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Joint Action Health Workforce  
Planning and Forecasting

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# Pilot study experiences in Belgium using horizon scanning and the Delphi method as part of a national review of the General Practitioner workforce



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# The Joint Action Health Workforce Planning and Forecasting

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The Joint Action on Health Workforce Planning and Forecasting is a three-year programme running from April 2013 to June 2016, bringing together partners representing countries, regions, professional organisations and Universities from across Europe and beyond. It is supported by the European Commission in the framework of the European Action Plan for the Health Workforce, which highlights the risk of potential shortages of health professionals in the near future.

The main objective of the Joint Action Health Workforce Planning and Forecasting (JA EUHWF) is to provide a platform for collaboration and exchange between partners, to better prepare Europe's future health workforce. The Joint Action aims to improve the capacity for health workforce planning and forecasting, by supporting collaboration and exchange between Member States and by providing state of the art knowledge on quantitative and qualitative planning.

By participating in the Joint Action, competent national authorities and partners are expected to increase their knowledge, improve their planning tools and improve the effectiveness of workforce planning processes. The outcomes of the Joint Action should contribute to the development of ensuring sufficient health professional supply across Europe and contribute to minimising the gaps between population needs and health professionals equipped with the right skills.

This document contributes to achieving this aim by providing a description of the pilot study experiences in Belgium following the use and application of horizon scanning and Delphi method as part of Belgium's national review of the General Practitioner workforce. This document describes the scope, approaches used, results, benefits, lessons learnt and recommendations for other member states and organisations who are considering application of future-orientated methods. This work builds on the sister publications of the work package as shared and published at [www.healthworkforce.eu](http://www.healthworkforce.eu).

This document has been approved by the Executive Board of the Joint Action on Health Workforce Planning & Forecasting on the 14<sup>th</sup> April 2016.

## Contributors and acknowledgements

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The preparation of this document was led by the Centre for Workforce Intelligence (CfWI) in collaboration with the UK Department of Health and the Belgian Federal Public Service of Health, Food Chain Safety and Environment.

The authors Matt Edwards and John Fellows from the UK's CfWI in collaboration with Pascale Steinberg, Pieter-Jan Miermans and Veerle Vivet of Belgium's Federal Public Service of Health; would like to share our sincere gratitude to the following people who directly contributed to the preparation of this report.

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## Executive summary

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Overall the approaches of horizon scanning and Delphi method have added value to the General Practitioner (GP) review in Belgium. Specifically the methods have revealed new areas of information and data.

The **horizon scanning** stage has collected a broad range of ideas about the future and how some of the driving forces may impact the GP workforce. These have not been systematically or formally captured before in Belgium as part of workforce planning. This new information has provided a deeper level of understanding of these driving forces and enhanced the robustness of the study. Examples include driving forces such as technology enabled sharing of patient data, changing finances as part of moving towards integrated care and patients monitoring their own health more.

Use of the **Delphi method** has built on this further by working with experts to quantify a range of variables that can be used within the Belgian workforce planning model. These variables include expected changes in future demand, full-time equivalent (FTE) patterns, activity rates of GPs and distribution of tasks. These new parameters provide the existing quantitative model with new values that increase the robustness of the overall workforce planning approach in Belgium as well as better inform decision making.

Additionally, Belgium had historically considered factors and quantified variables for modelling prior to engaging experts i.e. the opposite process to that carried out in the UK by the Centre for Workforce Intelligence (CfWI). The pilot project, using guidance and advice from the UK, implemented this new sequence of techniques as part of the work. This resequencing of workforce planning techniques, evidence input and stakeholder / expert engagement in Belgium has provided positive outcomes.

As an overall result, these methods will be used again as part of workforce planning and integrated into the overall approach by Belgium for the future. The findings of the pilot study will go forward into the advice and recommendations for the overall GP review.

The team in Belgium at the Planning Unit commented:

“Anyone can apply these methods with the right support and obtain new useful outputs for workforce planning. We will use these methods again as we have integrated them into our formal workforce planning process”.

To the credit of the Belgian pilot study team they have already indicated that they will continue to explore further other cutting edge workforce planning methods such as formal elicitation (CfWI, 2015). The aim of the Belgian team is to enhance the suite of approaches they are able to draw upon as part of planning in Belgium.

To accompany these positive findings, as well as meeting the objectives of the pilot study, a number of lessons learnt have also been found. These include that the learning curve was steep in particular for the Delphi method and that a number of challenges were experienced in relation to timescales of the project, providing enough time for stakeholder involvement and the additional complexity of contracting out parts of the research.

The horizon scanning conducted in Belgium found agreement with its earlier literature review stages as well as in places with the WP6 EU wide horizon scan and CfWI GP review of 2014. The similarities were in high profile and already acknowledged powerful driving forces such as the ageing population and the supply risk of the GP workforce that is well observed in many health systems. In addition there were also slight differences as well as similarities, for example in the use of technology. This broad topic was articulated in a more specific way for the GP workforce in terms of information sharing and empowerment, yet big areas of innovation such as genomics was not a driving force that was mentioned frequently.

This reflects the UK horizon scanning teams' experience that whilst the big topics may come out frequently, the detail and specifically the impact can be quite different depending on the workforce as well as the health system context. This underlines the need for a systematic and open minded approach to horizon scanning as no two studies may be the same.

The Delphi method as designed and collaboratively worked on by all parties provided new insights also. In Belgium differing language communities (French and Dutch speaking) were analysed. This revealed new considerations that have been quantified and are of use to countries where different communities require a difference in the workforce.

Examples of differences in the results include different age profiles, changes in population multimorbidity greater for the French speaking community compared to the Dutch speaking.

Areas of agreement also existed as part of the quantification phase. Both communities believed that overall there would be substantial reductions in the numbers of working hours per FTE.

Clearly, for Belgium, this makes a considerable difference in how the workforce is planned and thought about. This finding, that the methods can flex with such cultural differences, is also positive although obtaining a sufficient numbers of respondents was challenging at times as a result of these additional criteria in recruiting stakeholders to assist with the review.

With more time, a greater investigation and deeper analysis of some of the topics uncovered as part of horizon scanning would have been desirable, for example a more detailed analysis of technology in primary care. This is a positive finding that indicates new insights are available via the use of these methods.

Finally as part of the pilot study findings this report describes recommendations for those applying qualitative methods in the future. These include essential set up considerations as well as minimum numbers of stakeholders to be involved in horizon scanning and Delphi stages.

## Introduction

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The main objective of the Joint Action Health Workforce Planning and Forecasting (JA EUHWF) is to provide a platform for collaboration and exchange between partners, to better prepare Europe's future health workforce.

This objective is both operationalised and realised through the Joint Action pilot study. For Work Package 6 (WP6), which focuses on horizon scanning and qualitative methodologies in health workforce planning and forecasting, the pilot study was a collaboration between the WP6 leaders, the Centre for Workforce Intelligence (CfWI) and the UK Department of Health; and a WP6 partner, the Belgian Federal Public Service of Health, Food Chain Safety and Environment (FPS).

As an earlier output of the Joint Action WP6 produced a description of the qualitative methods used in different national-specific contexts by EU Member States (MS) and WP6 partners (Fellows and Edwards, 2014).

Through conducting this pilot study, the Joint Action is supporting the “proof of concept” of applying and adapting these qualitative methodologies in health workforce planning and forecasting. As part of this application in a different national-specific context the pilot also aims to report on the experiences, benefits and learning points for other MSs of incorporating qualitative methodologies into health workforce planning models in the future.

### Background

The pilot site was the Planning Unit in the Belgian Federal Public Services (FPS). The Planning Unit works with the Planning Commission and Working Groups and has the main objectives of:

- Evaluating (future) workforce needs for the various health professions;
- Advising the Minister of Public Health with respect to health workforce planning; and
- Assisting the Minister in the determination of access quotas.

The Planning Unit is responsible for collecting the information that is necessary to conduct health workforce planning, managing the mathematical model and creating health workforce future scenarios.

The Planning Unit uses one central tool for health workforce planning referred to as the “Harmonised Mathematical Planning Model”. This model currently has the capacity to include parameters that can be based on quantified qualitative information. The Planning Unit agreed to use the General Practitioner (GPs) workforce as the profession of focus for the pilot study.

