

# Advancing the implementation of evidence in public health systems in Europe and globally

## Citation for published version (APA):

Vincenten, J. A. (2020). *Advancing the implementation of evidence in public health systems in Europe and globally: a model interlinking targets, actors, knowledge transfer, barriers and facilitators*. ProefschriftMaken. <https://doi.org/10.26481/dis.20200923jv>

## Document status and date:

Published: 01/01/2020

## DOI:

[10.26481/dis.20200923jv](https://doi.org/10.26481/dis.20200923jv)

## Document Version:

Publisher's PDF, also known as Version of record

## Please check the document version of this publication:

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Summary

# Summary

Implementing evidence-based public health interventions supports the improved health and wellbeing of communities, countries and regions. Effective and efficient implementation of evidence will reduce duplication, foster innovation, move more knowledge into practice and increase the transfer of lessons learned, as well as the process of scaling up. Unfortunately, existence of evidence-based public health interventions alone is often not convincing enough to ensure their implementation within the complexity of public health systems. This is because public health entails multi-layered actions in cross-sectoral domains and interdependent processes that interlink. A number of models and theories exist to support evidence implementation within public health systems, however, gaps remain that impact the effectiveness and efficiency of uptake. These include the use of simplistic models, unclear or no measurable targets, limited engagement of diverse actors and sectors, non-tested knowledge translation processes and undefined determinants of barriers and use of facilitators to evidence implementation. Therefore, the aim of this thesis was to determine the key components, conditions and factors relevant to advance the knowledge base for the implementation of evidence in public health systems.

The research approaches in this thesis included qualitative studies using critical review and mixed method studies that were both qualitative and explorative. The following four research areas of focus were investigated.

1. To determine what key components, factors and concepts have an influence on the evidence implementation process within public health systems that need to be better understood.
2. To determine the roles and responsibilities of key stakeholders involved in evidence implementation, and how these actors influence setting targets and priorities for improving the use of evidence.
3. To determine the role policy can have to support knowledge transfer in existing evidence-based interventions.
4. To determine which barriers and facilitators impact the implementation of evidence-based interventions.

Through the investigations of this thesis, a model was created composed of four concepts: evidence implementation target; actors involved; knowledge transfer; and barriers and

facilitators to evidence implementation. These concepts were identified through a critical review of published and grey literature, combined with an analysis of 32 case studies of injury prevention good practice interventions from 24 European countries to build the model. The broad framework of the model highlights multiple factors and interlinkages, within and between the concepts that influence the uptake of evidence into public health systems policy and practice. The model proposes to move this field of study beyond simplistic linear models while providing “how-to” support for evidence implementation in complex public health systems.

Setting targets and priorities can differ by actor depending on the knowledge level, professional background and stakeholder type. Factors influencing priority identification and targets at the national level include international and global context, information available, knowledge of the current situation and evidence-based good practice, and risks and priorities identified through national assessments. In the case example of chemicals management in the World Health Organization (WHO) European Region, early, active, and respectful sustained engagement of diverse actors, sectors and key stakeholders was determined to be a requirement to understand actors’ views and values, which influence the setting of targets and priorities. Further, active engagement was reported to support enhancement of actors knowledge, capacity, leadership and commitment for effective evidence implementation. Achievement of effective evidence implementation also requires the participation of diverse actors, which includes the engagement of knowledge brokers and practitioners to support local implementation, in addition to the collaboration of researchers and decision makers.

Throughout the knowledge transfer process, comprehensive understanding and application of the who, what, where, when, why and how of evidence-based interventions is essential to ensure action moves from theory to practice. Knowledge transfer includes stages in a recursive process that have no set start or ending, but rather stages that are continually examined and addressed while moving back and forth between each of the stages: 1) identifying and assessing the problem, 2) gathering, analysing and synthesising evidence, 3) using evidence and 4) assessing evidence uptake. Knowledge transfer can be influenced by actors, key stakeholders and/or barriers at any point in the process. Policy can have a very influential role in supporting knowledge transfer. Policy sets the groundwork upon which

actions will take place, serving as a key component to how we conduct ourselves in daily life. In the case example of global drowning prevention and water safety, evidence-based policies and legislation should provide “practical wisdom” to guide governments, individuals and communities towards positive outcomes. Public health and water safety advocates can use policy and legislation as powerful tools in conjunction with engineering and education to build and maintain safe and enjoyable environments for all. Thus, introducing policies for evidence-based good practice interventions should be investigated to determine their level of success in specific locations and settings to support knowledge transfer and evidence implementation.

Clear identification of barriers to evidence implementation require strategic and innovative thoughts and actions in order to transfer these barriers into facilitators throughout the entire evidence implementation process. Therefore, it is critical to identify barriers that impact the uptake of policies and programmes of evidence-based interventions and standardise and harmonise the ways these are addressed in the form of facilitators. These facilitators reduce barriers and can be used to advance achievement of evidence-based policy development and comprehensive diverse actions. In the case example of the elimination of asbestos related diseases in the WHO European Region, barriers identified by key stakeholders included: business, economic, and political interests; lack of leadership and commitment; gaps in data; and insufficient support and funding for the transition from asbestos to safe alternatives. In the case of asbestos, completion and maintenance of national profiles and the development, implementation, and monitoring of a National Program for the Elimination of Asbestos-Related Diseases, including time bound, measurable targets in each country are essential to effectively address barriers and serve as facilitators for a strategic approach to addressing asbestos-related diseases in Europe.

Further suggestions are provided in the thesis for a number of advancing conditions that could occur in societies to support the advancement of the knowledge base for the implementation of evidence in public health systems. These include good governance, context setting, investment in public health, and the use of multisectoral approaches. First, inclusive, accountable, transparent and equitable actions of those governing will enhance environments for successful evidence implementation. Second, it must also be understood that even though an evidence-based intervention has been proven to work, it may not be

successfully taken up if the intervention is not adequately adapted to the context and setting of the community, country or region it is intended for. Third, commitment to invest in public health at all levels of information and operation is required by leaders and decision makers. This investment is needed to maintain and improve country knowledge, capacity and quality, including the ability to bring evidence-based interventions and innovations more rapidly to scale in a sustainable manner. Fourth, all this work needs to occur collectively, beyond the traditional silos of sectors, by using a multisectoral approach to gain broader information and a wider scope of operation. This approach will foster and support innovation across the stages of planning, implementation, evaluation, sustainability and scalability throughout the overall process of evidence implementation.

In conclusion, public health systems would greatly benefit from increased uptake of evidence-based interventions in Europe and globally. Evidence implementation provides guidance to support such action and this thesis research recommends interlinking the key factors and components of targets, actors, knowledge transfer, barriers and facilitators to drive successful implementation forward. To date the Evidence Implementation Model for Public Health Systems and the related main findings of this thesis have been applied for use to support WHO studies and policy maker workshops, Master thesis preparations at Maastricht University and recommendations for the Ostrava Declaration of the Sixth Ministerial Conference on Environment and Health in the WHO European Region. The work undertaken in this thesis has advanced the knowledge base for the implementation of evidence in public health systems.