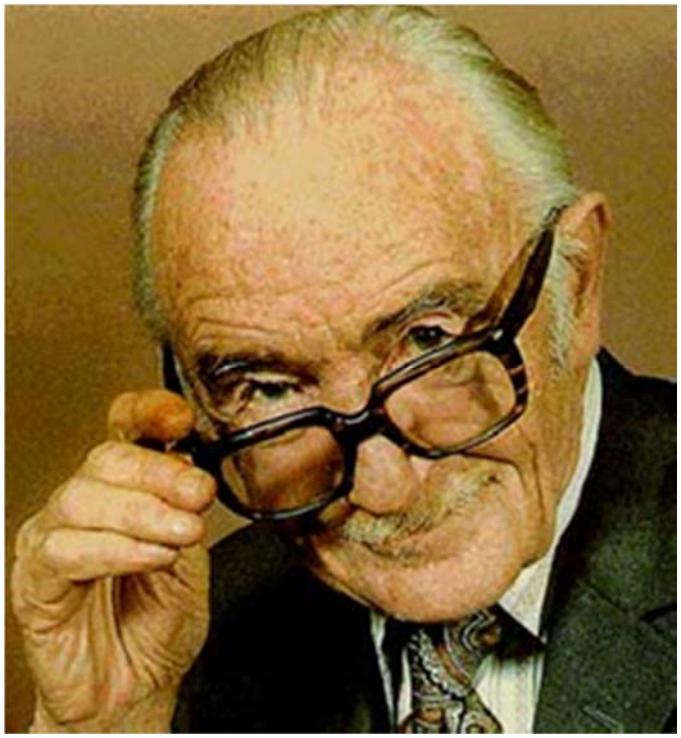
KCE REPORT 291

Federaal Kenniscentrum voor de Gezondheidszorg
Centre Fédéral d'Expertise des Soins de Santé
Belgian Health Care Knowledge Centre

TOWARDS AN INTEGRATED EVIDENCE-BASED PRACTICE PLAN IN BELGIUM

PART 5 – PERFORMANCE MANAGEMENT FOR EBP IMPLEMENTATION IN PRIMARY HEALTH CARE IN BELGIUM



KCE REPORT 291
HEALTH SERVICES RESEARCH

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PART 5 – PERFORMANCE MANAGEMENT FOR EBP IMPLEMENTATION IN PRIMARY HEALTH CARE IN BELGIUM

BERND JAN SIKKEN, BEN KOKKELER, MARIJKE EYSSEN

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COLOPHON

Title:	Towards an integrated evidence-based practice plan in Belgium – Part 5 – Performance management for EBP implementation in primary health care in Belgium
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LIST OF ABBREVIATIONS

A&F	Audit & Feedback
CDSS	Clinical Decision Support System
CPG	Clinical Practice Guidelines
EBP	Evidence-Based Practice
EOV	Educational Outreach Visits
EPOC	The Cochrane Effective Practice and Organization of Care Group
KPI	Key Performance Indicator
LT	Long-term
MT	Medium-term
NAO	Network Administrative Organisation
NICE	National Institute for Health and Care Excellence
SIGN	Scottish Intercollegiate Guidelines Network
ST	Short-term
S1	Synthesis in French and Dutch on the governance structure for the EBP Programme
S2	Synthesis in French and Dutch on implementation and performance management of EBP in primary care in Belgium
SB	Scientific Background chapter of this report
FOD – SPF	Federale Overheidsdienst – Service Public Fédéral – Federal Public Service
FAGG – AFMPS	Federaal Agentschap voor Geneesmiddelen en Gezondheidsproducten – Agence Fédérale des Médicaments et des Produits de Santé – Federal Agency for Medicines and Health Products
RIZIV – INAMI	Rijksinstituut voor ziekte- en invaliditeitsverzekering – Institut national d'assurance maladie-invalidité – National institute for health and disability insurance

SUMMARY

This report was written in a context of the development of a national Plan for Evidence Based Practice (EBP) in Belgium. This EBP Plan should allow to install an EBP Programme, and should strengthen the efficiency and quality of care by steering and coordinating EBP related activities in Belgium at the federal level. This document is the fifth of a set of five chapters that served as scientific background for the development of the EBP Plan. It aims to describe basic principles and main guidelines for performance management of EBP implementation in primary health care in Belgium. These principles should be further elaborated during the next phases of the development of the EBP Programme.

The role of performance management

- Performance management is the process of ensuring that goals are consistently being met in an effective and efficient manner. Performance management is essential for effective EBP implementation.
- Performance management in the context of this report aims to monitor and improve the processes of the EBP Life cycle: prioritization, development, validation, dissemination, implementation. Health care data collected with respect to this performance management focus on aggregated and anonymised data, not on data from individual professionals or patients. Evaluation of individual health care professionals is out of scope.
- For successful EBP implementation in primary health care in Belgium, the logic model is recommended as a performance management framework as it is tailored to the management of large-scale programmes. The logic model is also used by SIGN, the Scottish Intercollegiate Guidelines Network.

- A logic model (see Figure 3) consists of
  a) an impact value chain: inputs, activities, outputs, short-term outcomes, long-term outcomes, and impact;
  b) a theory of change: how to understand the logical dependencies between inputs and impact;
  c) a definition of key performance indicators across the impact value chain.

Useful insights from international examples of EBP implementation: SIGN and NICE

- Developing a performance management framework (indicators and targets) needs to be done in close collaboration with core stakeholders. In addition, it takes time to build a coalition to effectively implement EBP guidelines.
- A multifaceted approach for implementing and embedding EBP is key. Implementation should target different groups, e.g. clinicians, managers, government. Effective implementation requires far more than dissemination only.
- A rigorous process for defining and testing the indicators - with inputs from core stakeholders - is highly beneficial. Performance indicators should be SMART: specific, measurable, actionable, realistic, time-bound.
- As the financial means for EBP implementation in primary health care in Belgium is most likely to remain constrained in the near future, a pragmatic approach is recommended. Based on the 2016 budget of EUR 8.1 million for EBP guideline development & dissemination it is impossible to realize the full potential impact across all health intervention domains.
- A more pragmatic approach for the near-term would consist of two parallel tracks, requiring strategic choices in the frame of the National EBP Plan:
  a) Providing broad access to EBP guidelines and good practices.
  b) Creating positives outcomes and/or impacts in a selection of targeted intervention domains, e.g. limiting the use of antibiotics.
- After first successes have been realised, higher ambition levels can be defined for which additional funding might need to be agreed and secured.

Defining and agreeing upon the ambition level, targeted intervention domains, logic model, performance management metrics and the evaluation and feedback system for EBP implementation in primary health care in Belgium

- The development of a logic model and performance management metrics for EBP implementation in primary health care in Belgium requires time and collaboration between core stakeholders. See also experiences from international examples such as SIGN and NICE.
- At this stage, only a first outline of both the logic model and performance management dashboard for EBP implementation in primary care in Belgium can be created.

- The first step to define and agree upon the ambition level, targeted intervention domains, logic model, performance management metrics, and the system of evaluation and feedback for each intervention domain, should be made during the initiation phase. This is the first phase during which KCE takes the tactical and operational lead of the EBP Programme; it ends once the NAO (Network administrative organisation) is fully operational (see 6.2.1 in S1).
- During the initiation phase, KCE will be in charge of this work, in collaboration with a temporary task force of core stakeholders.
- After installation of the final governance structure (see SB2 and S1) the EBP Life cycle cells will be in charge of execution of this work, under the coordination of the NAO.
- The following EBP Life cycle cells will be involved:
    - the central prioritization organ for defining the targeted intervention domains;
    - the implementation platform for defining implementation strategy;
    - the central prioritization organ and the evaluation platform for defining the performance management dashboard;
    - the evaluation platform for collecting and evaluating results and for providing feedback.