### Key benefits of working with Belgium as a pilot site

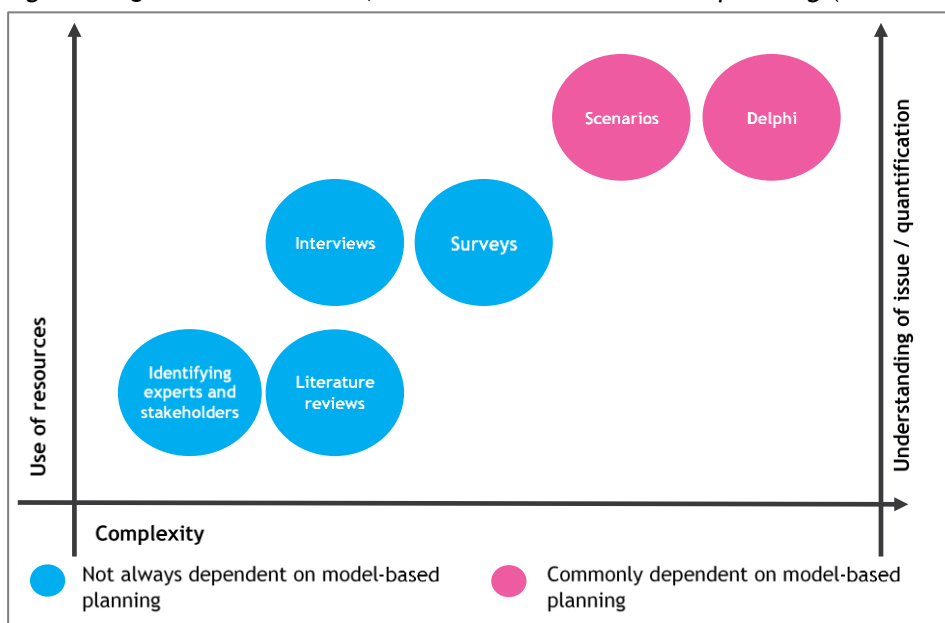
As a forward thinking team, the planning unit in Belgium expressed an interest in learning new techniques and unlocking refinements and improvements in the modelling and ultimately the advice they provide to the Minister and the wide range of stakeholders they engage with. Below we describe

a number of benefits to Belgium and the wider community on why Belgium was a suitable pilot study site.

- The Belgium healthcare system is based on the Bismark model (an insurance system usually financed jointly by employers and employees through payroll deduction) which is different from the UK system which is built on the Beveridge model (health care is provided and financed by the government through taxation). This difference provides an appropriate test of horizon scanning and Delphi method as health workforce planning methodologies being applied in different contexts.
- The focus on GPs is relevant for the wider Joint Action and across Europe as they are considered to be in (or at risk of) shortage in multiple countries alongside an overall desire within health systems towards delivering a greater amount of care in primary care settings (OECD, 2015).
- Belgium’s Planning Unit already has a number of positive aspects that fitted with becoming a pilot site for this topic, they have:
  - structures in place to incorporate quantitative elements (such as an established mathematical model and stakeholder groups).
  - access to high quality data through national data collections.
  - good stakeholder arrangements and access via the Planning Commission and Working Groups who inform policy makers on key aspects of planning decisions and advice.
  - a team at the Planning Unit with a rich mix of experience and training in quantitative and wider qualitative methods from a range of fields.

Overall, the Belgian context therefore is a well-developed workforce planning system within which to incorporate horizon scanning and Delphi methodologies. Figure 1 shows a range of qualitative methodologies and the common relationship to workforce planning models. This is a guide to the complexity and use of resources when applying these methods.

Figure 1: Qualitative methods, resources and model-based planning (Fellows and Edwards, 2014)





### Transferability of the methods

It is important to stress that the positive features of Belgium as a pilot study are not mandatory prerequisites for other healthcare systems and whether they can or cannot use these methods.

The methods used in this pilot study are fully transferable and portable to any other health and care system as the main minimal inputs are:

- A wish to gain stakeholder involvement in the planning process.
- A willingness to consider a broad range of ideas about the future of the workforce being reviewed.
- An ability to invest time in the processes to carry out horizon scanning and quantify uncertain variables for the future, recognising that the outputs of these stages can enrich the overall output.

In terms of the timescales for the use of the methods, the project shared typical timescales for each of the stages based on experiences within the UK as part of England's review of the GP workforce (CfWI, 2014b). These benchmarks were approximately 2 months for horizon scanning and Delphi each, therefore a total of 4 months elapsed time was estimated if the stages were to be completed continuously.

### Qualitative methods used

As part of scoping discussion and the topics as part of the GP workforce review in Belgium, it was agreed that the application of a literature review, semi-structured interviews (horizon scanning interviews) and the Delphi method would suit the aims of the work in the Belgian context.

A literature review would be used to start the research regarding the workforce in question and key focus areas following discussions with the Belgian Ministry. This included reviewing, collecting and collating available knowledge from the literature including grey literature and additional searches.

Horizon scanning would be used for the first time to collect ideas and identify factors and driving forces that would affect the GP workforce out to the year 2035. This qualitative investigation would supplement and enhance the detailed quantitative modelling typically used in Belgium.

The Delphi method was selected as a mixed method to help move from the ideas gathering stage (as part of horizon scanning) to take forward and quantify key variables to enhance the modelling stage and the modelling output. This process would introduce additional systematic processing and refinement of variables with a selected expert panel.

As part of the pilot Belgium explored a reversal in the use of some of these techniques (as well as new ones), namely quantifying variables and factors involving stakeholders / experts rather than presenting such quantifications to experts following internal work. This change in use of methods highlights some of the minimal inputs described below.

Further to this, a supplier was identified to conduct the work, a consortium formed by the University of Antwerp and the University Catholique de Louvain (UA/UCL). This additional capacity aimed to support the Planning Unit with the deployment of the methods and summarisation of the analysis.

## Objectives of the pilot project

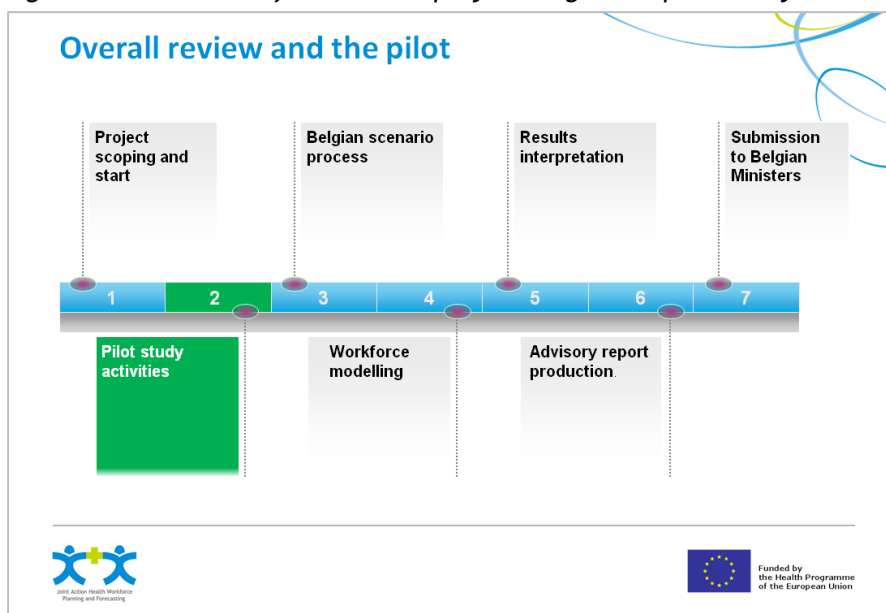
The objectives and scope of the project, agreed at the initiation stage, were as follows:

- To incorporate relevant qualitative methodologies to develop specific parameters to feed the existing quantitative Belgian Health Workforce Planning Model (horizon scanning and Delphi method). The FPS Public Health hopes to determine if these methodologies can enrich the current qualitative consultation taking place in the framework of the Belgian medical workforce planning commission.
- To improve these parameters by adapting the parts of the best practice qualitative methodologies which are applicable to the specific Belgian health workforce planning context, thereby improving the advice given to Belgian policy-makers.
- To demonstrate the value of applying qualitative methods to planning models to improve policy advice by health workforce planners in the EU Joint Action.
- To provide a ‘proof of concept’ to member states to allow them to see what the impact is of using good quality qualitative methods and that these methods can be used in a range of settings.
- To compile findings from the pilot study to be included in the final deliverables for the EU joint action project.

## The scope of this project

- WP6 sharing information, expertise and templates on qualitative methods to ensure that the approach is suitably adapted to the Belgian context and can be used in other contexts.
- FPS Public Health (or UA/UCL) applying the qualitative methods pilot to the workforce planning model for the review of General Practitioners (see figure 2).
- Quantifying parameters - that will be identified during the project to support analysis within the Belgian Health Workforce Planning Model for General Practitioners.

Figure 2: Overall workforce review project stages and pilot study activities



# 1. Pilot study methods

A key aspect of the pilot study in Belgium was to take and learn from the application of horizon scanning and the Delphi method as part of workforce planning in the UK by the Centre for Workforce Intelligence. This section explores each of those methods and the adaptation to the Belgian context.

## Literature review

The aim of a literature review is to determine and analyse the most relevant body of knowledge relating to a particular topic of investigation, and thereby provide both an overview and a new perspective on the topic in question. Whilst the literature review was out of scope for the EU JA pilot, the work completed by the consortium sought to identify any recurrent themes in later stages and usefully link to later stages.

The criteria and sources of the literature review focused primarily on the Belgian context but also considered a selection of international and other Member State reports where shared by the joint research team. As part of the literature review multiple sources were explored including those described below, the search criteria used and an overall flow chart with number of results.

