Research Into Action:
Building A Community of Knowledge Translation Professionals
Welcome To the World of KT

The Institute for Health Policy (IHP) was established in 2004 at The University of Texas School of Public Health to assist researchers in translating their technical findings into usable advice and practical recommendations. This practice is commonly referred to as “knowledge translation,” or simply “KT.” With a generous gift from the ExxonMobil Foundation, the IHP has developed new ways for health professionals to learn and improve KT through a program called Research Into Action (RIA).

Research Into Action is dedicated to sharing information and tools to advance the practice of KT, providing an interactive basis for knowledge-sharing and the exchange of ideas and experience, improving KT scholarship through research inventories and systematic reviews, and collaborating with other institutions, including the U.S. Centers for Disease Control and Prevention, to provide KT resources and training across the health professions.

The RIA has become a leading source of support for the KT professional by creating and maintaining a web-based portal that offers insight and know-how, free of charge, to KT practitioners around the world. RIA has also trained and mentored public health students on projects that linked researchers and their scientific results to policymakers and practitioners and influenced their decisions. We are now moving into the next generation of training and support for KT development by extending our reach and impact through social media, new training modalities, and multimedia content.

This report serves as a history, a current picture, and a plan for the future of RIA. We hope you enjoy this look back at what we’ve accomplished so far, what we are working on now, and how we plan to position RIA as the worldwide leader in KT resources for professional development.
Launching Research Into Action

When RIA was founded, the core idea of bringing knowledge users and research producers closer together was still new to the health professions in the United States. While there was attention being paid to linking the “bench and the bedside” for improving clinical care, the translation message was limited to medical tech transfer. Most of the scholarship and practice relevant to population health was taking place in Canada and the United Kingdom.

In addition, the literature relevant to KT was spread widely across different disciplines and often lacked explicit direction on how to conduct successful “research into action” translations. The RIA team reviewed this literature and identified a set of “best practices” in the field, then developed a unique model for KT that prescribes different levels of effort and activity based on the perceived gaps between the research producer and eventual user. This marked a significant advance in the conceptualization of the KT process.

As demonstrated in the model’s spectrum of encounters (see opposite page), researchers and end-users (including policy makers, administrators, or health professionals) will differ in values and motives but may share common goals. As the difference increases, the tools needed for translating across the gap between them become more demanding. This model, underlying RIA’s activities, serves as a basis for identifying research needs, as well as a tool for achieving success in closing the gap.

RIA also depends upon “evidence mapping” to assemble a broad array of directly relevant supporting evidence for targeted audiences. Evidence maps can be created that display general results and clusters of evidence in a way that best summarizes the research findings. The team weighs the evidence by mapping published study results to answer specific questions about the central topic under consideration.

As translation demonstrations, RIA has used the model and evidence mapping on selected areas of research to bring its findings to audiences who expressed a need for them.

Knowledge Translation Demonstrations

The RIA team applied its tools and techniques to translation for four distinct research projects that span the field of public health: health education (PASS & CATCH), health services research (SBIRT), environmental exposure (city noise ordinance) and community needs assessment (the Health of Houston survey).

PASS & CATCH
RIA’s first translation project was PASS & CATCH, which documented a positive link between increases in physical activity while in school and improved academic achievement.

Working with the lead researcher, the RIA team developed advocacy and presentation materials that explained the results to professional audiences of educators, and collaborated with the U.S. Centers for Disease Control & Prevention’s national marketing team to ensure extensive awareness of the PASS & CATCH program and encourage its adoption by schools throughout the United States.
A Case of Overlapping Interests
A professional group participates in a collaborative to design relevant studies and find ways to put results to use.

A Case of Outreach
A community group receives important information on how others have solved a problem they face.

A Highly Divergent Case
Researchers are angry at how an elected official is altering their findings for political advantage.