SCIENTIFIC REPORT

1 INTRODUCTION

About this document

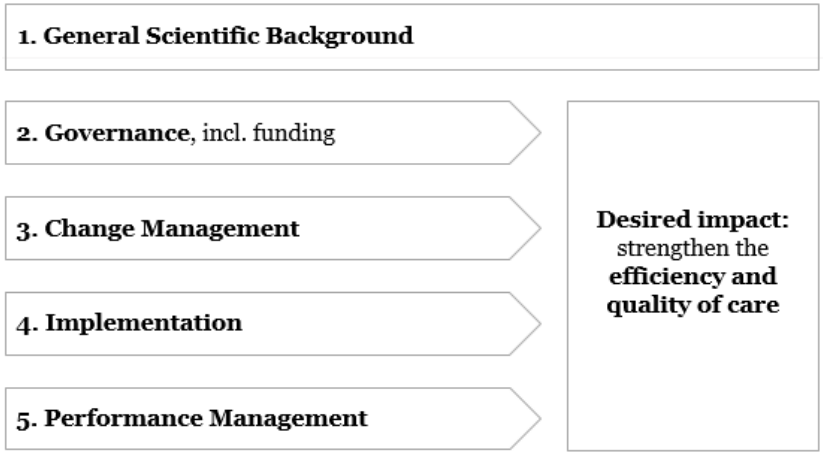
In June 2016, the Minister of Social Affairs and Public Health wrote a conceptual note regarding the need to strengthen the Evidence Based Practice (EBP) policy in Belgium. At the same time, the Minister commissioned KCE to provide the scientific background necessary to develop an EBP Plan for Belgium. This EBP Plan should allow to install an EBP Programme, and should strengthen the efficiency and quality of care by steering and coordinating EBP related activities in Belgium at the federal level. In a first time, it should address primary health care professionals. After evaluation, extension to secondary care will be considered.

Two Syntheses available in French and Dutch summarize the EBP Plan developed by KCE. The first Synthesis deals with the overall aim of the national EBP Programme, and with its governance structure. It was developed in close collaboration with the Steering Group appointed by the Minister, and composed by representatives of RIZIV – INAMI, FOD Volksgezondheid – SPF Santé publique, FAGG – AFMPS, KCE, Cabinet of the Minister of Social Affairs and Public Health). A second Synthesis deals with issues on change management, implementation, and performance management. We use S1 to refer to the first Synthesis, and S2 to refer to the second Synthesis.

This document is the fifth of a set of five chapters that served as scientific background for the development of the EBP Plan. The first of these chapters provides a general scientific background while the second chapter focuses on the governance structure of the EBP Programme. The third scientific background chapter is related to change management and leadership, and the fourth chapter aims to discuss EBP implementation issues in primary health care. The fifth chapter is dedicated to performance management of EBP implementation in primary health care in Belgium. An overview is visualised in Figure 1.

When we refer to one of these chapters, we use the abbreviation SB with the number associated to the chapter. E.g. the third scientific background chapter related to change management is referred to as SB3.

Figure 1 – Key themes in the development of the EBP Plan



Aim of the fifth chapter

The overall objective of the National EBP Programme is to strengthen the efficiency and quality of care in Belgium.

Against that background, the central question in this chapter is: *how to assure effective implementation of EBP in primary health care in Belgium?*

This chapter aims to describe basic principles and main guidelines for performance management of EBP implementation in primary health care in Belgium. These principles should be further elaborated during the next phases of the EBP Programme, when the NAO and the EBP Life cycle cells (see S1 and SB2) will be operational.

This chapter on Performance Management consists of the following sections.

- Section 2 covers the role of performance management in EBP implementation. It also describes the logic model: a framework for measuring and managing the effectiveness of large-scale programmes.
- Section 3 explores the scope and ambition level of EBP implementation in primary health care in Belgium. Based on a well-defined scope and ambition level of EBP implementation in Belgium, performance indicators and an effective change management approach can be defined.
- Based on a suggested initial scope and ambition level, section 4 describes a first outline of the logic model for EBP implementation in primary health care in Belgium.
- In section 5, this logic model is translated into performance indicators at different governance levels, e.g. the federal Steering Group and the NAO.

Section 6 concludes by discussing how to make performance management for EBP implementation operational.

Methods

The methods for SB1 are stipulated in the document. The draft of this chapter was discussed with the federal Steering Group in a dedicated meeting on March 9th 2017.

The point of departure for SB2, SB3, and SB5 was the science based knowledge in the field of leadership & change theory, network governance theory, organizational learning theory, and evaluation theory brought to the fore by the Technopolis Group[a] in collaboration with experts from the Antwerp Management School[b]. This was combined with their extensive practice based experience in governance, change management and evaluation of health care. For SB4, an existing systematic review served as a basis, updated with a limited literature search and grey literature, as stipulated in the document.

a http://www.technopolis-group.com/

b https://www.antwerpmanagementschool.be/

For each theme (Governance, Change and leadership, Implementation and Performance Management), intensive discussions and exchange of views took place, in order to settle on a basic draft for the chapter, relying on theory and practice, taking also into account the scientific information on EBP compiled in SB1.

In parallel, a consultative cycle commenced. Each cycle comprised the following steps:

- a thematic workshop with the KCE team and the federal Steering Group (April 6th 2017: Governance; May 8th 2017: Implementation and Performance management; May 9th 2017: Change and leadership);
- a consultative expert meeting with experts involved in development, validation and dissemination of EBP guidelines in Belgium (May 3th 2017: Governance; June 23th 2017: Change and leadership, Implementation and Performance management);
- a conclusive meeting with the federal Steering Group (June 8th 2017: Governance; October 25th 2017: Change and leadership, Implementation and Performance management).

Each thematic workshop comprised two to three presentations by experts from the Technopolis Group and the Antwerp Management School, followed by a discussion, in order to stimulate a balanced appraisal of the different views. Each meeting resulted in a common understanding of the theme.

Similarly to the thematic meetings, the consultative expert meetings were aimed to inform the experts about state of the art insights in relevant thematic areas. It started from two to three presentations and was followed by a discussion. About 15 experts participated in each of the meetings (see colophon). The results from these expert consultations were processed in the second draft of each of the chapters. Subsequently, in view of their extensive experience with EBP, the experts were invited to give written feedback on the second draft of the chapters.

In the next phase, the federal Steering Group concluded the final drafts of the chapters after discussion in a dedicated meeting.

Some key notions on the governance structure of the EBP Programme as proposed in this report.

For the governance structure during the initial transition phase, see S1 and SB2. At the final stage, six interconnected “phases” making up the so-called EBP Life cycle are recognised: prioritization, development, validation, dissemination, implementation, and evaluation. The scientific procedures related to each of these phases are under the responsibility of a cell or platform, which coordinates the scientific activities of the organizations participating in this phase. The overall programme and process management related to all of the 6 phases is under the responsibility of an independent administrative organization (NAO, Network administrative organisation). The NAO takes up the tactical and operational management of the EBP Programme. The Steering Group (RIZIV – INAMI, FOD Volksgezondheid – SPF Santé publique, FAGG – AFMPS, KCE, Cabinet of the Minister of Social Affairs and Public Health) is responsible for and has the power to strategically steer and finance the EBP Programme. The end users of the EBP products, primary health care professionals as well as patients, their relatives or patient representatives, can give feedback through the EBP Advisory Committee. More details can be found in S1 and SB2.

2 THE ROLE OF PERFORMANCE MANAGEMENT IN EBP IMPLEMENTATION

2.1 The role of performance management

In general terms, performance management is the process of ensuring that goals are consistently being met in an effective and efficient manner. It can be applied at different levels, e.g. at system-wide, organizational, individual level. In the context of effective EBP implementation in primary health care in Belgium, all three levels are relevant:

- The system is key as collaboration between stakeholders such as EBP guideline developers, private practices of individual health care professionals, health care organizations such as hospitals, and the Belgian government is required.
- Organizations are key (e.g.professional organizations) as they need to enable and stimulate the use of EBP guidelines by primary health care professionals.
- Individuals are key as primary health care professionals are the target audience (end user) in the first phase of the EBP Plan (as well as the patients who receive care).

It is very important to note that performance management in the context of this report aims to monitor and improve the processes of the EBP Life cycle: prioritization, development, validation, dissemination, implementation (see S1 and SB2). By improving these processes the aim is to contribute to the overall goal of strengthening efficiency and quality of care in Belgium. Health care data collected with respect to this performance management focus on aggregated and anonymised data, not on data from individual professionals or patients. Evaluation of individual health care professionals is out of scope.