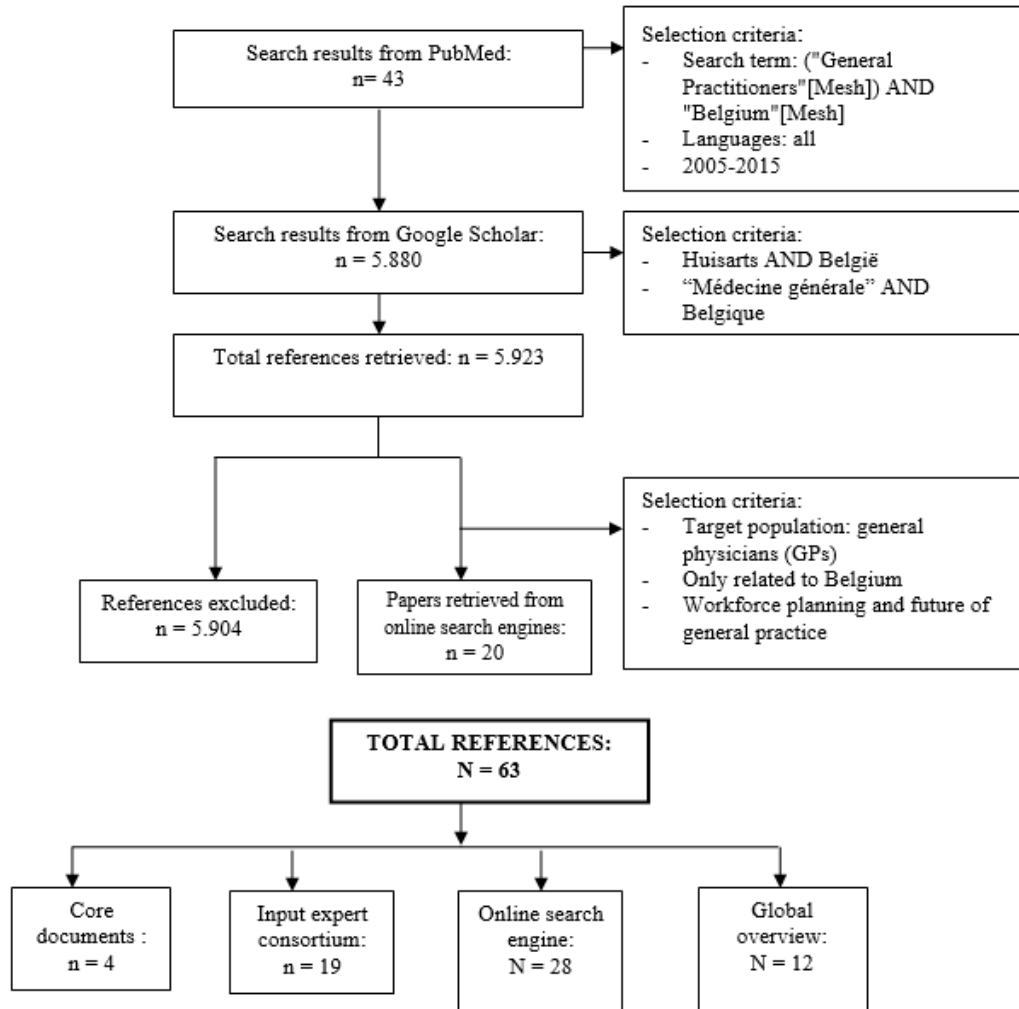
Table 1: Literature review sources and search terms used

Source	Search terms
PubMed database	("General Practitioners"[Mesh]) AND "Belgium"[Mesh] AND ("last 10 years"[PDat]).
Grey literature via Google Scholar and as identified by partner universities (departments of General Practice)	'huisarts' AND 'België', 'Médecine Générale' AND 'Belgique'.
With network partners and at a pan-EU level with additional sources from across Europe	"general practitioner workforce projections [title]" and related articles

Table 2: Criteria and sources summary

<b>Criteria</b>	<ul style="list-style-type: none"> <li>• Target population: GPs</li> <li>• Only related to Belgium</li> <li>• Workforce planning and future of General Practice</li> <li>• Published between 2005 and 2015.</li> </ul>
<b>Sources</b>	<ol style="list-style-type: none"> <li>1. Four core documents [7-10]</li> <li>2. Input from the members in the consortium to obtain reports which have not been published as peer reviewed studies, and grey literature from the databanks of all the universities offering a programme in general practice in Belgium) [11-28]</li> <li>3. A structured online search engine (scope on Belgium): PubMed, Google Scholar [6, 29-55]</li> <li>4. Online search engine (global overview): PubMed, input consortium (56-92)</li> </ol>

Figure 3: Flowchart of the literature search as conducted by the consortium for the Belgian Ministry



### Horizon scanning - a semi structured interview method

In workforce planning and forecasting the topic of concern (or focal question) depends on the type of review being conducted. Often, it concerns asking people to think up to a certain year (2035 in this case for the GP review in Belgium) about the things that may change the requirements, numbers and deployment of specific professions. The Belgian horizon scanning stage used the following focal question:

<b>Focal question as used by Belgium for horizon scanning</b>	"Thinking up to the year 2035, what are the key driving forces that will impact the general practitioner workforce in Belgium? (in terms of numbers and requirements)"
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### Benefits of using semi-structured interviews

Semi-structured interviews are considered to be an effective qualitative research method at the outset of a research project when it is useful to target people based on the specific knowledge and experience that they have (Bernard, 2006).

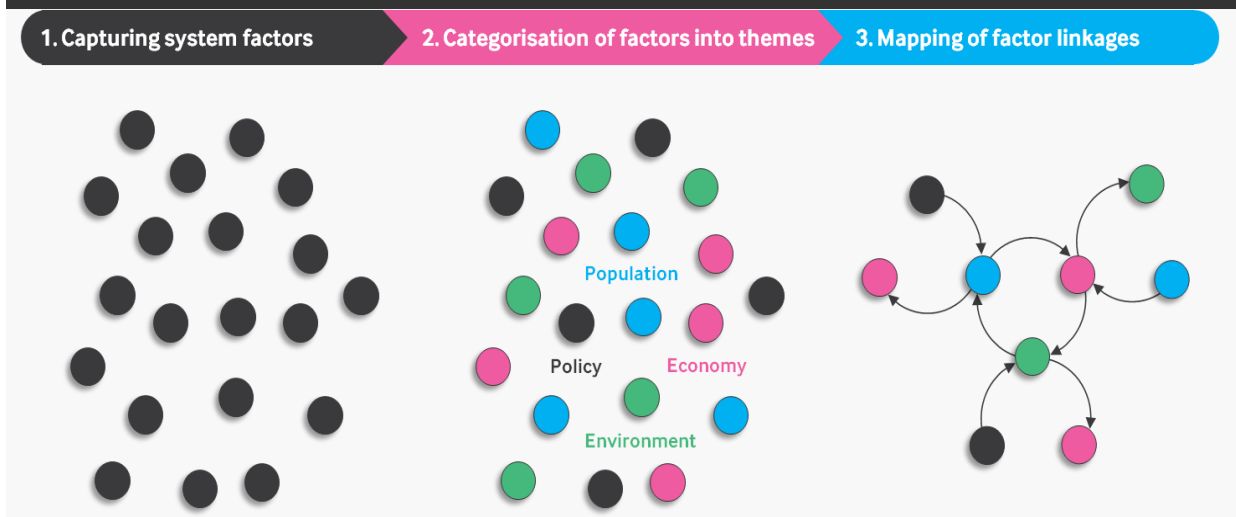
Based on the use of an interview guide, semi-structured interviews allow the interviewer to be in control of what they want from an interview but also leaves them and the respondent free to follow new leads (ibid, 2006). The two-way interaction may also allow the interviewer to encourage participants to think over a longer timescale than usual.

Participants interviewed may be identified through non-probability sampling methods, such as referral sampling. It is typically beneficial to consider selecting interview participants who have expertise about the specific areas as well as a related area (such as technology) so that a variety of views are included and bias is avoided. Each project is different and therefore the range of stakeholders should be examined and customised each time. In Annex 1 the range of experts who participated in the Belgian project can be found.

The use of semi structured interviews gathers ideas and viewpoints that can be analysed for key factors that will affect the workforce in question in the future. This approach assists with wider systems thinking perspectives and consideration of how driving forces will influence the workforce over time that may not be apparent from historical data. It is not concerned with making predictions but rather identifying the driving forces that will shape and influence the system in question.

*Figure 4: System factor identification in the horizon scanning phase (CfWI, 2014a)*

The horizon scanning process enables the capture, categorisation and linkage of influential systemic factors and components from subject matter experts.



This information on key factors from stakeholders often has the benefit of deepening stakeholder involvement and buy in to later stages. Importantly the method recognises that health systems are complex and there are many factors interacting, there is a great deal that can be understood from experts on the key forces which may shape the supply and demand of future health workforces.

