International Initiative for Impact Evaluation

Learning brief

Multisector

USING CONTRIBUTION ANALYSIS TO MEASURE THE USE OF EVIDENCE IN CLOSED RESEARCH PROJECTS

April 2024

Measuring the use and impact of research evidence is a complex undertaking. Researchers have conceptualized the use of research in several ways, ranging from instrumental to symbolic.[1] To add to the complexity, decision-makers may use research long after researchers communicate the findings and implications. Typically, even with research projects commissioned for decision-making, changes can rarely be attributed to findings. Research findings are usually among several contributors to the eventual policy or program decisions. Budget considerations and political acceptability, among other factors, always mediate how findings contribute to decisions.

At the International Initiative for Impact Evaluation (3ie), despite a systematic process to monitor stakeholder engagement and the use of evidence from research projects, we find that reporting of engagement and influence varies from one team to another. The narratives of research use and impact the project teams gather from commissioners and decision-makers are sometimes subject to conflict of interest and courtesy bias. Also, project teams move to newer projects, missing instances and developments after the project period ends.

Given this complexity and the need to measure the use of evidence for learning and accountability, 3ie initiated a novel approach to measuring and verifying evidence use for 200+ closed research projects between 2018 and 2020. The research projects included impact evaluations, formative studies, systematic reviews, evidence gap maps, and working papers. This brief summarizes learning from this exercise. Research commissioners, program managers, and researchers can use this learning to improve how they promote, monitor, and measure research influence.

Highlights

- 3ie validated 146 instances of evidence use related to 81 research projects by applying contribution tracing to 200+ closed projects between 2018 and 2020.
- The exercise reinforced that factors other than the quality of evidence mediate evidence use, which may occur sometime after the research project has ended.
- The use of process tracing with Bayesian updating, along with an agreed typology of use, helps identify validated and meaningful evidence use and impact stories that can help build a case for investing in stakeholder engagement and evidence translation.
- The feasibility of this approach depends on the availability of trained staff and reasonably detailed narrative documentation of stakeholder engagement.

Steps in the exercise

The evidence use measurement and verification exercise aimed to claim research influence confidently. It combined a review of stakeholder engagement documentation created during the research project, desk search and key informant interviews using contribution analysis, and specifically, the principles of contribution tracing. Contribution tracing is a theory-based evaluation method that combines process tracing and Bayesian updating to evaluate interventions' contribution to outcomes (Befani and Stedman-Bryce 2016).[2] In the context of our exercise, the research project is the intervention and the desired outcome relates to the use of the evidence generated during the project. The approach aimed to reduce subjectivity and increase confidence and consistency in making claims of evidence use. We applied the approach to completed research projects where 3ie did not have direct contact with potential users of research evidence. We followed the below steps for each closed project:

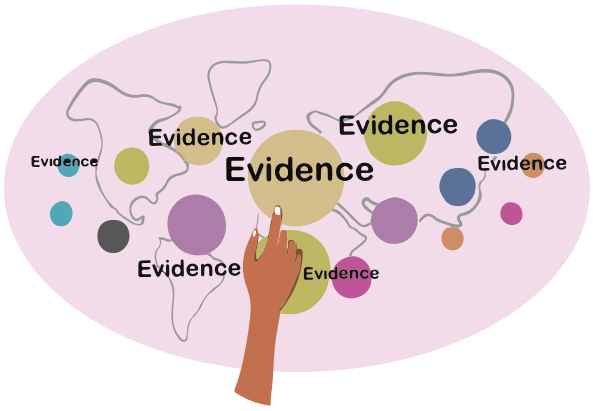
- The first step was constructing a "use" statement, called the evidence use claim, from the documentation linked to a research project. This documentation included all project material and the research team's records relating to stakeholder engagement and evidence use. In some projects, we also used transcripts from online calls 3ie staff conducted with the project team at the project closure. Evidence use claims usually drew from 3ie's typology of evidence uptake and use. The typology comprises seven ways evidence from evaluations and reviews make a difference.[3] Sometimes, the narrative claims prompted us to expand or modify the definitions of the types of evidence use.
- Once the evidence use claim was constructed, using the information available for the project, we identified contribution pathways or mechanisms underlying the evidence use claim. In a log sheet, we listed critical information needed to support steps in the contribution pathway.
- We then assigned two sets of probabilities to each item on the list of information (proof) necessary or sufficient for confirming the contribution claim. The first reflects the extent to which a given item of proof, such as a testimonial from an implementer, supported the claim (sensitivity). The second reflects the extent to which that item allowed for explanations other than the research project evidence for the claimed change or decision (the Type I error rate of the supporting information). Our objective was to identify items of proof with the lowest Type I error rate to minimize the chance that we claimed contribution where there was none.
- With the Bayes theorem, we used the sensitivity and Type 1 error rate to arrive at an objective measure of confidence in the claim about how the project contributed.
- Following this step, we gathered required supporting information from relevant documents available in the project documentation or online or through short interviews with researchers and other relevant stakeholders.
- The data collection stage ended once all critical supporting information was gathered. We set 3 months as the cut-off period within which to contact all relevant stakeholders identified using the project documentation or through snowball sampling.
- Based on the collected data, we updated the log sheet and shared it the case with trained colleagues, called the jury. This jury reviewed the quality of the supporting information gathered in a so-called contribution trial. Because of the jury's collective knowledge of the project and the claim, the claim verification team often got feedback on improving the supporting information or narrative and reviewing the proposed confidence rating.