In the field of performance management, various methods exist. For example, the PDCA model (plan–do–check–act or plan–do–check–adjust; see Figure 2) is an iterative four-step management method used in business as well as in not-for-profit organisations for the control and continual improvement of processes and products.

Figure 2 – The PDCA model

Another method is the logic model (also known as logical framework or theory of change), often used by funders, managers, and evaluators of programmes to evaluate the effectiveness of a programme. Logic models are usually a graphical depiction (see section 2.2) of the logical relationships between the input resources, activities, outputs, outcomes, and impact of a programme.

For effective EBP implementation in Belgium, it is proposed to use the logic model as it is tailored to the management of large-scale programmes. Once the relationship between input in and impact of the EBP Programme has been made clear through this model, it should be followed by actions for adjustment and improvement to complete the performance management circle.

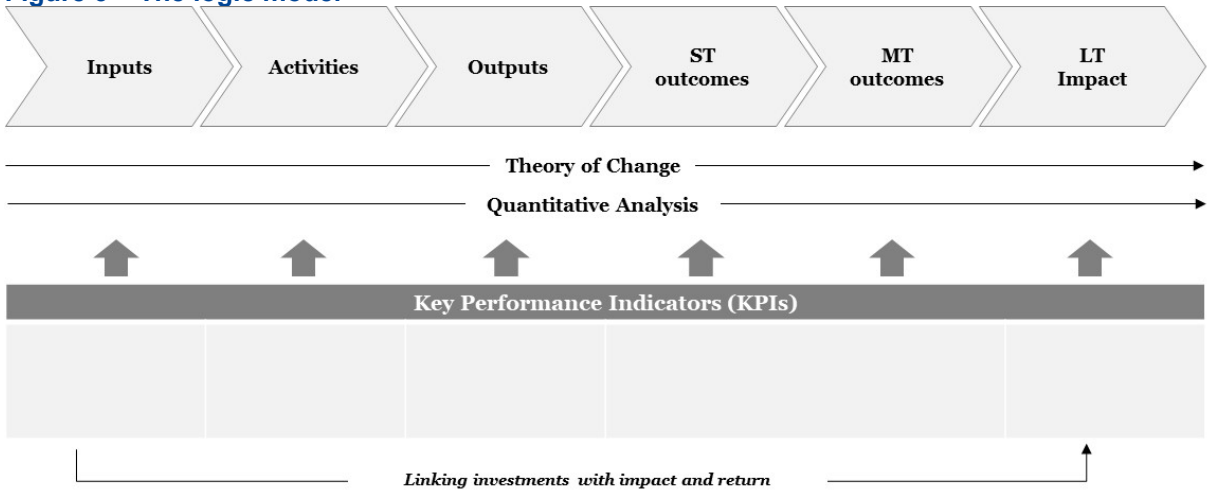
This can then be complemented by using periodically (e.g. quarterly or annually) the more generic approach of plan-do-check-act at an operational level, as part of the overall management by the NAO.

2.2 The logic model: designing and managing for impact

The logic model (see Error! Reference source not found.**) consists of the following components[c]:**

- the steps in the impact value chain: inputs, activities, outputs, short-term outcomes, medium-term outcomes, long-term impact;
- a theory of change: how to understand the logical dependencies between inputs and impact;
- a definition of key performance indicators across the impact value chain;
- optional: a quantification of the economic and/or social return on investment.

Figure 3 – The logic model



Source: *http://www.uwex.edu/ces/pdande/evaluation/evallogicmodel.html*

[c] Further information on logic models can – for example – be found at: http://www.uwex.edu/ces/pdande/evaluation/evallogicmodel.html

To illustrate the logic model, the key elements of the impact value chain of a typical large-scale research & innovation programme is described below.

- Inputs, e.g. amount of public and/or private funding received, number FTEs employed, time committed from partner organizations, other in-kind contributions of partner organizations.
- Activities, e.g. the number of research / innovation / valorisation / commercialization projects.
- Outputs, e.g. the number of research papers, the number of patents, number of new products and services.
- Short-term and medium-term outcomes, e.g. number of successful spin-out companies after a couple of years, number of new markets developed due to innovations.
- Impact i.e. long term outcome, e.g. economic value added for business and society.

For the second component of the logic model (the theory of change - how to understand the logical dependencies between inputs and impact), the reader is referred to SB3 and SB4 of this report.
The logic model is further illustrated in section 3 by presenting the implementation framework of SIGN (Scottish Intercollegiate Guidelines Network). Section 4 presents a first outline of a logic model for EBP implementation in primary health care in Belgium. Section 5 translates this logic model into performance indicators for the different governance levels: the federal Steering Group and the NAO.

2.3 How to define outcomes and performance indicators?

It is often not easy to define which outcome is most relevant for a specific intervention programme, and which performance indicators should be measured to evaluate this outcome. Attention should be paid to the process of developing performance indicators or key performance indicators (KPIs). For instance, stakeholders often do have different perceptions of what important indicators are. Scientific insights point to important aspects that should be considered.

Kelley et al. (2006) argue that the selection of indicators should be based on a conceptual framework covering relevant performance aspects in order to 1) limit the extent of performance measurement, and 2) make future work in indicator development easier. Moreover, the range of performance indicators (wide range versus only priority areas) should be discussed early in the process.[1] However, too many performance indicators lead to confusion, as well as to inconvenient and complex performance measurement systems.[2]

According to Eddy (1998), “The design of a performance measure, and therefore how good it is, depends on several factors: the purpose of the measure, the entity whose quality is being measured, the dimension of quality being measured, the type of measure, and who will use the measure”.[3] Bauer (2004) confirms that organizations should consider what they should measure and how many metrics they should have, but more important is ensuring that measures reflect the strategy, vision, and goals of the organization.[4, 5] Kanji and Sá (2003) argue that a good system of performance measurement is not only linked to the organization’s values and strategy, but also based on the critical success factors or performance drivers.[6]

Frost (2000) proposes the three-step method. The first step is the selection of ‘performance topics’ (cf. performance aspects) based on the strategy and the stakeholders (internal and external).[7] The identification and determination of critical success factors for a given performance topic is the second step. The third step is the definition of a specific performance indicator.

All performance indicators should be valid, and reliable.[6, 8] Gibberd (2005) confirms that indicators' validity is often based on relevant literature, but also on expert groups.[8] Moreover, indicators should be easy to use.[6, 9] However, difficulties of measuring certain performance aspects (such as quality) may not lead to a tendency for the more easily measurable.[10]

In order to examine whether indicators are both scientifically underpinned and practicable, in the Netherlands, the 'Appraisal of Indicators through Research and Evaluation'-instrument (AIRE) was developed. The AIRE-criteria for a scientifically supported and practicable indicator set are: 1) the extent to which purpose, relevance and organizational context are made explicit, 2) the involvement of stakeholders, 3) the scientific support, and 4) further foundation, formulation and use.[9]

Finally, indicators should be useful, since performance measurement only has sense when data can be used. Kanji and Sá (2003) distinguish five roles of performance measurement, namely 1) examining progress towards the established goals, 2) providing accountability mechanisms, 3) supporting future resource allocation decisions, 4) communication of goals and priorities and motivating employees, and 5) drive improvement.[6]

3 SCOPE AND AMBITION LEVEL OF EBP IMPLEMENTATION IN BELGIUM

3.1 Introduction

As indicated in section 2.1, the logic model is often used by funders, managers, and evaluators of programmes to evaluate the effectiveness of a large-scale programme.

The logic model can also be used to define scope and ambition level for EBP implementation in primary health care in Belgium. So far, no full set of performance indicators regarding EBP implementation in primary health care in Belgium has been defined. Where indicators are available, it concerns the use of specific EBP guidelines at an operational level (e.g. number of downloads of a guideline on the KCE website).
This lack of indicators on a strategic and tactical level may also be due to the fact that, so far, the scope and ambition level regarding EBP implementation in primary health care in Belgium has not been fully defined and agreed among key stakeholders. Defining a clear scope and ambition level is essential for defining an effective performance management framework as well as an effective change management approach. In this section, a suggested scope and ambition level - in the near-term and longer-term - for EBP implementation in primary health care in Belgium is presented. First, before discussing the scope and ambition level in the Belgian context, two reputed international examples are presented: the Scottish Intercollegiate Guidelines Network (SIGN) and the National Institute for Health and Care Excellence (NICE).