## Tools for applying and using horizon scanning in Belgium

As part of overall scoping, application of the method and specific guidance from WP6 was provided as part of planning and deployment meetings. In advance of the pilot commencement the lead modeller for the Belgian Planning Unit, Pieter-Jan Miermans, also visited the CfWI in London to meet with the CfWI modelling and horizon scanning teams to learn about the use of the methods, application within the UK and onward linking phases to modelling stages.

A wide range of relevant materials, tools and templates were provided to assist application. This included adaptation of the materials for the Belgian context as part of joint working sessions. Regular working and review sessions were also scheduled including methodological catch up meetings between the UK and Belgium on a fortnightly basis.

An interview template provided by the WP6 UK team, adaptations to the study in Belgium were made e.g. the focal question, introduction and description of the review.

A range of experts and stakeholders were identified and contacted to request a horizon scanning interview. These experts ranged from GPs from each of the language communities, academics and professional organisations. Typically, depending on the size of the review, between 10 and 15 key factors of demand and supply are identified. The project sought to have a balance of experts and stakeholders from the Dutch and French speaking communities. This range of stakeholders in Belgium is especially important due to the diversity in cultures and geographic aspects of how the workforce operate in different Belgian communities.

The interviews were recommended to be conducted in a face-to-face meeting or by telephone, with the majority of interviews lasting approximately 30 minutes (to a maximum of 1 hour). The interviews recorded the audio to assist with writing up afterwards

From the interviews visualisations and a thematic framework was used to code and analyse the interview content. This framework guided the analysis team as part of identifying key factors for further investigation and those for quantification as part of the Delphi stage.

## The Delphi method

The Delphi method was developed by the RAND Corporation in the 1950s for military purposes (Dalkey and Helmer, 1963). It is a systematic consensus process for collecting and refining the knowledge of a group of experts (Linstone and Turoff, 2002) and is well known for its use in futures research.

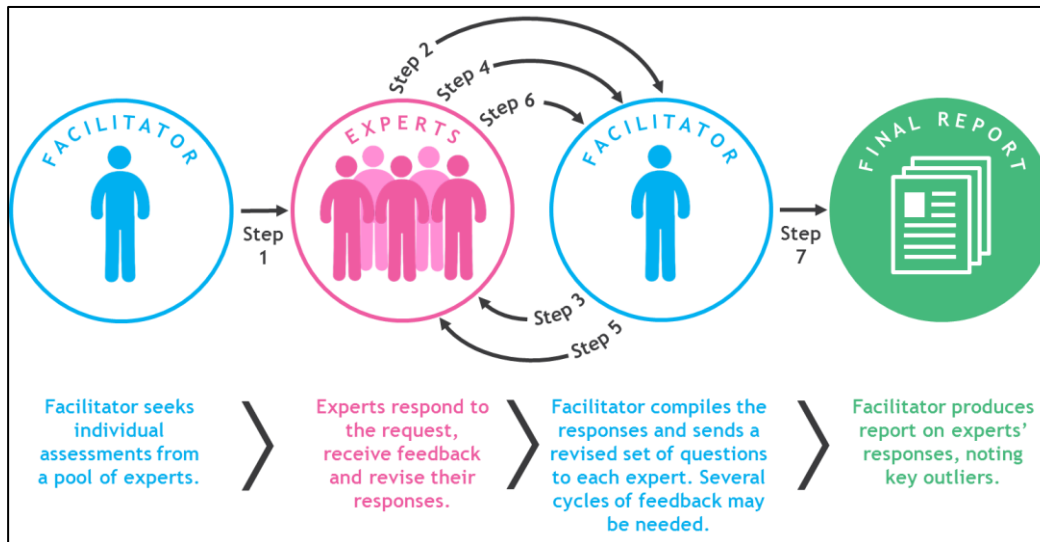
The Delphi method elicits responses from a group of experts to a series of questions using their judgement. Often the aim is to achieve expert consensus, but not always. A variant called 'Policy Delphi' (see Tapio, 2002) seeks to use experts to identify alternative options supported by evidence.

The Delphi method belongs to a class of methods called mixed approaches or elicitation methods, which joins behavioural aggregation where experts interact, with mathematical combining of judgements. It has a quantitative element in the way that it assists to approximate data.

The Delphi method is an iterative process where experts provide their individual estimate for the parameter under consideration, together with their reasoning. A minimum of 15 experts is recommended for Delphi panel exercises in workforce planning (CfWI, 2014a). The facilitator then anonymously shares these answers and reasons with all the other participants in the exercise. The

participants then have the opportunity to revise their estimates over two or more rounds. The figure below describes the steps that might be involved with multiple rounds.

Figure 5: The Delphi technique Heuer and Pherson (2011)



### Benefits of using the Delphi method

The use of the technique is often deployed online or remotely and has the following advantages:

- Wider participation of experts especially if experts are in other countries or time zones.
- More convenient, cost effective and quicker to deliver.
- Using dedicated software to guide the process accurately.
- Participants in the online workshop / stage can remain anonymous and therefore other panel members are not able to dominate using their position or reputation.

### Application of the Delphi method in Belgium

Following the horizon scanning phase the research teams met to consider the emerging themes from the analysis at that stage. As part of scoping for the Delphi stage undertook 2 rounds with experts from the different linguistic communities (Dutch and French speaking) using the same areas of enquiry and quantification.

The questions selected for the Delphi included:

1. What is the expected change in demand for GPs in the **female population** between now and 2035?
2. What is the expected change in demand for GPs in the **male population** between now and 2035?
3. How many hours does a **full time equivalent** consist of now, and how do you expect this to change in 2035?
4. What is the expected change in activity rate for **female GPs** between now and 2035?
5. What is the expected change in activity rate for **male GPs** between now and 2035?
6. What is the expected change in **distribution of task** for a GP between now and 2035?

### Background information to the Delphi questions



- The expected change (as a percentage) in demand for GPs between 2015 and 2035 was asked by age band. This was split by males and females from the general population by age.

To support this question charts were supplied as part of the template showing the health care cost per capita for consultations, visits and advices in ambulatory practice. These charts were segmented by Dutch and French speaking.

- The expected change (as a percentage) in the average activity rate of GPs was asked for 1 FTE per week in 2015 and 2035. The respondents were asked to consider the median activity rate of 45-54 year old GPs (the most active group of GPs in Belgium). To assist the respondents charts showing the average activity rate of male and females, by age band segmented by Dutch and French speaking communities.
- The expected change in the distribution of task division within general practice in 2015 and 2035 was the final area of the Delphi questions. Respondents were asked to attribute percentages to the 3 areas of tasks to understand possible future changes to total working hours available for a FTE.

The 3 different tasks included in the Delphi were:

- Patient-centred tasks (consultations, house visits, out-of-hours service, meeting concerning patient care);
- Administrative tasks (making payments, making appointments, managing patient files);
- Others (permanent education, meetings in the own general practice).

For each of the Delphi question areas the panellists were able to return numerical values and descriptive text for each answer as wished so as to contextualise and explain their estimations.

There were 2 rounds of Delphi with 27 experts participating, where the results and comments/rationale from the first round were presented back anonymously to the respondents. They were asked to consider the results and to amend or update their responses if wished. This part of the Delphi aimed to reduce interpretation errors as well as move towards a consensus where possible.

### Linking stage outputs

Within Belgium, the use of horizon scanning and Delphi processes as part of national workforce planning had not occurred before. As part of the national review of the GP workforce in Belgium the preceding sections have described how horizon scanning interviews and use of the Delphi method have been applied.

In terms of sequencing, in Belgium, these stages were planned and delivered after a literature review and prior to scenario development, workforce modelling and final report stages. As part of this programme each stage was designed and planned to enable the next.

Table 3: Descriptions for literature review, horizon scanning and Delphi stages

Stage	Description
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Literature review	The aim of a literature review is to determine and analyse the most relevant body of knowledge relating to a particular topic of investigation, and thereby provide both an overview and a new perspective on the topic in question. Whilst the literature review was out of scope for the EU JA pilot, the work completed by the consortium sought to identify any recurrent themes in later stages and usefully link to later stages.
Horizon scanning interviews	Horizon scanning investigates likely future developments that may occur within the health and social care system and impact on workforce supply and demand. The use of respondents collects and collates a large range of ideas from stakeholders. These ideas are analysed for key factors and driving forces to identify those most impactful and important to consider for quantification.
Delphi variable quantification	Delphi elicits responses from a group of experts to a series of questions using their judgement, these judgements can be used to quantify variables for workforce modelling.

In Belgium the overall workforce planning process can be summarised as shown below (Fellows and Edwards, 2014):

- ‘The planning commission monitors the workforce levels and trends of the different health professions using the available statistical information and detects bottle-necks.
- Where necessary further research and data-gathering is conducted (using the resources of the Workforce Unit or via public tender process).
- The collected quantitative data is analysed, and in combination with qualitative input from the members of the working groups based on their relevant professional expertise, consensus agreement is reached on possible future scenarios.
- The agreed upon future scenarios are fed into the mathematical planning model to calculate the projected future workforce levels.
- On the basis of these projections, policy recommendations are made to the Minister of Health, by the planning commission.
- The Minister can take corresponding policy actions.’

