Introduction

Research translation is the process of closing the gap between the generation of evidence by research and what is enacted in policy and practice. Research translation is a dynamic and iterative process that includes synthesis, dissemination, exchange, and ethically sound application of knowledge to yield beneficial outcomes for society (1, 2). The ultimate objective of development research translation is to improve social outcomes. New knowledge informed by research should be packaged and shared with intended users for its application in solving development problems. The hypothesis of research translation is that "when the greater supply of knowledge on what works is met by increased demand for evidence by policymakers, development policy will be more effective and will contribute to better living conditions of the poor in the developing world" (3). Achieving this requires strengthening knowledge generation and translation systems in Global South countries.

This evidence brief synthesizes a review of literature in the Research for Development Evidence Gap Map (EGM), constructed in partnership between USAID's Innovation, Technology, and Research (ITR) Hub and the Pulte Institute for Global Development at the University of Notre Dame. The brief examines effective approaches to research translation, individual and institutional needs for effective research translation, models for research translation capacity building at the institutional level, and appropriate translation products designed for uptake by policymakers and practitioners.

Literature relevant to research translation was identified by examining the Research Dissemination and Capacity Building columns of the EGM1. These columns present various points of evidence of research translation and dissemination processes.

We developed a nested codebook to define each research translation process and outcome based on research questions. Since this analysis was based on the deductive method of coding, we began by creating a collection of codes (terms we were looking for, or themes or patterns we came across while reviewing the documents) based on the research objectives and questions. We also adapted the Translational Science Benefits Model (TSBM)2, developed at Washington University in St. Louis, that encompasses the path for successful application of research translation for better results for policy purposes. The TSBM not only emphasizes the application of research in improving policy, products, and practice but places additional focus on how a community benefits from research. For example, the TSBM lists community health services, consumer software, and health education resources as crucial translation tools for better application3.

Because the original TSBM was designed specifically for health-related translation products, we broadened the language and conceptualization of the model to encompass other USAID technical sectors, while maintaining the general overarching themes of the framework. Accordingly, the codes capturing various dimensions of the TSBM were incorporated in the nested codebook (see Annex 1 for the translation product codebook).

We used Atlas.ti software to review and code the documents based on preselected codes. We generated a summary report based on the codes to start preparing the brief. While preparing the brief, emerging themes in the data index were described and explained.

This brief identifies existing evidence of effective research translation, best practices, and gaps for effective research translation. It also includes recommendations for strengthening research translation processes.

---

1 Fifty documents were reviewed from the EGM for this brief, including 16 performance evaluation reports, 21 peer-reviewed articles, 4 white papers, 3 bilateral donor documents, and 6 others.
2 https://translationalsciencebenefits.wustl.edu/about-the-model-2/
3 https://translationalsciencebenefits.wustl.edu/items/health-education-resources/
Individual and Institutional Barriers to Effective Research Translation

Much international social science research yields poor policy results because structured research translation strategies are not incorporated into study designs. Without proper research translation, evidence shows that the application of research will be limited, especially if policymakers and other end users require research findings in non-technical terms for their application in policy-making processes. By understanding the barriers to effective translation, researchers can design effective strategies to better facilitate research uptake.

**FINDINGS**

The literature showed that not all research findings meant for development audiences are being applied in development programming. Some reasons for lack of research uptake in programming include limited practical research applicability, lack of awareness of research findings, limited access to published research outputs, challenges in understanding and interpreting the literature, and lack of organizational support for adopting findings (2; 4; 5; 6).

Key obstacles to the use of academic knowledge by practitioners and policy makers include lack of time to read and digest information, as well as academic work being too abstract and not timely enough to inform decisions (7).

Many researchers find it challenging to translate technical research findings into policy relevant reports and other formats that directly speak to the contexts and needs of policymakers and practitioners, thus potentially limiting the effectiveness of these modalities (7).

The evidence suggests researchers in the Global South rarely conduct research translation because they face a range of barriers at individual and institutional levels that limit their translation practice. Such barriers include “inadequate skills, particularly for communicating research and interacting with research end-users, insufficient funding, and inadequate institutional guidelines, structures and incentives promoting research translation practice” (2). One common issue cited by these researchers is a lack of incentives or structures within their institutions that encourage more research translation (8; 2). For academic researchers, tenure-track faculty in particular, academic incentives are often targeted towards teaching and/or publishing in academic journals rather than towards policy-oriented research implementation and translation (9; 10; 11).