Limitations of the approach

- The exercise was time consuming and required staff members to be first trained in using adapted process tracing and Bayes theorem.
- The availability of narrative reports documenting stakeholder engagement and feedback during the research project determined whether and how we could measure and validate evidence use after the project ended.
- Changes in context and the stakeholders directly involved in the issue made the verification of evidence use challenging and limited our ability to understand how evidence use happened. One of the respondents of our key informant interviews likened the exercise to reopening cold cases.
- We could follow the 3-month cut-off strictly in practice, mainly when new information or new potential users were found after that period.
- Some cases of reported or claimed evidence use could not be validated with documentation or stakeholder testimony, despite repeated follow-up or search for at least 3 months from the start of validation.
- The confidence rating provides a measure of confidence in whether a research project has been used or not, but it can be confused with an indicator of the quality or extent of the use of evidence.

Outcomes of the exercise

- By reviewing more than 200 research projects 3ie supported after their completion, we investigated evidence use claims and arrived at a confidence rating for 146 instances relating to 81 projects.
- For 84 instances relating to 50 projects, applying the contribution tracing approach led to 85 per cent or greater confidence that evidence use occurred. For 18 instances relating to 9 projects, we had below 80 per cent confidence that the claimed evidence use took place. Confidence levels were low when stronger supporting information could not be found despite searching for at least three months.



- The exercise led us to add to the definitions of our seven types of evidence use and rename the category, Informing global policy discussions. Finding that evaluation evidence from Kenya, Uganda, and Zambia fed into World Health Organization's (WHO's) global HIV self-testing guidelines led us to rename the category to: Inform global guidelines and policy discussions.
- Verified instances related to research projects completed for an average of 4.5 years by the time the exercise ended in 2020. This outcome aligns with the literature on the use of evidence from health research that highlights that the time required for engaging with and using research evidence depends on decision-making cycles that are usually not matched to the duration of the research project.[4]

Lessons

Understanding evidence use and impact

For dozens of projects, the exercise led to a revised understanding of whether or how evidence-informed change had occurred. We found that the words evidence use and impact mean different things to different actors. Speaking to implementers and other decision-makers and asking them relevant questions guided by the contribution tracing approach allowed us to find more instances than the researchers initially reported based on their understanding of impact. For example, researchers did not always consider or value their contributions to discussions about policy or improving the enabling environment for evaluation as types of change or impact. For example, in the case relating to the evaluation of a payments for ecosystem services program in Mexico, the researchers did not initially report their partnership with the implementer Comisión Nacional Forestal (CONAFOR) and involvement in a subsequent research project as an outcome related to the usefulness of the first evaluation.[5]

Factors other than reliable evidence promote or hinder evidence use

The exercise reinforced how factors outside the researchers' sphere of influence mediate the use of research evidence, even evidence endorsed as valuable and high-quality.[6]

Factors that promote evidence use:

- **Timely and relevant engagement of researchers with evidence users.** For example, in the case of a project in Kenya, evaluation findings and recommendations about different delivery models for HIV testing were available in time for Kenya's Ministry of Health and National AIDS and Sexually Transmitted Infections Control Program (NASCOP) to consider them as they reworked the national HIV Self-Testing Guidelines and operational manual.[7]
- **Relationships or partnerships between research project teams and decision makers.** In the case of a research project in Tanzania, researchers affiliated with an influential donor partnered with the government agency implementing the pilot Productive Social Safety Net Programme, Tanzania Social Action Fund (TASAF), on the study questions and methods. While scaling up the pilot, TASAF drew on the evaluation evidence to target households instead of individuals and focus more on children.[8] The case of a systematic review of economic self-help groups in low- and middle-income countries also illustrates evidence use linked to researchers engaging with decision makers on the implications of findings.[9]
- **Characteristics of researchers and their ability to mobilize funding.** For example, apart from study findings and a sustained engagement model, the project team's high credibility and global networks contributed to the adoption of teaching at the right level across several states in India and even other countries.[10] In the case of another project, evaluation of a school-based intervention to shift gender norms in India, the research and implementation team reportedly mobilized external funding to adapt the evaluated model and deliver it through government schoolteachers in two other states.[11]
- **Mandates or processes for considering evidence within the implementing organization.** South Africa's institutionalized National Evaluation System processes, coordinated by the Department of Planning, Monitoring and Evaluation, improved the chances that the Department of Basic Education would respond to the findings and implications of the Early Grade Reading Study and took them to the Cabinet, leading the President to mention the intervention more than a year after the study ended.[12]
- **The presence of champions within implementing agencies or among their donors or governance bodies.** In the case of the evaluation of interventions to upgrade Colombian day-care centers, an influential private foundation championed using the evaluation findings to prevent the expansion of a program that could harm child health.[13] The case of the evaluation of Malawi's unconditional cash transfer program shows how evidence champions in the government and the United Nations Children's Fund (UNICEF) helped to use and build on evaluation findings to support decision-making on increasing the size of the cash transfer.[14]