Therefore we can see that this pilot study has built upon and integrated horizon scanning and the Delphi method into the crucial data analysis and collection phases prior to scenario consensus agreement as typically operated by the Belgian Ministry.

**Further information on these methods and their use as part of workforce planning**

More on future-orientated methods, tools and guidance can be found at the WP6 web portal and the following publication: Fellows, J. and Edwards, M. (2014) *User Guidelines on Qualitative Methods in Health Workforce Planning and Forecasting*. [www.healthworkforce.eu](http://www.healthworkforce.eu) and [www.cfwf.org.uk](http://www.cfwf.org.uk)

## 2. Results of the pilot study

The pilot study work, as part of the scope for the EU Joint Action, included a literature review, use of horizon scanning and use of the Delphi method to inform the overall General Practitioner review in Belgium. This was achieved and each method contributed to the next stages of the review in a way that had not been achieved before. We explore the wider benefits and lessons learnt later on in this document.

As connected areas of research within workforce planning the outputs of the stages contributed in their own ways. Below we explore the results for each method.

### Literature review

Various areas and factors were revealed as being important as part of the literature review. These areas, factors and results as explored fully in the forthcoming report by the consortium team to the Belgian Ministry of Health and Planning Unit.

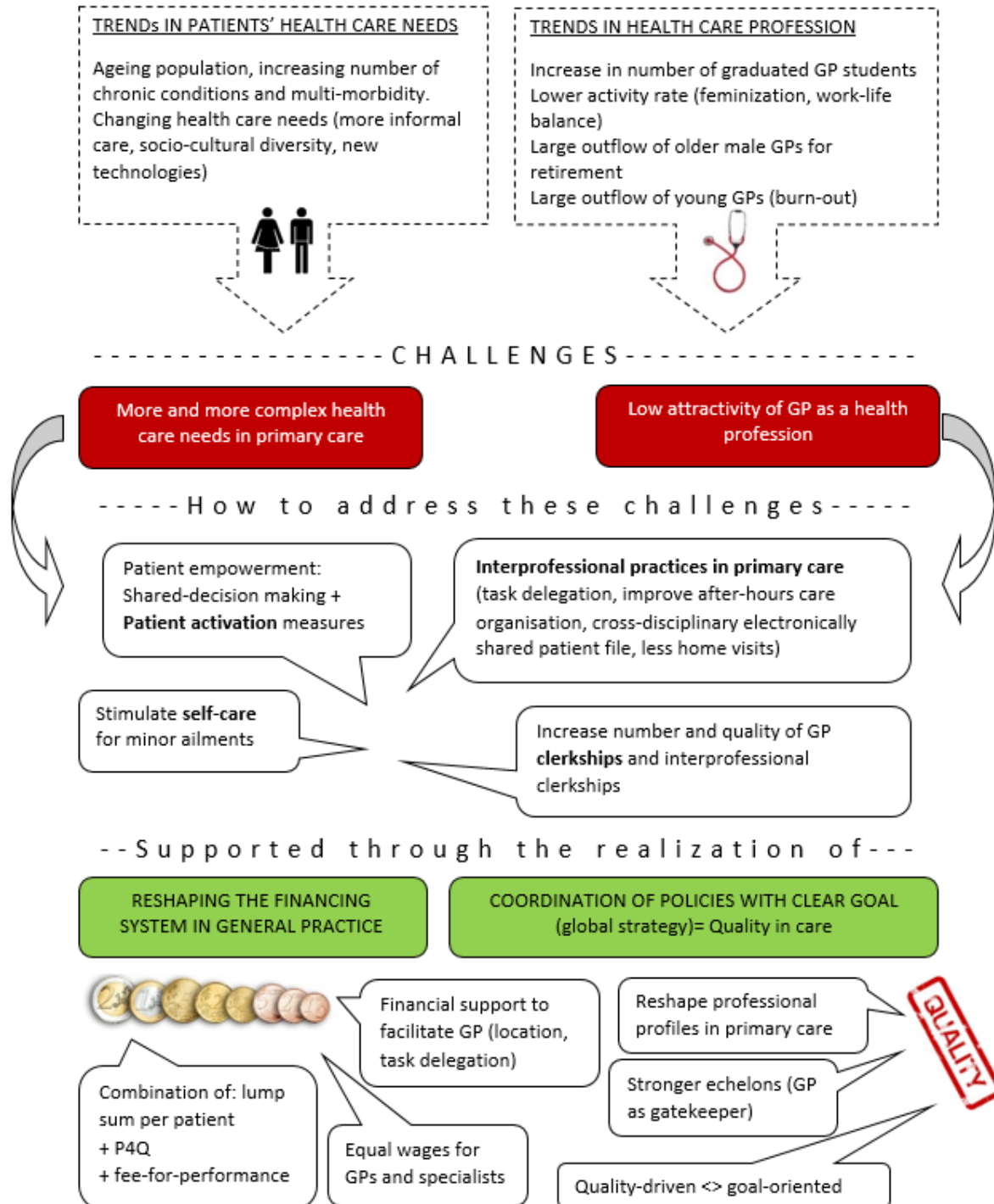
A summary of these areas and factors is presented below.

*Table 4: Literature review areas and factors identified*

Literature review areas and factors identified	
<b>Patient’s health care needs and demand</b> <ul style="list-style-type: none"> <li>Demographic evolution</li> <li>Changing morbidity patterns</li> </ul>	<b>Changing task profile</b> <ul style="list-style-type: none"> <li>Changing needs</li> <li>Practice organisation</li> </ul>
<b>General Practice workforce supply in Belgium</b> <ul style="list-style-type: none"> <li>Number of active GPs</li> <li>Regional variation</li> <li>Inflow - GP trainees, GPs and quotas, GP and quota compliance, Immigration</li> <li>Outflow and Retirements</li> <li>Stock of GPs - activity rate and feminisation</li> </ul>	<b>Trends in GPs’ activity in relation to the demands</b> <ul style="list-style-type: none"> <li>Evolution in the number of consultations</li> <li>The mean consultation time</li> <li>Patients with a regular GP</li> <li>The Global Medical Record</li> </ul>
<b>Ways to address these challenges</b> <ul style="list-style-type: none"> <li>Changing skills need different education</li> <li>An adjusted payment system</li> <li>Integration of different professionals</li> </ul>	

To visualise the findings of the literature review the consortium team created and present back the following figure.

Figure 6: Explanatory diagram of the results of the literature search, for the situation of Belgium



## Horizon scanning

The horizon scanning stage conducted 16 interviews made up of 8 Dutch and 8 French speaking respondents. Following the interviews a thematic data analysis was performed using the TEEPSE framework (Technological, Economic, Environmental, Political, Social and Ethical as developed by the CfWI). From this analysis 16 key factors were identified of high, medium and low impact.

Table 5: Horizon scanning key factor classification using TEEPSE

Technological	Economic	Environmental	Political	Social	Ethical
<b>High impact factors</b>					
	A more capitation-oriented payment for integrated care delivery		Making choices for a change to horizontal integration: out of hours services	Changes in health care needs	
			Introduction of new professions and adaptation of the legal framework	Decreasing activity rate in GPs (working hours + numbers)	
			Task shifting to more multidisciplinary group practices	Task definition of GPs and other health care providers	
<b>Medium impact factors</b>					
Electronic sharing patient information		Regional variation in GP distribution	Vertical integration the relationship between GPs and specialists	Large outflow of older GPs	
			Distribution of GP students between the two language communities		
<b>Low impact factors</b>					
Social media as a communication tool with patients		Larger practice buildings for group practices			Patients take more responsibility for own health monitoring
Technological support for patients self-monitoring					

Following this classification the team explored each of the factors as shown in the table below:

Table 6: Horizon scanning factor classification as described by the Belgian research team

