

Knowledge Translation: An Introduction

What is Knowledge Translation? Known by a host of names, knowledge translation (KT) is such a tangle of actors, ideas and approaches as to defy a single definition. There are academic explanations of KT, there is KT in action, to some it means communications, to others linkage and exchange. Reduced to its essence, though, KT is the middle, meeting ground between two fundamentally different processes: those of research and those of action.

KT works, above all, to knit these two processes together. An intensely social process, KT depends upon relationships. With no golden formula for decision-making – where every policy weighs up all the evidence and arrives at the best, most rational solution – KT relies upon vibrant partnerships, collaborations and, above all, *personal contact* between researchers and research-users. In connecting the purity of science with the pragmatism of policy, the intangibles of trust, rapport and even friendship can be more potent than logic and more compelling than evidence.

Though the concept of KT has existed for decades, the Mexico City Ministerial Summit of Health Ministers in 2004 put the first real focus on the world's “know-do” gap”. *In an age where we know so many things, why are we applying so little of it?* The Summit made this problem a priority, and a solution imperative. Summiteers called for the increased involvement of the demand side in the research process, emphasizing knowledge

brokering and other mechanisms for “involving the potential users of research in setting research priorities”.¹ Health policy, the Summit declared, should ultimately be “based on reliable evidence derived from high-quality research”.

Though the declaration was made with enthusiasm – and echoed in many follow-up meetings and papers – there was little guidance on how to actually bring together research and research-users. *How, in practice, might we open these novel pathways connecting all these pivotal actors?*

In the years since the Summit, our exploration of this particular question has led us to three core KT principles, which we illustrate on every page of this Toolkit:

Knowledge. KT efforts at any level depend upon a robust, accessible and contextualized knowledge base.

Dialogue. The relationships at the heart of KT can only be sustained through regular, two-way dialogue and exchange.

Capacity. Researchers, decision-makers and other research-users require a strengthened skill-base to create and respond to KT opportunities.

The Four Models of KT

The voluminous academic literature on KT offers many perspectives on the above three principles. Especially useful are the four different “models” of KT as discussed by Lavis et al (2006) – push, pull, exchange and integrated.²

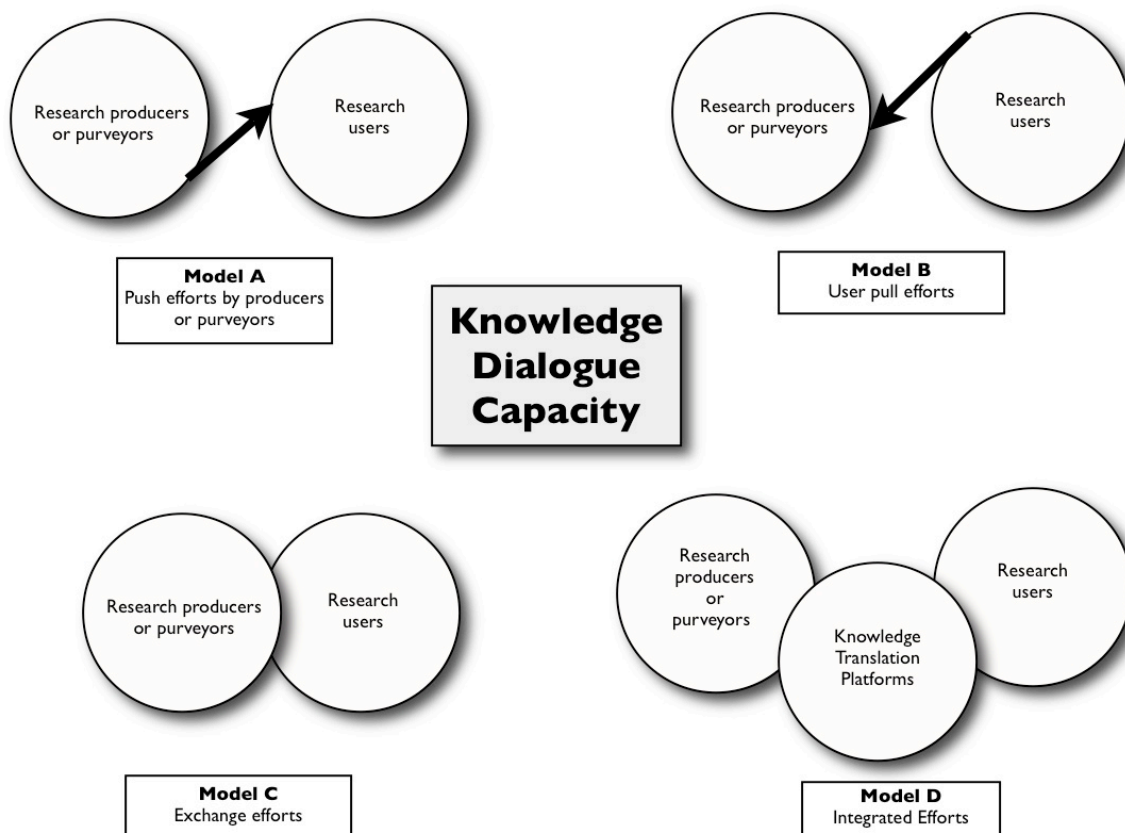
The central actor in the **push model** is the researcher, whose knowledge is the principal catalyst for change. Push techniques include developing attractively-packaged tools (e.g. syntheses, policy briefs, videos) that make research processes and findings more accessible to decision-makers and other research-users. These techniques may understand the context and needs of decision-makers – and may even involve decision-makers in their design – but the involvement of decision-makers in the push model is typically as a receiver or target of information. “Push” efforts are ideal for situations where decision-makers may need (or be convinced to need) information on a particular topic.

