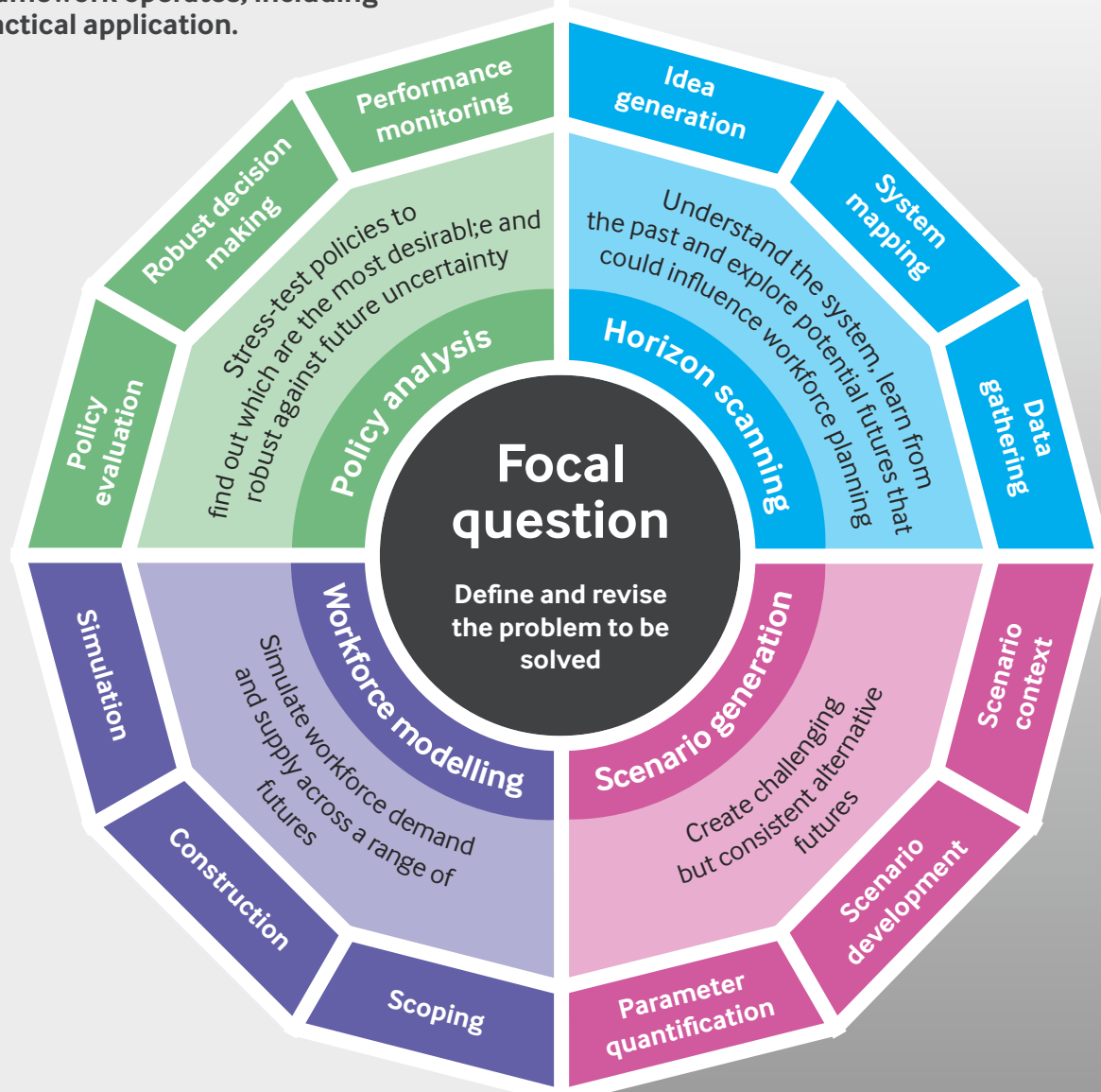
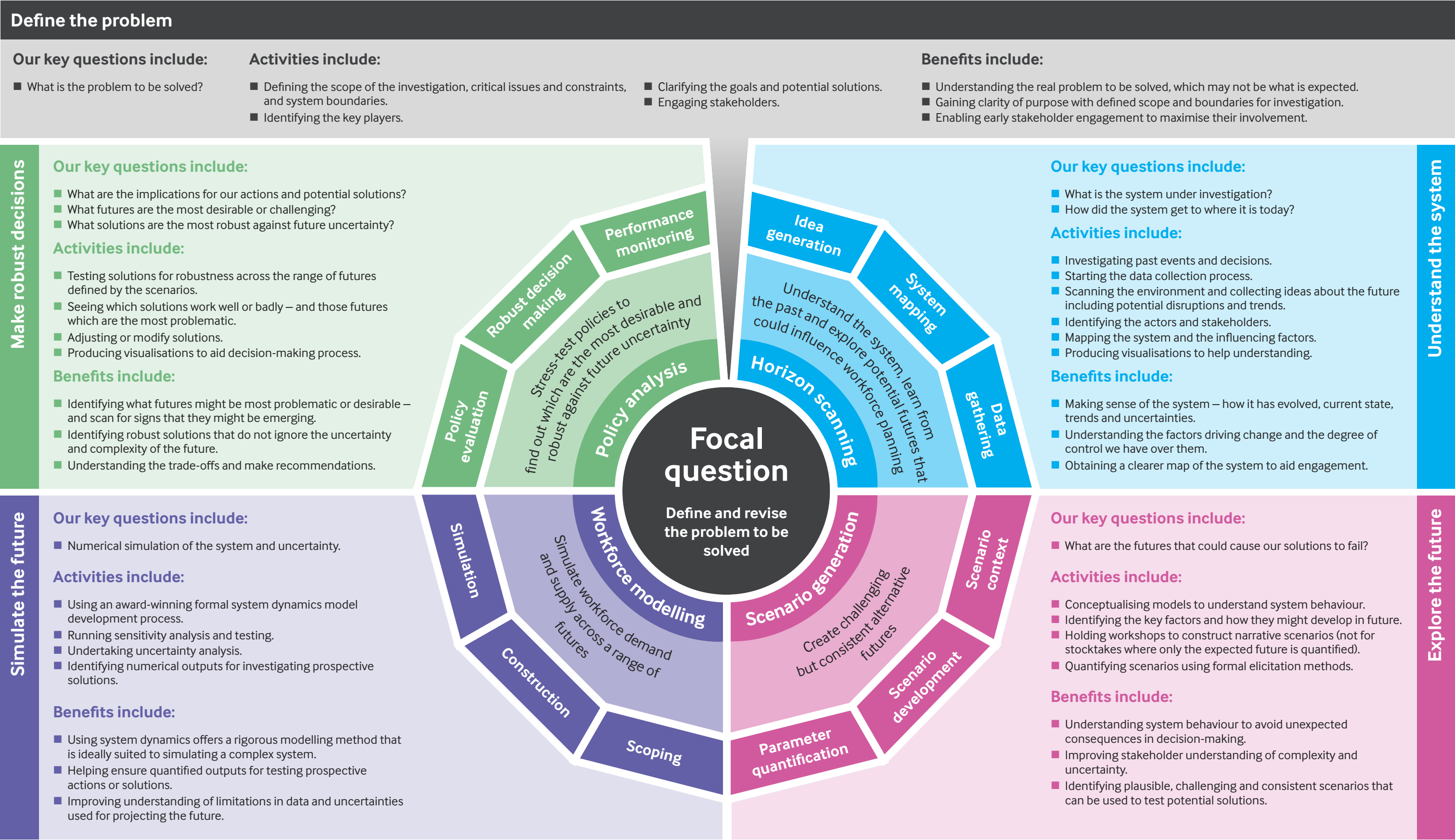