3.2 International examples: SIGN and NICE

This section presents two examples on performance management for EBP implementation. The example of SIGN (Scottish Intercollegiate Guidelines Network) illustrates how performance management can be done at programme level (strategic and tactical). The example of NICE (National Institute for Health and Care Excellence) illustrates how performance management can be done at guideline level (operational). Other countries, e.g. Finland or Norway, might be interesting to study as well but could not be included due to time constraints. Contact with these agencies might be considered later on. A close collaboration exists already between Belgium and Finland since the Finnish Duodecim database is used in Belgium by EBMPracticeNet.

3.2.1 SIGN: Scottish Intercollegiate Guidelines Network

The Scottish Intercollegiate Guidelines Network (SIGN) was formed in 1993. Its objective is to improve the quality of health care for patients in Scotland by reducing variation in practice and outcome, through the development and dissemination of national clinical guidelines containing recommendations for effective practice based on current evidence. The membership of SIGN includes all the medical specialties, nursing, pharmacy, dentistry, professions allied to medicine, patients, health service managers, social services, and researchers.

SIGN is part of the Evidence Directorate of Healthcare Improvement Scotland and core funding from Healthcare Improvement Scotland supports the SIGN Executive, and expenses and costs associated with guideline development projects. SIGN is editorially independent from Healthcare Improvement Scotland and the Scottish Government which ultimately funds Healthcare Improvement Scotland.

SIGN uses the logic model[11] to assess the impact of implementation activities and to find out whether implementing a guideline is improving outcomes. SIGN states on its website: “The power of logic models is in the measures and indicators providing evidence that individual implementation activities lead to the desired outcomes. Logic models are therefore valuable evaluation tools as they can provide evidence of impact.” SIGN has published its logic model on its website (version May 2011); see Figure 4.

From this overview, it becomes clear that SIGN has:

- defined a broad set of performance indicators ranging from activity indicators to short-, medium- and long-term[d] outcome indicators;
- adopted a multi-stakeholder implementation approach by targeting different groups, e.g. clinicians, managers, public partners, voluntary organizations, government;
- adopted a multifaceted implementation approach which consists of key elements such as dissemination, awareness raising, training, implementation support, local clinical champions, active measurement of health care outcomes, patient experience, continuous quality improvement.

Useful insights for the National EBP Programme in Belgium

- It takes time to build a coalition to effectively implement EBP guidelines. SIGN has been operational since 1993.[e]
- Developing a performance management framework (indicators and targets) needs to be done in close collaboration with core stakeholders. This is essential.
- A multifaceted approach for implementing and embedding EBP is essential. Effective implementation requires far more than dissemination only. For example, training, local clinical champions, ongoing monitoring are essential as well. In addition, implementation should target different groups, e.g. clinicians, managers, government.

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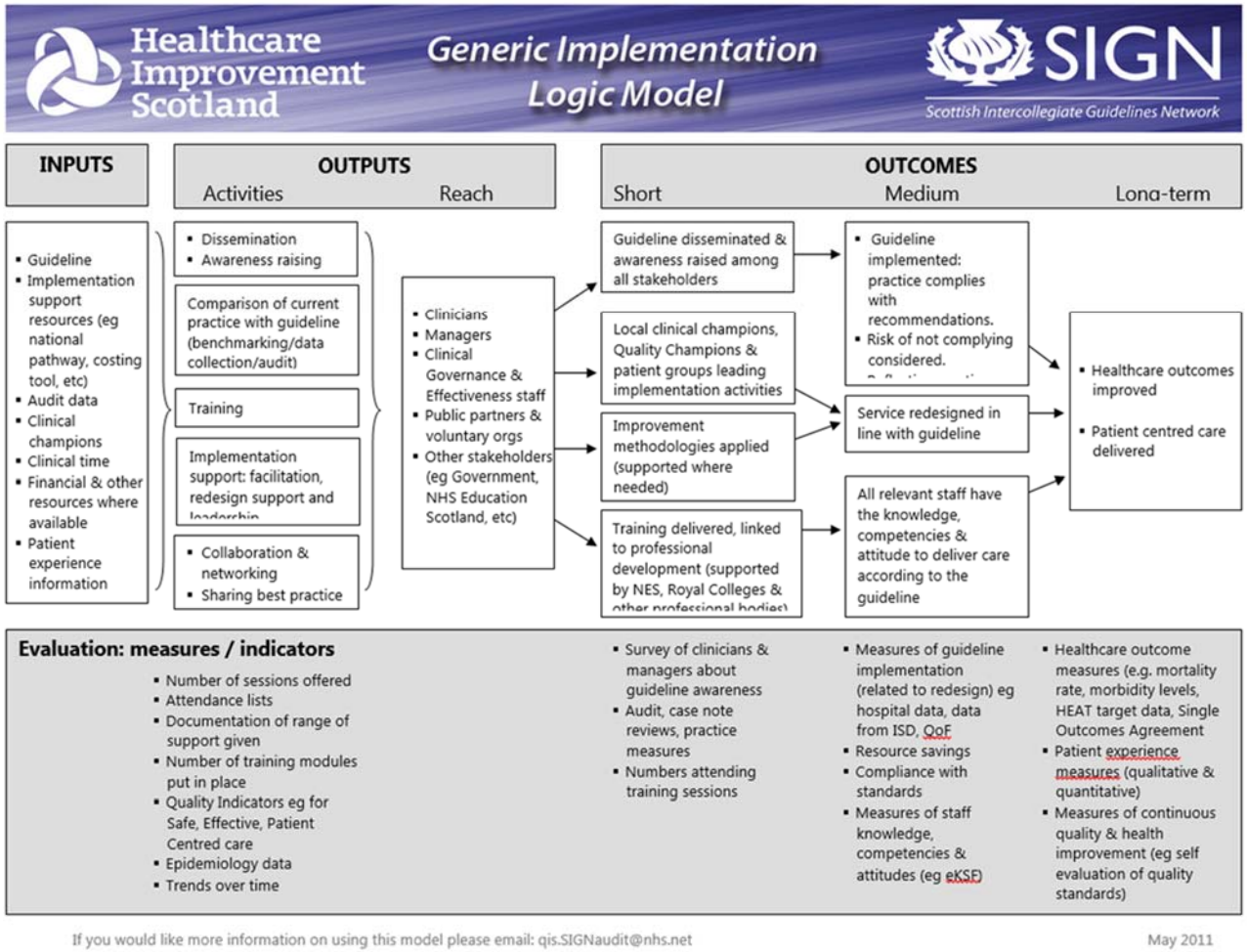
[d] “Long-term outcomes” in the logic model of SIGN are similar to “impact” in the generic logic model presented in section 2.2.

[e] Please note that CEBAM (Belgian Centre for Evidence-Based Medicine) has been active in Belgium since 2002.

Figure 4 – The generic implementation model of SIGN



Source[12]: SIGN, May 2011

3.2.2 NICE: National Institute for Health and Care Excellence

NICE was set up in England in 1999, a special health authority, to reduce variation in the availability and quality of NHS treatments and care. In 2005, after merging with the Health Development Agency, it began developing public health guidance to help prevent ill health and promote healthier lifestyles. [13]

As a Non-Departmental Public Body (NDPB), it is accountable to the sponsor department, the Department of Health, but operationally it is independent of the UK government. The guidance and other recommendations are made by independent committees. The NICE Board sets the strategic priorities and policies, but the day to day decision-making is the responsibility of the Senior Management Team (SMT).

NICE's role is to improve outcomes for people using the NHS and other public health and social care services. NICE does this by:

- producing evidence-based guidance and advice for health, public health and social care practitioners;
- developing quality standards and performance metrics for those providing and commissioning health, public health, and social care services;
- providing a range of information services for commissioners, practitioners and managers across the spectrum of health and social care.