The **pull model** concentrates on research-users, with their desire for more information or skills being the main driver of action. In this model, decision-makers may seek evidence on a particular topic, conduct a review of programs or services to determine whether new evidence warrants changes, or participate in a training course on how to critically appraise evidence or on understanding how and where to use research evidence in decision-making.

¹ WHO Executive Board. 2005. Ministerial Summit on Health Research (Mexico City, 16-20 November 2004). Report by the Secretariat. Available at: http://www.who.int/gb/ebwha/pdf_files/EB115/B115_30-en.pdf

² For more on these models, please see Lavis J, Lomas J, Hamid M, Sewankambo N. 2006. “Assessing country-level efforts to link research to action”. *Bulletin of the World Health Organization*. 84: 620-628.

Models of Knowledge Translation



Source: Adapted from Lavis J, Lomas J, Hamid M, Sewankambo N. 2006. "Assessing country-level efforts to link research to action". *Bulletin of the World Health Organization*. 84: 620-628.

The **exchange model** (often called linkage and exchange) rests upon partnerships, with both researchers and research-users collaborating for mutual benefit. Such partnerships may be short- or long-term, may occur at any point in the research or policy process, and may include such activities as priority-setting exercises, collaborative research projects, and creating knowledge systems (e.g. databases). **Knowledge brokers** may play a crucial role in establishing these strategies.

Finally, the **integrated model** is best represented by the emerging idea of the Knowledge Translation Platform (KTP), a national- or regional-level institution committed to fostering linkage and exchange across a health system. The institutional equivalent of a knowledge broker, they are an intermediary between research and policy working to connect the needs of the policy process with the tools of research, and to infuse public dialogue with an appreciation and understanding of research processes and evidence. KTPs may contribute to the creation of a user-friendly knowledge base; convene dialogues and meetings; and offer routine capacity building courses.

While we will explore all four of these models throughout these twelve chapters, this Toolkit is a particular contribution to the "push" side of KT. It was inspired by researchers who want to improve their ability to inform, influence and engage with policy and practice. Strengthening the capacity of researchers to become better KTERS is the

spirit running throughout these pages, and we draw on many years of IDRC's and *Research Matters'* experience in working with researchers in low- and middle-income countries.

As such, the primary audience for this Toolkit is researchers in health systems and policy research, seeking to strengthen their capacity on the individual *and* the organizational level, from particular research projects to larger issues of organizational development. It draws from academic sources but does not dwell upon or create new models or theories. Each chapter explains a key KT concept and then makes it operational through practical examples, with suggestions for finding further resources.

Knowledge Translation at Work: Bringing Research Alive



“Everything is here! I’ll even give you a half-price special!”



- “How am I supposed to cut the umbilical cord? The scissors need grease.”

- “Please take what you need from my purse. And hurry!”

