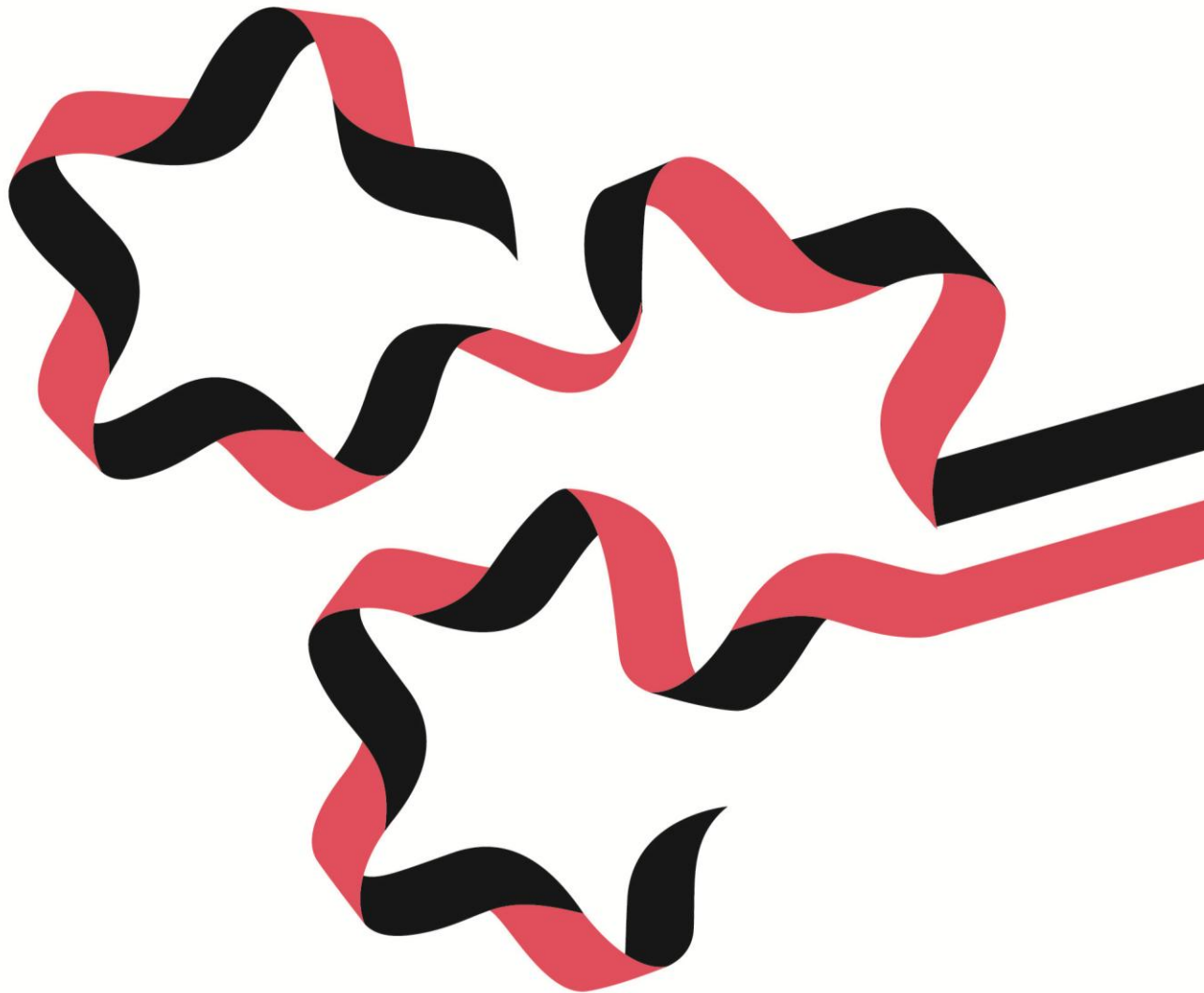# Star

Socio-Technical Allocation
of Resources

Guidance document

Identify Innovate Demonstrate Encourage

1. Introducing the Star approach

a. The commissioning challenge

The choices facing commissioners are frequently difficult. What should you spend more money on – diabetes or cancer treatments, obesity or mental health? Where will you get the most value for your investment? And how will you explain the choices you have made? These choices are difficult, and they matter.

But it is often challenging for commissioners to be as systematic as they might want about the way in which they plan. Some things are mandated, and some things have been identified as priorities through various strategic needs assessment exercises.

Star addresses this challenge in a systematic and transparent manner that brings a wide range of stakeholders together and gives them all a voice.

b. What is Star?

Star (Socio-Technical Allocation of Resources) is an innovative approach that supports commissioners' budget prioritisation processes. By combining a technical value-for-money analysis with extensive stakeholder engagement and discussion, Star enables local commissioners to involve the wider community in the evaluation of a range of current or potential healthcare interventions.

Star comprises a technical tool and a workshop-led process, both of which are set out in detail in this document.

c. Who is Star for?

Star is primarily designed for healthcare commissioners. It can be used to support budget setting and can be applied to either individual healthcare services or for comparison across various service areas.

Star is suitable for anyone with responsibility for making resource allocation decisions or for those involved in service planning, be it hospital trusts or providers. Star is also useful for anyone wishing to evaluate the extent to which current arrangements reflect the best available data, and the views of patients and other stakeholders about what really makes a difference in healthcare.

d. Star methodology

The methodology at the heart of Star is an example of multi-criteria decision analysis (MCDA). The specific MCDA approach used for Star, developed by academics at the London School of Economics, is a procedure allowing individuals or groups, faced with a set of options, to systematically rank their preferences using a range of different criteria. Among the criteria is, for example, the improvement of population health, while taking into account average patient benefit and prevalence and potential to reduce health inequalities.

For example, if you are part of a Clinical Commissioning Group (CCG) choosing between a number of spending options you may be concerned about costs, effectiveness for patients, ease of implementation etc. But not all these factors matter equally. MCDA allows you to judge each option against the relevant criteria, taking all of the stakeholders' views into account and attaching greater weight to the criteria upon which you place most importance.

e. What makes Star 'socio-technical'?

Star is socio-technical because it facilitates a structured set of workshop-based conversations between stakeholders (ie commissioners, providers, clinicians and patients), supported by a technical process that provides an analytical framework to support decision making based on good quality available data. Star invites stakeholders across the health economy to draw on their own experiences and expertise and encourages commissioners to demonstrate clearly and transparently the basis for their decisions. The tool generates a clear set of visual and numerical outputs, allowing participants to trace and challenge the various assumptions and views that led to commissioning decisions. While Star is based on the best available data, it also highlights information gaps, pointing to areas where additional valuable data needs to be generated or collected.

While there are outputs from the process in the form of hard numbers, participants report that the value of Star is to be found as much in the conversations that generate those numbers as in the numbers themselves. Ultimately, the approach aims to improve the health of patients and population by enabling commissioning groups to involve the wider community in the decisions that most affect them.

f. The key benefits of Star

The key benefits of Star include:

- a structure for prioritisation in decision-making
- formalised and meaningful engagement with key stakeholders
- prioritisation based on better data, with links to key relevant data sources.

The purpose of this document is to support commissioners wishing to use Star. It explains in detail what is required to prepare for and get the full value from Star approach workshops.

g. What the Star approach includes

The Star approach consists of:

- the technical tool (Excel-based)
- guidance notes for participants
- guidance notes for facilitators.

2. Overview of the Star process

a. Purpose of using the tool

The Star tool is flexible and can be used in multiple settings. Depending on how it is used, there are two or three stages to the process, as shown below. Both the two- and the three-stage process start with a kick-off meeting, which is described in greater detail in chapter 3.

A two-stage process is used to compare interventions within one area; three stages are used for comparing across multiple areas.

STAR can work within a priority area or between areas, with up to eight areas and six interventions per area

Commissioning priority areas | Interventions/services | Toolkit use

Area 1, eg diabetes — Intervention 1, Intervention 2, Intervention 3, Intervention 4, Intervention 5, Intervention 6

Toolkit can focus on prioritising services across one area through a two-stage process…

Area 2 — Intervention 1, Intervention 2, Intervention 3, Intervention 4, Intervention 5, Intervention 6

Area 3 — Intervention 1, Intervention 2, Intervention 3, Intervention 4, Intervention 5, Intervention 6

Area 4 — Intervention 1, Intervention 2, Intervention 3, Intervention 4, Intervention 5, Intervention 6

…. or can compare services across a number of areas through a three-stage process.

Area 5 — Intervention 1, Intervention 2, Intervention 3, Intervention 4, Intervention 5, Intervention 6

Area 6 — Intervention 1, Intervention 2, Intervention 3, Intervention 4, Intervention 5, Intervention 6

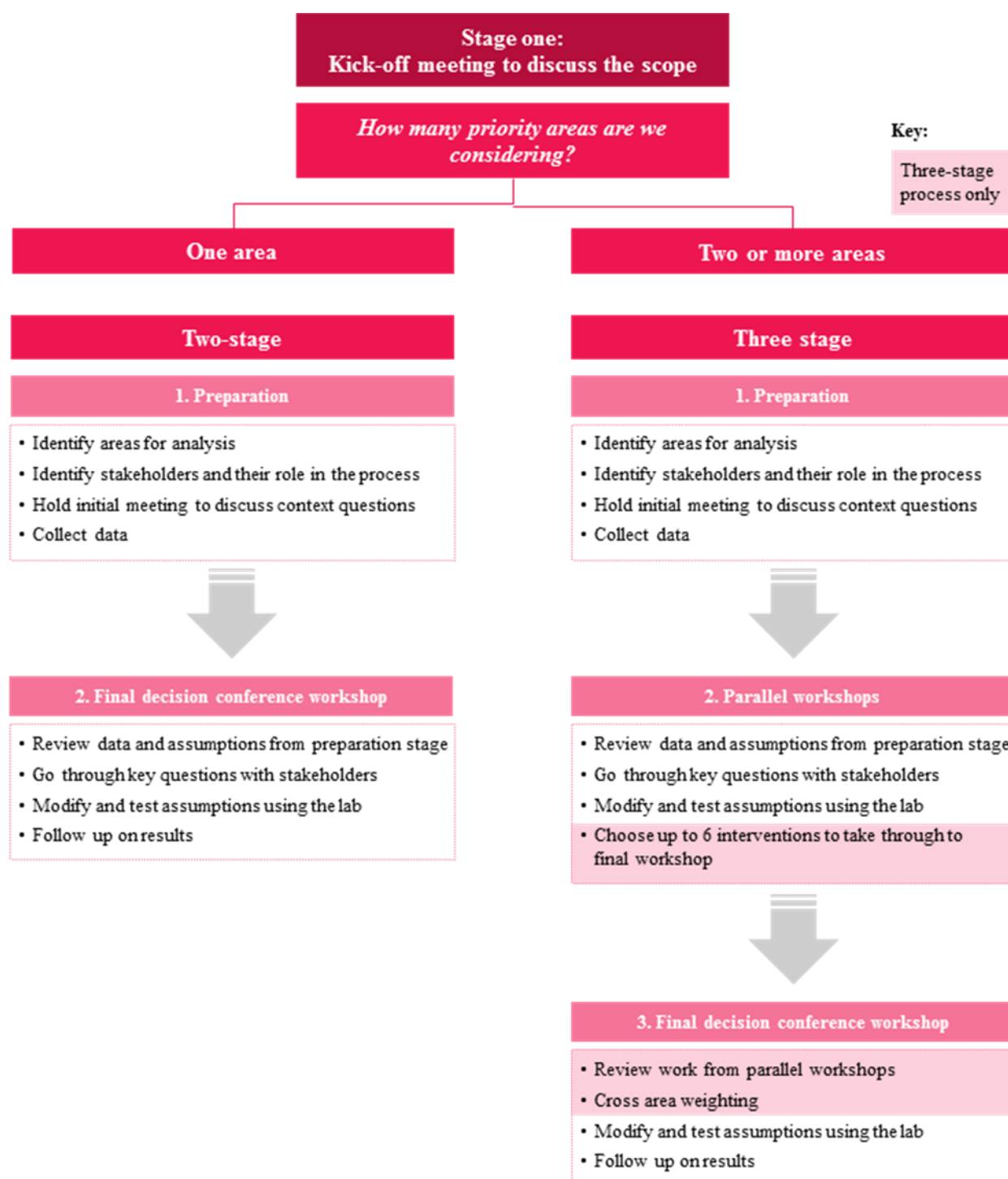| Two-stage vs three-stage process		
When comparing a number of interventions within only one priority area, a two-stage process is required.	When comparing a number of interventions across different priority areas, the three-stage process is required.	There are situations in which you would use the three-stage process despite looking at one area.
Example: When looking in depth at 5–6 interventions within diabetes, then you would use the two-stage process.	**Example:** Budgets are tight across the board, and there is a need to compare interventions in cancer with interventions for stroke and obesity. In this situation the three-stage process would be used.	**Example:** If you are comparing interventions in the priority area of cancer, but you wish to compare a number of different types of intervention, split between preventative, treatment, palliative, aftercare, etc, then it would be more appropriate to use the three-stage process to compare across these groups.
Broadly, if there are segmentable groups of interventions being prioritised then the three-stage process is likely to be preferable.		

b. What is the difference in procedure between the two-stage and three-stage processes?

The two-stage and three-stage processes are broadly similar; both start with a kick-off meeting during which the scope is discussed. During this first stage it is also decided how many priority areas will be considered. A two-stage process is used to compare interventions within one priority area; three stages are used for comparing across multiple areas. The three-stage process involves parallel workshops for each priority prior to the main decision workshop. The final workshop for the three-stage process involves weighting the areas against each other.

Stage one:
Kick-off meeting to discuss the scope

How many priority areas are we considering?