High impact	<p><b>Change in health care needs.</b> A growing number of increasingly complex disorders and an ageing population require a coordinating physician to guide the patient along his or her care path.</p>
	<p>There is a need for the <b>introduction of new professions</b> and an adaptation of the legal framework, in order to establish multidisciplinary primary care practices.</p>
	<p>The number of GPs is declining. At the same, the <b>activity rate ('working hours')</b> is expected to decrease. There is also an increasing retirement rate, especially in Brussels, while student inflow levels need to be closely monitored in the near future. Although this driver is marked as highly influential, there is a nuanced vision in both communities on the issue. In the Dutch-speaking community, experts believe the number of GPs is sufficient for the near future, but both regional distribution and task profiles are problematic. More efficiency might be a solution to these challenges.</p>
	<p>In order to respond to these evolutions, a new vision of <b>horizontal integration</b> is mandatory. Innovative out-of-hours services are part of this reorganisation.</p>
	<p>All these evolutions result in a need for task shifting with a <b>renewed task definition of the GP</b>. Health care professionals should focus more on core competences in order to be able to take care of patients with multimorbidity. Currently, GPs possibly spend too much time on minor ailments and administration, tasks which could be shifted to other professions more suited to these tasks. The growing need for an increased efficiency of the available health care offer, forces the health care system to make choices in this regard</p>
	<p>An increase of <b>capitation based payment as part of the remuneration scheme for integrated care delivery</b> is an indispensable part of this evolution.</p>
Medium impact	<p>The <b>large outflow of older GPs</b> is a medium level factor in workforce planning. The influence is not so clear for the moment, because experts say there is a tendency within the group of GPs older than 65 to keep on working. Future estimates on this issue require continuous monitoring. This factor might be influenced by the improved organisation of out-of-hour services and practices.</p>
	<p>Although views differ on the <b>number of GPs</b> in both parts of the country. Dutch-speaking experts state explicitly that there are enough GPs, but there is a problem because of an uneven regional distribution. They also see a positive evolution in the student population, where a growing proportion is opting to specialize in general practice French-speaking experts believe there is a shortage of GPs because of the low appeal of medical studies and the profession. Indeed there are larger regional differences in density and ages of GPs in the French-speaking community.</p>

	<p>Facing the new challenges of <b>vertical integration</b> the <b>relationship between GPs and specialists</b> needs to be reviewed. There are different opinions on this topic. Some experts advance the integration of the GP into the hospital, the location of the out-of-hours care just before the emergency service, or a more pronounced gatekeeper role for the GP. How to build bridges for a patient-centred care is a subject for further discussion.</p>
	<p><b>Electronic sharing of patients' files</b> is a facilitating factor for a better multidisciplinary collaboration. Sumehr, Vitalink and E-health are current initiatives in development, but further implementation and integration of medical records should be encouraged.</p>
	<p><b>Patients can be made more responsible for their own health</b>, if they are educated in health management and become more able to treat minor ailments at home</p>
	<p>The <b>differences in student inflow numbers and quota compliance</b> between the two <b>language communities</b> is more elaborately described. Some experts talked about the unequal distribution of medical students in the French-speaking and Dutch-speaking communities and the impact it may have on workforce planning. In the long term, this seems to be a factor of lower importance, because of the measures taken by the French-speaking community and universities in 2015.</p>
<p><b>Low impact</b></p>	<p>The patient who plays a more active role in the <b>monitoring of his/her own health</b> through technological devices. This collected information can be shared with the GP through an online file, and allows the physician to analyse the data instead of collecting the data. This is considered as a possible timesaving measure. But it raises ethical questions regarding the accuracy of the measurement and the lack of personal contact in this medical act. Some experts have high expectations for this approach. It all depends on the usability and the scientific value of these devices.</p>
	<p>The <b>possibility of using social media as a tool for communication</b> with patients, either directly or indirectly, was identified as a low influential factor. This was rarely discussed and not considered feasible in short nor long term planning.</p>
	<p><b>Suitable buildings</b> to install multidisciplinary practices are sometimes difficult to find and to finance. In recent literature this is an upcoming concern and some experts also mentioned it.</p>

Overall there was 'great agreement with preparatory stages of the work undertaken by the Belgian team with for example the literature study performed prior to horizon scanning.

Comparing to WP6's work on driving forces at the EU level and the recent GP in-depth review in England there is further agreement on some of the driving forces shaping the workforce. Examples are shared in the following figures:

Figure 7: High-level drivers of change out to 2035 part of an EU level horizon scan (CfWI, 2016)

Populations	Health care services	Health workforce
<ul style="list-style-type: none"> <li>▶ Population structure</li> <li>▶ Long-term care and availability of unpaid carers</li> <li>▶ Types and distribution of health conditions</li> <li>▶ Multimorbidity</li> <li>▶ Health inequalities</li> <li>▶ Health literacy</li> <li>▶ Patient mobility</li> <li>▶ Patient empowerment</li> </ul>	<ul style="list-style-type: none"> <li>▶ Health care expenditures</li> <li>▶ Health IT and health services</li> <li>▶ Genomics and precision medicine</li> <li>▶ Location of care by setting</li> <li>▶ Roles and decision rights</li> <li>▶ Regulation</li> </ul>	<ul style="list-style-type: none"> <li>▶ Ageing health workforce</li> <li>▶ Multi-professional education and adaptation of competences</li> <li>▶ Health IT and health workforce</li> <li>▶ Skill mix</li> <li>▶ Health workforce mobility</li> </ul>

Figure 8: Most frequently suggested driving forces shaping the English GP workforce (CfWI, 2014b)

**technological** - remote technology, personalised medicines

**economic** - economic climate affecting the wider UK health economy, the continued drive for efficiency in the public and private sectors

**environmental** - the wider impact of climate change, potential development of health pandemics caused by new or re-emerging diseases

**political** - shifts towards person-centred care, the shift of care to the community

**social** - the ageing population, public health initiatives, increasing service user expectations

**ethical** - shared decision-making with patients.

Following on from this horizon scanning stage and application of the selected analytical framework, the pilot study team then identified key areas for quantification as part of the Delphi method stage.



## Delphi

The Delphi stage aimed to select and quantify variables that would be influential within the modelling and scenario stages of the GP review in Belgium. There were 2 rounds of Delphi using excel based templates as provided by the CfWI / UK / WP6 team. These were adapted for reuse in Belgium by the joint working pilot study team.

As a benchmark for the use of the Delphi method as part of workforce planning, this stage exceeded the minimum of 15 respondents as recommended for this type of workforce study (CfWI, 2014a).

The protocol as developed for the Delphi stage is shown below.

*Table 7: Delphi method stage response rate overview*

DELPHI ROUND	NR OF EXPERTS	RESPONSE RATE	TASK/QUESTION	ANALYSIS
1	D: 14 Fr: 13	D: 14/45 (31%) Fr: 13/35 (37%)	- provide expected average change (6 questions) - add explanation and arguments	- means and averages - content analysis of explanations and arguments
2	D: 14 Fr: 12	D: 14/14 (100%) Fr: 12/13 (92%)	- agree/not agree with average expected change (6 questions) + add new value - add explanation and arguments, if not agreed	- means and averages - content analysis of explanations and arguments

Below we present the summary results of the Delphi as described by the Belgian research team.

*Table 8: Delphi results summary*

### Evolution in demand for GPs, expressed in health care cost per capita for consultations, visits and advice in ambulatory practice

"Overall, the experts expressed no great differences in demand for GPs in the female and male population. The demand for GP care in women will be slightly higher than in men. There will be no change in demands for the population under 40 years old. The median change for the French speaking community is slightly higher than the estimations of the Dutch speaking experts. For the age group of 40-65 years old there is a very limited increase for Dutch speaking experts (<5%) and it is significantly higher for the French speaking experts (10% male/15% female patients). The change is explained by preventive actions and upcoming chronic and mental conditions in this age group.

Between 65 and 80 years the demands will increase more for the French speaking experts (20%) than the Dutch speaking ones (10%). These changes are explained by increasing multimorbidity. Overall the median change is between 15 and 20% for the age group over 80 years. Here experts stressed the increasing demand for home visits. The role of the geriatrician might influence these figures.

In the second round figures of the Dutch and French speaking experts for the age groups up to 40 years old stayed the same. For the age group of 40-65 years old the Dutch speaking experts said there will be no increase while the French speaking experts found there will be a significantly



higher need for both age groups. However the difference between the female and male population disappeared (12% male/13% female). The median change for the population between 65 and 80 years was higher (+14% female/+ 17% male) for the Dutch speaking experts in the second round. For the French speaking experts it was now +23 % for both sexes. Overall, the median change for the group above 80 years was higher, up to 25%

Overall this was a very difficult question to answer, even for the experts. Some of them pointed out that figures would be strongly influenced by choices made about the role of certain specialists and paediatricians.”

**Activity rate of GPs, expressed as the median activity rate of 45-54 year old GPs**

“In both parts of the country, experts believe that there will be a substantial expected change in the number of working hours per Full Time Equivalent for GPs. French speaking experts foresee a change from a median of 50 hours now, to 40 (first round) and 42 hours (second round) in 2035. Dutch speaking experts predicted a change from a median of 60 hours now to 45 (first round) and 43 hours (second round) in 2035.

Dutch speaking experts believe that there will be no change in the activity rate for female or male GPs of 30<40. The decline will be significant in the group > 65 years old. Those GPs will not all retire, but they will work less in 2035 than their colleagues of this age group today (median = - 20%). French speaking experts have a slightly different opinion. For them the young GPs of 30<40 and those of 40<55, 55 -65 years will work less than now (median -10% as well as for males as females). The decline will be significant in the male group > 65 years old (median = - 20%).

There is also a shift, in less administration and more other tasks. Patient related activities will remain more or less the same (median 75%) for the Dutch speaking part. French speaking colleagues estimate that GPs now spend 20 % of their time on administration and this will shift to patient-centred and other activities.”