A limited body of evidence gathered from scientists in the Global South has demonstrated that barriers to research translation at the individual level relate to limited capacity in research translation methods (12; 13; 14; 10). Even where training to build capacity is provided, the sustainability of research translation capacity development efforts could possibly be derailed in situations where there is high staff turnover and the absence of full-time permanent staff (13).

Tradational indicators of research productivity—such as the number of patents obtained, of peer-reviewed articles published (particularly in top scientific journals), and of graduate students involved—are notoriously weak in the Global South (15). However, one study also notes that measuring research success in these terms “misses the point about the role that these institutions play in a country’s development” (14) because policymakers and practitioners are far less likely than academics to refer to published literature in decision-making (7).

While development outcomes often depend on the adoption by community members of evidence-based behaviors and practices, these stakeholders are often the least likely to benefit from research translation because they are not always considered research end users. Strategies for research translation and dissemination typically focus on actors such as government agencies and NGOs, but disseminating findings among local communities can decrease social inequities and transform research into an iterative process that increases impact over time (16; 17).
GAPS

Variation in the Conceptualization of Research Translation: There is a lack of cohesion in what research translation means across contexts and organizations, creating difficulties when comparing approaches and outcomes. Some documents conceptualize translation in terms of influencing decision makers and/or practitioners; other evidence refers to translation in terms of products, devices, or tech transfer; yet other documents point towards the importance of expanding the notion of research translation to the community level to generate and disseminate new localized knowledge.

Shallow Evidence on Gender: The evidence review yielded little literature on supporting women in overcoming systemic and institutional gender barriers to implement research and research translation efforts.

Opportunity Differentials: While offering financial support for research translation to complement research implementation is emerging as a promising practice, it remains a relatively limited mechanism for research in the Global South. Even in instances where financing is provided to translate research products into usable forms of knowledge, poor researcher-practitioner linkages can hinder the translation process (12; 18; 4; 19).

Incentivizing Translation for Researchers: Institutional incentives present significant barriers to translation. However, the interaction between institutional incentive structures and individual researchers can vary from institution to institution and even from researcher to researcher. Some incentive structures provide no opportunity to engage in the production of translation products, thus inhibiting the willingness of academics to engage in translation that will not serve, and in some cases may even directly harm, their ability to advance. For example, when faced with a choice between allocating time to produce a training module for practitioners based on research findings or a peer-reviewed publication, academic incentives within the home institution might push the researcher to opt for producing the peer-reviewed publication. Generating a better understanding of incentives and disincentives can allow programs to create a better enabling environment for researchers to invest more fully in translation.

CONCLUSIONS

• The traditional linear approach of performing a research study, then disseminating the results to key stakeholders, is not a model that has led to widespread adoption of research findings in the Global South. Research translation is a relatively new expectation for many researchers in terms of broadening their intended audiences.

• Significant, but not insurmountable, barriers to effective research translation are limiting the effectiveness of development research. These barriers are particularly pronounced among researchers in the Global South.

RECOMMENDATIONS

Recommendation #1: Establish a consistent framework for research translation

Inconsistency in the definition and framing of research translation complicates the process of change needed to make translation common practice. In many research translation projects, a knowledge translation framework is used for closing the gap between research and practice (20). Examples include the eB4CAST framework (21) and the Translational Science Benefits Model. Translation models can be developed, adapted, or adopted at the project, program, and organizational level to ensure a consistent approach to research translation.

Recommendation #2: Invest in understanding contextual barriers to research translation

Contextual factors will either facilitate or inhibit research translation toward development outcomes. Understanding the context will provide insight into adopting appropriate strategies, approaches, and products sensitive to the context within which translation is meant to occur. This might entail facilitating a contextually relevant co-creation, examining institutional systems and structures, or assessing translation capacity, among other activities.