NICE is very committed to performance measurement, especially at quality standards level.[14] For all quality standards, indicators have been defined to measure outcomes that reflect the quality of care, or processes linked, by evidence, to improved outcomes.[15] Indicators are used to:

- identify where improvements are needed;
- set priorities for quality improvement and support;
- create local performance dashboards;
- benchmark performance against national data;
- support local quality improvement schemes;
- demonstrate progress that local health systems are making on outcomes.

NICE measures the use of NICE guidance and standards using data from national audits and reports, journal papers and local audits. It currently[f] measures, monitors and publishes the data on uptake of 185 clinical guidelines, for which often multiple indicators have been collected. In addition, NICE also measures the uptake of quality standards[g]. Examples of indicators regarding the uptake of clinical guidelines and quality standards are provided in the appendix. It is interesting to note that NICE regularly publishes their results on impact evaluation of their guidelines in peer-reviewed publications, e.g. Vyawahare et al. (2013), Thornhill et al. (2011).[16, 17]

NICE indicates that the indicators are underpinned by a robust evidence base and have been through a rigorous process, which includes:

- development by an independent expert committee (including GPs, hospital consultants, public health and social care practitioners, NHS commissioners and lay members);
- testing and piloting;
- public consultation.

f Status 22 August 2017.

g Quality standards are concise sets of statements, with accompanying metrics, designed to drive and measure priority quality improvements within a particular area of care. These are derived from the best available evidence, particularly NICE's own guidance and, where this does not exist, from other evidence sources accredited by NICE.

Useful insights for the National EBP Programme in Belgium

- Detailed performance measurement at guideline level is useful as the actual progress of EBP adoption at guideline level can be monitored and controlled.
- A rigorous process for defining and testing the indicators – with inputs from core stakeholders – is highly beneficial. Performance indicators should be SMART: specific, measurable, actionable, realistic, time-bound.

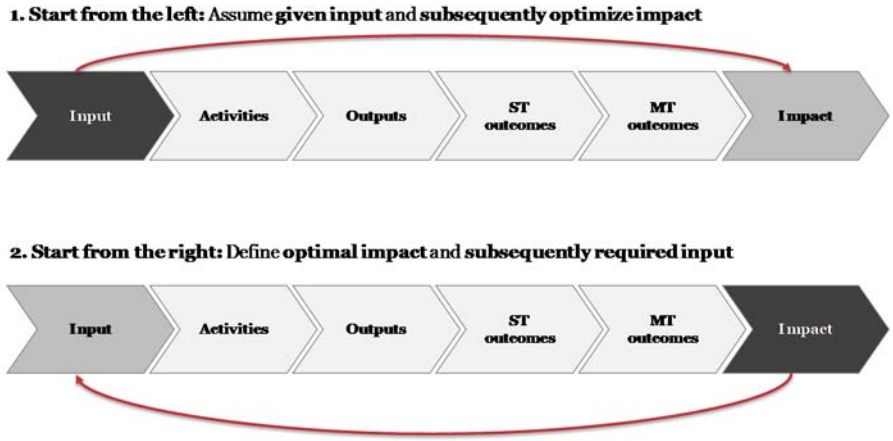
3.3 Scope and ambition level of EBP implementation in Belgium

3.3.1 What do we aim to optimize? Two extreme perspectives

From a performance management perspective, as indicated in section 3.1, it is important to have a clear and shared vision on the scope and ambition level of EBP implementation in primary health care in Belgium. This section presents two extreme perspectives (Figure 5) and subsequently proposes a pragmatic approach for EBP implementation in Belgium in the near-term and longer-term (section 3.3.2).

The first perspective is to assume a given input (for example, in terms of financial and human resources) and subsequently optimize the outputs-outcomes-impact. In a business setting, this is what a typical start-up does: create maximum leverage, based on constrained resources. The second perspective is to define optimal impact (for example, in terms of health care outcomes such reduced mortality or morbidity rates, patient experience, health outcomes per Euro invested) and subsequently define the required outputs-activities-inputs.

Figure 5 – Two extreme perspectives on how to define the ambition level by using the logic model



Source: authors' analysis (2017)

Of course, between these two extreme perspectives, many variations exist. For example, by prioritizing areas where quick wins, low hanging fruits, and/or most cost-effective areas of EBP implementation exist, and subsequently defining the inputs needed to realize the desired impact in the prioritized areas.

3.3.2 A pragmatic approach for EBP implementation in primary health care in Belgium

As the financial means for EBP implementation in primary health care in Belgium is most likely to remain constrained at the near term, a pragmatic approach is recommended. Based on the 2016 budget of EUR 8.1 mio[h] for EBP product development & dissemination it is impossible to realize the full potential impact across all health intervention domains. A more pragmatic

[h] Federal budget for EBP in 2016: EUR 8,125,995. Source: KCE.

approach (see Figure 6) for the near-term would consist of two parallel tracks:

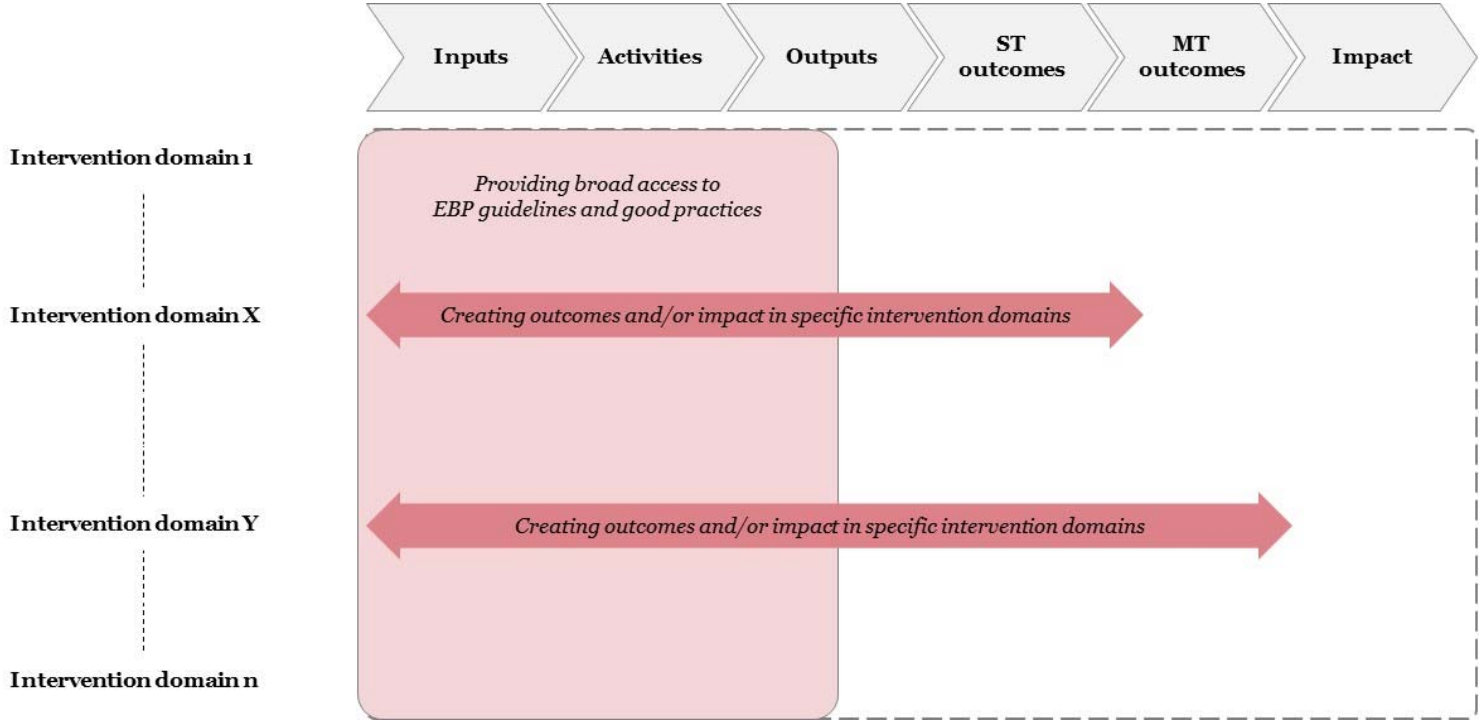
1. Provide broad access to EBP guidelines and good practices via EBMPraticeNet, supported by broader communication. Although access to EBP alone is not enough to ensure implementation, it is a conditio-sine-qua-non. Outcome can be measured at the level of short term outcomes. An ongoing project hosted at FOD/SPF Public Health already aims at implementing access for 10 primary care professions via EBMPracticeNet.
2. Focus on a few (e.g. two or three) thematic areas for which application of EBP is beyond all discussion required, areas that would bring immediate results for patients and for cost control in care (see Y-axis of Figure 6). Examples could be limiting use of antibiotics, or diabetes type 2. Working groups will be installed to have these areas defined. In these areas, a well-thought out implementation strategy needs to be developed, e.g. a rich social marketing campaign, and backed by broad access to EBP guidelines via EBMPracticeNet. Outcome indicators should be developed in collaboration with the stakeholders, and can be measured at the level of short- and medium-term outcomes, and eventually at the long-term or impact level (see X-axis of Figure 6). The outcome indicators can be at different levels for different thematic areas, e.g. at short-term for one thematic area and at medium-term for another thematic area.