Understanding how the CfWI works

The CfWI Robust Workforce Planning Framework provides a tried and tested, step-by-step approach to assist with an investigation relating to the future workforce. This brochure explains how the framework operates, including its practical application.



Framework overview



The CfWI's Robust Workforce Planning Framework (RWPF) is designed to identify and help us better understand the potential impact of the key issues or challenges facing workforces in the future. The future is full of uncertainty and the further ahead we look, the more uncertain workforce issues appear.

The RWPF provides a systematic and logical approach, including the use of sophisticated modelling techniques, to enable us to tackle uncertainty with greater confidence when considering what varying futures may look like, including workforce numbers, skills and costs.

The CfWI RWPF has been used extensively to develop intelligence to inform decisions on the health, public health and social care workforces in England. This includes information to support decisions about training numbers, workforce configuration and skill mix and the likely future balance between workforce supply and demand for particular professions or within patient pathways such as maternity.

The four key stages to doing this are broken down in this brochure on the pages indicated below:

- **Horizon scanning** (this page).
- **Scenario generation** (page 3).
- **Workforce modelling** (page 6).
- **Policy analysis** (page 7).

The RWPF revolves around a key focal question or issue of concern. This is a statement of the purpose of the project and serves to anchor a workforce-related investigation by defining the scope and the timescale.

Horizon Scanning

Better understanding of the system in which the workforce is operating

**HORIZON
SCANNING**

The CfWI has developed a horizon scanning methodology which involves using the expertise and experience of a wide range of stakeholders to better understand the context of the focal question. It involves using ideas from stakeholders to build up a picture which includes historical context; relevant research and critical uncertainties and policy levers relating to the workforce in question.