Recommendation #3: Improve understanding of gender equity and inclusion around research translation

There was little discussion of the needs of women and vulnerable groups in terms of the best type of products for knowledge application. For example, many health projects aimed at improving the health of women and children were devised without understanding the specific needs of those groups, including preferred methods to engage in outreach.
Effective Approaches to Research Translation

Traditionally, research has often been approached as a linear and unidirectional process wherein research is conducted and findings are disseminated to end users, usually through reports, journal articles, or briefs (5). However, in the literature, dissemination of results is not necessarily the same as research translation, which is deliberately aimed not only at communicating evidence but at expressly contributing to the uptake of research findings into policy and practice. Creative strategies, such as facilitating early interaction between researchers and policymakers, are needed to promote the utilization of research for policymaking, since traditional dissemination efforts have failed to yield much change (22). A variety of approaches to improving translation of research are discussed in the literature.

FINDINGS

Donors seeking to support the creation of new knowledge capable of alleviating a country’s development problems can do so by strengthening the research translation enabling environment in priority countries. Approaches to achieve this include supporting national research strategies, research councils, peer-review systems, and dissemination events for research results (23).

Co-creation of research design, implementation, and translation with policymakers and practitioners—such as local and international non-governmental organization staff, development partners, and employees of the private sector—is key to designing research for better translation outcomes (14; 24; 25; 26; 27; 28; 29; 30; 17). Critical strategies for translating research into policy within this approach include “joint agenda-setting between researchers and policymakers, as well as building trust and partnerships with different stakeholders.” (31) In addition, facilitating shared platforms for learning and decision making among stakeholders, implementing operations research, and sharing results with stakeholders boost high development outcomes (32).

A promising practice emerging in this area is that of embedded research translation, wherein research translation is built in from the beginning and through all phases of the research process—from identifying the research topic to disseminating the findings—instead of as a final step once results have been obtained and analyzed (10). Early indications are that this approach can lead to more deliberate uptake of findings. However, synthesizing the body of research already available on a topic can also help users to employ existing research even before new results become available (20).

Some evidence shows that research translation capacity building at the individual and institutional level has been supporting more deliberate and effective translation in several contexts (12; 13; 33). Research capacity building activities encompass many skills, including those associated with identifying national research priorities, generating and disseminating knowledge from research, and transforming that research knowledge into policy. Training programs have adopted a variety of approaches for capacity building, such as demonstration and supervision sessions, short courses, technical assistance and mentoring, workshops, and distribution of knowledge products and other materials (34; 35; 2; 6; 17; 26). More innovative strategies include artistic performances and games and the use of specially adapted materials (e.g., picture books, photographs) to make such training more effective (25).

Effective community level translation methods place an emphasis on using a variety of interactive and participatory strategies aimed at soliciting, valuing, and engaging with community embedded knowledge and skills, rather than on submitting written results to the community (36; 37). Community-based participatory research and co-creation can increase the appropriateness of research questions and the applicability of research results (9; 38; 39; 16; 17).

Research translation activities at the community level, when applied, have even been shown to improve the well-being of people in local communities who experience development issues as part of their everyday lives (34; 36). Treating communities as meaningful partners from the beginning of the research cycle can increase the usefulness of research and reduce barriers to research uptake.
GAPS
User-Informed Capacity Building: In our review, there was a gap in the literature examining how to assess capacity building needs of key stakeholders in research translation. As a result, there is a risk that capacity building is provided without understanding the specific needs of trainees (40).

Sustainability of Research Translation Approaches: As part of the research process, knowledge generation and translation cannot avoid questions concerning sustainability. Some effective approaches discussed involve creating new institutions or structures at the project level. When the project ends, these systems risk becoming dysfunctional. The evidence was thin on examining ways to make research translation sustainable at the institutional level.

Opportunity Costs of Research Translation: Research translation can require significant time and resource allocation by researchers (17) which are not often adequately considered or understood.

CONCLUSIONS
• The literature in the EGM suggests that while many different translation approaches and products have proven successful in different contexts, the appropriate translation approach and product will almost certainly vary by individual stakeholder, by thematic area, and by context.

• Creating an enabling environment and building capacity for research translation in Low- and Middle- Income Countries (LMICs) is crucial for increased application of research in solving development problems. Many donor-funded projects have responded by providing embedded training to researchers and project staff to increase their capacity to produce quality research that addresses the needs of stakeholders.

RECOMMENDATIONS
Recommendation #1: Address the specific research translation needs of key stakeholders
Efforts to foster research translation should initially focus less on a specific research translation product type and more on the process of determining a suitable research translation product for the intended stakeholder audience. It is important to understand the specific needs of stakeholders from research. Currently, common research practice is to focus on government staff as intended users without first understanding their information needs. In our review, we found there was minimal focus on needs assessments intended to identify end-user preferences for translated research products. Further, there was minimal evidence to understand the needs of the private sector to access and use new knowledge. A stakeholder map can be prepared to identify stakeholders and trace what each expects so research products can be better designed to meet their specific needs. It is important to develop a knowledge dissemination framework for a specific group of people with the type of products they need.