A third track could be thought of, yet probably at a later stage after first successes have been booked:

3. Develop a strategy for one or two ‘new’ areas, for which evidence of immediate results is not yet available, due to its complex nature in terms of actual use and applications of good practices and guidelines in chains and networks of professionals, and heavily depending for its result on commitment of patients. In terms of financial inputs, refrain from investing in new guideline development, re-use international good practices and guidelines, focus on investment in implementation and change. That way, while gradually shifting budget from development towards implementation, aim for specific outcomes/impacts in targeted intervention domains.

The realized outcomes/impacts should be followed by reflections on how the EBP Programme could be adjusted and improved, and this should in turn lead to actions to align inputs and activities of the EBP Programme with these conclusions. This way an adequate performance management can be assured.

Figure 6 – A pragmatic approach for EBP implementation in primary health care in Belgium in the near-term



Source: authors' analysis (2017)

After first successes have been realised, higher ambition levels can be defined as described above for the third track. To realize this, additional funding needs to be agreed and secured. In this way, the NAO can demonstrate success for creating positive outcomes, the federal Steering Group can actively steer the EBP Programme, and the Belgian government can allocate additional resources based on demonstrated success in EBP implementation.

As already pointed out, see examples of NICE and SIGN, it should be kept in mind that:

- It takes time to build a coalition to effectively implement EBP guidelines.
- A multifaceted approach for implementing and embedding EBP is essential. Implementation should target different groups, e.g. clinicians, managers, government. Effective implementation requires far more than dissemination only. For example, training, local clinical champions, ongoing monitoring are essential as well.
- Developing a performance management framework (indicators and targets) needs to be done in close collaboration with core stakeholders.
- A rigorous process for defining and testing the indicators – with inputs from core stakeholders – is highly beneficial. Performance indicators should be SMART: specific, measurable, actionable, realistic, time-bound.

4 TOWARDS A LOGIC MODEL FOR EBP IMPLEMENTATION IN PRIMARY HEALTH CARE IN BELGIUM – A FIRST OUTLINE

As indicated in section 3, when discussing performance management at SIGN and NICE, it is highly beneficial to develop the performance indicators in close collaboration with core stakeholders. This could be part of the initiation phase, in which KCE, supported by an Initial Taskforce creates working groups to develop performance indicators at programme and guideline level. The initiation phase is the first phase during which KCE takes the tactical and operational lead of the EBP Programme; it ends once the NAO is fully operational (see 6.2.1 in S1).

In this section, an indicative logic model is presented (Table 1). This should not be considered as the final logic model, rather as a first version (a direction) of how the logic model for EBP implementation in primary health care in Belgium could look like. This first version is based on key insights from empirical research on effective implementation strategies, the logic model from SIGN (section 3.2.1), and the experience of the authors in designing impact-oriented large-scale programmes.

Table 1 – A first outline of a logic model for EBP implementation in primary health care in Belgium – To be further detailed during initiation phase

	Inputs →	Activities →	Outputs →	ST and MT Outcomes →	Impacts
Track 1: Providing broad access to EBP guidelines and good practices	- EBP intervention research - Clinical expertise - Patient experience information - Audit data - Part of EUR 8.1 mio annually (2016) for EBP product development and implementation	- Prioritization, development and validation of EBP guidelines/ products - Dissemination of EBP guidelines/products by providing access via (a) EBMPracticeNet, (b) by linking actively to learning communities (expert networks) activated by NAO process managers or to scientific organisations, LOKs/GLEMs,… - Awareness raising and implementation interventions based on a well considered implementation strategy, e.g. via targeted communication, education & training, social marketing	- # of prioritized EBP guidelines available via EBMPracticeNet - Increase in % of primary health care providers who are aware of EBP guidelines (via survey)	- Increase in % of primary health care providers frequently accessing EBMPracticeNet for EBP guidelines or other EBP products - Knowledge, skills and attitude of primary health care providers regarding the use of EBP guidelines improved (via survey)	To be discussed
Track 2: Creating positive outcomes and impact for select number of targeted intervention domains	- EBP intervention research - Clinical expertise - Patient experience information - Audit data - Part of total budget of EUR 8.1 mio annually (2016) for creating positive outcomes and impact for select number of targeted intervention domains	Prioritization of targeted intervention domains: - Define selection criteria for targeted intervention domains, e.g. cost effectiveness of EBP guideline compliance - Select targeted intervention domains - Define specific key performance indicators (KPIs) for targeted intervention domains	- Selected set of targeted intervention domains defined, including targeted KPIs	To be discussed	To be discussed
		Development of an implementation strategy and implementation activities **at primary health care provider level,** based on previous analysis of levers and barriers to implementation **e.g.**: - Skills-based training - Appointment of local clinical champions - Practice-based coaching etc.	- # of local clinical champions appointed - # of skills-based trainings delivered	- Degree of compliance to EBP guidelines - Amount of resources saved	Impact KPIs to be defined per targeted intervention domain. For example, related to: - Health care outcomes ↑, e.g. morbidity rates ↓ - Patient experience ↑ - Health outcomes per EUR invested ↑
		Implementation activities **at programme level, e.g.**: - Programme evaluation, e.g. comparison of current practice with guidelines - Programme modification - System interventions, e.g. securing sufficient financial resources and implementation support - Data collection, monitoring and management at programme level	- Sufficient financial resources and implementation support secured - Clear audit data for evaluating programme effectiveness	To be discussed	To be discussed

This logic model can be further refined during the initiation phase, e.g. defining the targeted intervention domains and agreeing upon the actual performance targets. See also the work packages as described in section 6: Making Performance Management for EBP Implementation Operational.

It is important to note that change readiness of health care professionals is a crucial factor of implementing EBP. The EBP Programme aims to stimulate change readiness. As part of the logic framework, indicators on change readiness are to be defined. Useful points of departure are the concepts presented in SB 3 (Change Management). Performance indicators should also start from and take into account the analysis of perceived barriers and facilitators of EBP implementation for a specific intervention domain. Some of the barriers might be difficult to change or might require action that is beyond the scope of the EBP Programme (e.g. financing mechanisms) (see SB4). This type of considerations should be broached during the discussions on the choice of performance indicators.

In the following section, the logic model is translated into indicative performance indicators at the different governance levels: the federal Steering Group and the NAO.

5 TOWARDS A PERFORMANCE MANAGEMENT DASHBOARD AT DIFFERENT GOVERNANCE LEVELS – A FIRST OUTLINE

This section describes – based on the first version of a logic model in section 4 – the performance indicators at the different governance levels. This enables the different governance entities to maximize its contributions across the impact value chain. Still, it is important to note that performance indicators at the different governance levels are highly interdependent. In the end, all actors need focus on and contribute to realizing the overall objectives of the EBP Programme: to strengthen the efficiency and quality of care in Belgium.

In addition, it needs to be stressed that the performance indicators below (see Table 2) are to be considered as a first version (a direction). As stated in section 4, first a full logic model needs to be developed based on clear and agreed objectives (in terms of desired outputs/outcomes/impact).