Key:
Three-stage process only

One area

Two or more areas

Two-stage

Three stage

1. Preparation

- Identify areas for analysis
- Identify stakeholders and their role in the process
- Hold initial meeting to discuss context questions
- Collect data

1. Preparation

- Identify areas for analysis
- Identify stakeholders and their role in the process
- Hold initial meeting to discuss context questions
- Collect data

2. Final decision conference workshop

- Review data and assumptions from preparation stage
- Go through key questions with stakeholders
- Modify and test assumptions using the lab
- Follow up on results

2. Parallel workshops

- Review data and assumptions from preparation stage
- Go through key questions with stakeholders
- Modify and test assumptions using the lab
- Choose up to 6 interventions to take through to final workshop

3. Final decision conference workshop

- Review work from parallel workshops
- Cross area weighting
- Modify and test assumptions using the lab
- Follow up on results

Note that even if using the three-stage process, it can be advisable to start by doing the two-stage process and then rolling out to the broader process subsequently.

Further information on the differences between the two-stage and three-stage processes is set out in Appendix 1.

c. Is it difficult?

Star itself is a simple process that is able to generate powerful high impact results. But it does require some preparation and careful management to make it work.

1	2	3
Firstly, it requires commitment to organising stakeholder workshops and making sure the right people are gathered in the room	*Secondly*, it requires the careful preparation of relevant data for each workshop. Commissioning managers will be able to lead this process but will require support from a data analyst.	*Thirdly*, each workshop will ideally require a neutral facilitator familiar with the tool. This may be from a peer organisation, or an external independent party. A data analyst will also be required.
Please refer to section 3.c. for further reference	Please refer to section 3.d. for further reference	Please refer to section 3.d. for further reference

Although using Star fully, as set out in this guide, will produce the best results, constraints of time, capacity and finance do not always make this possible. Following as much of the toolkit as possible will nevertheless have a positive effect and lead to better prioritisation, albeit with room for even further improvement.
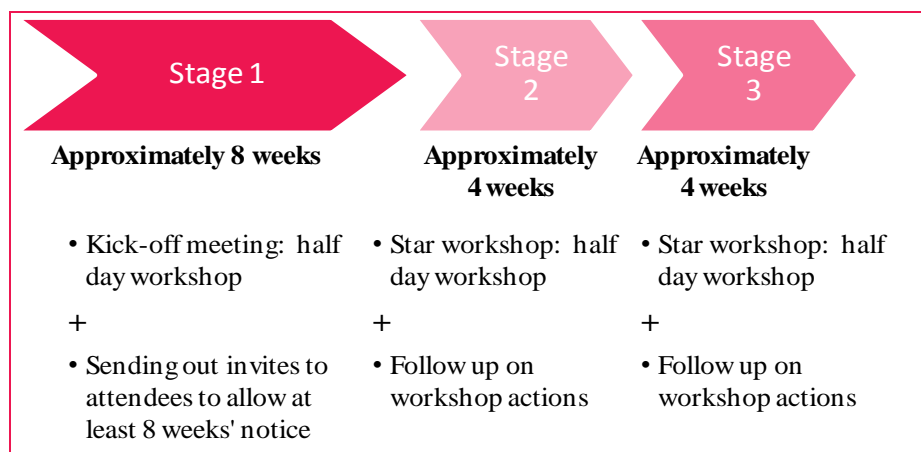
For example, an organisation might not have done a lot of research into cost data for potential interventions. However, a small amount of research is almost certainly going to produce better estimates than no research. And if no research has been done, then having identified the right stakeholders and making sure they are in the room is almost certainly going to produce better estimates than if they were not there.
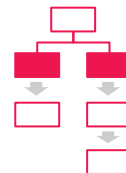
d. How long will the process take to complete?

The amount of time the process takes depends on how quickly you are able to mobilise your team, engage local stakeholders and gather the requisite data.

The whole process can typically be spread over approximately 12–16 weeks.

The most challenging step is often finding time in clinicians' diaries. Past experience suggests this tends to have a lead time of about eight weeks.

Stage 1	Stage 2	Stage 3
Approximately 8 weeks	**Approximately 4 weeks**	**Approximately 4 weeks**
• Kick-off meeting: half day workshop	• Star workshop: half day workshop	• Star workshop: half day workshop
+	+	+
• Sending out invites to attendees to allow at least 8 weeks' notice	• Follow up on workshop actions	• Follow up on workshop actions

3. Defining the scope

> *The next section of this document takes you through each of the stages set out earlier. The symbol in the top right will act as a guide for where we are within that process.*

> *Where appropriate, the document will also link to the step-by-step user guide in the appendix, which focuses more on the technical element of the guidance notes.*

a. What problem are you trying to solve?

In order to get started, you will need to be clear about your scope.

> *How should I concentrate my budget for cancer interventions?*

Commissioning Manager, Cancer

> *We have significant budget cuts to make. How can I best inform this decision?*

Director of Commissioning and Planning

Are you using Star to support a prioritisation process for one particular set of interventions or are you looking at spending across a number of different areas? Are you using this as part of an initial budgetary planning exercise, or as an ongoing exercise to impact contractual implementation or to inform your knowledge for performance management? What is the challenge that you have? What external pressures are affecting your budgeting and
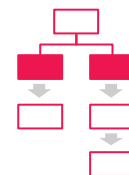
prioritisation? Are you looking to make savings by discontinuing certain interventions or are you looking for new interventions to fund?

All these questions are important, and this discussion will need to take place within your key commissioning management team.

The decision will determine how you use the tool, including whether you should use a two-stage or three-stage process.

b. Choose the area or areas for intervention

For this section you will make intensive use of the 'Context' tab in the Star tool; its use is also described in Appendix 2: Step-by-step guide: section 4.2

Stage 2: What is the scope of the prioritisation?	What priority areas will this be covering? Please list up to 8 priority areas	
	Select up to 8 from drop down lists...	Please specify a sub-area in the free text below. (E.g.: Breast Cancer within 'Cancer', or Ophthalmology within 'Other')
Guidance	Other	Ophthalmology
May come from JSNA, or from commissioning strategy documents or the NHS outcomes framework - see further resources below	Cancer	Breast Cancer
Resources		

Once you have decided the problem that you are trying to solve, you will need to address specifically which area or areas you are focusing on. Considering options where there is substantial scope for changing budget allocations will result in the most impactful outcomes from the Star process.

In order to identify such options, it may be helpful to address the following questions.

- Where is there the potential for large gains in population health and/or cost savings?
- Are there areas that have been relatively protected or escaped scrutiny in the past?
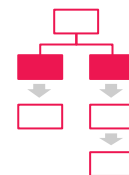- What does data about comparable organisations show about cost and health outcome performance?

For some commissioners, the specific areas of focus will be driven by the joint strategic needs assessment (JSNA), and indeed Star can be useful for planning on the back of a JSNA.

The JSNA is a framework that identifies the current and future health, wellbeing and social care needs of a local population, allowing commissioners to identify priority areas to improve outcomes and reduce inequalities.

While the JSNA can help commissioners identify what their priorities are, Star can help identify which interventions within those priority areas will be most cost-effective.

When piloted successfully in the Isle of Wight, the tool was used to evaluate a range of interventions across the five key priority areas identified in that locality's JSNA – cardiovascular disease, cancer, respiratory condition, mental health and children's health.

Having chosen the priority areas, one final thing to consider is which interventions might be included for prioritisation within each of these areas. Up to six interventions can be considered for each priority area. While this will be addressed properly in the subsequent workshops, having an early consideration of this will help with some of the workshop preparation.
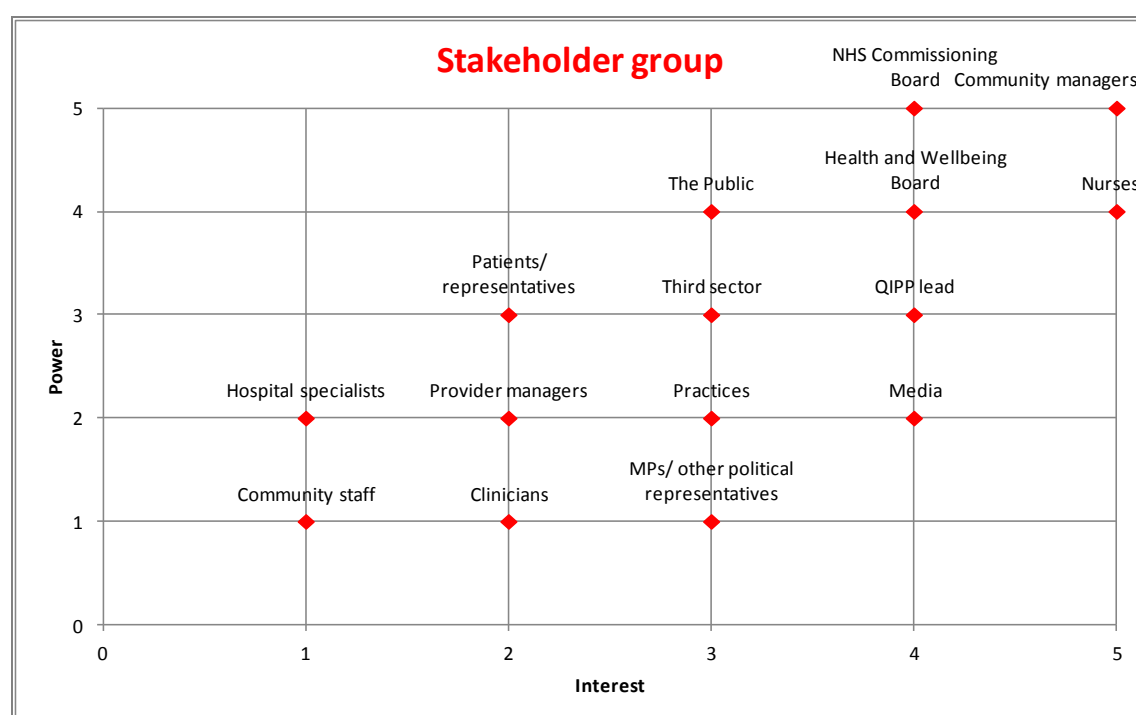
c. Identifying and classifying stakeholders

See also: Appendix 2: Step-by-step guide: section 4.3

A *stakeholder* is formally defined as any person, group or organisation that can place a claim on an organisation's … attention, resources, or output or that is affected by that output (JM Bryson (2004) *Strategic Planning for Public and Nonprofit Organizations*).

When thinking about stakeholders to involve in the Star approach, you may also want to include or consider including someone with an interest or influence in your decision making.

In the tool you will be prompted to think about and enter a comprehensive list of stakeholders and how you want to include them in the process.

Stage 3: Whom might you involve?	Please map stakeholder groups. Who might be involved in this process, and HOW do they get involved? Click on the 'Stakeholders' icon at the top to view the map.				
Guidance	Stakeholder group for prioritisation process	Power	Interest	Action	Comments
List stakeholder groups through brainstorming that are likely to need to be involved in the process. There are drop-down options in the top half of the first column and free text for others.	Clinicians	1	2	Involve in process	
	Practices	2	3	Involve in process	
	QIPP lead	3	4	Involve in process	
	Nurses	4	5	Consult with as part of process	
	Community managers	5	5	Keep informed	
	NHS Commissioning Board	5	4	Consult with as part of process	
	Patients / representatives	4	3	Keep informed	
Power - To what extent does this stakeholder influence our decision-making?	The Public	3	2	Keep informed	Charity organisation
	Hospital specialists	2	1	Involve in process	
Interest - How strong is this stakeholder's level of support for us?	Community staff	1	1	No action	
	Provider managers	2	2	Keep informed	
	Third sector	3	3	Involve in process	
Action - what do we need to do with this stakeholder in relation to our prioritisation decision-making?	Health and Wellbeing Board	4	4	Consult with as part of process	
	MPs / other political representatives	1	3	No action	
	Media	2	4	Consult with as part of process	
	(Free text from here onwards)				

Who should I include?

- *Internal stakeholders:* Your chief internal stakeholders are likely to be the commissioning managers for each of the priority areas outlined at the scoping stage. They will in turn be responsible for identifying and engaging external stakeholders relevant to their areas.
- *External stakeholders:* Your chief external stakeholders should be identified by your internal stakeholders for their respective priority area. Identifying and engaging the right external stakeholders is an important step as a large proportion of the value achieved from Star derives from the conversations it facilitates between different stakeholders.

Types of external stakeholders to consider:
- patients, carers and patient representatives
- physicians (from primary and secondary care settings)
- providers
- community staff and managers
- commissioning managers
- QIPP lead
- bodies such as the Health and Wellbeing Board or NHS England

- representatives from other relevant local stakeholder organisations. This will depend upon the priority area, but may include representatives from the local authority, hospices, charities, etc.

Questions to consider

- Who would interventions within this area affect?
- Who is in a position to affect the outcomes achieved by the interventions?
- Who is accountable for the results?
- Who will need to be influenced and brought into the process?
- Who do I include?
- How do I include different stakeholders in the process?

The tool will also help you to map the stakeholders, by considering how much influence these stakeholders have over your decision making, how supportive they are and how important you deem them.

Stakeholder group scatter chart plotting Power (y-axis, 0–5) against Interest (x-axis, 0–5). Plotted points: NHS Commissioning Board (Interest 4, Power 5), Community managers (Interest 5, Power 5), Health and Wellbeing Board (Interest 4, Power 4), Nurses (Interest 5, Power 4), The Public (Interest 3, Power 4), Patients/representatives (Interest 2, Power 3), Third sector (Interest 3, Power 3), QIPP lead (Interest 4, Power 3), Hospital specialists (Interest 1, Power 2), Provider managers (Interest 2, Power 2), Practices (Interest 3, Power 2), Media (Interest 4, Power 2), Community staff (Interest 1, Power 1), Clinicians (Interest 2, Power 1), MPs/ other political representatives (Interest 3, Power 1).

d. Building your delivery team

You will need to identify and commit resources to lead and support the use of the Star tool. It is important that you think about whose support you will need in order to successfully implement the process.