Recommendation #2: Invest in expanding the evidence base for stakeholder-oriented approaches
Evidence demonstrates that stakeholder-oriented approaches, such as the embedded research translation model, can be effective in leading to uptake and development outcomes. However, they also potentially require significant upfront costs and the establishment of new systems and structures, some of which may not be sustainable once donor support ends. Investing in additional research and evaluations of these approaches can serve to expand the evidence base around their practical application.

Recommendation #3: Build the research translation ecosystem for sustainability
In our review, some reports point out that the sustainability of the research translation process could be an issue when the donor-funded project ends. Capacity building among academic institutions is an approach to address this over a longer term than resource provision alone. However, little attention has been paid to making the system sustainable by involving government and the private sector in providing ongoing resources to research translation and dissemination. It is important to develop a sustainability plan for each research project to reach key stakeholders. This would include creating a favorable incentive structure for both researchers and policymakers/practitioners to engage in research translation.
Appropriate Translation Products for Policymakers and Practitioners

The literature on research translation explores a wide variety of translation products, including research reports, policy briefs, presentations, infographics, proceedings, journal articles, short videos, and online forums. However, the digital divide may still pose a challenge for many to access these platforms in the Global South.

For agricultural and other community-based knowledge translation, various active methods have become popular in practice, such as learning centers, field days, technology fairs, and mass media (4; 9; 12). Community members intended to benefit from this knowledge transfer find this approach very helpful in learning to replicate the practice in their fields.

GAPS
Linking research uptake to development outcomes: While a body of evidence exists on the effectiveness of targeting various translation products to specific stakeholders, evidence is lacking in the application of such products for improving development outcomes.

Translation product costing: Although cost (both actual and opportunity) is an important determinant of sustaining the translation system, evidence is lacking on the cost of generating such products for policy purposes.

Research applicability as a criterion for translation: Accessing knowledge does not guarantee it will be used for policy-making purposes. The literature is lacking on how to apply knowledge production to policy purposes and the effectiveness of knowledge products in solving development problems.

FINDINGS
Using appealing visualizations, such as infographics, is in many cases the best approach to reach policymakers in a way they can comprehend and apply. Infographics grab attention and make the program’s message known in an easy-to-digest manner (21; 41).

An emerging line of inquiry among policymakers in the West indicates that academic and scholarly research or technical reports are not always effective research translation products, because they are not timely, approachable, or even accessible by intended users (7; 42).

Policy briefs and blog posts prepared from research findings in approachable and non-technical language are also considered in much of the literature to be more effective means of translating research findings for improved application than traditional reports or academic publications, although this does not always hold true (13; 45; 7). Because the literature is somewhat mixed, researchers should not consider this approach a guarantee of success in research translation.

Colloquiums, workshops, and conferences have been used to create forums for academic and research communities to collaborate in knowledge translation (36; 22; 44). Research disseminating events have in some instances been effective in communicating evidence-based research and intervention to policymakers (44; 13). In-person or virtual events with a mixed audience of researchers, policymakers, and practitioners are suggested for wider visibility and application. However, not all researchers feel comfortable or are willing to make the time to share their research through active engagement in the dissemination of their findings to policymakers or the public (32). Moreover, these events may be “less effective for achieving policy-related outcomes” (13) if the policymakers are invited merely as members of the audience at the conclusion of the research rather than as research partners.

To address the challenges of in-person events, attempts have arisen to utilize ICT in sharing research knowledge, including through interactive online forums (33; 5; 45). These online forums are used to share research findings and other ideas with wider communities. Such communities of practice that have a mixed audience of researchers, policymakers, and practitioners are suggested for wider visibility and application, but they also can be difficult to launch and sustain. The application of ICT in creating knowledge platforms is helping overcome barriers to access.