Table 9: Future activity rate of GPs

Expected change, expressed in hours	Dutch-speaking		French-speaking	
	Now	In 2035	Now	In 2035
Average	56	42	55	43
Maximum	60	48	70	50
<b>Median</b>	<b>56</b>	<b>43</b>	<b>54</b>	<b>42</b>
Minimum	46	35	50	40
CONSENSUS	64%	57%	78%	56%

### 3. Benefits and lessons learnt

As part of the pilot study approach a lessons learnt workshop was held during December 2015. This workshop involved the Belgian Planning Unit team and the UK WP6 team for the EU Joint Action.

This facilitated event collected and presents below the learning for the application of horizon scanning and the Delphi methods within the context of Belgium as part of the review of General Practitioners nationally.

<b>Benefits</b>	<p><b>Added value and applicability of the work</b></p> <ul style="list-style-type: none"> <li>▪ Overall the approaches of horizon scanning and the Delphi method have added value to the GP review in Belgium with the findings going forwards to support the final recommendations and policy making advice. Specifically:             <ul style="list-style-type: none"> <li>– The <b>horizon scanning</b> stage has collected, in a systematic and repeatable way, a broad range of ideas about the future and how some of the driving forces may impact the GP workforce. These have not been systematically or formally captured before in Belgium as part of workforce planning. This new information has provided a deeper level of understanding of these driving forces and enhanced the robustness of the study. Examples include driving forces such as technology enabled sharing of patient data, changing finances as part of moving towards integrated care and patients monitoring their own health more.</li> <li>– Use of the <b>Delphi method</b> has built on this further by working with experts to quantify a range of variables that can be used with the Belgian workforce planning model, therefore improving the model inputs and outputs that support decision making. These variables include expected changes in future demand, FTE patterns, activity rates of GPs and distribution of tasks.</li> </ul> </li> <li>▪ As a result of the work and findings, the team in Belgium at the Planning Unit commented: “Anyone can apply these methods with the right support and obtain useful outputs for workforce planning. We will use these methods again as we have integrated them into our formal workforce planning process”.</li> </ul> <p><b>Expert engagement exceeded international benchmarks</b></p> <ul style="list-style-type: none"> <li>▪ A good range of experts were engaged and ideas collected to better understand the landscape and pressures affecting the GP workforce.             <ul style="list-style-type: none"> <li>– For horizon scanning, 16 respondents participated with 16 key factors identified. This exceeded the benchmark of a recommended 10 to 15 key factors to be identified.</li> <li>– For the Delphi, 27 experts participated for the first round and 26 for the second round. This exceeded the benchmark of a minimum of 15 respondents.</li> </ul> </li> </ul> <p><b>Improved understanding, useful linking to the modelling stages and adoption of</b></p>
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	<p><b>the approaches</b></p> <ul style="list-style-type: none"> <li>▪ The literature review stage was important and useful to support the subsequent stages. However the literature review scope and time period was felt to be too short (see below for lessons learnt).</li> <li>▪ The horizon scanning and Delphi methods were helpful to understand the context and clarify the objectives of the work, modelling aims and additional considerations as part of the larger project.</li> <li>▪ Outputs from the work provide useful and valuable inputs to the modelling and scenario processes. Specifically the drivers collected provided a list of research topics that could be concentrated on as well as describe the range of forces within the main GP report. With regards to the variables quantified by the Delphi, these new variables provided a good range of inputs for the scenario and modelling stages that were broader than before as well as produced as a result of the additional stakeholder involvement via these processes.</li> <li>▪ The Belgian team have learnt and are able to use HS and Delphi as part of future reviews. These new approaches will increase the overall robustness of workforce planning in Belgium. The methods and templates applied in Belgium and other member states are shared via the WP6 section of the EU JA website as well as within this document with regards to planning, timescales, driving forces, variables for quantification and model inputs. Additional methods such as elicitation will also be considered using learning from the WP6 team (CfWI, 2015). Elicitation approaches can mitigate and improve on some of the difficulties with Delphi processes.</li> </ul>
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As part of the same session the group considered and reflected on the lessons learnt.

<p><b>Lessons learnt</b></p>	<p><b>Scoping, scheduling and planning</b></p> <ul style="list-style-type: none"> <li>▪ Ideally the completion of the horizon scanning stage prior to commencement of the Delphi would have happened. However due to time pressures the horizon scanning and Delphi stage were commenced, planned and designed without the full analysis results of from each stage. This created difficulties in ensuring that the conclusions and findings from each stage firmly guided the next stage.</li> <li>▪ The agreed focus of the analysis might have been more clearly defined at the start of the project especially as there were disparate and remotely located teams performing the work. This was critical to achieve so that it provides a clear view of any comparisons of the stakeholder groups or themes (for Belgium a comparison of French and Dutch speaking communities was important) as well the key objectives of the work.</li> <li>▪ The overall time estimated for all stages of the work was underestimated at the planning stage. Resource availability at FPS prior to starting the project was a challenge therefore an external contractor was used to deliver parts of the work. This more complex delivery arrangement created additional time delays, communication and definition challenges between the increased number of</li> </ul>
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organisations and stakeholders. Overall the literature review, horizon scanning and Delphi stages took a total of 6 months elapsed time which included the delays experienced.

#### **Use of the methods, numbers of respondents and guidance**

- The numbers of respondents for horizon scanning and the Delphi stages, despite exceeding benchmarks, would ideally have been higher so that FPS Belgium could further broaden representation. Also stakeholders ideally would have liked more time to participate and respond.
- For the Delphi template whilst there was a good amount of guidance provided, however some respondents wished to have additional guidance and instructions. This might require in the future additional briefing for the respondents that will take part in Delphi exercises. However it was recognised that each participant gained skills and awareness of the methods in which they took part, therefore for future reviews those persons would be more familiar with the processes and able to participate more easily.

#### **Content and ability to conduct further research**

- The literature review time period, which looked back over the last 10 years, was felt to be too short. Also the scope would ideally have been broadened to include international evidence as well as domestic literature.
- The horizon scanning identified a range of topics which would have been good to explore further if there was more time in the overall project e.g. impact of technology. This additional depth might have yielded further insights and research areas.
- The range of variables from the Delphi whilst useful for the model in Belgium, were constrained by the model overall i.e. what the present design of the model permits in terms of inputs and outputs. Essentially the present design of any workforce model presents a number of constraints that might be improved by more flexible model configurations enabled by greater knowledge and data. Due to time constraints in this project there was not time to redesign or heavily modify the workforce model for GPs. However with the wider range of information collected additional variables might have been taken forwards for quantification. This might include variables that might describe integrated ways of working, financial changes in reimbursements or legal framework changes.

## 4. Recommendations for Member States applying horizon scanning and the Delphi method in the future

In addition to the benefits and lessons learnt collected as part of the workshop in December 2015. The Belgian and UK teams also reflected on advice and recommendations for Member States who might seek to apply these methods in the future.

### Recommendations for those considering using horizon scanning and Delphi as part of workforce planning

#### Goals and objectives

- Clarify the goals and the objectives of the project very clearly in a Project Initiation Document and ensure this reviewed regularly.
- Clear scoping and method selection is essential - See Fellows and Edwards (2014) for guidance on method selection and usage.
- The focal and Delphi questions need careful consideration and design - they must be specific and not ambiguous, especially for the Delphi.

#### Understand the context of each setting

- Member states, countries and partners starting points, primary issues and contexts will always be different in terms of available data, experience and potential use and combination of workforce planning methods. This is not a barrier to using horizon scanning or Delphi as they are both flexible methods that can be used in any context. This may not necessarily mean every member state should carry out the same review (for example reviewing the GP workforce 28 times over) as there is potential for shared learning and adaption of comparable findings / approaches from other member states before commencing an investigation.
- The use and selection of any method should be selected dependent on the situation and context of the study they are being used in. For example, if stakeholder involvement stages are desired within a workforce review and there is sufficient time to complete these stages. Arguably a study that does not for example seek to involve a wide range of stakeholders may well be considered a failure and runs the risk of not being seen as credible. However there are a range of ways to include stakeholder from surveys to participative scenario generation (Fellows and Edwards, 2014).
- The scope of these processes and techniques are sector agnostic. In this study the methods were used to review the GP workforce. However these methods are able to be used in a wide range of sectors such as social care and public health (see [www.cfwi.org.uk](http://www.cfwi.org.uk) for examples)
- Different communities and associated drivers and factors can be analysed using horizon scanning and Delphi. In this pilot a segmentation of stakeholders was considered useful and important as there were considered to be distinct demand and supply considerations. This does require any study to be mindful of obtaining recommended numbers of stakeholders to ensure the results are credible.