These cartoons are outstanding examples of KT in action, telling the story of a study into corruption in the Senegalese health system. At a glance, they reduce complex research findings into something easily understood by the study's target groups – doctors and other healthcare workers, ministry officials, and health-seeking citizens. These cartoons do not present any findings, they do not discuss methodology or research design.³ All they do is provoke – *what do you mean midwives are extorting payment!* – knowing that a provoked audience will want more information. In KT terminology, these cartoons are a “push” tool as their focus is purely on creating further demand for their findings. They aren't trying to link and exchange, they're not trying to facilitate pull or integrate efforts: very simply, they're pushing an aspect of their findings in a *What are you going to do*

³ See http://www.idrc.ca/en/ev-87466-201-1-DO_TOPIC.html and <http://www.forumcivil.sn/> for more details on this project.

about it? tone. They are an opening salvo, and as such must be supported by more information for those whose interest or ire has been aroused.⁴

Though this push tool was used at the end of a research project, we might also use such tools at the beginning or mid-point of our project. Cartoons may not have been necessary had the researchers been working with medical groups and the government from the outset – if their audience didn’t need to be shocked into action – using, for instance, research as an on-going policy and planning tool, as constant feedback on the progress of a programme or a policy. This may not always be possible, and is indeed unlikely for any study that, for instance, investigates an issue like corruption. For that reason, the cartoons highlight another aspect central to KT – understanding the overarching *context*. Corruption is not an issue that can be discussed or dealt with over a friendly lunch with a government official. The researchers understood that the “powers that be” would likely be hostile to their results because their issue was highly politicized and might even name names. Printing them in newspapers, papering cartoons on the walls of clinics – these aggressive tactics forced many different audiences to respond. They couldn’t afford not to.

Of course, every researcher, project and organization is different, so the choice of “push” tools will differ, as will the opportunities for facilitating pull and creating linkage and exchange partnerships. A study on competing health financing modalities in rural Tanzanian communities may not lend itself to cartoons – but may present strong opportunities for partnering with local government and convening an eventual “national policy dialogue” to discuss the range of available options. A study on ARVs in South Africa may become a cutting-edge “best practice” model whose experiences and knowledge are packaged not only for local and national audiences (of decision-makers, the media, communities, practitioners *and* researchers), but international and global audiences too. After all, researchers are not only agents of change in their own contexts: every researcher is an audience as well. Linkage and exchange between researchers in different contexts and geographies can be some of the best and strongest KT strategies available: we have so much to share and learn from each other.

Overview of this Toolkit

This toolkit is dedicated to that sharing and learning spirit. Its twelve chapters are all integrally connected and may be read together or considered individually.

In *Chapter Two*, we continue this big-picture discussion of KT in **Bringing in the Demand: Towards the Harmony of Push and Pull**. Here we attempt to demystify the “demand side” of research, journeying into the theory behind the policy process (how are decisions made?) and the nature of evidence itself (what do we mean by “evidence?”). We discuss some useful approaches and strategies for promoting linkage and exchange, and provide some examples that have successfully brought in the demand side. We conclude with a discussion of knowledge brokering and the emergence of

⁴ With these cartoons, some well-written media releases, and a dose of good luck and timing, the Senegalese researchers created a media storm that put their findings front-and-centre (in August 2005). This ultimately resulted in the President of Senegal issuing a letter congratulating the researchers and promising a full investigation into their results. The government has taken several steps since then to weigh and implement the study’s findings.

Knowledge Translation Platforms dedicated to the core KT principles of knowledge, dialogue and capacity.

Chapter Three examines **Knowledge Management (KM)**. Though defined and presented in many different ways, KM is about identifying, capturing and sharing knowledge, allowing us to access the knowledge we need *when* we need it. This chapter is a starter's kit to KM, examining the people, processes and technology that can maximize the utility and impact of both tacit and explicit knowledge. We outline the steps in devising an overarching KM strategy (where are we, where do we want to be, and how do we get there?), and then dissect a variety of different KM tools in theory and in action, including after action reviews, knowledge audits, storytelling, and the peer assist.

In *Chapter Four*, we examine the art of **Context Mapping**. Who might support our work? Who might hinder it? Who must know about its policy implications? How do policies in our field become formulated? *Who and what are we trying to influence?* Also known as political mapping and situational analysis, context mapping is a process of understanding and adapting to the needs, politics and “realities” of our environment so we might more effectively interact with it. We'll examine some of the mapping theory, and illustrate it through practical tools and a particular, fictitious example where the evidence is not definitive and on which scientists, institutions and even countries sharply disagree.

