



GUIDE 1

WHAT IS KNOWLEDGE TRANSLATION AND WHAT DOES IT INVOLVE?



Knowledge Translation, Dissemination and Impact

A Practical Guide for Researchers

1. What is knowledge translation?



In HSE, we define **knowledge translation** as the process involved in reducing the gap between research and practice and making sure effective innovations are used in policy and practice. It is about **finding, creating, sharing, and using knowledge**, and is an interactive process between those who create knowledge and those who use it.

Watch our explainer video to learn more about knowledge translation:

<https://www.youtube.com/channel/UCWN5MFqd6dUgkwdZC9BDonQ>

Knowledge translation (KT) is “a dynamic and iterative process that includes synthesis, dissemination, exchange and ethically sound application of knowledge to improve health.” (Canadian Institutes of Health Research. 2010).

KT takes place throughout the research process from defining research questions to disseminating and publishing research and making decisions informed by research findings. Knowledge translation, and the impact of research, should be considered from the beginning of the study and should be part of the project planning.

The process of KT involves creating, disseminating, communicating, managing, and implementing knowledge. To do this HSE Research and Development recommends the use of knowledge translation frameworks (KTF). A **knowledge translation framework** is a tool to guide those who want to move, or integrate, their knowledge into action e.g. into practice or policy. The use of a knowledge translation framework can increase the potential that research will be used and implemented.

Knowledge translation can seem complex, and the language used can sometimes be confusing as terms such as knowledge exchange and knowledge transfer are also used and can refer to similar activity. A glossary of terms is included at the end of this guidance.

Knowledge translation done successfully has substantial benefits for a wide range of stakeholders.

2. Why is knowledge translation important?

KT helps researchers ensure that their research findings reach more people and become more useful and valuable. This is important so that:

- Patients and the public benefit.
- HSE benefits from the research its staff carry out and that it funds.
- We make best use of public money.
- Research studies are asking research questions that will benefit HSE practice and policy.
- Carrying out research that is needed and will have value, stops research being wasted.

KT helps researchers to:

- Plan the dissemination of their research.

- Understand the barriers they might face in implementing research.
- Fulfil the requirements of funders.
- Reach the stakeholders and knowledge users who might benefit from the research findings.

KT helps us in other ways; it helps us to:

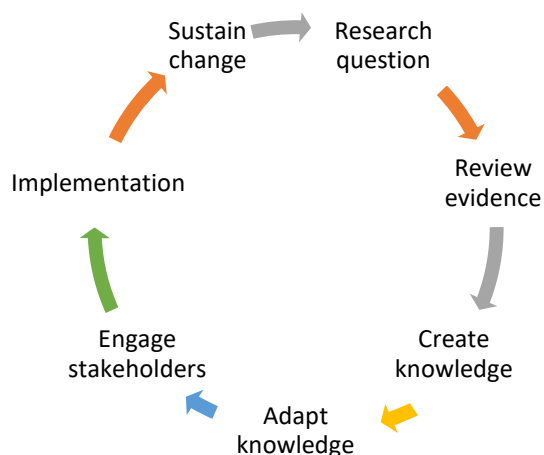
- Put new **knowledge** into practice
- Ensure patients get treatments of proven effectiveness
- Stop providing care that is not needed or is potentially harmful
- Ensure patients get the information they need for decision making
- Ensure clinicians get the evidence they need for decision making
- Put research into practice, guidance, and policy.

3. What is involved in knowledge translation?

The key activities involved in KT are:

- Deciding what we are trying to achieve. What is the purpose and goals for KT e.g. is the aim to achieve changes in policy or practice?
- Identifying stakeholders and knowledge users e.g. policy makers, decision makers, clinicians, patients, and deciding how they will help with trying to get knowledge and evidence into practice and assist with disseminating and implementing knowledge.
- Deciding whether stakeholders and knowledge users are ready for change and whether it is the right time to carry out your study.
- Forming relationships and partnerships to disseminate knowledge.
- Identifying the local and organisational context and how that will enable or present a barrier to KT.
- Disseminating key messages.
- Reviewing the external environment and how that impacts on the KT process.
- Evaluating the efficacy and impact of KT. How will we know we have been successful?

When should KT take place?