CONCLUSIONS

- Research can be communicated to users in a variety of ways, through conferences, paper publications, policy briefs, and events. Unidirectional dissemination approaches are less effective, as they do little to engage stakeholders to provide feedback on the quality and desirability of knowledge products.
- Appropriate products to ensure high uptake will vary by context and by stakeholder; although succinct and non-technical visualizations and briefs are likely to be more successfully taken up than research articles or other technical reports.
- Notably, in recent years ICT has become a more interactive and useful way to reach policymakers and other stakeholders. This application of ICT helps break down barriers to access.
RECOMMENDATIONS

Recommendation #1:
Target translation products directly to the needs and constraints of intended users.

Not all researchers generate evidence for policy purposes. Products which demonstrate poor applicability (e.g., because information is duplicated, or the research does not produce a practical solution) or are ill-fitted to the timing and information needs of users are less likely to result in policy outcomes. It is important to examine the applicability, desirability, and utility of translation products before producing them.

Recommendation #2:
Deepen the evidence base of the effectiveness of online systems to address the need for research products.

In recent years, online resources have been used increasingly to access knowledge products and show some promise in improving reach, but we know little about the inequities these platforms might perpetuate. Examining the effectiveness of such an approach is warranted. It is also imperative to examine if the digital divide is a limiting factor to the full use of online learning.

Acknowledgements

This document is made possible by the generous support of the American people through the United States Agency for International Development (USAID) under the terms of contract no. 7200AA18C00057, which supports the Research Technical Assistance Center (RTAC). This report was produced by Paul Perrin, Lila Khatiwada, Kevin Waitkuweit, Jaclyn Biedronski, Kevin Fink, and Anna Lande at the Pulte Institute for Global Development at the University of Notre Dame as well as Gabriela Alcaraz and Brooke Jardine at NORC at the University of Chicago. The contents of this document are the sole responsibility of RTAC and NORC at the University of Chicago, and do not necessarily reflect the views of USAID or the United States Government. April 2022.
## Appendix A: Research Translation Products And Outcomes

<table>
<thead>
<tr>
<th>Practice Translation</th>
<th>Social Translation</th>
<th>Economic Translation</th>
<th>Policy Translation</th>
<th>Research Impact</th>
</tr>
</thead>
<tbody>
<tr>
<td>Guidelines</td>
<td>Improved novel uptake of goods and services</td>
<td>Improved Cost-Efficiency</td>
<td>Legislation</td>
<td>Citations</td>
</tr>
<tr>
<td></td>
<td>Formal recommendations or principles to assist with service delivery</td>
<td>Increased utilization of goods and services (demand side)</td>
<td>Bills, laws, statutes, and ordinances passed through formal legislative bodies such as congresses, parliaments, state or provincial legislatures, and county and city councils</td>
<td>Evidence of citation</td>
</tr>
<tr>
<td>Processes</td>
<td>Improved delivery of goods and services</td>
<td>Improved Cost-Effectiveness/Benefit</td>
<td>Procedural rules formally adopted and mandated by governmental agencies or private or non-profit organizations</td>
<td>Impact Factor</td>
</tr>
<tr>
<td>Investigative Procedures</td>
<td>Improved quality of goods and services</td>
<td>Improved Cost-Effectiveness</td>
<td>Formal designations of levels of quality defined by industry, occupational groups, or governmental bodies</td>
<td>Evidence of information in high-impact journals</td>
</tr>
<tr>
<td>Tools</td>
<td>Improved Capacity</td>
<td>Improved Development Outcomes</td>
<td>Expert application of development data, skills, or results for governmental, non-governmental, or private sector entities</td>
<td>Altmetrics</td>
</tr>
<tr>
<td>Dynamic Platforms</td>
<td>Improved ownerships</td>
<td>Improved Development Outcomes</td>
<td>Non-technical, evidence-based documents geared toward audiences who intend to use the information for policy/behavioral change</td>
<td>Evidence of high impact through altmetrics</td>
</tr>
<tr>
<td>Technology, equipment, and supplies</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*Appendix A represents the adapted TSBM framework used in coding the references for the evidence brief.*
References


CAPACITY BUILDING FOR RESEARCH TRANSLATION


“Towards a New International Oriented Danish Research Programme.” Nordic Consulting Group A/S.

“Evaluation of the USAID-Funded Collaborative Agricultural Research Networks in West and Central Africa.” Rural and Agricultural Incomes with a Sustainable Environment (RAISE) for USAID. 1-38. IQC No. PCE-I-00-99-00001-00, Task Order 827.