Project lead – One individual from the commissioning organisation will need to 'own' the pilot. This may be the Senior Commissioning Manager, the Strategy Lead, the Director of Public Health or another appropriate individual within the organisation. This person will be the key point of contact for the project, will be responsible for coordinating inputs from relevant people across the organisation and seeking senior buy-in where necessary, and will be fully familiar with the approach as it is being used.

Senior buy-in **–** Senior buy-in will be required in order to authorise the commitment of the necessary resource from across the organisation, engage broader internal and external stakeholders and signal a commitment to take the process and its results seriously.
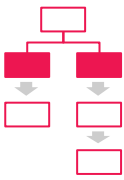
Information/data analyst – Being able to gather and understand high quality data greatly helps the effectiveness of using Star.

For each intervention being considered, data on levels of need, costs and outcomes will be helpful. The data analyst will also be required to attend each workshop and ensure that data is being used consistently.

Facilitators – Neutral facilitation of each workshop is required and essential for the success of the Star approach. One of its purposes is to allow difficult conversations to take place without perception of a vested interest. This may be provided by someone from a peer organisation or may be a third party independent facilitator.

Commissioning managers – If you are using Star to evaluate interventions across a number of different areas, commissioning managers for those areas will be required to help identify the specific interventions to be evaluated; to identify relevant stakeholders; to liaise with the data analyst about what data will be required and to attend workshops.

Ensuring a realistic timeline for stakeholders – It is very important to set a date for the Star workshop(s) that is far enough in advance to secure attendance from stakeholders. For hospital doctors and other senior clinicians six weeks' notice is likely to be a minimum.

Venue and material needed for stakeholder interaction – It is helpful to consider the venue far enough in advance as well. It should ideally be easy to reach for all stakeholders and allow you to use a projector to screen the tool. In order to use the tool a laptop will be needed; it is also helpful to use flip charts to capture the main discussion points with the stakeholders.

e. Identify constraints upon decision making

The tool can work with up to 48 different interventions spread across a maximum of eight priority areas with up to six interventions in each.

Where there is insufficient data available (data requirements are outlined below) an intervention may not be a suitable candidate for evaluation – although having the right stakeholders in the room can mitigate this challenge to a great extent.

At this stage it will also be important to identify if there are any interventions where allocation of resources is fixed. This may not rule them out of the process, for example the tool may be used to establish the scale of benefits being achieved with current levels of investment and ways in which that might be increased. But understanding your reason for including them will help you focus workshop discussions accordingly.
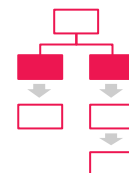
First steps checklist

Action	Complete
Identify problem	
Choose priority areas of action (up to eight)	
Agree the list of interventions to be under consideration (up to six per priority area)	
Identify and classify stakeholders, both internal and external	
Identify and mobilise support required, including securing senior buy-in	
Confirm data analyst	
Identify constraints on decision making	
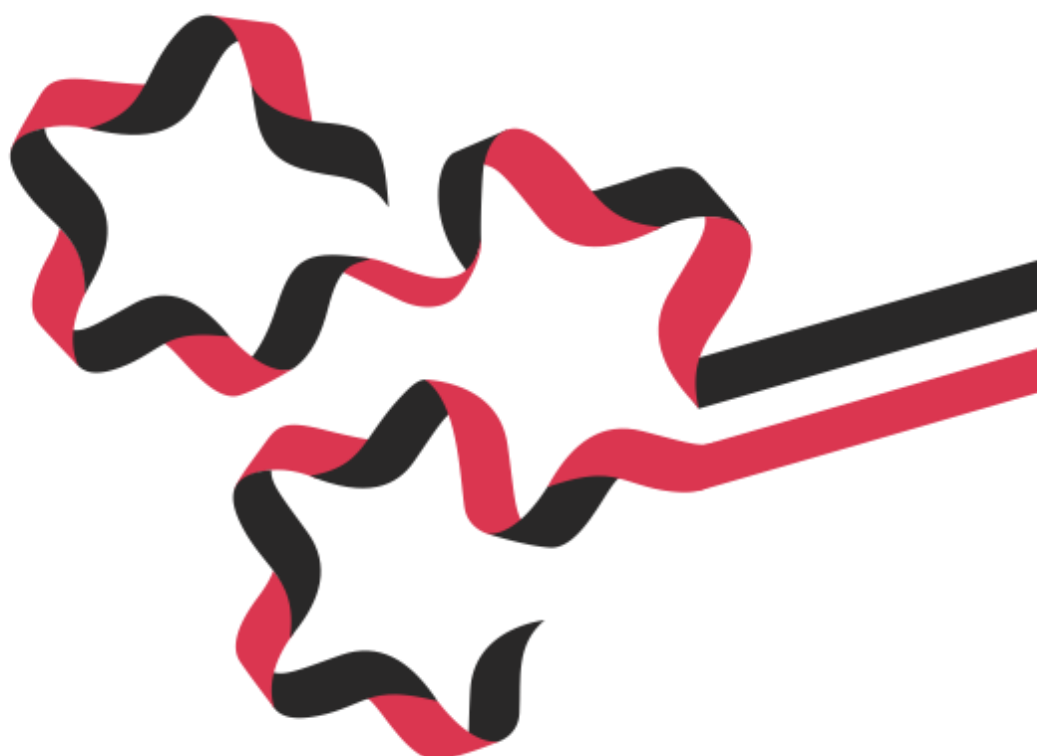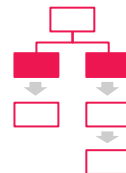
4. Kick-off meeting

a. Aims

- Introduce the neutral facilitator
- Familiarise commissioning managers with the tool and the process
- Formalise the scope of what you are doing
- Agree timelines for each stage of the process
- Finalise who will need to be at which workshops
- Finalise responsibilities for next workshops
- Choose interventions to take through to the next round of workshops
- The independent facilitator will help to guide each group of stakeholders through the process of defining the aims

b. Before the kick-off meeting

Who to invite:

The kick-off meeting is likely to be led by the core commissioning leadership. The project lead is responsible for inviting the main stakeholders to the meeting.

In the event that the tool is being used to support a prioritisation exercise spanning a number of different areas, the relevant commissioning managers will need to be engaged and brought into the process, allowing them to take responsibility for providing the necessary input.

When sending invitations participants should be asked to set down in writing which interventions they would like to see discussed.

Timing:

In scheduling the workshops you will need to leave sufficient time for the following.

- Work with the data analyst to complete all the necessary data collection in advance of each workshop. Depending on time commitments, this may take up to **four weeks.**
- Allow sufficient time to identify a slot when everybody will be able to attend. In the case of clinicians this may require six weeks minimum.

c. During the kick-off meeting

Draft agenda for kick-off meeting with commissioners (c. 2 ½ hours)
1. *Welcome and explanation of the tool and why it is being used (30 mins)* 2. *Demonstration of the tool at work by facilitator (30 mins)* 3. *Go through long list of interventions and decide which ones to include in the prioritisation process (60 mins)* 4. *Responsibilities, timelines and next steps (30 mins)*

As part of this meeting, the context-driven inputs set out in the *First steps* section above should be confirmed and agreed.
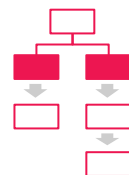
Kick-off meeting checklist

Action	Complete
Invite participants to kick-off meeting; request which interventions they want discussed	
Familiarise relevant commissioning leadership with the tool and process	
Confirm the key 'first steps' with this group:	
Scope of what is being done, including the list of interventions	
Roles and responsibilities including who attends each workshop	
Confirm draft timeline and next steps	

d. Outcomes

- Agreed scope with buy-in from key team
- Complete list of interventions for each area that are worth pursuing
- Sign-off achieved on the 'first steps'
- Roles and responsibilities agreed, including who should be at each workshop
- Draft timeline agreed, and what this will involve
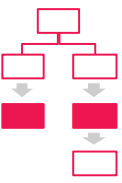
5. Parallel workshops

a. Aims

- To investigate the value for money being achieved by a range of current and potential interventions for one area per workshop, informed with estimates of costs, outcomes, feasibility, and impact of interventions on health inequalities
- To improve understanding of the proposed interventions through workshop discussion, backed up by a range of available data sets
- To explore 'what if' scenarios by using the lab

b. Before the workshop

Who to invite:

Attendance by stakeholders should have been identified through the *First steps*, using the *Context* tab. At a minimum, commissioning managers, clinical specialists, patients and patient representatives relevant to this priority area should be attending.

Collect and analyse data:
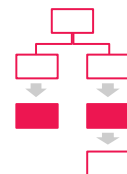
See also: Appendix 2: Step-by-step guide: sections 5.6 and 12 for further information on accessing these.

The Star tool contains a detailed list of sources which should be used to help you collect the relevant data.

External data sources - priority area specific				Priorities	Feasibility	Cost	Outcomes	Inequalities	Patient exp
Resource name	Content	Why is this useful?	How to use the resource						
National Diabetes Information Service	Broad selection of tools and data sources from key providers, covering all major elements of the commissioning process.	This provides an excellent source of links to useful data sources on prevalence of diabetes, potential interventions, costing, outcomes, value for money, inequalities and a range of other useful indicators. Other tools are also linked from this page (e.g. Variation in Inpatient Analysis Tool (VIA) and Diabetes footcare activity profiles)	From the linked page, go to "tools and data", then follow links in the table of contents to view a summary of the resource, then follow the external link to go directly to that tool or data source. We would particularly direct attention to the Variation in Inpatient Analysis Tool (VIA) and Diabetes footcare activity profiles. An additional resource that is likely to be very useful may be the "diabetes data directory" which shows which sources might be valid for particular questions		✓	✓	✓	✓	
NHS - National Diabetes Audit	Central repository for information on diabetes care within the NHS; includes information on admissions, treatments, quality indicators and (some) outcomes.	Described as an audit "considered to be the largest annual clinical audit in the world", the NDA is designed to assist diabetes commissioning by making information available on all aspects of diabetes care within the NHS. It allows benchmarking of local services against other regions, as well as analysis of need, costs and outcomes.	Follow links on the linked page to the various information sources - the principal source is the NDA Dashboard (available at right). The PCT Profiles and the "NaDIA" Inpatient Audit are also particularly noteworthy.				✓		
NHS - Diabetes commissioning	Comprehensive guide to commissioning diabetes services, including links to external resources, guidance on their use and assistance in interpreting data	This is a very comprehensive resource, providing an excellent base for discussing your commissioning priorities. It provides an excellent gateway into further resources, as well as guidance on how best to use and manage those resources.	From the linked page, the site is organised on a step-by-step basis, with a detailed page on each step of the commissioning process.	✓	✓	✓	✓	✓	
YHPHO - Diabetes outcomes versus expenditure tool (DOVE)	Data on expenditure on diabetes care and clinical outcomes, for all PCTs	Allows estimation of the proportion of the local population likely to be impacted by interventions and services in this area, along with costing data, benchmarking and likely health outcomes.	Download the tool from the linked page. In the downloaded Excel tool, use the dropdown lists to select which data you wish to view.			✓	✓	✓	

The data required will generally fit into the following categories below. In some cases it will be necessary to rely on estimates where no data exists.

- ***Cost of interventions***
  Set-up and recurring costs (including staffing and training) associated with programme provision; health economic studies on treatments; internal data on costs; any information on resource consumption. You should consider how long these costs will influence your budget for, ie one year or three years. Please note that it is recommended to use the same timeframe for all interventions.
- ***Outcomes associated with the intervention***
  For example, if any, epidemiological data on population prevalence of the condition at which interventions are aimed; internal and external information on the effectiveness of those interventions and the health improvement arising from them; information on condition-specific Quality of Life scales (if any); audits of populations undergoing treatments against clinical thresholds.

- ***Patient experience data***
  For example, PROMS data, data from patient interest groups, results from patient experience surveys.
- ***Impact on health inequalities***
  For example, geographical variations in consumption of treatments; any relevant information comparing with other providers; prevalence of condition by socio-economic groups; evidence of access to services by different population groups.
- ***Likelihood of successful implementation***
  Such as operational data on comparable interventions.

To support preparation for the workshops, it would be useful to ask commissioning managers to complete the following template for each intervention, using the data gathered.

This will provide a starting point for discussion of each intervention in the workshop.

Intervention	Provide a name for the intervention.
Description of the intervention	Give a description of the intervention from a clinical perspective (what does the intervention consist of?) and organisational perspective (staff involved in its delivery).
Cost per annum	Provide the annual cost of providing the intervention for the local population.
No. of people who benefit	Indicate how many people benefit from this intervention every year.
Information about the people who benefit	Provide a description of the beneficiaries in terms of demographic information and severity.
Clinical effectiveness	Provide information about the effectiveness of the intervention from the literature or based on your expertise (the comparator should be 'no intervention'). Consider only the effect that will follow from the expenditure of **providing the intervention** in the current year (eg if you conduct a CABG, there will be a lifetime of improved heart functioning which should be attributed to the expenditure in the current year).
Risks to intervention implementation	Provide a description of any issues that could threaten the implementation of the intervention, eg cultural, capacity, technical, financial or political issues.
Benefits beyond the patient	If relevant, indicate benefits beyond the patients, eg to carers and family or other parts of the health and social care system.
Comments	Provide any other information that you think should be considered in assessing the intervention. In particular, it may be worth stating where any of the information above is anticipated to change significantly in the near future.
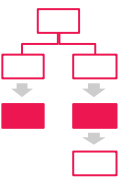
c. During the workshop

Who will lead the workshop?

The workshop should ideally be run by a highly experienced ***neutral facilitator*** familiar with the tool.

Discussions about where to invest or disinvest can be difficult, controversial and emotional. It is therefore important that participants feel that the discussion is being managed by someone who has no stake in the outcome and who will be impartial and fair. This may be someone from a peer organisation or an independent third party, such as an outside consultant or academic.

The facilitator will be supported by the **data analyst** who will generate visual aids and help provide supporting data throughout the session. The data anyalyst will need to be totally familiar with the Star tool, in order to provide effective support.