Our tools and techniques, as well as an online collection of ideas about the future and how they might unfold (available at www.horizonscanning.org.uk), are all used to identify the main driving forces likely to have a big impact on the workforce under investigation.

★ Key points

- Offers historical contextual analysis.
- Provides an online ideas bank for collecting concepts for the future.
- Helps to identify critical uncertainties and policy levers.

✓ Benefits

- Helps to bring stakeholder concerns to the surface.
- Identifies key issues facing workforces in the future, and the degree of control we have over them.
- Helps to establish what data is available.

Scenario generation

Exploring the future



The output from horizon scanning is used to inform the scenario generation stage, where plausible and challenging future scenarios are created to inform strategic planning. Again working with expert stakeholders who have an authoritative understanding of the workforce in question, we create a set of challenging but consistent and plausible scenarios.

These would normally include the following:

- a narrative story about the future;
- a quantified set of parameters to help build understanding of how the future may evolve.

Elicitation workshops are then used to synthesise the knowledge and opinions of a range of experts in order to identify the scope of the challenge and where there are gaps in the data.

Our approach to scenario generation varies depending on the shape, size and issues of the workforce groups in the investigation. For example, as our stocktake reviews are only looking 10-15 years ahead, we focus on the expected future rather than a set of scenarios.

★ Key points

- High degree of stakeholder engagement.
- Scenarios created are challenging but also plausible as they are checked for consistency.
- A formal expert elicitation approach is used to quantify critical parameters and their uncertainty.

✓ Benefits

- Understand the key factors in the system and how they influence each other.
- Stakeholders create a set of futures to test policy options and shape their decision-making.

Workforce modelling

Simulating the possibilities

The purpose of workforce modelling is to simulate demand and supply for a range of plausible futures (workforce numbers but sometimes also proportions, skills etc.) These are first described in the scenarios. Further modelling is then conducted to determine the robustness of policy options for achieving a sustainable balance of demand and supply.

The CfWI uses an award-winning system dynamics modelling methodology to do this, designed to handle complex systems feedback. The methods can easily be extended or revised to address additional issues as they arise.

Having gained a greater understanding of both the context and the plausible futures which the workforce could face through the horizon scanning and scenario generation stages, we are able to conduct modelling that helps us quantify and understand the evolution of different futures over time.

Throughout the process, we work closely with stakeholders who contribute to model design and testing. This includes sense-checking key modelling assumptions and outputs. Applying the feedback in our rigorous formal approach (see below) also results in increased stakeholder confidence in model outputs.

The approach is composed of four steps:

- Model scoping.
- Model construction.
- Model documentation.
- Model testing.

The CfWI undertakes this process using technical experts following a best-practice guide which is available to read on our website (www.cfwi.org.uk/publications/developing-robust-system-dynamics-based-workforce-models-a-best-practice-guide). The guide includes examples drawn from our tested workforce models and checklists covering model scoping and testing. Our workforce models are typically data-intensive, so particular attention is given to the critical activities of data gathering, loading, and testing.



★ Key points

- Rigorous and documented development process to reduce errors.
- Award-winning system dynamics modelling.
- Sensitivity analysis to identify where better data would improve accuracy.
- Uncertainty analysis to ensure grounded decision-making.

✓ Benefits

- Quantify and understand what the different futures might look like including workforce numbers, skills and costs.

Policy analysis

Informing robust decisions

The final stage to our methodology is the most challenging part of the RWPF. This sees us undertake policy analysis. This provides an illustration of which policies may work best across a range of challenging futures, defined by the scenarios. To do this, we identify effective policies (including, but not limited to, adjustments to training intakes) and assess their relative performance against different scenarios. The findings are then presented to decision-makers.

Policy analysis is the process of determining which workforce planning decisions are the most robust in the face of an uncertain future. The scale of the health and social care workforce, and the costs of training and employment, mean that at national level these are typically senior government decisions. However, decision-making can be made at lower levels of scale, across small workforce groups, geographic regions or individual enterprises.

For example, this work can help decision-makers better understand the likely effect of changes in working patterns, skill mix and workforce configuration against different scenarios such as a change in retirement age or changes to lengths of training programmes – and how this might affect workforce demand and supply.

It is here where information has to be critically assessed, options prioritised, and then presented to the decision-makers. Decisions are not always clear-cut. The future is, as we know, uncertain. Data and model limitations mean the outputs will always have uncertainty. At the CfWI, we are understanding how policy analysis has been conducted across other disciplines as well as the NHS and workforce planning. This has been informed by a comprehensive literature review.