Lessons

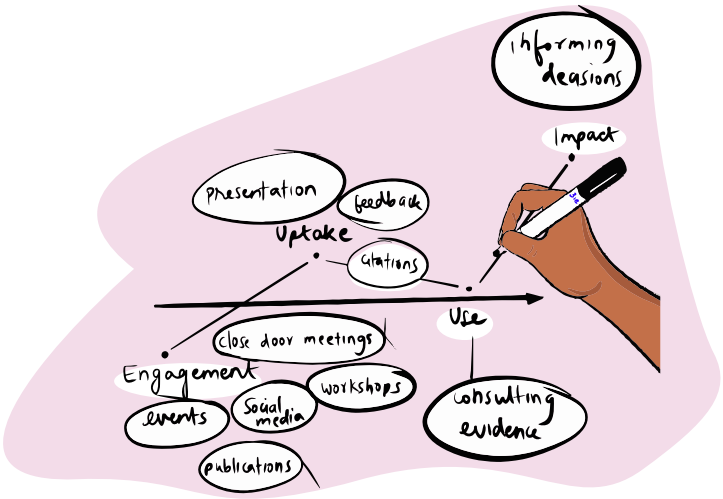
- **Intermediaries or knowledge brokers such as evidence clearing houses and authors of systematic reviews, media reports, and guidelines.** In the case of an incentives program for lowering maternal mortality in Gujarat, for example, national and state-level media highlighted evaluation findings that showed there were no effects of the incentives, a factor that helped the research team influence the decision of another state government to change its original plans to expand a similar program.[15] WHO's systematic reviews with crucial takeaways from studies of pilot HIV self-testing distribution programs in Kenya, Uganda, and Zambia helped inform global self-testing guidelines.[16]

Factors that limit evidence use:

- **Absence of enabling resources or preconditions.** In the case of the Early Grade Reading Study in South Africa mentioned above, the evaluation recommended implementing on-site teacher coaching for improving reading in the early grades. However, such implementation could only happen with ownership from provincial governments, assessment of the approach for other languages and provinces, and funds from local and central governments. Even in the North West Province, where the evaluation was conducted, the provincial government needed to modify teacher training budgets and build a new cadre of trained instructional coaches to support teachers. These processes could only take place gradually. Another case, which is related to regulating polluting industries through randomly assigned third-party auditors of industrial emissions, highlights how the absence of enabling infrastructure limits evidence use. Sub-national and national governments in India acknowledged the model studied in the research project in Gujarat. Still, the use of evidence remained limited due to the absence of a similar history of court-mandated anti-pollution systems in other Indian states.[17]
- **Shifts in the context.** Decision makers' focus and attention may have shifted to more pressing issues or other projects, stopping or slowing down the speed at which evidence-informed discussions and decisions occur on a given problem. For example, in the case of teaching at the right level research project, we found that although the project team had worked closely with the state government in Haryana, evidence was only used in other contexts. With the evaluation's leading champion transferred away from the state and the government bringing in a consulting firm to restructure the department, the Haryana education department did not directly use the project's materials or approaches.[18]

Implications

- A contribution tracing-informed approach to validate research influence is the most useful when there is no direct contact with potential users of evidence. Its feasibility depends on the availability of relevant narrative documentation of stakeholder engagement and trained staff.
- The use of process tracing with Bayesian updating helps identify validated and meaningful evidence use and impact stories that can help build a case for investing in both research and stakeholder engagement.
- Measuring evidence use and impact after the research project is completed is helpful because the timing of evidence use does not usually coincide with the project period.
- Research project teams benefit from investing in relationships with evidence users, especially with evidence champions and intermediaries who may continue to synthesize and translate evidence for decision-making even after the end of the research project.
- The absence of necessary resources or unforeseen financial, political, and economic shifts may limit the use of evidence.