A designated note taker will also be needed to take a detailed note of the discussion.

Agenda for the stakeholder workshop

1. *Discuss purpose and context*
2. *Overview of the long list of interventions to be evaluated*
3. *Overview of the criteria to be addressed today*
4. *Scoring of interventions against criteria*
5. *Agreement on which interventions should be taken forward*

d. How to complete the evaluation of each intervention at the workshop

See also: Appendix 2: Step-by-step guide: section 5

Before reaching the core inputs, the workshop should begin by surveying the outputs agreed in the *First steps* and the kick-off meeting, including the overall purpose, context and scope of the prioritisation process and the proposed long list of interventions. Any other material, such as a template completed by the project leader commissioner ahead of the workshop, could also be used as a starting point for this discussion, supported by data brought to the workshop by the data analyst. You may find it useful to fill out *Step 2 Key questions* of the Star tool (please see graph below) in advance and circulate it to the participants, so that they are familiar with the data.

The core inputs for this workshop are a series of questions, both qualitative and quantitative, within the technical tool. While these are set out in detail in the *Step-by-step guide*, broadly, the questions relate to improving health outcomes and reducing health inequalities. The facilitator should give participants oversight of all the questions before attempting to answer them with the group.

The following section gives some ideas on how to approach these questions.

Stage 2: Key questions for interventions Resources	1. Describe a "typical patient" for this intervention	2. Estimate how many people are going to benefit from intervention (# people)	3. Describe the implications of no intervention	4. What would the clinical effectiveness be for the "typical patient"?	5. Identify what could go wrong with implementation	6. How likely will your organisation successfully implement this?	7. Estimate the total cost of this intervention (£000s)
Regular self examination training							
Breast cancer awareness campaign							
Ultrasound checks for younger women							
Mamography roll out campaign							
Examination as part of gyn visit for smear							
Smoking prevention							

Qualitative inputs

The purpose of the qualitative inputs is twofold. Firstly, it is important to begin with a qualitative discussion because it sets the tone for thinking about quantitative measures; it is critical that decisions are made with 'real people' in mind as opposed to a series of statistics.

The second function of a qualitative discussion is that it will help to secure engagement from the various stakeholders in the room. For instance, clinicians and commissioners may be familiar with a quantitative discussion, but a patient who is also part of the group may not be. Starting off with qualitative dialogue will encourage a more productive discussion with valuable contributions from all attendees.

The 'typical patient'

Participants should establish for each intervention the characteristics of a typical patient. This is a very important process as it helps to ground the subsequent discussions in 'real people'. If the intervention benefits patients that fall in very different groups (eg different prognostic groups), it may help to use separate lines for each group and describe the 'typical patient' for that group.

Implications of no intervention

In reaching a conclusion here, participants should offer a judgement as to the state of the patient were no action to be taken. This may be with regard to the specific issue to be addressed or other possible health problems that may arise as a result of inaction. Sometimes it may be more realistic to consider an explicit minimal care package rather than no care at all: for example, some defined less state-of-the-art level treatment, treatment on an emergency basis only, palliative care only. In this case costs and benefits should be incremental to this minimal treatment level.

Clinical effectiveness for the 'typical patient'

At this point, the group should discuss the efficacy of each intervention. Interventions with high potential benefits may be less attractive if the chances of achieving those benefits are deemed to be low.

Possible risks

Here, potential risks should be assessed in connection with each intervention under discussion. These risks may have direct or indirect links with the intervention itself.

Quantitative inputs

The quantitative inputs will feed directly into the spreadsheet formulas in the Star toolkit contributing to the graphical outputs.

Number of patients likely to benefit

Supported by demographic and epidemiological statistics and expert judgement, participants should estimate the actual number of people who would be expected to benefit from one year of funding this intervention. For the longer term benefits, it is possible to suggest producing different sets of estimates (short vs medium vs long term) either through using different inputs in the respective priority areas or in sensitivity analysis. This should only include direct beneficiaries (eg not patients' carers).

How likely is your organisation to successfully implement this intervention

When assessing the operational and political feasibility of each intervention, participants should indicate their degree of confidence that each intervention will successfully implemented by their organisation. This confidence score should be expressed in percentage points. So, if
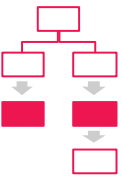
participants believe that their organisation could face some difficulties with implementing a breast cancer awareness campaign, they may wish to reflect this in a lower score of 75% likelihood that this campaign will be successfully implemented.

This score is not linked to the graphical outputs of the Star tool; nevertheless the discussion around the likelihood of successful implementation is of tremendous value to assess the benefits of an intervention at a later point in the workshop.

Cost

Participants should attempt to estimate the total cost of the intervention to the commissioning organisation. The organisation may have good quality cost data, or may be able to benchmark, and several data sources are signposted from the tool.

There are a number of ways of calculating these costs: they can be split into long-term and short-term costs; they can be split into fixed costs and variable costs. Again, the consistency between different interventions is the most important consideration. Ideally costs should reflect economic costs, that is they should be net of allocated overheads.

Costs should be considered over the budgeting cycle being examined (eg one year vs three years).

If you wish to tackle 'invest to save' interventions, you can extend the budgeting cycle considered (this should be for all interventions assessed, even those that have no 'invest to save' component), for example over a five- or ten-year period.

Health benefit per person

See also: Appendix 2: Step-by-step guide: sections 5.3 and 5.4

Supported by research into health outcomes associated with the relevant interventions (eg QALY data, health experience data) and the expertise and experience of those present, participants should consider the health benefit which the intervention is expected to deliver to the 'typical patient'. All the interventions considered are likely to produce some health benefits to their typical patient. The intervention that is expected to produce the greatest benefit to its typical patient should be assigned a score of 100 (see image below). It should then be discussed which intervention will achieve the second most benefit per patient for the typical patient, and so on until all interventions are ranked.

Stage 3b: Health improvement per patient - quantitative	2. The answer to stage 3a is assigned a benchmark score of 100. Consider now, who among the remaining patients would experience the next greatest health improvement as a result of the intervention using the slide bars below?

Regular self examination training	Breast cancer awareness campaign	Ultrasound checks for younger women	Mamography roll out campaign	Examination as part of gyn visit for smear	Smoking prevention
100	65	30	100	95	50

In making these judgements, you are not focusing on the needs of a specific patient, but are exploring recommendations for resource allocation *ex-ante*, ie before knowing the specific characteristics of a patient who will benefit from the treatment. In order to plan service provision, it is possible to use past information as an approximate figure to help prepare for the future.

The Star tool provides links to data sources for the biggest disease areas which will be a good starting point (please see the graph in *Collecting data*). In general try to consider all available QALY and QoL data; other published studies; patient experience data; academic studies on clinical effectiveness; input from experience of participating clinicians, patients and carers. Some relevant data is available by following the 'resources' link to the bottom of the technical toolkit page.

Further guidance on the health economics rationale that should support this assessment is in the section below.

Assessing health benefits per person – health profiles

Our suggested methodology uses the concept of 'health profiles' to think about the benefits associated with interventions. A health profile describes the level of health of an (average) individual from today until the time of death. We can use a 'scale' to describe the level of health which ranges from 0 to 1, where 0 corresponds to 'zero' quality of life (ie being dead), and 1 to the quality of life equivalent to full health. Other levels of health can be described on this scale. A line can then be plotted along a patient's life that shows their quality of life as they are affected by a condition if a particular intervention was not available. A second line could be added to this to show how this changes with the impact of the intervention. As illustrated below, the area between the two lines represents the difference for the patient between being treated and not being treated and consequently, the space between the two lines represents the benefits of intervention.
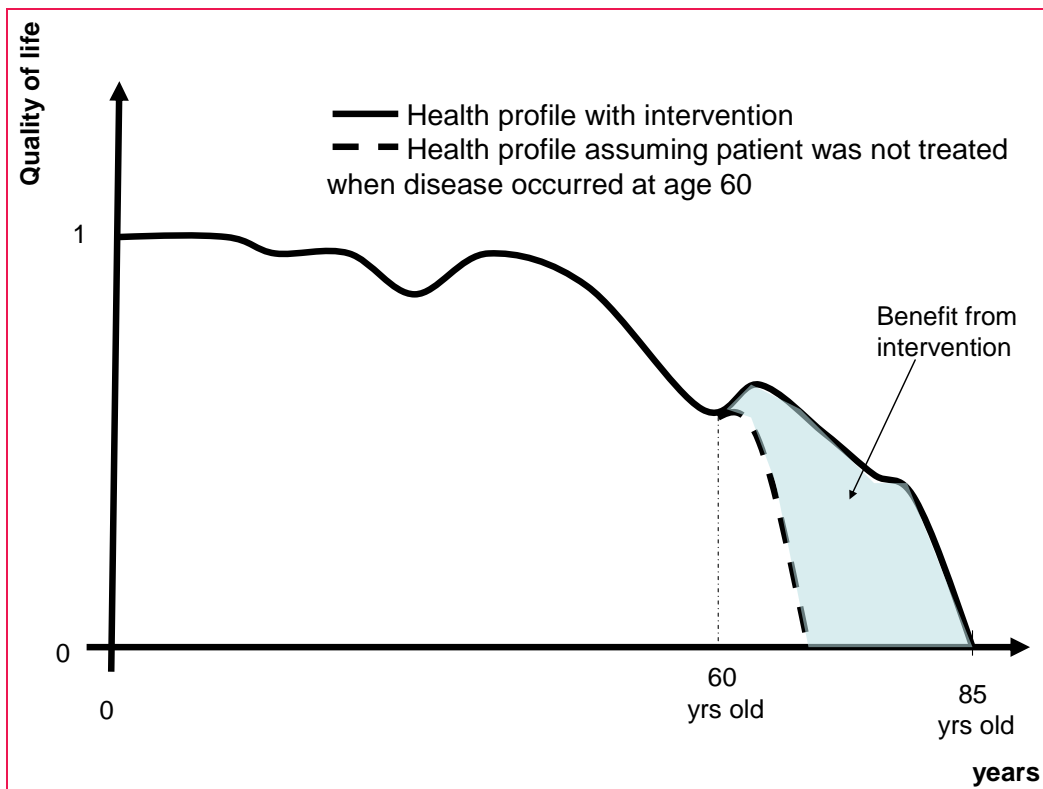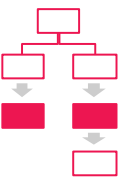
In this chart, one year spent in full health corresponds to one 'quality adjusted life year' (QALY). Equivalently, two years spent with a quality of life of 0.5 are one QALY; or four years with a quality of life of 0.25 are also a QALY, and so on.

In this instance, the benefits from the intervention are approximately 20 years with a quality of life which ranges from about 0.6 to 0.4 and then drops quickly in the last few years of life. Let us say that the shaded area corresponds to 20 * 0.5 = 10 QALY. This calculation can be done with varying accuracy from broad estimates through to more specific calculation where good quality data is available. Judgements should be informed by the literature on QALY gain from intervention whenever available, though published figures should be critiqued in the light of current circumstances. In the absence of this information, however, it is possible to engage in a discussion among experts to elicit their judgment explicitly. Please refer to Appendix 3: Assessing health benefits – a practical guide, for more detailed information.

Data considerations

The same data will not be available for all interventions and, in the majority of cases those data sets will not produce a clear answer. Furthermore, the tool will not provide an answer as to how much weight to attach to different data sources.[1]

The assessment of health benefits is likely to be the input for which participants find it most difficult to reach agreement. Clinicians and patients may have strong views about the scale of the benefit achieved by a given intervention and the importance of different factors, such as patient experience. The key will be to use what data is available to generate discussion and try to reach consensus about the relative benefits associated with different interventions.

There is no formula for coming up with the right answer, just as when commissioners make their prioritisation decisions without involving stakeholders. But participants will be able to challenge each other, using the best available data and the benefit of their own experience and expertise.

Any areas where there is vociferous disagreement are worth revisiting at a later stage.

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[1] It will remain important for the facilitator and data analyst to ensure that data is being treated consistently. For example, that the same timeline is being considered for benefits.
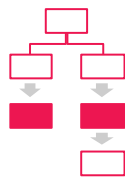
Previous participants in pilots have highlighted the mutual learning that can take place when commissioners, clinicians and patients discuss these issues together. As highlighted before, **the debate and process of getting to the answers can be more, or as useful, as the outputs themselves**.

Capture by minority views

Although a rich discussion can still take place when not using pure data, there is a risk of being disproportionately influenced by a few gathered in the room.

This risk can be mitigated by the right spread of people in the room and by good facilitation, with lots of dialogue and constructive challenge on the basis of published data and the experience of everybody present.

The scope of benefits may include any wider impact, such as to carers or family members or to the social care system. The degree to which there are significant wider benefits is likely to vary by intervention. For example, reducing the number of teenage pregnancies is likely to have more significant system-wide impacts than reducing the number of people smoking.

The precise scope of benefits to be included may be left to each group to decide, so long as the same standard is applied to all interventions. For example, the groups may decide to only count direct healthcare benefits due to the speculative nature of any wider impact.

Impact on health inequalities

See also: Appendix 2: Step-by-step guide: section 5.5

This step is optional and does not have to be completed in order for the Star tool to function. It is up to the Star stakeholders to decide whether it is relevant to use this step for the priority area that is being analysed.

This discussion should be guided by a consideration of what segmentation of patients are likely to benefit from an intervention by socio-economic background. The issue of whether or not this is a factor that matters to the organisation will have been discussed in the *First steps* via the *Context* page.

In the Star tool this input generates a chart. That chart will be blank in the parallel workshop in the absence of 'inequality weights'. In this case a 'blank' chart is to be expected and after conducting the 'weighting' it will be automatically populated.

Examining outputs

Using the inputs described in the previous sections, the analyst will be in a position to generate live visual outputs. The Star tool will produce outputs automatically. How to interpret graphs is described in greater detail in Appendix 1, section 8 – Interpreting graphs.