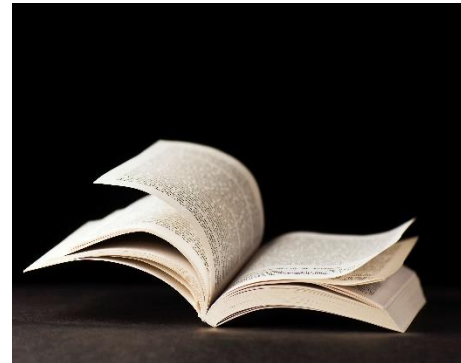
KT should take place throughout the research study, for example:

- From identifying a research question or uncertainty.
- Reviewing the existing evidence.
- Creating new knowledge.
- Adapting knowledge for the local context.
- Engaging with stakeholders.
- Implementing research.
- Sustaining the change.

4. The HSE Knowledge Translation process

There are four elements to the process of finding, creating, sharing, and using your research knowledge (see Figure 1). The four elements are:

Knowledge creation – this involves identification of the problem and developing a research question, searching, and reviewing the literature to decide whether research is needed or whether it already exists. It also involves identifying those who are interested or can benefit from the research and how they can be involved and at what stage.



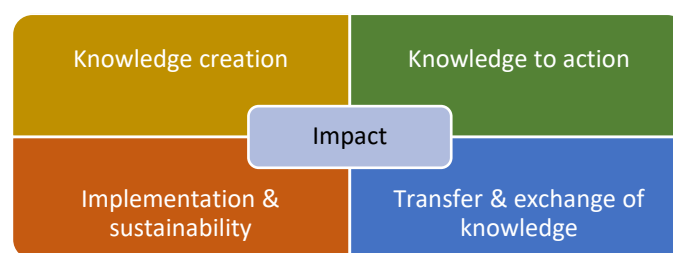
Knowledge to action – this involves looking at the knowledge created from the point of view of the local context and identifying anything that can help or hinder using that knowledge. It also means identifying the best way of using the knowledge, where and when, and how to put it into practice, policy, guidance, or training, and then monitoring how and whether it is used and what might be needed to help the process.

Transfer and exchange of knowledge – this is the ‘how’ research knowledge is communicated to those who need to know or will benefit. It is about identifying the right messages for different stakeholders and situations and finding the opportunities to share those messages.



Implementation and sustainability – this is about reducing the gap between research and practice. It involves making sure that those things that support implementation, such as organisational and management support, including staff and providing them with the evidence of what works, and keeping the patient, service user, and the public at the centre of the process, are in place. It also focuses on how changes in practice are sustained and maintained over time through regular monitoring and review.

Figure 1 – HSE Knowledge translation process



For the next steps in KT see *Guide Number 2 - Planning Knowledge Translation*.

References

- Banner D, Bain M, Carroll S, Kandolas D, Rolf DE, Wong C, Graham ID. 2019. Patient and Public Engagement in Integrated Knowledge Translation Research: Are we there yet? *Research Involvement and Engagement*. 2019 5:8
- Canadian Foundation for Healthcare Improvement.
<https://www.cfhficass.ca/PublicationsAndResources/ResourcesAndTools/GlossaryKnowledgeExchange.aspx>
- Canadian Institutes of Health Research. 2010. About knowledge translation [Internet] Ottawa: The Institutes; Available from: <http://www.cihr-irsc.gc.ca/e/29418.html>.
- Davidson A. 2016. Translational research: what does it mean? *Anaesthesiology*. Nov;115(5):909-11. doi: 10.1097/ALN.0b013e3182337a5e.
- Department of Health. 2018. Implementation Guide and Toolkit for National Clinical Guidelines.
- Greenhalgh T., Raftery J., Hanney S., Glover M. 2016. Research impact: a narrative review. *BMC Medicine*; 2016:14.
- HSE manual for Evidence Based Practice. <https://www.hse.ie/eng/about/who/qid/use-of-improvement-methods/nationalframeworkdevelopingpolicies/8-evidence-based-practice-a-practice-manual.pdf>.
- Peters DH, Adam T, Alonge O, Aayepong IA, Tran N. 2013. Implementation research: what it is and how to do it. *BMJ* 2013;347: f6753.
- Rabin, BA & Brownson, RC. *Developing the terminology for dissemination and implementation research*. 2012: Oxford University Press, New York.
- Rogers. E. M., (2003). *Diffusion of Innovations*. 5th edition. New York., London: Free Press.
- Searles A., Doran C., Attia J., Knight D., Wiggers J., et al. 2016. An approach to measuring and encouraging research translation and research impact. *Health Research Policy and Systems*, 2016: 14.
- Terres A. 2019. HSE Action Plan for Health Research 2019 – 2029. HSE.

