practices into daily police operations. The mission of NIJ's E2A initiative is exemplified by the LEADS studies presented in this volume, which offer concrete examples of how implementation science principles can be applied to address pressing policing challenges. By embracing the principles of commitment, concordance, co-production, capacity, and culture, police leaders can partner with implementation science experts and drive the policing profession beyond isolated successes toward systemic and sustained change.

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## AUTHOR BIOGRAPHY

**DR. TAMARA D. HEROLD, PH.D.**, is a Professor at the School of Criminal Justice and Criminology at Texas State University. As a Senior Research Advisor at the National Institute of Justice, she led the "Evidence to Action" initiative.