The outputs could, for example (please see graphic below), show the total population level benefit each intervention is expected to achieve in relation to the benefit for the individual patient.

Representing benefits in this way allows participants to see the extent to which aggregate benefits are being driven by numbers affected or the degree to which each individual is likely to benefit. This in turn allows participants to see where different ways of delivering the intervention might increase its overall score, for example by reaching more people.

Taking account of cost will allow the analyst to generate visual representation of the value for money achieved by each intervention.

Modifying and testing assumptions in the lab

See also: Appendix 2: Step-by-step guide: section 11

When you open the lab for the first time, it will have been automatically populated with the data that was generated during the workshops and inserted in the relevant priority area sections. Many assumptions will have been made during this process – about costs, about the number of people who would benefit, and about the scale of those benefits. The lab allows you to change these assumptions and then observe how this would influence the graphical outputs. The advantage of the lab function is that you can use it as a 'sandbox' to see how change to certain data points affects the graphical outputs.

For example, there will no doubt have been a number of points where there is disagreement, or at least less confidence, about a score given for a cost or benefit arising from one intervention compared to another. The lab allows participants to revisit such cases and vary the inputs, seeing how much difference is made, for example, by revising the number of people who might benefit from an intervention. This will enable participants to see if their difference of opinion over a particular detail is driving a major difference in the overall outcome. It will also allow them to check that they are happy, for example, with the degree of influence being exercised by the weight they have attached to the impact on health inequalities or a particular feasibility score.

While participants should not use this as a way of altering the inputs simply in order to achieve the result they want, it is an important step in sense checking the results and gaining a richer understanding of what is driving them.

Furthermore, discussion of the different elements that have driven a particular high or low value for money score may reveal additional options that had not previously been considered. For example, if a particular intervention scores well in terms of impact on clinical outcomes but is getting a very low patient experience score (thus bringing down its overall score), this may trigger a discussion about new ways to deliver this service.

Parallel workshops checklist

Action	Complete
Data analyst to collate relevant data to feed into the process	
Commissioning managers to provide their initial thoughts on each intervention	
Agree facilitator for workshop	
Undertake health profiles (and practise prior to workshop)	
Experiment with the toolkit inputs	
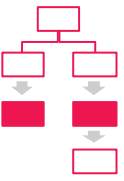
e. Outputs of the parallel workshops

- A shortlist of interventions to be taken forward to the prioritisation event
- Filled in priority area inputs pages for each workshop
- Understanding and buy-in from the key stakeholders at the workshops

6. Prioritisation workshop

a. Difference in approach between the two-stage and three-stage approach

The prioritisation workshop will only be used if multiple priority areas were analysed. This will only be the case for the three-stage approach. The two-stage approach would end with modifying assumptions in the lab, as described in the previous chapter.

b. Aims

Go through the inputs conducted so far to:

- discuss and, if necessary amend, the findings from the earlier workshops, with new people in the room or additional information
- continue driving ownership from stakeholders; and
- allow a moderation process, with shortlisted interventions from previous workshops to be evaluated relative to each other.

Allow participants to see how results would be impacted by altering specific assumptions using the lab.

c. Before the workshop

The main preparation will be undertaken by the analyst. It will invole the following actions.

- Confirming the appropriate stakeholders to invite to the event. The outputs of the parallel workshops and other stages may have changed who is needed for the final workshop.
- Quality-assuring the figures used in the stakeholder workshops and checking the data was treated consistently.
- Gathering any additional data relating to the shortlisted interventions that was not made available for the previous workshops.
- Preparing updated templates for each of the selected interventions.

Who to invite

The key representatives from the previous workshops should attend. It is likely this will mean a cross section of 10–15 commissioners, patients, GPs and clinicians from all the intervention areas being evaluated.

d. During the workshop

The prioritisation event will last at least 3–4 hours, but a full day is preferable.

Once again, the session needs to be led by an experienced, neutral facilitator.

The event will follow a similar pattern to the stakeholder workshops.

Agenda for prioritisation event

1. Recap of purpose and context
2. Reminder of the priority area input questions
3. Review of the shortlisted interventions and scores, with a moderation process
4. Agree weighting between priority areas
5. Experimentation on scenarios using the lab
6. Confirm next steps

Recap purpose and context

This final meeting brings together the key stakeholders across priority areas. As such, it is an opportunity to discuss and test the inputs so far on context, the purpose of prioritisation, as well as the limitations to the budget that has to accommodate the different priority areas.

Inequality modelling will be an area that it is particularly important to recap.

See Appendix 2: Step-by-step guide: section 4.4)

Reminder of the priority area input questions

The group looks at all the questions to ensure the process is as transparent as possible.

Review of the shortlisted interventions and scores, with a moderation process

The participants review the scores given to the interventions in the earlier workshops and on the updated template sheets, discussing the impact of any new data. This can take place in small break-out groups, split according to priority area, with each feeding back to the wider group in the subsequent session.

Going through the same process as the previous workshop, participants can sense check both the inputs and outputs of the previous sessions.

Agree weighting between priority areas

See also: Appendix 2: Step-by-step guide: section 6

As outlined in section 5d, for each area considered at the parallel workshops participants gave the intervention that was expected to produce the greatest benefit to the 'typical patient' a benchmark score of 100. That is to say, for each priority area at least one intervention will have a benchmark score of 100. However, when making a comparison across priority areas some of these top-scoring interventions are likely to provide more health gains than others (to their typical patient). At the prioritisation event, participants spend time comparing the expected relative health gain from interventions across priority areas.

Weightings

Stage 1: Improving health outcomes weightings

1. Consider the health improvement for each of the interventions which scored 100 for each priority area for per person health improvement. Which of these interventions has the greatest impact for the typical patient receiving it?

Breast Cancer

Priority areas:	Breast Cancer	Diabetes	Depression	Ovarian Cancer	None entered	None entered	None entered	None entered
Prioritised intervention:	None entered	Diet Regulation	None entered	None entered	None entered	None entered	None entered	None entered
	Go to priority area page	Go to priority area page	Go to priority area page	Go to priority area page	Go to priority area page	Go to priority area page	Go to priority area page	Go to priority area page

2 The answer to question 1 is assigned a benchmark score of 100. Now, consider the relative weighting of the interventions for these priority areas and assess the benefits per patient for the indicated interventions for the other areas relatively. You may wish to refer to the information on that page using the

	Breast Cancer	Diabetes	Depression	Ovarian Cancer	None entered	None entered	None entered	None entered
	Set to 100							
Relative health value	100	85	61	93	100	100	100	100

Experimentation on scenarios with lab

It will be useful to repeat the last stage of the previous workshops by modifying and changing assumptions using the lab. This time, however, the full functionality of the lab can be used, including the weightings process. This should be used to revisit contentious areas, test hypotheses and look at different scenarios.

Next steps

Prior to the end of the workshop, it should be agreed with the participants how the outputs of the workshop will be taken forward, including individuals' responsibility.

Action	Complete
Confirm correct invitees	
Collate the outputs of the previous meetings and workshops in readable fashion	
Quality assure any quantitative material, ensuring consistency	
Gather additional data	
Agree facilitator for workshop	
Test all inputs so far with group	
Agree weightings	
Experiment as group with the lab	
Produce graphical outputs of the prioritisation as created by the Star tool	
Agree next steps as group	

e. Outputs of the parallel workshops

- A prioritised list of interventions completed
- Each listed intervention has a recorded set of information from each relevant workshop
- A set of graphical outputs of the prioritisation from the Star tool
- Buy-in from the set of stakeholders on these outputs
- An agreed set of next steps on how to pursue these further

f. Write-up of discussions

It is helpful to capture the discussions during the workshops and the data inputs that resulted from these discussions. These reference documents will allow you to not only demonstrate the effort that was put into the Star approach, but also to identify challenges and avoid them the next time you conduct a Star approach.

7. Final actions

a. More than just value for money

Star stands for 'socio-technical allocation of resources'. It being a socio-technical process means that it is not a 'black box' calculating machine out of which falls the 'right' answer to all questions of resource allocation. Instead Star should facilitate structured, transparent, evidence-based conversations that yield valuable insights and practical conclusions. As such, Star represents a significant advance on less methodical ways of settling these questions.

Ultimately, it is for commissioners to decide how they use the results. However, a written report outlining the process and any actions which will be taken as a result would be in keeping with the spirit of transparency at the heart of the Star approach.

b. Important final actions

Explore the model with the stakeholder planning group. This includes doing additional sensitivity analysis and investing more effort into analysing different financing options.

Prepare a report for circulation to workshop participants. Also prepare a note to invite their comments on the prioritisation and reflections on the process.

Send the report and recommendations on to the relevant decision making body. It is of course helpful if the Star approach is championed in this, to optimise chances that deviations from the recommendations are made on a fully informed basis.

Inform workshop participants about decisions made on basis of the Star approach.

Set up systems for monitoring and evaluating any agreed investments.

Document the process and any learning points – ie what worked well and what did not. It is particularly helpful if this is done before the next cycle and before people's memories fade.
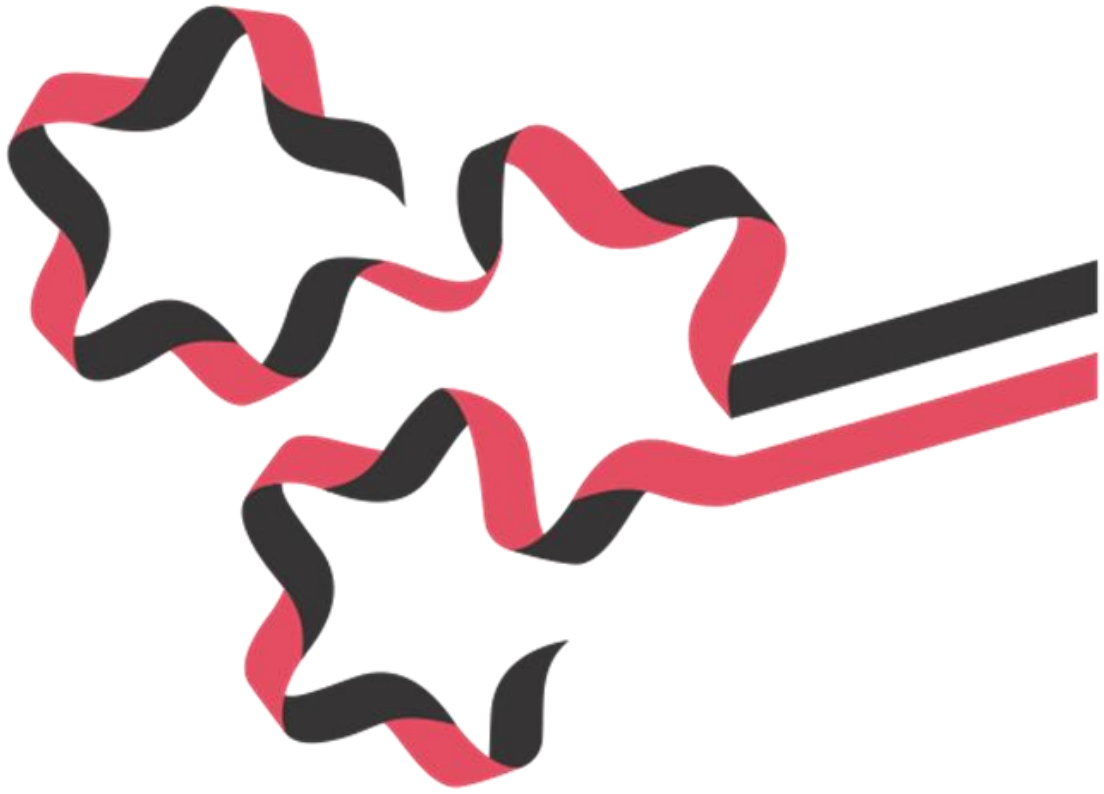
Appendix 1 – the two- and three-stage processes

Two-stage process

Stage	Sub-stage	Process	Expected time
Stage 1: Initial planning stage and kick-off meeting	Before	• Confirm members of the planning group and responsibilities for the Star workshops. • Identify which priority area, pathway or set of pathways are being focused on. • If using an external or peer facilitator, a preparatory meeting to plan process and agree levels of support may be worthwhile.	2 weeks (approx) preparation time
	During kick-off meeting	• Identify key stakeholders and how to include them (including patients/representatives). • Go through toolkit using dummy data. • Agree scope for later workshops.	3-hour meeting
	After	• Meet participants to define interventions and compile a list of information to bring to Stage 2 about interventions.	2–4 weeks
Stage 2: Decision workshop	Before	• Pull together data for workshop using tool. The extent of this is flexible, subject to available time.	
	During workshop	• Workshop with relevant stakeholders using assessment as set out in the toolkit.	Half day or full day as availability allows
	After	• Some improvement of outputs post-workshop where decisions were inconclusive due to specific questions raised or unavailable data. • Uses of the outputs of the workshops are at the discretion of participants – it may be that these are developed into a business case or other material as per organisational procedure.	2 weeks

Three-stage process

Stage	Sub-stage	Process	Expected time
Stage 1: Initial planning stage and kick-off meeting	Before	• Confirm members of the planning group and responsibilities for the Star workshops. • Choose key stakeholders to invite (including patients and/or patient representatives) and communicate purpose and benefits of using the approach. • Identify key challenge to focus on (eg general prioritisation versus addressing a particular area). • Have a preparatory meeting with the facilitator to plan process and agree what levels of support may be worthwhile (eg which meetings are to be independently facilitated).	2–4 weeks (approx) preparation time
	During kick-off meeting	• Go through toolkit using dummy data. • Agree what is to be discussed – including which priority areas to address if relevant.	3-hour meeting
	After	• Meet participants to define interventions and compile a list of information to bring to Stage 2 about interventions.	2 weeks
Stage 2: Parallel workshops	Before	• Pull together best available data, eg cost data, who is being treated, outcomes data. • Agree on who will be responsible for collecting the data. This could be the relevant external stakeholder for each respective priority area or it could be the data analyst.	
	During workshops	• Parallel workshops for each priority area being addressed – using assessment of interventions as set out in the guidance document.	Generally half-day workshops. All workshops likely to take place over 2–4 weeks
	After	• Follow-up to improve outputs where toolkit outputs were inconclusive at workshops due to specific questions raised or missing data.	1 week

Stage	Sub-stage	Process	Expected time
Stage 3: Final workshop	Before	• Collate information from across parallel workshops – pull together in a cohesive and understandable manner. • Choose the right stakeholders for final workshop: key overall stakeholders plus representatives from each parallel workshop.	2 weeks
	During workshop	• Final workshop bringing together key stakeholders from across parallel workshops.	Half day or full day as availability allows
	After	• Uses of the outputs of the workshops are at the discretion of the planning groups – it may be that these are developed into a business case or other material as per organisational procedure.	As required

Appendix 2: Star – a step-by-step guide for users

How to use this guide

This guide will take you step by step through the Health Foundation Star Excel toolkit, with specific instructions on how to use it on a technical basis. The guide explains in what order the approach can best be conducted; what should be inputted; what is optional and what can be left blank if desired. The details of how this fits with process is set out in the accompanying guidance document.