The Knowledge Gap

Collaboration
- Journal publication
- Personal correspondence
- Face-to-face communication
- Informal network

Distribution
- Personal correspondence
- Newsletter
- Press release
- Brochures

Exchange
- Journal publication
- Research synthesis
- Focus group
- Advisory board
- Workshop
- White paper
- Press release
- Brochures

Outreach
- Journal publication
- Research synthesis
- Focus group
- Advisory board
- Workshop
- White paper
- Press release
- Press conference
- Change agent
- Story pitching
- Podcast

Knowledge Translation Demands
Low
High

Core Beliefs
Similar
Divergent

Purposes

Interests

Producers

Users

Mediation
Administrative processes
Government rules
Negotiation

Arbitration
Adversarial presentations
Administrative direction
Government direction

Brokering

Linkage

Low
User
Producer
Producers

High

Arbitration

The Knowledge Gap
SBIRT

RIA also undertook the translation of a well-researched intervention called Screening, Brief Intervention, and Referral to Treatment (SBIRT). A program mandated for use in all level one trauma centers, SBIRT involves emergency room workers taking steps to ensure that patients with substance abuse problems get the treatment they need in a timely way. Upon observing behavior consistent with intoxication, medical personnel screen patients using questions designed to determine if there is a pattern of substance abuse. If abuse is detected, they then intervene with a brief interview and refer the patient to treatment. This intervention has dramatically reduced the number of repeat visits to the emergency room.

Our SBIRT translation activities focused on Harris County’s level three and four trauma centers (which are not required to provide SBIRT services), distilling the existing evidence on program effectiveness and providing resource links and options to assist in adopting SBIRT. The team developed a comprehensive booklet that was available for free to all trauma centers interested in starting their own SBIRT programs, and contacted trauma personnel statewide to educate them about the benefits of SBIRT.

The RIA team also conducted a survey on SBIRT with attendees of a statewide trauma coordinators conference after the RIA staff delivered a presentation about SBIRT. The survey, which had a 71% response rate, found that more than two-thirds of the respondents reported that they were likely to use the presentation information to implement or improve an existing SBIRT program at their hospitals. Of those who had already implemented SBIRT, more than half reported that they were either “somewhat” or “definitely” likely to use the information RIA offered to improve their existing SBIRT program, and more than 70% of the respondents without an operational SBIRT in their facilities reported that they were either “somewhat” or “definitely” likely to use the presentation information to implement an SBIRT program in their facility.

City Noise Ordinance

In environmental research, the RIA team focused on the adverse non-auditory health effects of noise. The staff conducted an extensive research review of the scientific literature, and used the results to develop a paper summarizing the research and a one-page handout suitable for both lay audiences and those specifically concerned with noise effects. A list of area organizations that might be interested in the information was developed and representatives were contacted. These included local environmental groups, professional organizations, and the City of Houston government.

Through these contacts, RIA learned that the mayor of Houston had recently tasked the regulatory department of the city to propose new rules governing noise. The RIA team partnered with the department to provide scientific evidence showing increased rates of hypertension and cardiovascular risks due to noise exposure. This evidence was then presented to the Houston City Council in October 2011.

As a result, stricter standards were approved in the city that doubled fines for noise violators and gave police greater leeway in issuing noise citations. The science, once translated, provided a means to settle the conflicts among the city, the public, and local entertainment-oriented business owners.
Health of Houston Survey

RIA also worked with The UT School of Public Health researchers to design a KT component for the Health of Houston survey, the area’s most extensive health survey. More than 5,000 randomly selected households were questioned about their experience with access to care, health challenges, and social and economic factors affecting health care.

The results were informative – barriers to health care services, high rates of chronic and mental health conditions, low rates of preventive screenings, and unsafe neighborhood conditions are among Houston’s top health care concerns, according to those surveyed.

The survey’s findings provided documentation for a wide variety of decisions affecting the health and wellbeing of our region, including:

- An evidence base for grant making and program planning that more effectively targets unmet needs
- A set of metrics to monitor progress toward health objectives at the community level
- A detailed picture of health disparities across neighborhoods, as well as racial and ethnic groups, that can help identify priority areas for public health investments
- A source of reliable information on the barriers to health screening and lifestyle changes that could reduce health risks
- A tool for optimizing the location of new health care facilities and services
- A basis for evaluating the outcomes of public health investments in terms of improvements in community health, rather than relying exclusively on volume of services or expenditures, and
- A set of indicators that can benchmark health issues in Houston relative to national trends, as documented in the National Health Interview Survey

The KT target and tactics within this project sought to convey complex information to grassroots organizations and decision makers in the health sector. The RIA team reviewed messages and information and made valuable recommendations on how best to promote uses of the study’s data. These efforts, via news media, the Health of Houston web portal, and local meetings, supported widespread public access to this critical information. The survey data are being used to support the efforts of health agencies, service providers, and community organizations, giving them more accurate and up-to-date health information on residents in neighborhoods throughout Harris County.
The Knowledge Translation Portal

As the RIA team delved further into KT, it became clear that there was no central source for KT information. With that in mind, RIA launched a second major initiative – developing an Internet portal that would be a one-stop shop for all KT-related public health expertise.