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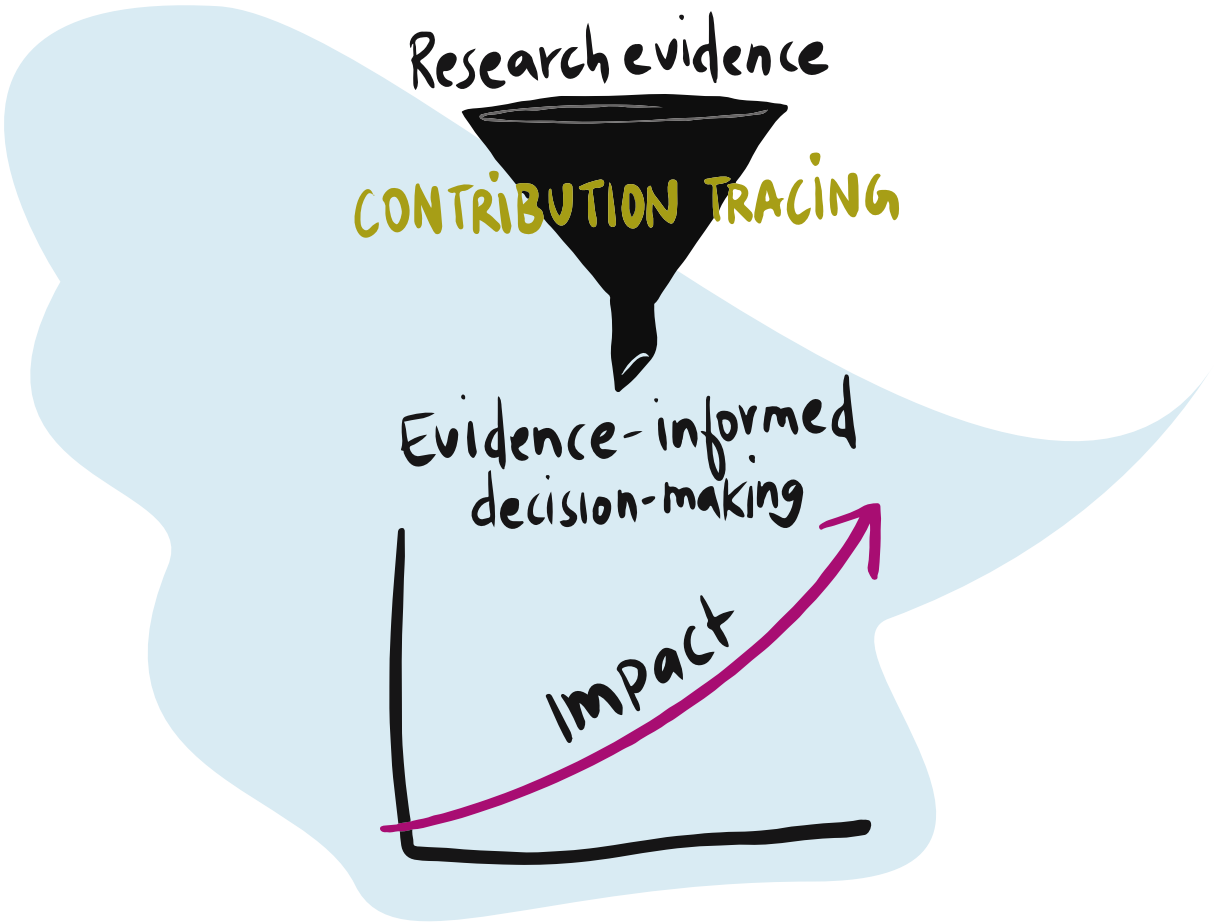
About this brief

This brief is based on an internal project to review stories of use and impact from 3ie-supported grants between 2018 and 2020. It summarizes high-level lessons learned in trying to monitor, measure and verify evidence uptake and use from our own work. Kirthi V Rao is the lead author and benefited from inputs from Deeksha Ahuja and Annie Vincent in drafting this brief. It is designed and produced by Akarsh Gupta, Annie Vincent, Mallika Rao and Tanvi Lal.



International Initiative for Impact Evaluation

The International Initiative for Impact Evaluation (3ie) develops evidence on how to effectively transform the lives of the poor in low- and middle-income countries. Established in 2008, we offer comprehensive support and a diversity of approaches to achieve development goals by producing, synthesizing and promoting the uptake of impact evaluation evidence. We work closely with governments, foundations, NGOs, development institutions and research organizations to address their decision-making needs. With offices in Washington DC, New Delhi and London and a global network of leading researchers, we offer deep expertise across our extensive menu of evaluation services.

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