Section 1: Cover

On opening the tool, the first screen you will see is the cover page including the terms and conditions for using the tool. Click the *I agree* button to enable access to the tool.

Note that for the toolkit to be accessible, macros need to be enabled. If they are not enabled – and therefore the *I agree/Quit* buttons may have no effect – then go to the second tab *Enabling macros*. This has detailed instructions on how to enable macros in Excel 2007 and older versions.

Once *I agree* has been selected then three buttons will remain – *Home*, *Guidance* and *Context*. *Home* will take you to the main contents page of the tool from where it is easy to navigate around. The *Guidance* page provides technical explanations of what the tool does, as detailed below, while *Context* is the first input page.

Section 2: General navigation

Throughout the tool, a menu bar at the top provides quick links between the pages of the toolkit. The buttons allow instant links to any other page; or the *Previous/Next* buttons allow for progression through the pages one by one.

At various points in the tool, resources in the form of further information or lists of external data sets are available. This is marked by a *Resources* button, as below. Pressing this button will take you to these resources, generally available at the bottom of the page. The *Back to top* button will return you to where you started.
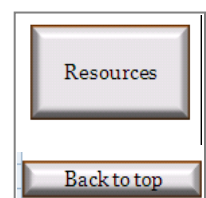
Throughout the toolkit, a colour coding system is in use, as shown below. (Note that some local versions of Excel may use variations on the colour palette, although the colours used will still be consistent throughout the tool.)

- Stage titles are shown in red
- Questions are shown in pink. Further guidance for these questions is shown in pink, with text in italics
- All inputs are in beige
- Where no input is required because of previous answers (eg there is space to discuss six interventions but the user has already indicated that only five are being looked at) then the beige will turn to grey, denoting that this does not need to be filled in
- Where information is automatically updated due to information provided elsewhere in the tool, orange is used.
- Slightly different formatting may be provided in the *resources* pages which are information only and do not require inputs

Section 3: Home and guidance notes

Section 3.1: Home page

The home page graphically shows the structure of the tool and provides quick clickable navigation from one area to the next.

A brief explanation of each area is provided under the shapes to explain the contents.
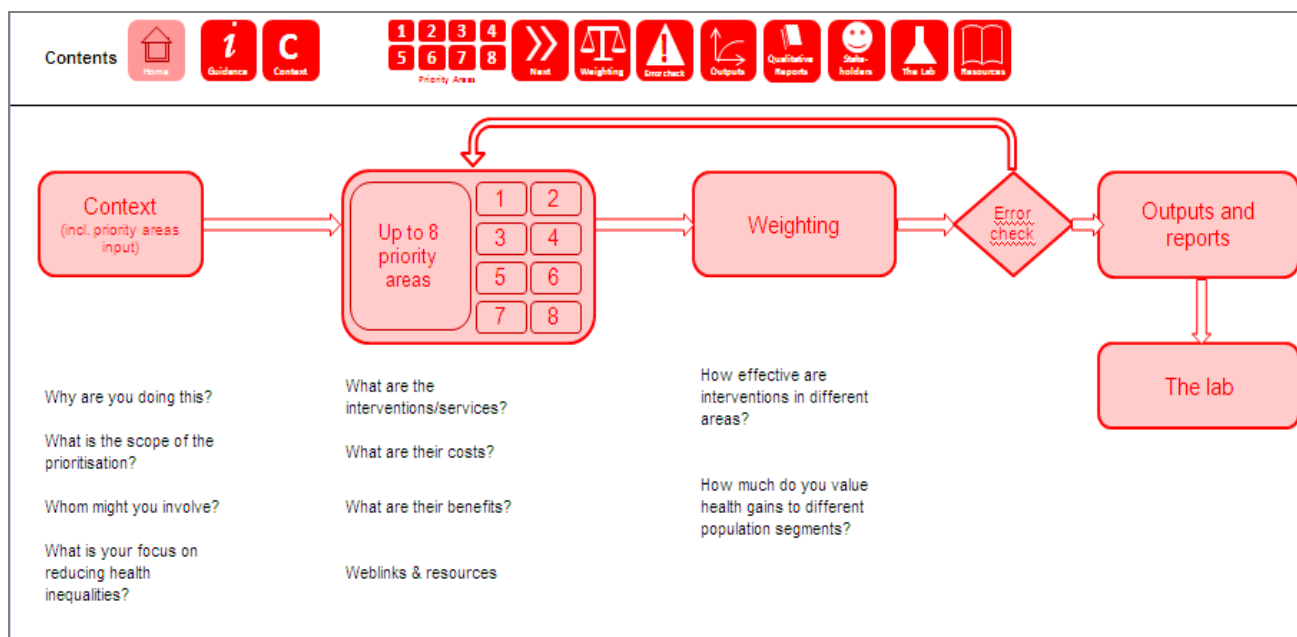
Section 3.2: Guidance notes

The guidance notes tab contains an explanation of each aspect of the tool for quick access if required.

Section 4: Context

The context page is the first page of inputs to the tool. This page, comprising four stages, presents questions that give the context in which the tool is being used. This helps to agree the process being undertaken and to frame the later inputs. It is likely to be completed in the first place by the senior commissioning team, although it may be verified within later workshops.

Section 4.1: Stage 1

The first stage, as shown below, prompts the user to enter the reasons for using the Star tool, thus outlining the context of the entire process. There are a number of settings where an organisation may be going through a prioritisation process, and it is important to get a firm understanding of this at an early stage (and buy-in of this understanding across the organisation).

Note that this question, as with other qualitative questions, will not affect the outputs of the tool, but can be useful for helping to facilitate the thinking about the tool; and by sharing within the organisation can help to forge a shared understanding of the prioritisation that is taking place.

The *Resources* button links to some further content, as shown, that outlines some different potential uses for the tool.

Broadly, this shows how the toolkit can be used across various different scopes of activity (ie it can be used to prioritise between interventions in a single priority area or to prioritise interventions across multiple priority areas). Alternatively, it can be used at different (and indeed multiple) stages of the commissioning cycle.

Section 4.2: Stage 2

The second stage is to complete the identification of the scope of the prioritisation process. Stage 2 looks at the specific service areas that the prioritisation process is covering and this is a key input for driving the rest of the tool. The areas may be fairly easy to identify, particularly if the prioritisation process is being driven by a strategic document, suc as the JSNA.

The drop-down lists provide around10 areas that are common priority areas for commissioning organisations (eg cancer, obesity, diabetes). If you are looking at another area, then listing 'Other' will allow you to specify what this is in the free text box to the right.

Up to eight priority areas can be entered into the tool. These will then be the themes for each of the subsequent input pages, and will also help to provide the right data resources to support this input. If you wish to analyse more than eight priority areas, you can use several copies of the Star tool: for example, mental health could be analysed across eight priority areas in one copy of the Star tool while cancer could be analysed in an additional copy.

Appropriate data sources that might inform this question are available via the *Resources* button.

Section 4.3: Stage 3

The third stage involves mapping the stakeholder groups that will be relevant within the Star process. This will help to inform the decision about who needs to attend any workshops that take place, and who needs to be informed about the workshops or have their expertise drawn upon. As such, it is important that this is conducted at an early stage of the process with the relevant commissioning leadership. It may also be verified in subsequent workshops.

The various stakeholders are inputted using the left-hand column. A series of drop-down lists provides some example stakeholder groups; further down the column there are also free text boxes to allow for additional stakeholders not included in this list.

The next three columns allow for an optional exercise to 'map' these stakeholders, which can help inform the decision of what action to take with each stakeholder. The three columns allow

you to score the influence, support and importance of each stakeholder on a scale of 0–5 with 5 being the most influential/supportive/important.

- **Power** – To what extent does this stakeholder influence our decision making? How much of a steer do they have over our decisions due to, for example, governance, financial, political or relationship reasons?
- **Interest** – How strong is this stakeholder's level of interest for our goal? Are they likely to back our decisions, work with us, show apathy or even be obstructive? It is worth considering what the drivers are behind this stakeholder's interest or lack of interest.

Filling in these three columns may help you to consider the next, and most important column, the actions you need to take with this stakeholder group as part of the prioritisation process. These actions might include the following.

- **Involve in process** – Their knowledge or engagement is key, and they need to be involved in one or more of the prioritisation workshops.
- **Consult with as part of process** – Although not key to the workshops themselves, this stakeholder needs to have some input to them, such as providing data or a viewpoint.
- **Keep informed** – Stakeholder is not required to input into the process but we should proactively engage with them so that they are aware that it is taking place and familiar with what is being addressed.
- **No action** – No specific action required.
- **Other** – Other actions can be detailed in the comments section on the right.

The far right column allows for any additional comments about stakeholders. As detailed above, this may be a specific action or it might provide an opportunity to note down the channels for communication, specific individuals to be contacted and so on. There may also be comments about what drove decisions for the mapping process.

The entries made in this section are displayed in the *Stakeholder* tab (see section 10).

Section 4.4: Stage 4

The fourth stage looks specifically at the issue of reducing health inequalities. These issues will also be dealt with at an intervention-by-intervention level when addressing the subsequent, more in-depth inputs. However, the *Context* section contains some principle-led questions about the commissioning organisation's attitude to reducing health inequalities as a whole.

The key question here is focused around how to give additional benefit to people in poorer socio-economic groups, if reducing health inequalities is one of your strategic objectives. As such, the tool asks you to assume that your population is split into five socio-economic groups, with Group I being the wealthiest quintile and Group V being the most deprived.

Assuming a nominal base level of 100 for Group I, how much additional benefit would you wish for your interventions to affect more deprived parts of your population?

So if, for example, the organisation works on the principle that all patients are equal and that no disproportionate focus should be given to any socio-economic group, then all five groups are likely to be given the number 100. If, however, there is a view that gains to the poorest

socio-economic group are worth twice as much as gains to the wealthiest, then Group V would be given a value of 200, Group I would be 100 and Groups II-IV adjusted as those making the decisions think fit.

Appropriate data sources that might inform this question are available via the *Resources* button.

Again, given that this is a principle-led decision, it is likely that this should be completed by senior commissioning leadership team, with support as appropriate. However, it may be worth discussing these numbers within the workshops because (a) clinicians and other stakeholders in day-to-day contact with patients are likely to have the best view of patient segmentation; (b) discussing this may help to provide greater transparency over calculations; and (c) discussing this may improve ownership over the prioritisation process from the wider stakeholder group participating.

Section 5: Priority areas

Each *priority area* tab (labelled 'PAa1' – 'PAa8') deals with an area with interventions being considered for prioritisation. The identity of each of these tabs is driven by what was entered in Stage 3 of the *context* section.

These areas represent the core of the prioritisation inputs, and are generally filled in during the workshop, as set out in the main guidance notes. There are four stages to this, some split into sub-stages.

The qualitative entries made in this section are displayed in the *Qualitative reports* tab (see section 9).

Section 5.1: Stage 1 – list of interventions

The first stage involves listing the interventions being considered within this priority area. There is also scope to enter comments as to why these have been considered in order to capture any details within the discussion that has taken place.

As part of choosing which interventions should be entered, it is worthwhile considering whether any interventions have been excluded out of hand because they cannot be prioritised in a conventional manner. In this case it is worthwhile to think about an alternative approach on how to prioritise the particular intervention.

The risk that decision makers exclude things which should be prioritised is greater than the risk that they include things which should be excluded.

It may be that a potential list of interventions is considered prior to the workshop. Doing this will then allow for some research about potential interventions to support the workshop and make for better subsequent decisions.

Section 5.2: Stage 2 – key questions for interventions

The second stage contains a number of questions about each intervention. These include qualitative questions that help to foster debate and make the services and the patients using them seem more 'alive', and quantitative questions that help to drive the value for money analysis in the tool.