First, the team conducted an audit and in-depth assessment of all KT-related sites. Next, the team created and conducted a survey of potential users that pinpointed what features people were looking for in a KT web portal, and how they used the Internet to conduct research, establish networks, and disseminate scholarly and technical information.

These results were analyzed and presented at the 2008 CDC Health Communications Conference. After the conference, RIA staff surveyed hundreds of conference attendees for their input, as well.

The results were striking. More than 70 percent of all respondents indicated that they use the Internet regularly to track down KT information, but also indicated dissatisfaction with the amount of available information and the ease of locating it. Using the survey results and the team’s own research, RIA developed a blueprint for a comprehensive web portal dedicated to KT.

The result, www.KTExchange.org, debuted in August 2009. The portal serves as a central repository for KT information. It includes a glossary of terms, KT practices, links to relevant institutions, the latest KT articles and research, a calendar of events, an electronic bibliography, current KT funding sources, podcasts (see opposite page), and areas for user information, and comments. In 2010, a blog devoted to KT issues debuted on the site, along with a discussion board for user-initiated topics.

After three months, the portal hosted 109 registered members. After a year, membership had risen to 477. And at its three-year anniversary, 800 members are actively engaged with the site, reading and commenting on blog posts and the latest KT news, learning about KT events, and using the literature database.

With the portal in place, Research Into Action can now offer professional resources to those who need it, and provide full and free access to the web’s most extensive collection of KT material.
Podcasts have been an extremely popular and informative feature of the KT Exchange site since they began. Topics and guests have varied widely, to appeal to everyone of the site. Some of the podcasts have included:

**Highlights**

- Created a unique knowledge translation model
- Successfully used knowledge translation to enhance the outreach of the PASS-CATCH and SBIRT initiatives, which led to the adoption of the programs by more users
- Partnered with the City of Houston to provide information on the health effects of noise pollution, which led to amended noise ordnances
- Completed and promoted the Health of Houston survey, the area's most extensive health survey in its history
- Developed and launched a successful, comprehensive, user-friendly knowledge translation website
- Established a popular blog and podcast series on the website, which has greatly increased the site's visibility
Current Research Into Action

RIA is currently focused on offering new features on its portal, www.KTExchange.org, that will support its members and extend KT resources and training to new audiences. Our goal is to develop a virtual community of practice (VCoP) for advancing KT in the United States and disseminating innovations from active KT research programs elsewhere in the world.

One of the key training developments is the adoption of Adobe ConnectTM to offer classes and webinars through the portal. With the movement toward web-based education, especially in many graduate schools, offering a variety of KT material online will be a valuable addition to the portal’s current capabilities.

With the help of Toronto-based Intrafinity, RIA has deployed a new mobile version of the portal that can be accessed by users worldwide without being tied to a computer. A report from the Pew Research Center found that 47% of American adults use their phones and tablet computers to get news and information, so developing a mobile site was the next logical step in reaching out to as many KT-minded professionals as possible. The team plans to adopt Skype for portal-based communication so that members can easily engage with one another to discuss KT.

Some of the topics for future training sessions include: practical graphics design for effective communication, the impact of storytelling on KT, conducting systematic reviews from published research findings, and sharing KT lessons. It is RIA’s goal to appeal to a broad spectrum of health professionals with these interactive sessions — everyone from the novice researcher and practitioner to the hospital clinician.

The team has developed an interactive timeline for documenting the growth of KT studies which features locations as well as key milestones in the development of KT know-how. The timeline includes pop-ups that convey information about each milestone.

“The KT arena, a space that often gets filled with voices trying to push something akin to some aggressive form of dissemination with a fancier name, can really use some of what the Research Into Action group … is doing and discussing.”

-- Cameron Norman, Censemaking
Search Engine Optimization (SEO) plays a critical role in the new portal features. The team worked with Intralinfity to ensure that the appropriate steps were taken to maximize the chances of potential users being able to find and successfully access the portal through the use of SEO.

In addition to developing and testing new translation approaches, tools and tactics, RIA is also developing a central clearinghouse for KT tools and toolkits. Currently, toolkits – guidelines available on a variety of topics, from filing for disability to implementing new programs in hospitals – are scattered throughout the Internet. RIA’s planned repository will contain an array of toolkits, gathered from throughout the field from both the web and professional contacts, and will make them available to users along with the training to use them effectively.