**Use the selected techniques as part of an overall approach**

- To gain the most value from these processes, as well as any new enhancements, it is not only important to seek advice and support from those who have used these approaches before, but also to learn and reuse the approaches as part a documented process. This will ensure that application is not haphazard, future reviews or projects do not fail to apply the methods correctly and ultimately practice is spread with suitable knowledge and technical learning by those applying horizon scanning, Delphi or other future-orientated methods.
- The FPS team in Belgium are to be congratulated for their persistence and integration of these techniques into the overall national workforce planning approach. This means that they will be able to adapt and harness the learning they have gained as well as increase the robustness of future reviews where these techniques will be used.
- Belgium chose to ‘pilot’ these approaches, with the findings of experiences helping them to decide whether to integrate or not into their overall approach. For other member states or organisations it is not critical whether they ‘pilot’, ‘experiment’ or ‘trial’ such approaches. The critical aspect, as described above, is to carefully evaluate whether such methods (or other methods) may help as part of what they aim to do and not to be restricted by where it may have been used before. For example scenarios have a broad history across many sectors that include energy industries, climate change, military as well as healthcare.

**Those applying workforce research methods have experience in these techniques**

- Ensure that the persons carrying out horizon scanning or Delphi have some proven experience and expertise (or access to people that do) in workforce planning. The EU JA network of experts ([www.healthworkforce.eu](http://www.healthworkforce.eu)) seeks to connect and provide a support to those interested in workforce planning and considering applying methods that might be used elsewhere.

**Ensure stakeholders are involved in every stage of the workforce review**

- Select and draw upon a broad range of experts to assist with the work, consider where that range of experts can be widened to collect viewpoints and contributions which will enhance recognition and often the validity of the work. Often those not necessarily considered an expert on the workforce can bring fresh ideas and considerations.
- As a guide, the UK as a frequent user of horizon scanning and Delphi processes seeks to have the following minimum of stakeholders involved:
  - Workforce stocktake review - a workforce review project typically looking 10 to 15 years in the future but does not generate or model multiple scenarios - 15 stakeholders for horizon scanning and Delphi stages
  - In-depth workforce review - a workforce review that looks 20+ years out into the future, generates and models multiple plausible futures / scenarios - 30 stakeholders for horizon scanning and Delphi stages.

**Planning, budgeting, tools and evaluation**

- Ensure the overall planning, timing and budget of the work is realistic. Learn from others who have used these methods.
- Strong project management is essential for success, this cannot be underestimated as these are complex topics requiring careful planning and expertise from a broad range of stakeholders and practitioners. Ensure close monitoring and progress reporting is undertaken,

especially if using third parties to deliver.

- Utilise a stage plan approach, only progressing to the next stage once the work and findings of the preceding stage are available. This is important as the findings from horizon scanning, Delphi and other workforce planning activities can significantly change and guide the next stage of research.
- Ensure the right tools and templates are available to the project team. Examples are available from multiple sources however they will always require adaptation and time should be allowed to think through the approach, adaptation and analysis. Please see the WP6 portal for available templates as part of the provided toolkit.
- Complete an evaluation process at each stage, not just at the end of a project, to ensure learning and future projects can incorporate this learning and refinement.

#### **Benefits / usability of this pilot study and useful links**

- Belgium, to their credit, volunteered to adopt and use these approaches. Through their high profile review of the GP workforce they have also generated valuable findings for their own workforce planning but also other member states who see the GP workforce as critical for the future. The specific findings for the use of horizon scanning and Delphi are found described earlier in this document.
- The use of these approaches in workforce planning has become more recognised and credible as a result of the growing body of evidence. Useful comparable studies, definition and description of these approaches are detailed in the references section of this report.
- As consequence through the customised use of a new range of approaches it is anticipated that the Belgian team have deepened their evidence base and enhanced the robustness of this and future workforce reviews. The wider findings and policy advice of the GP review in Belgium is forthcoming and will be published at [www.health.belgium.be](http://www.health.belgium.be)



## 5. Conclusions

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Overall the approaches of horizon scanning and the Delphi method have added value to the GP review in Belgium. The Planning Unit team as part of the Federal Public Services in Belgium have learnt a great deal and demonstrated that the change in sequence of techniques as well as adoption of new approaches can add value. They have indicated that these methods will be used again as part of workforce planning and integrated into the overall approach by Belgium.

This is a positive finding and conclusion by Belgium as a Member State using these methods as part of workforce planning for the first time. This pilot study has not been without its challenges. The overall timescale of the project was challenging and much has been learnt about using these methods as part of an overall workforce review. Namely that the methods, when first using them, can have a steep learning curve and that the involvement of stakeholders throughout is critical.

With horizon scanning the method has been found to be accessible and useful when thinking about the future. The focal question of the study is key and of high importance as it will guide the stakeholders in their understanding, their responses and achievement of the aims of the project. The post processing of the interviews was critical to the design and definition of subsequent stages of the project. Challenges achieving a saturation point on the themes and driving forces were observed however the additional literature review stage supported the findings. The use of a framework to categorise and classify the factors has been critical to ensure that the impact and frequency of mention of these factors guided the next stages of the study.

As part of the Delphi method a different perspective needs to be taken compared to horizon scanning. The Delphi method is concerned with being very clear about the questions being asked to enable clear and logical quantification of variables that are used for modelling. This method helps to quantify and explore a range of values, as well obtain commentary from participants regarding often hard to estimate variables in the future. Here the approach used by Belgium to think about two different language communities was novel and instructive to the WP6 team. The downside of this approach was the additional pressure on an increased and credible number of stakeholders from each community that were involved.

The future evolution of demand for GPs is something no-one truly knows therefore the range of variables collected will assist thinking about future scenarios and ensuring that modelling of the workforce in this instance is based upon a systematic collection of data rather than historic time series or simplistic estimates. Of course, the careful selection of the variables for quantification needs to be guided by the reality of what can be and is important to model as part of workforce planning. In this regard the Belgian team are well experienced and it is pleasing to see the new data and evidence the pilot has produced and the value it will add to the overall GP review.

Health workforce planning and forecasting is complex due to the large number of potential factors influencing the supply and demand of health workforces. There is also a degree of intrinsic uncertainty associated with considering the future. The approach Belgium has taken has assisted with the processing of this uncertainty.

Whatever the stage of health workforce planning and forecasting - whether implementing a health workforce planning and forecasting process for the first time, or looking for methods to enhance existing processes - these methods and tools used by Belgium with the support of the UK have been harnessed to helpfully process some of the inherent complexity and uncertainty surrounding workforce planning and forecasting.



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## Annex 1 - List of participants in alphabetical order

	Surname	first name	Language	Institution
1	Belche	Jean-Luc	French	Département universitaire de médecine générale
2	Bury	Jean	French	Santhea
3	De Backer	Wilfried	Dutch	Groupe de travail des médecins généralistes du Conseil supérieur des médecins spécialistes et des médecins généralistes
4	De Lepelre	Jan	Dutch	KUL, GP
5	De Maeseneer	Jan	Dutch	Vlaamse wijkgezondheidscentra
6	De Ridder	Ri	Dutch	INAMI-RIZIV (director-general)
7	De Smedt	Jos	Dutch	Erkenningscommissie, GP
8	Deceuninck	Paul	French	Réseau Santé Wallon
9	Denoiseux	Benjamin	Dutch	VGSO, de Vlaamse onderwijskoepel voor studenten geneeskunde
10	Dieleman	Pieter	Dutch	Voorzitter Huisartsenkring Regio Mortsel
11	Drielsma & de Munck	Pierre, Paul	French	Groupement Belge des Omnipraticiens
12	du Boullay	Didier	French	Groupe de travail des médecins généralistes du Conseil Supérieur des médecins spécialistes et médecins généralistes
13	Giet	Didier	French	Département universitaire de médecine générale (Université de Liège)
14	Hallet	Benoît	French	Fédération des Institutions hospitalières
15	Hueting	Reinier	Dutch	Organisation professionnelle. Le Cartel - Het Kartel (ASGB)
16	Jamart & Dispas	Hubert, Héliène	French	Fédération des maisons médicales et des collectifs de santé francophones
17	Kips	Johan	Dutch	Zorgnet
18	Lefèbre	Luc	French	SSMG – Société Scientifique de Médecine Générale (president of SSMG, GP at Maison médicale de Laeken)
19	Van Overloop	Maike	Dutch	Organisation professionnelle -Alliance Avenir des médecins, Domus Medica
20	Michel	Anne-Sophie	French	SSMJ - Société Scientifique de Médecine Générale Jeunes
21	Pattyn	Patrick	Dutch	Voorzitter Huisartsenkring Pallieterland end omgeving
22	Pestiaux	Dominique	French	UCL- Faculté de médecine générale
23	Ryssaert	Lynn	Dutch	Vereniging van Wijkgezondheidscentra, GP
24	Schoenmakers	Birgitte	Dutch	KUL
25	Smiets	Pierre	French	Fédération des Institutions hospitalières
26	Spinnewijn	Bram	Dutch	Domus Medica
27	Van Royen	Paul	Dutch	Centre/Département universitaire de médecine générale
28	Velkeniers	Brigitte	Dutch	Koninklijke Academie van België, voorzitter Planningscommissie
29	Vercruyse	Bernard	French	Conseil des cercles de médecine générale (président)