More on this can be found in a literature review we published in August 2014 www.cfwi.org.uk/publications/policy-analysis-applying-robust-decision-making-to-the-workforce-planning-framework-1, which introduces the subject of long-term policy analysis and its specific NHS workforce planning context in England. The paper explores in greater detail how additional focus on retrospective policy testing and the adoption of a wider range of scenarios adds further value to our workforce planning research.

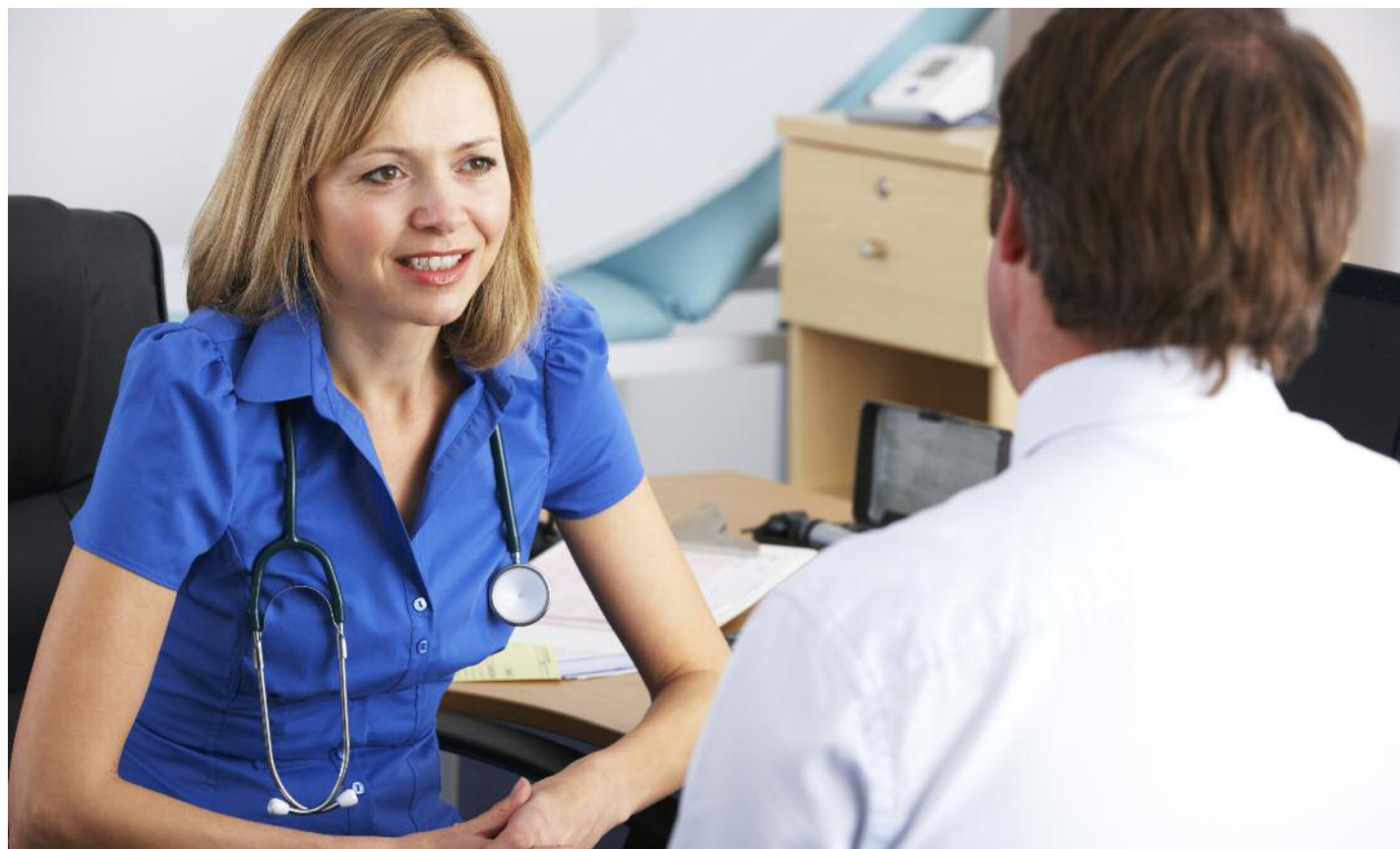


★ Key points

- Prospective policies are tested against a wide range of challenging but plausible futures.
- Policy levers can be optimised.
- The uncertainty of the future can then be presented.

✓ Benefits

- Challenging futures can be identified, and signs of them emerging monitored.
- Unforeseen consequences can be avoided.
- Stakeholders can select the most appropriate solution to their problem(s) with greater confidence.



Providing intelligence to inform workforce planning policy decisions in health, public health and social care.



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