The toolkit section will also include annotated information: the year the toolkit was designed and the last year it was updated, designer contact information, and other important facts. The challenge of inventorying, centralizing, annotating, and identifying the strengths and weaknesses of various toolkits has yet to be taken on anywhere else. The increased value for our members is significant, and builds upon our original goal of creating a KT “umbrella” with useful tools for developing KT capabilities and supporting professional-level translation efforts.

“Their online portal boasts over 600 members, has a variety of blog posts, podcasts, and a discussion board. It is this social media feature that allows RIA to complement its KT products with interactive engagement of stakeholders, and supports the social and interactive elements of RIA’s practice.”

-- David Phipps, ResearchImpact
Currently, two articles have been submitted to peer-reviewed journals for consideration. The first, an explanation of the SBIRT project, focuses on RIA’s successful outreach to level three and four trauma centers around the state. The second article focuses on “best practices” in KT, and assesses the science behind the practice of KT.

Going forward, RIA’s education of future graduate level students will be focused on increasing their level of KT skills and knowledge, involving them in applied research projects focusing on KT efforts, educating them about the application of social marketing tools via KT efforts, and tasking them with leading each phase of a KT-focused research project. KT fellowships will be offered to provide graduate degree students a targeted approach of KT within an applied setting. In addition, each of the students will be partnered with mentors to guide them through the program.

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**Student Involvement in Knowledge Translation**

As part of the Institute for Health Policy, Research Into Action has had six graduate assistants and three post-doctoral students from The University of Texas School of Public Health actively involved in all phases of the RIA project since its inception. They have conducted literature reviews and surveys, analyzed statistics, drafted reports, provided content for the web portal, and presented at conferences in support of RIA efforts. The RIA project is dedicated to helping students learn about KT while pursuing their advanced degrees, and the RIA staff is particularly proud that its graduate students have played major roles in preparing publication-ready studies advancing the field of KT. Each student assumed a leadership role in the writing process, mentored and assisted by RIA staff.

The Research Into Action team has written several articles that have either been submitted for publication in prestigious peer-reviewed journals or are in the last stages of preparation. These articles include:

**What Should We Expect from Knowledge Translation?**
*Authors* - Leah Fischer, Oluwafolakemi M. Adedeji*, Marlisa S. Alan*, Nickalos A. Rocha and Stephen H. Linder  
*Submitted to* - Implementation Science

**A Knowledge-Broker Process to Address Barriers to Innovation in Trauma Centers**
*Authors* - Syed WB Noor*, Nickalos A. Rocha, Oluwafolakemi M. Adedeji* and Stephen H. Linder  
*Submitted to* - Academic Emergency Medicine

**Knowledge Brokering: A Description of Case Studies (in progress)**
*Authors* - Oluwafolakemi M. Adedeji*, Nickalos A. Rocha, Syed WB Noor*, Marlisa S. Allen* and Stephen H. Linder

**A Knowledge Translation Effort – Evaluating the “KT” in Knowledge Translation (in progress)**
*Authors* - Oluwafolakemi M. Adedeji*, Nickalos A. Rocha, Stephen H. Linder and Syed WB Noor*

*Graduate student funded through an ExxonMobil Foundation award*

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**HIGHLIGHTS**

- Launching a new mobile website for users on the go
- Adding valuable features to the site, including an interactive timeline, webinars and classes
- Writing and submitting articles for publication in a variety of academic journals
- Expanding outreach and visibility in knowledge translation and social marketing communities by participating in and presenting at CDC social marketing conferences, the University of Florida digital health conference, and the SXSW interactive festival

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Future Research Into Action

In September 2012, the Michael Smith Foundation for Health Research released the results of an extensive assessment focused on training needs in the KT field. The foundation’s survey targeted over 1,000 health care professionals, researchers and professional knowledge brokers involved in the production or use of evidence from health research.

Two of their findings stood out. First, 46% of the survey’s respondents believed they needed beginner-level training in KT skills (for 23%, advanced training) in order to do their jobs more effectively. Second, 84% prefer web-based training and online learning opportunities to boost their skills in this area. These results provide strong empirical support for our plan to provide more extensive and diverse forms of KT training online.

One of RIA’s major goals over the next two years is to develop a Virtual Community of Practice (VCoP) for KT professionals, the first in the United States, focused on knowledge sharing for and about KT around the world. A VCoP is an online group of professionals interested in sharing professional learning, best practices, participatory labs and knowledge about a shared interest (see opposite page). Our online learning, resources and engagement that make up the planned VCoP for KT will focus on three areas.
Professional Learning

To fulfill the educational potential of www.KTExchange.org, RIA will develop a KT curriculum that can be replicated and adapted by other schools and agencies.