Table 2 – First outline of a logic model translated into KPIs at different governance levels – To be detailed during initiation phase

	Inputs →	Activities →	Outputs →	ST and MT Outcomes →	Impacts
KPIs at strategic level, i.e. federal Steering Group	- Steering Group composition: # and seniority of representatives Belgian government and administration - Part of total budget of EUR 8.1 mio annually (2016) for EBP guidelines development and implementation	- # of federal Steering Group meetings held - % of participants at respective strategic meetings - % of programme budget spent per specific target area	- Strategic paper produced and disseminated to target	To be discussed	To be discussed
KPIs at tactical level, i.e. NAO	- NAO composition: # of FTE and seniority level - Part of total budget of EUR 8.1 mio annually (2016) for	- # of NAO meetings held - % of actual programme budget spent, per target category/or work package (WP), compared to target	- # of prioritized EBP guidelines available via EBMPracticeNet	To be discussed	To be discussed

	EBP guidelines development and implementation	- % of programme staff available, per target category/or WP - % of specific change activities, per target category/or WP - % of specific networking activities, per target category/or WP	- # of skills-based training modules developed and put in place		
KPIs at operational level	- Part of total budget of EUR 8.1 mio annually (2016) for EBP guidelines development and implementation	- # of training sessions organized - # of staff receiving training	- # of EBP guidelines available on EBMPracticeNet - % of primary health care providers who are aware of EBP guidelines (via survey)	- % of primary health care providers frequently accessing EBMPracticeNet for EBP guidelines. For example, via software and online statistics.	To be discussed

Much attention should be paid to the way the performance indicators are used. Indeed, a lot of outcomes in patients are determined by the collaboration between primary care and secondary or tertiary care. For example, if a cardiologist prescribes an expensive statin to a patient, some patients don't accept that their family doctor would change this "specialist advise". Further, it should be realized that studies evaluating implementation strategies learned that the effect of such strategies on clinical practice are significant but nevertheless relatively small (see SB4). Effects on patient outcome were often not measured. This implies that performance indicators should be set at realistic levels. Further contacts with agencies abroad who already implemented performance measurement, e.g. SIGN or NICE, could support this process.

6 MAKING PERFORMANCE MANAGEMENT FOR EBP IMPLEMENTATION OPERATIONAL

To make performance management operational, various work packages have been defined (see Figure 7):

- WP 2A: Define and agree upon ambition level EBP implementation and targeted intervention domains
- WP 2B: Define and agree upon logic model for realizing ambition level and results in targeted intervention domains
- WP 2C: Define and agree upon performance management dashboard
- WP 2D: For each intervention domain, define and agree upon the organisational aspects of data collection, data analysis and provision of feedback.

These work packages are part of the overall approach: from design principles to EBP implementation in four phases (see Figure 7).

During the initiation phase, KCE will be the owner of these work packages, in collaboration with a temporary task force of core stakeholders.

After installation of the final governance structure (see SB2 and S1) the EBP Life cycle cells will be in charge of execution of these work packages, under the coordination of the NAO.

The following EBP Life cycle cells will be involved:

- the central prioritization organ for defining the targeted intervention domains;
- the implementation platform for defining implementation strategy;
- the central prioritization organ and the evaluation platform for defining the performance management dashboard;
- the evaluation platform for collecting and evaluating results and for providing feedback.

Further, a decision should be taken as to where newly collected data could be hosted (data warehousing).

Figure 7 – From design principles to EBP implementation in three phases

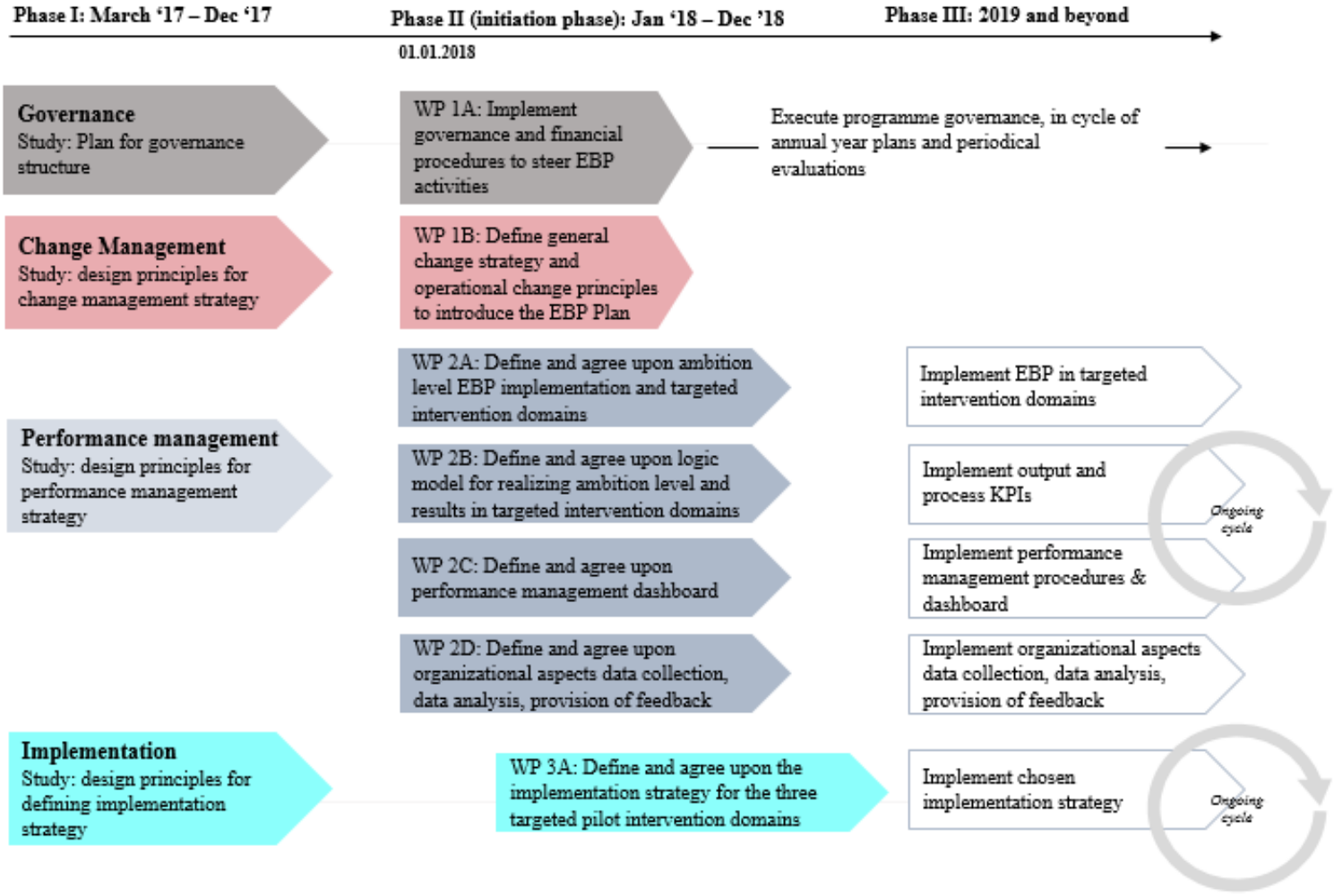


Table 3 – Defining a management dashboard for EBP implementation in Belgium

WP 2A-2D	Defining ambition level, logic model, performance management dashboard, evaluation and feedback for EBP implementation in Belgium				
Start	**April 2018**	**Throughput time**	**6 months**	**Time spent in FTE months**	**TBD**
Owner	Initiation phase: KCE, supported by a temporary taskforce. After installation of the final governance structure (see S1 and SB2) the following EBP Life cycle cells will be involved under the coordination of the NAO: central prioritization organ for defining targeted intervention domains; implementation platform for defining implementation strategy; prioritization organ and evaluation platform for defining performance management dashboard; the evaluation platform for collecting and evaluating results and for providing feedback.				
GOALS 2.A Define and agree upon ambition level EBP implementation and targeted intervention domains. 2.B Define and agree upon logic model for realizing ambition level and results in targeted intervention domains. 2.C Define and agree upon performance management dashboard. 2.D Define and agree, for each intervention domain, upon the organisational aspects of data collection, data analysis and provision of feedback.					
PRINCIPLES 1. Challenging, yet feasible objectives given significant financial and human resource constraints. Annual budget approximately EUR 8.1 million (2016) for EBP guidelines development and implementation. 2. Aiming for not only providing broad access to EBP guidelines, yet also concrete results in targeted intervention domains. 3. Leverage key insights from literature on effective implementation strategies and experiences from practical examples such as SIGN and NICE. 4. Define, in collaboration with core stakeholders, SMART performance indicators; reflect on feasibility of data collection, on mode of data analysis and on feedback procedure.					
TASKS (aligned to goals) 2.A Define and agree upon ambition level EBP implementation and targeted intervention domains. • Create initial definition of ambition level EBP implementation in terms of outputs, outcomes and/or impacts; and in terms of target intervention domains; and discuss with task force. • Refine ambition level and targeted intervention domains based on feedback task force. • Finalize and agree upon ambition level and target intervention domains in collaboration with task force. 2.B Define and agree upon logic model for realizing ambition level and results in targeted intervention domains. • Create initial logic model aligned to ambition level and targeted intervention domains. • Refine logic model based on feedback from task force. • Finalize and agree upon logic model in collaboration with task force. 2.C Define and agree upon performance management dashboard. • Create initial performance management dashboard (at KPI definition level) and discuss with task force.					