Stage 2: Key questions for interventions [Resources]	1. Describe a "typical patient" for this intervention	2. Estimate how many people are going to benefit from intervention (# people)	3. Describe the implications of no intervention	4. What would the clinical effectiveness be for the "typical patient"?	5. Identify what could go wrong with implementation	6. How likely will your organisation successfully implement this? (%)	7. Estimate the total cost of this intervention (£000s)	1. Discussing "typical patient" may include demography, health state, etc.: the objective is to ensure (a) all workshop participants have in mind a similar "typical patient" (b) participants are encouraged to think in terms of patients - not just faceless numbers for conditions and interventions. 2. The number of people benefiting should relate to the number of people who are expected to experience an health improvement from the intervention (e.g. cancers detected rather than people screened). 3. Description of the health of the "typical patient" if she/he
Self Examination								
Mammography roll out								
Gen testing for high risk								
Ultrasound for young high								
Hormone level testing								
Smoking and cancer								

- ***Describe a 'typical patient' for this intervention:*** This should, as far as possible, consider a typical patient in terms of demography, health state and so on. The purpose of this question is to humanise the intervention from an early stage. Rather than considering it as purely a matter of costs and benefits, it encourages considering the intervention in terms of patients. Looking at a 'typical patient' also avoids participants thinking in extremes.
- ***Estimate how many people are going to benefit from this intervention:*** This question helps to identify the total benefit from interventions (based on people benefiting from X amount of benefit). It should be the number of people who experience an improvement in their health from the intervention (eg it would measure cancers detected rather than people screened) and assumes that the intervention itself is successful (eg that a specialist clinic is operational).
- ***Describe the implications of no implementation:*** This question seeks to identify the consequences of inaction – the consequences will act as a baseline when determining the strength of the imperative to intervene, as the key driver of health benefits per patient will be the difference between the intervention and no action.
- ***What would the clinical effectiveness be for the 'typical patient'?*** This should, where possible, be quantitative information if available, eg expected QALY gains, compared to patients who do not have access to this intervention. Realistically, such data does not exist for every intervention and in the absence of quantitative information a qualitative description will still be helpful. This is important in gauging the likely value of the intervention.
- ***Identify what could go wrong with implementation:*** Implementation issues could be internal issues such as recruitment, cultural obstacles, technology and funding, or external issues, such as patient take-up rates. These are important in determining the risks involved with implementation and the impact of these risks on value.
- ***How likely is your organisation to successfully implement this intervention?*** In this section you should let participants discuss how likely they think that the concerned organisation is to successfully implement the respective intervention. The figure entered should be between 1 and 100%. The figure captured is very helpful in any further discussions about weighting the benefit of each intervention, but it is not used in the Star tool's algorithm and does not influence the graphical outputs.
- ***Estimate the total cost of this intervention (£000s):*** This should identify the total cost of the intervention to the commissioning organisation. It may be worth considering both the short-term and longer-term costs of this; consistency across the interventions is key. This should be entered as an estimate of cost in £thousands.

None of the above are easy questions, and it is likely that many would not be realistically readily answered by a user picking up the toolkit for the first time. There are three things that can help, however:

- ***The right stakeholders:*** If the right people are in the room, as identified in the *Context* section, then the quality of answers is likely to improve significantly
- ***The right resources:*** Selecting the *Resources* button will bring up links to relevant sources – some specific to the priority area, some general external data sets and some

suggestions of useful internal data sets. This data can be key in achieving sensible answers to the questions

- ***Preparation of data sets:*** If an individual has prepared relevant data sets before the workshops, then discussions can be significantly more informed.

Section 5.3: Stage 3a – intervention prioritisation

This stage requires a judgement to be made based on the facts entered in Stage 2. The decision is which of the interventions entered would result in the greatest health gain for the 'typical patient.' A drop-down menu lists the entered interventions. Health gain might be defined as 'clinical outcomes − harm + experience', but exactly how it should be defined should be a local decision.

In coming to this view it may be helpful to look at relevant demographic data and severity of condition data. Links to some useful guidance and tools can be found in the resources area.

Section 5.4: Stage 3b – comparing the health benefits of interventions – quantitative

Having used the drop-down list to select the key intervention, the person using the tool will next input the what the stakeholder group has discussed in relation to benchmarking the remaining interventions against the most beneficial intervention (using the same criteria as in the previous question).

Whichever was selected as the key intervention should be set to 100 using the scroll bars; and then the other interventions allocated appropriate relative scoring depending on their perceived importance. The *Assessing health benefits* and *Ideas lab* sections of this document should be helpful in guiding you though this decision-making process.

Section 5.5: Stage 4 – reducing health inequalities

The final stage addresses the reduction of health inequalities. This stage is optional and should only be used if you have decided to analyse health inequalities as part of your kick-off meeting. While Stages 3a and 3b were to be answered considering only the improvement in health outcomes and disregarding the reduction in health inequalities, this question (if you decide to

use it) should focus exclusively on health inequalities, disregarding other improvements in health outcomes.

The first question encourages a discussion about how the intervention listed could reduce health inequalities. Again, this should encourage a workshop debate about how much each intervention could actually be used to reduce health inequalities and ensure a patient-centric discussion prior to the following quantitative questions.

The second question considers who the patients are in terms of socio-economic groups. As in the *Context* section, the tool asks you to assume that your population is split into five equally sized socio-economic groups, with Group I being the wealthiest quintile and Group V being the most deprived. It now asks you to consider what proportion of the population affected by the intervention would belong to which group. So while a theoretical intervention that targeted patients completely randomly would be split 20–20–20–20–20, a smoking cessation programme that was only reaching the wealthiest within the population might be 35–35–10–10–10, or a CVD intervention that was expected to affect the poorest socio-economic group might be 15–15–15–25–30. The five groups should add up to 100%.

Although some relevant data sources may exist, it can be very difficult to find reliable data to support the analysis. As such, expert judgement is key, and having clinicians in the room with good oversight of work being done with patients on these areas is likely to be very helpful.

A graph (as below) shows an illustration of who is being affected by an intervention, using the answers to Stage 4b here and Stage 4 in the *Context* tab. This may help to visualise the effects of the reduction in health inequalities.
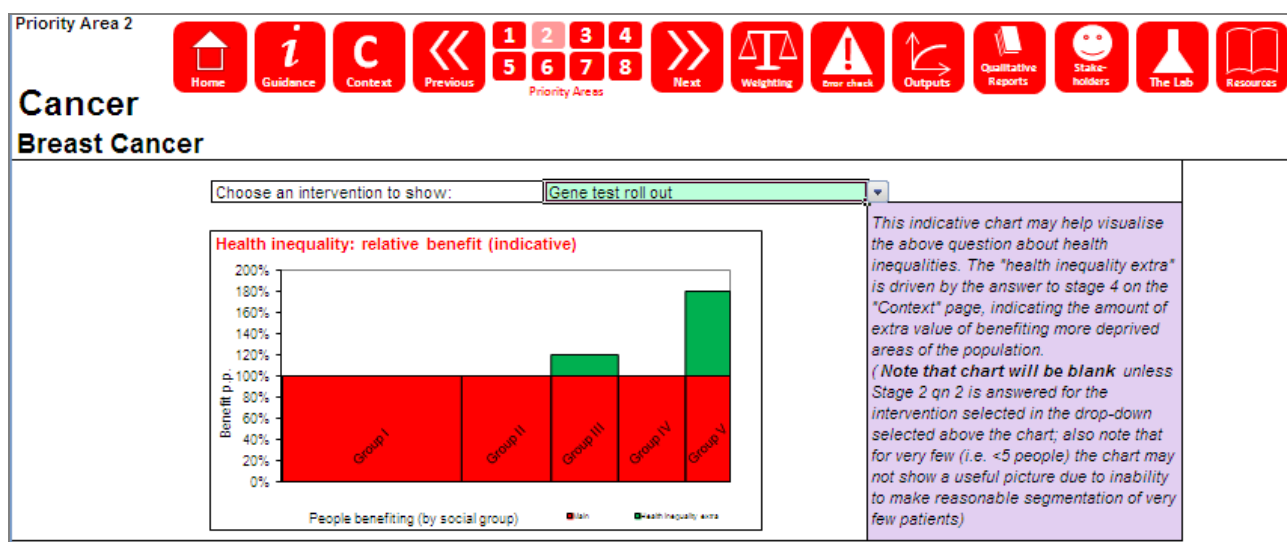
Section 5.6: Resources

Links to relevant data sources are provided that can be useful for a number of the questions. These are split into three: external data sources that are specific to that priority area, more general external data sources, and general suggestions of internal data sources. Note that the external data sources specific to the priority area will only show if one of the 10 priority areas from the drop-down list is chosen in the *Context* Stage 2. If 'other' is selected, then this will be blank and only the general data sources will be shown.

Each of the data sources has:

- the resource name with a clickable link to an external website (please note that while every effort has been made to provide links to useful resources, we have no means of knowing how up to date they are)
- the content of the resource
- how it may be useful within the prioritisation process
- practical advice on how to use the resource from the linked page
- tick boxes on what areas the sources might be useful for.

These tick boxes are key to the usefulness of the resources, as they state the area that the source might help answer. Thus it is easier to focus on the right data sources to help support each question, and also possible to know what research should be prioritised prior to the workshop.

Section 6: Weightings

The weightings page is used only if multiple *priority area* input pages have been used. It allows workshop participants to make comparisons between the different areas, and therefore improve the relative value for money understanding between individual interventions across areas. If used in the final decision conferencing workshop, it also helps to instigate discussion about how inputs were reached in the first round of workshops, and acts as some form of moderation across the different priority areas.

Firstly you are asked to use the drop-down list to select which priority area you would use if you could only implement the initiatives of one area. Secondly, similarly to the process with individual interventions in the *priority area* input pages, you are asked to use the scroll bars to compare the relative weighting of the top scoring interventions from each priority area, first setting the answer to the previous question to 100.

Both of these questions should consider both the improvement of health outcomes and the reduction in health inequalities.

Quick links back to each *priority area* input page are found on this question in order to provide a refresher as to the inputs and discussion that previously took place.

Section 7: Error check

Before viewing the outputs it is worth checking the error page. This will help to reveal obvious errors in input, such as where a required question has not been answered. The pink warning indicates an error.

Error checks

	At least one intervention entered?	Benefit numbers entered?	Feasibility of success entered?	Cost entered?	Intervention priority selected?	Prioritised intervention set to 100%	Quintiles add up to 100%?
PA1		ERROR	ERROR	ERROR			
PA2						ERROR	
PA3	No priority area						

Section 8: Outputs

The Star tool provides a number of charts from the outputs of the tool. There is a degree of flexibility in most of these charts so that the right visual output can be used to help the organisation in its prioritisation decision making.

Section 8.1: Output selection

At the top of the *Output* tab is the main decision as to which interventions will be shown on the graphs. Using the True/False option on the *Show on graph* column, you can choose which interventions will be shown on all the charts below. If you wish to display an intervention on the graph simply select *True*.

Intervention #	Intervention name	Show on graph
1		FALSE
2		FALSE
3		FALSE
4		FALSE
5		FALSE
6		FALSE
7	Self Examination	TRUE
8	Mammography roll out	TRUE
9	Gen testing for high risk patie	TRUE
10	Ultrasound for young high ris	TRUE
11	Hormone level testing	TRUE
12	Smoking and cancer awaren	TRUE
13		FALSE

Section 8.2: Chart 1: Benefits

The Star tool automatically produces graphical outputs. You do not have to select a specific graph on a menu in order to view it: all you have to do is scroll down to see each of the graph types.

The first chart available is the benefits chart. This shows benefit per person against the number of people benefiting from each intervention, so giving a visualisation of the total benefit.

1) Benefits

Do you want the chart below to show benefits per person weighted according to weighting between priority areas (default is yes, these should be weighted if comparing interventions between priority areas but may not need to if comparing interventions within one priority area)
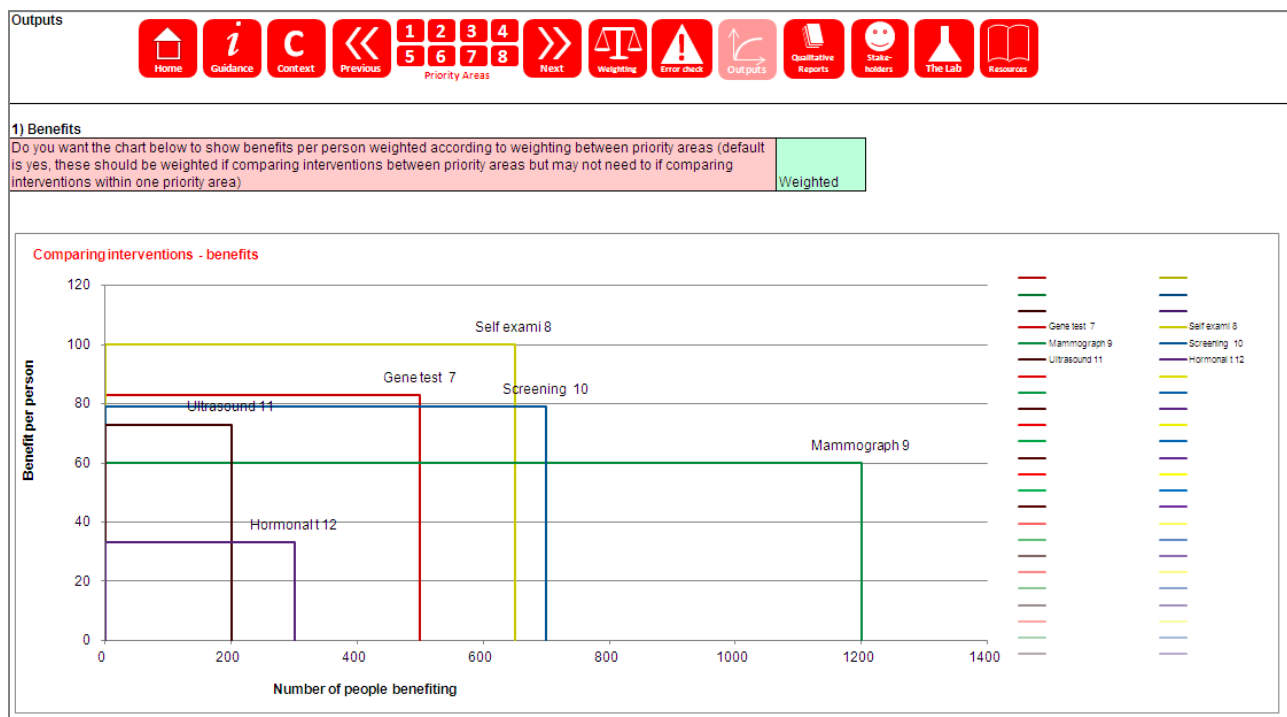
Weighted

The drop-down menu allows for this chart to be shown either as 'weighted' or 'unweighted'. If comparing any interventions across different priority areas, it should always be weighted. However, if you are looking within a single priority area then it is not necessary to select 'weighted', and the unweighted data may be more recognisable to users from their inputs.