Coursework on KT topics, both applied and theoretical, will be offered at the beginning and advanced levels through our web portal. Our foundational course for academic researchers, “Translating Research into Policy,” has already been adopted as a requirement in the doctoral program for Management, Policy and Community Health at The UT School of Public Health. Our curriculum will eventually expand to include offerings for professionals in health care, business, and public health. Our statewide Public Health Training Program, funded by the U.S. Centers for Disease Control and Prevention and administered through The UT School of Public Health, will help disseminate selected course material on KT to public health practitioners across the state.

The first application of the VCoP’s learning lab will be a “train the trainer” program for Community Health Outreach Workers (CHW), specifically for those working in the field of chronic disease management. Current efforts involve workforce development, evaluation, and online training.

Continuing education will also be supported in order to keep the CHW community informed of changing practices and requirements. This new VCoP among community health workers will be one of several to benefit from increased and continued KT efforts.

REGISTRIES

Offering training is important, but ideally, participants need to have tools they can use when they return to their organizations. To address this issue, RIA will develop a pair of registries, each with core material that our online users can not only access, but also help to expand.

The ToolKit Registry will focus on assembling a growing inventory of models and proven strategies directed to the people implementing KT approaches on the front lines. Each tool will be coupled with guidelines for successful implementation, and a set of measureable outcomes for evaluating their success.

Since there is currently no professional organization, credentialing or degree specialty for KT practitioners, RIA will assemble a Registry of KT Expertise. This will include a listing of those practicing and doing research in the area, together with their expertise and contact information. Our intent is to document location and experience as a way of building a system for professional consultation and referral.

VCOP GUIDANCE

RIA will also create resource materials designed to help those interested in building a VCoP to serve the learning needs of their own specialty community. A booklet offering guidelines on factors to consider in building a VCoP, such as how to engage members and ideas on what to include in VCoP interactions, is now being developed. This material will be based primarily on our systematic review of the technical literature and consultations with KT practitioners, and will be available in both hard copy and online at the beginning of 2013.
EXPANDING KNOWLEDGE SHARING COLLABORATION

Research Into Action will continue building strategic partnerships with other KT-related groups outside of the United States. From our base of current partnerships with KT organizations in Toronto, Ottawa, Melbourne, and Adelaide, RIA will expand its reach to new audiences in Spanish-speaking Latin America, where KT ideas have not yet taken hold. While RIA will remain based at The University of Texas, it will establish an international presence through these new relationships.

GOALS

Creation of Virtual Communities of Practice (VCoP), including designing, developing, implementing and evaluating an evidence-based VCoP

Professional learning, comprising strategizing curriculum development, podcasting, conducting webinars/e-learning sessions, development of brown bag sessions and continued KT blogging

Professional practices development, involving the creation of a KT experts registry and the design, development and implementation of a KT toolkit registry

Most of all, our key focus on KT and knowledge sharing will be supported by increased publications, supporting graduate student knowledge translation education, increasing our registered participating members to over 1,200, and a continued collaboration with City of Houston knowledge translation efforts.
Why Invest In the Future of KT?

The basic idea behind KT is very simple, but radical in its implications. If you want to connect the best available evidence generated by public health research to the decision makers, planners and practitioners who need it the most, then you need to bring them together, upstream, before the research is done. The alternative, and the current prevailing view in the United States, is that you conduct the research first, without any prior accommodation for the potential users’ needs, and then promote it to the users with techniques from marketing and communication. In the nonprofit world, unfortunately, there are few incentives for researchers to make the effort and few institutions willing to swim against this current. Consequently, the research-action gap endures.

The idea of connecting health researchers and knowledge users upstream has caught on in a few places, such as Toronto and Melbourne, and in a few specialties, including disability education. But for the most part, it is still a fledgling activity with great promise.

The contribution of RIA has been both seminal and unique. We focus on the infrastructure needed to support the emergence and consolidation of a KT profession. We provide the documentation to inform KT work, a forum for the exchange of experience and know-how, and access to the inspirational ideas of leaders in the effort to nurture this new field. We intend to strengthen this work through collaborations with other sites, new social media, resource registries and training content not available anywhere else. We will continue championing KT approaches and seek funding from sources who find the KT vision persuasive and preferable to allowing the knowledge gap to persist.
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