- Refine performance management dashboard based on feedback from task force.
- Create initial performance management dashboard (at target value level) and discuss with task force.
- Finalize and agree upon performance management dashboard in collaboration with task force.

2.D For each intervention domain, define and agree upon the organisational aspects of data collection, data analysis and provision of feedback.

- Define and agree upon organisational aspects of data collection.
- Define and agree upon organisational aspects of data analysis.
- Define and agree upon organisational aspects of provision of feedback.

DELIVERABLES

D 2.1: Shared and agreed objectives in terms of ambition level and targeted intervention domains.

D 2.2: Shared and agreed logic model for realizing ambition level and results in targeted intervention domains.

D 2.3: Shared and agreed performance management dashboard for EBP implementation in primary health care in Belgium.

D 2.4: Shared and agreed detailed evaluation and feedback process for each intervention domain

REQUIRED RESOURCES

- Task force consisting of key stakeholders in the field of EBP implementation, e.g. EBP guideline developers, medical organizations, the Belgian government.
- Experienced project team for preparing meetings taskforce and describing the ambition levels, target invention domains, logic model, performance management framework, and evaluation/feedback process in detail.

RISK MANAGEMENT

- Strong, neutral leader to chair the taskforce; experienced in working with broad set of stakeholders with sometimes conflicting interests
  - ➥ Selection of a strong and neutral candidate; accepted by the diverse stakeholders
- Accepted and empowered task force
  - ➥ Selection of legitimate candidates representing the various stakeholder groups and who are recognized experts in their fields.
- Experienced project team to prepare meetings of taskforce and describe the ambition levels, target invention domains, logic model, performance management framework, and evaluation/feedback process in detail.
  - ➥ KCE staff, supported by experts/professionals in performance management of large-scale programmes (initiation phase)
  - ➥ EBP Life cycle cells under the coordination of the NAO (after installation of the final governance structure)

To conclude

Developing an effective performance management framework requires time, effort, and collaboration among core stakeholders. Still, it's an important precondition for realizing the goals of EBP implementation: strengthen the efficiency and quality of care.

APPENDIX

APPENDIX 1. EXAMPLES OF INDICATORS NICE

NICE has published 185 clinical guidelines[i]. For example, national guideline 28 (NG28) covers the care and management of type 2 diabetes in adults (aged 18 and over). It focuses on patient education, dietary advice, managing cardiovascular risk, managing blood glucose levels, and identifying and managing long-term complications. For this guideline, NICE measures the following indicators:

- Proportion of patients with newly diagnosed type 2 diabetes over 12 years old who were offered structured education in the last year.
- The percentage of patients newly diagnosed with diabetes, on the register, in the preceding 1 April to 31 March who have a record of being referred to a structured education programme within 9 months after entry on to the diabetes register.
- Proportion of patients with type 2 diabetes who had their blood pressure checked within the last year.

In addition, NICE also measure quality standards. For example, quality standard 6 (QS6) covers care and treatment for adults with diabetes. It includes preventing type 2 diabetes, managing type 1 and type 2 diabetes, diabetes-related foot care and diabetes education programmes. It describes high-quality care in priority areas for improvement. For this quality standard, NICE measures indicators such as:

- Proportion of patients with newly diagnosed type 1 diabetes over 12 years old who were offered structured education in the last year.
- Proportion of patients with newly diagnosed type 2 diabetes over 12 years old who were offered structured education in the last year.

[i] Status 22 August 2017.

- Proportion of patients with newly diagnosed diabetes over 12 years old who were offered structured education in the last year.
- The percentage of patients newly diagnosed with diabetes, on the register, in the preceding 1 April to 31 March who have a record of being referred to a structured education programme within 9 months after entry on to the diabetes register.
- Proportion of patients with newly diagnosed diabetes over 12 years old who attended structured education in the last year.
- Percentage of respondents who reported that they had discussed their ideas and goals about the best way to manage their diabetes completely with clinic staff.
- Proportion of patients with type 2 diabetes who had their HbA1c checked within the last year.
- Proportion of patients with type 1 diabetes who had their HbA1c checked within the last year.
- Percentage of respondents who had HbA1c checked in the last 12 months.
- Proportion of patients with type 1 diabetes over 12 years old who achieved an HbA1c target of <58mmol/mol.
- Proportion of patients with type 2 diabetes over 12 years old who achieved an HbA1c target of <58mmol/mol.
- Patients with Diabetes who have HbA1c < 58 mmol/mol (7.5%)
- Proportion of patients with type 1 diabetes over 12 years old who achieved an HbA1c target of <48mmol/mol.
- Proportion of patients with type 2 diabetes over 12 years old who achieved an HbA1c target of <48mmol/mol.
- Proportion of patients with type 2 diabetes who had their blood pressure checked within the last year.
- Proportion of patients with type 2 diabetes who had their cholesterol checked within the last year.
- Proportion of patients with type 2 diabetes who achieved a blood pressure target of ≤140/80.
- Proportion of patients with type 1 diabetes who had their cholesterol checked within the last year.
- Proportion of patients with type 1 diabetes who achieved a blood pressure target of ≤140/80.
- Patients with Diabetes who had their blood pressure checked within the last year.
- Proportion of patients with type 1 diabetes who had their blood pressure checked within the last year.
- Patients with Diabetes who had total cholesterol checked in the last 12 months.
- The proportion of inpatients satisfied or very satisfied with their diabetes care during their hospital stay.
- Proportion of patients with type 2 diabetes who had their serum creatinine checked within the last year.
- Proportion of patients with type 2 diabetes who had their urine albumin checked within the last year.
- Patients with diabetes who had urine albumin checked in the last 12 months.
- Proportion of patients with type 1 diabetes who had their serum creatinine checked within the last year.
- Patients with diabetes who had their serum creatinine checked in the last 12 months.
- Proportion of patients with type 1 diabetes who had their urine albumin checked within the last year.

- Patients with diabetes who had their feet examined in the last year.
- The percentage of patients with diabetes, on the register, with a diagnosis of nephropathy (clinical proteinuria) or micro-albuminuria who are currently treated with an ACE-I (or ARBs).
- Percentage of sites introducing a foot screening programme for those with diabetes admitted to hospital.
- Proportion of patients with type 2 diabetes who had their feet examined in the last year.
- A documented foot risk examination during their hospital stay.
- Proportion of patients with type 1 diabetes who had their feet examined in the last year.
- The percentage of patients with diabetes, on the register, with a record of a foot examination and risk classification: 1) low risk (normal sensation, palpable pulses), 2) increased risk (neuropathy or absent pulses), 3) high risk (neuropathy or absent pulses plus deformity or skin changes in previous ulcer) or 4) ulcerated foot within the preceding 12 months.
- Proportion of CCGs and local health boards providing a pathway for foot assessment within 24 hours.
- Percentage of sites introducing a patient self-management policy with supporting documentation.
- Proportion of people with diabetes who received a diabetic foot risk assessment within 24 hours of admission to hospital.
- Proportion of diabetes inpatients who were visited by a member of the diabetes team.

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