Chapter Five explores the relatively new concept of **Evaluative Thinking**. Evaluative Thinking (ET) makes evaluation a full-time, built-in mind-set; its practitioners constantly reflect upon their work, learning valuable lessons that work to influence and modify their activities. *What are we learning and how can we use those lessons to improve our performance?* We'll discuss some key concepts, review some critical ET tools, and conclude with four suggestions for developing effective ET strategies. A full annex to this chapter on **Monitoring & Evaluation** (in a *Frequently Asked Questions* format) follows.

Chapter Six walks us through **Developing a Communications Strategy**. In this chapter, we discuss the theory and outline ten *Essential Elements* that any strategy must answer to get a better picture of where we are, what we have to say to the world, and how we intend to go about saying that. We emphasize throughout the need to focus less on tools – a video documentary, for instance, or a policy brief – and more on how communications will help us achieve our core goals. How will communications support *everything* we do?

Chapter Seven is the first of several examining specific “push” communications tools. In the context of an overall communications strategy, **Communicating Research Findings: Print Media** discusses a range of print tools for reaching specific audiences. Though print media is only one of the many outlets for our work, print tools remain the “industry-standard” and are extremely important. Discussed tools include peer-reviewed articles, newspaper articles, press releases, policy briefs, and newsletters. While print media tools are typically employed at the end of the research cycle (when we have results we want to share), this chapter stresses how they might be used *during* the course of any research project.

In *Chapter Eight* we reduce a complex paper and issue into an action-oriented brief. In **The Two Pager: Writing a Policy Brief**, we take the contested issue of male

circumcision and HIV-prevention and watch, step-by-step, as purely scientific findings are reduced, discussed, operationalized, and distilled into a two-pager that concludes with a set of viable policy options. We'll discuss and use the *problems-possibilities-policies* format so effective in conceptualizing policy briefs, briefing notes, and even press releases.

Chapter Nine is dedicated to the **Systematic Review**, a unique and powerful KT tool that assesses – fairly and objectively – all relevant knowledge on a question at hand. Using a *Frequently Asked Questions* format, we'll discuss the basic components of a systematic review – with an overview on its form and use to a discussion of where to access them – and conclude with observations on the future of systematic reviews as a more integrated, contextualized and even demand-driven KT tool.

Chapter Ten offers a window into **Open Access**, explaining what it is and how we can contribute to it, first in giving our work a higher profile, and second in deepening global bodies of knowledge. This chapter outlines the logic behind Open Access (OA), the history, the various “routes” to OA, and then explains how researchers can both access and contribute to open access repositories and journals. The chapter concludes with a myth-debunking *Frequently Asked Questions* section and a *Glossary* of key terms.

In *Chapter Eleven*, we discuss the art of the presentation and creating the “next wave” of conferences. **The Conference 2.0: better presentations, better conferences** seeks to turn every conference into a dynamic learning environment, where strong oral and poster presentations easily flow into proceedings that capture the conference's key messages and action points. We'll discuss *oral presentations* (making speeches more memorable, and using technology as a responsible support), *poster presentations* (choosing the right content, look and size), and *conference presentations* (how to better involve rapporteurs and chairs in capturing main messages and creating a dynamic *and used* conference record).

Our final chapter, *Chapter Twelve's Tapping Technology: Integrating Applications* focuses on the three major applications that we all use every day – email, the internet, and word processing. We'll review some tips, tricks and techniques for using each (from effective email strategies to developing a web presence to desktop publishing) and see how to start using these applications in a more integrated and ultimately more intelligent fashion.

Comments? Questions? Criticisms?

Like KT itself, this toolkit is iterative and exploratory – it is a starting point, an introduction, not a treatise or a definitive analysis. And its success depends upon your active comments, questions and criticisms. Is there anything we've missed? Anything you disagree with? Topics we should devote chapters to in the future?

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Research Matters (RM) is a collaboration of the International Development Research Centre (IDRC) and the Swiss Agency for Development and Cooperation (SDC). RM was launched in 2003 to examine and enhance the specific KT dynamics within the field of health systems research. From these founding connections with both a research funder and a bilateral donor, RM has occupied a unique vantage among health researchers and research-users. By working directly with both the producers of research and with its consumers, RM has developed a range of activities and modalities designed to hasten the movement of research results to the policy arena, to database and access those results, to communicate them, and to expand an appreciation of research itself. RM builds capacity among researchers to perform their own KT; RM responds to the priorities of major research-users; and RM actively brokers both research results and research processes. As an active, ground-level embodiment of KT, RM has helped to shape how health research is demanded, created, supplied, and ultimately used.