Glossary of terms used in the HSE Knowledge Translation, Dissemination, and Impact process and guides

Dissemination

Dissemination is about making sure that the findings from a research study reach those who can benefit from them. It involves:

- Planned active efforts to communicate relevant research messages, in a timely way, to identified targeted audiences through appropriate channels.
- The researcher actively spreading key research messages.
- Using appropriate methods that are relevant to the what the study was about and to the those who might benefit.

Impact of research

Impact is the difference research and new knowledge makes to health care, policy, society, the economy, the environment, technology, or to education and training. It is when knowledge benefits or influences others, and we can demonstrate that has happened.

Research can bring benefits to patients, population, health services, economy, academia. It can also bring about changes in activity or understanding including:

- Improvements to health and wellbeing
- Contributions to research knowledge
- Economic benefits to health services and the economy
- Adding value and reducing waste.

Impact of research can be classified in terms of cultural, economic, environmental, health, political, scientific, social, technological, education and training impacts.

Knowledge translation

This means closing the gap between research and practice and making sure the knowledge from research reaches those who can use it. It is about finding, sharing, and using the knowledge we gain through research.

Knowledge translation framework

A knowledge translation framework is a tool to guide those who want to move, or integrate, their knowledge into action e.g. into practice or policy.

Research

Research involves finding new knowledge and finding out whether something works, it is about studying facts, reasons, and purpose, asking the right questions and looking for the answers (the outcomes).

The HSE Action Plan for Health Research 2019 – 2029 uses the following definition of research: “the attempt to derive generalisable or transferable new knowledge to answer or refine relevant questions with scientifically sound methods” (Terres 2019).

The Health Research Regulations 2018 use this definition:

- research with the goal of understanding normal and abnormal functioning, at the molecular, cellular, organ system and whole body levels
- research that is specifically concerned with innovative strategies, devices, products or services for the diagnosis, treatment or prevention of human disease or injury
- research with the goal of improving the diagnosis and treatment (including the rehabilitation and palliation) of human disease and injury and of improving the health and quality of life of individuals
- research with the goal of improving the efficiency and effectiveness of health professionals and the health care system
- research with the goal of improving the health of the population as a whole or any part of the population through a better understanding of the ways in which social, cultural, environmental, occupational, and economic factors determine health status

Other terms you may find that are used to describe knowledge translation activity

Implementation science

Implementation science is a study of the ways that can help evidence-based practice and research being taken up and used by those who work in health care practice and by policy makers. Evidence based practice combines the best research evidence with the expertise of clinicians and applies it taking into account the patient's unique circumstances.

Knowledge brokering

Knowledge brokers are people who develop relationships and networks between knowledge producers/researchers and the users of knowledge by providing links to sources of knowledge and research evidence. This enables users of knowledge to access the best available research evidence to inform decision making. Knowledge brokering involves linking colleagues to a variety of research, knowledge, and information resources. A researcher may be the broker of their own knowledge.

Knowledge creation

Knowledge creation is the development of new ideas and new knowledge. It involves identifying the knowledge and evidence that exists, synthesising that knowledge or evidence and presenting it in a format that is accessible to a knowledge user.

Knowledge exchange

Knowledge exchange is a process where researchers and research users/knowledge users and/or decision makers, share ideas, insights, experience, and research findings.

Knowledge mobilisation

Knowledge mobilisation connects those who produce research and those who use it and enables them to work collaboratively to make information and research knowledge usable and accessible. It is about moving available research knowledge into active use. It tries to make connections between research knowledge and policy and practice to improve outcomes.

Knowledge transfer

Knowledge transfer is the process of sharing or disseminating knowledge and research to make it available to those who can benefit from it. Ways of transferring knowledge can include:

- mentorship
- communities of practice
- shadowing
- paired working

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