As with the other charts, to change which interventions are shown return to the top of the page and change the output selection, as described in the section above.

Section 8.3: Chart 2a: Value for money triangles

Chart 2a shows value for money triangles. These are formed from benefits of the interventions on the y axis (this would be equivalent to the area of the rectangles in the benefits chart) and costs on the x axis. The shape of the triangles gives an indication of the value for money of the intervention, with a steeper gradient representing better value for money.

49
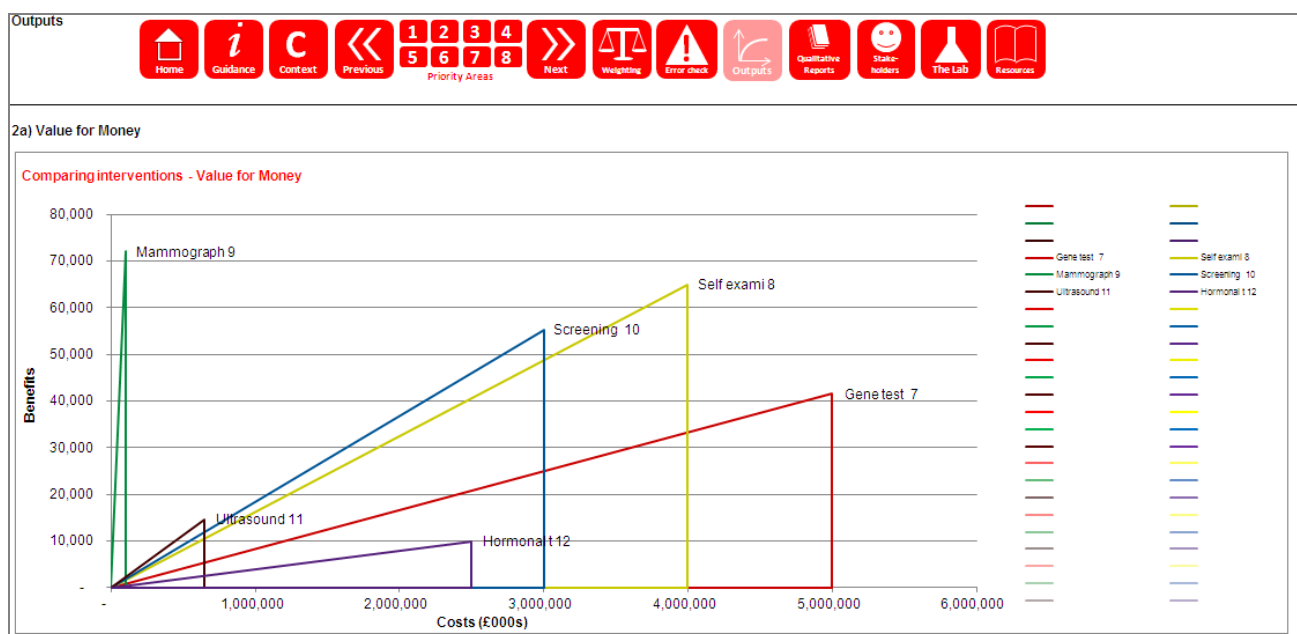
Section 8.4: Chart 2b: Value for money triangles with health inequalities split

Chart 2b shows a similar picture to 2a, but the benefits on the y axis splits out into the benefit from improvement in health outcomes (the bottom section of the triangle) and benefits from reduction in health inequalities (the top section).
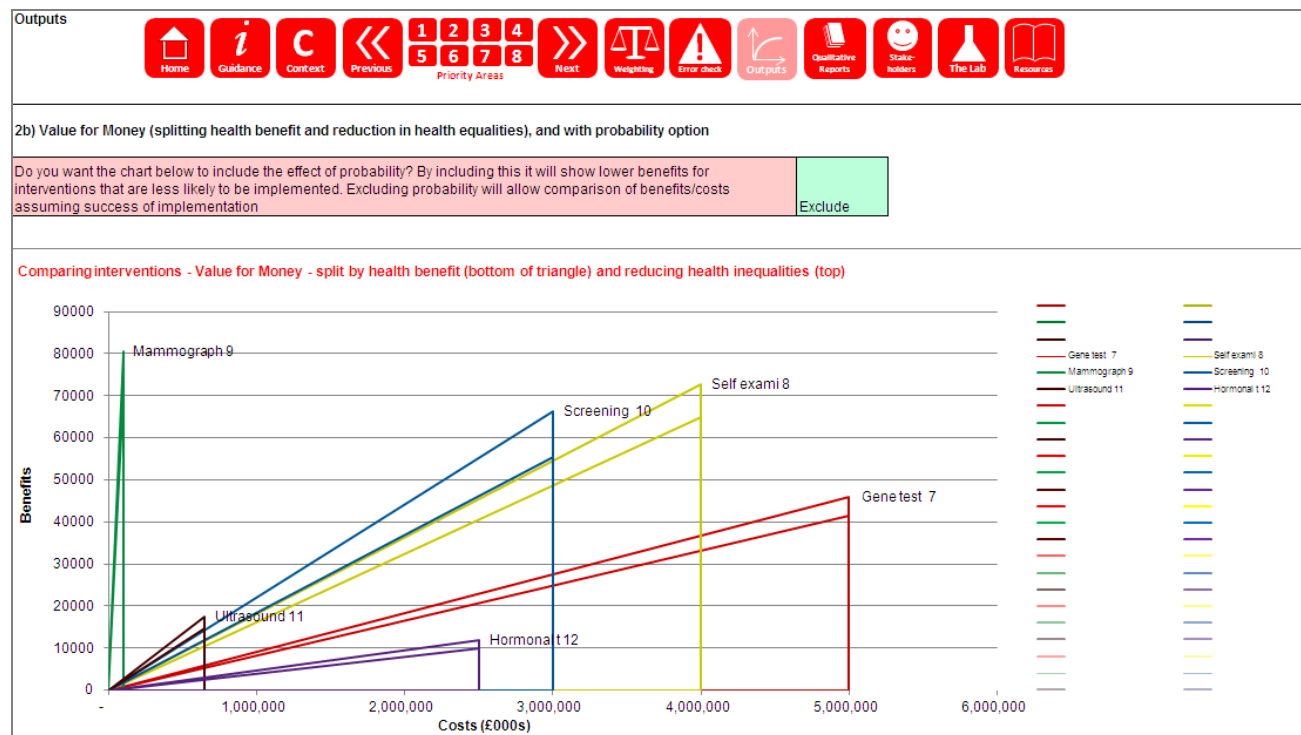

Above the chart there is also an option to include or exclude the effect of probability, that is the feasibility of success (from the priority area, Stage 2 question 6). The default is for this this to be included, as the benefits of an intervention are likely to be tempered if it only has a 90% rather than a 100% chance of going ahead. However, this effect can be removed by selecting 'exclude' if you wish to compare the benefits and costs of interventions assuming that they are successful.

Section 8.5: Charts 3a and 3b: All interventions comparison – value for money and benefits

Charts 3a and 3b compare all interventions (regardless of the selection at the top of the tab) with a simple bar chart. Chart 3a shows the relative value for money of all of the interventions, and orders the interventions by value for money.

3a) All interventions comparison - value for money
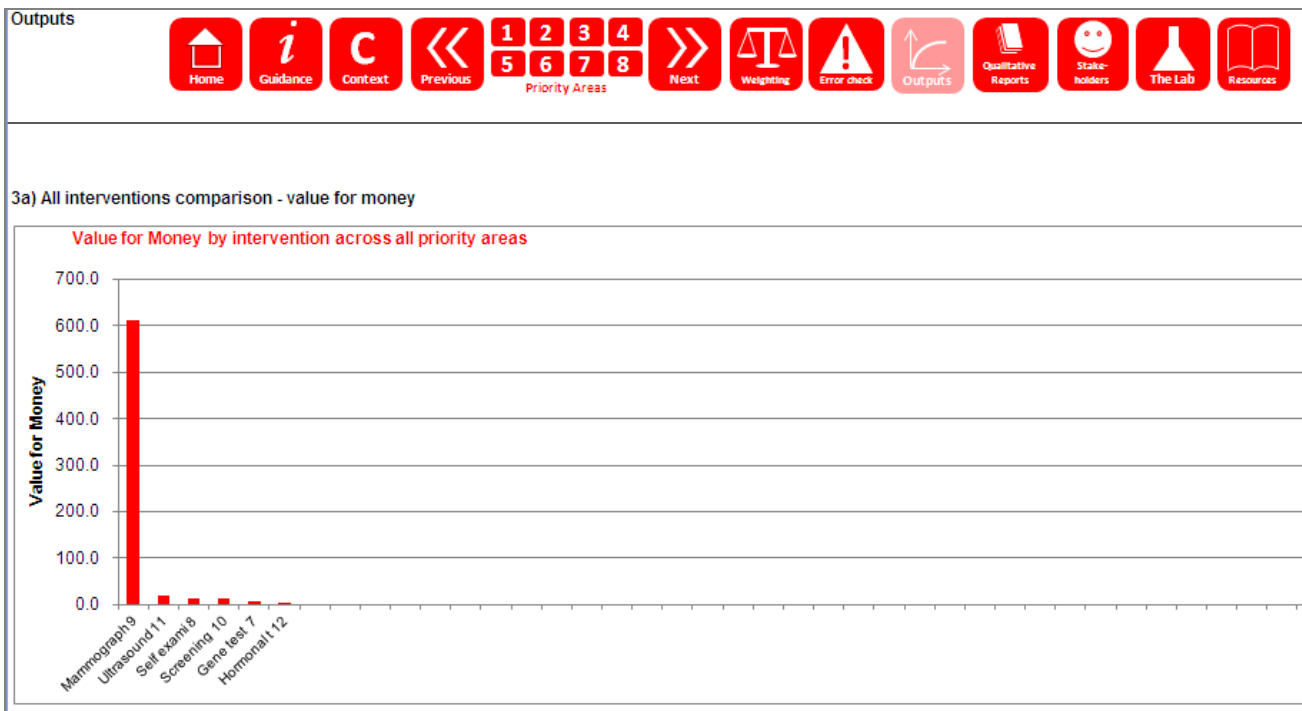
Chart 3b shows the total benefit of all interventions, keeping the same value for money ordering as the previous chart for easy comparison.

3b) All interventions comparison - total benefit metric

Section 8.6: Chart 4: efficiency frontier

The final chart takes the interventions, ranks them by their value for money and shows the value for money triangle for all of them. The triangles with the highest value for money will be on the left-hand side, while the lowest value for money will be on the right.

As well as being a useful image for benchmarking, this can also show theoretical budgeting decisions. For example, if the organisation had a budget of £4m for the interventions being looked at above, then a vertical line could be drawn from the £4m point, with anything to the left of that coming within the budget. This should of course be viewed a trigger for prioritisation discussion rather than being seen as a commissioning 'answer' per se.
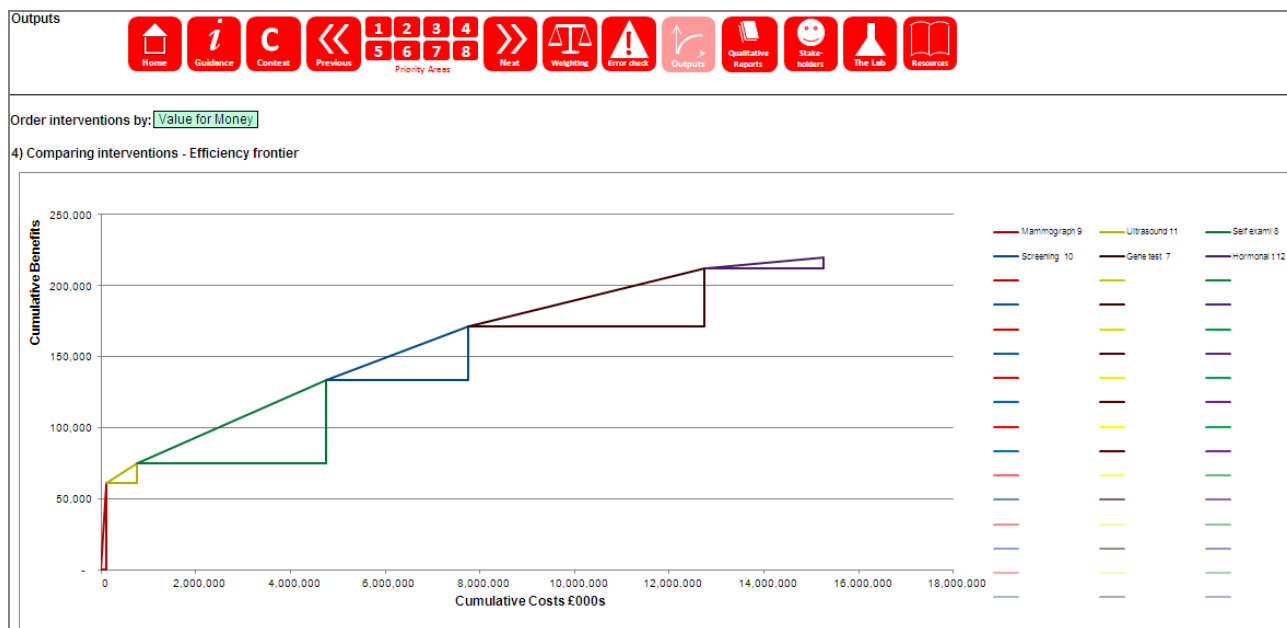
Section 9: Qualitative reports

This section displays all of the qualitative entries from the *Priority area* tabs. It allows comments on each of the interventions for each priority area to be viewed together and compared against one another.

Section 10: Stakeholders

This tab displays the details of each of the stakeholder groups entered in the *Context* section.

Section 11: The lab

The lab provides a one-screen 'sandbox' area to experiment with the toolkit without affecting inputs already put into the tool.
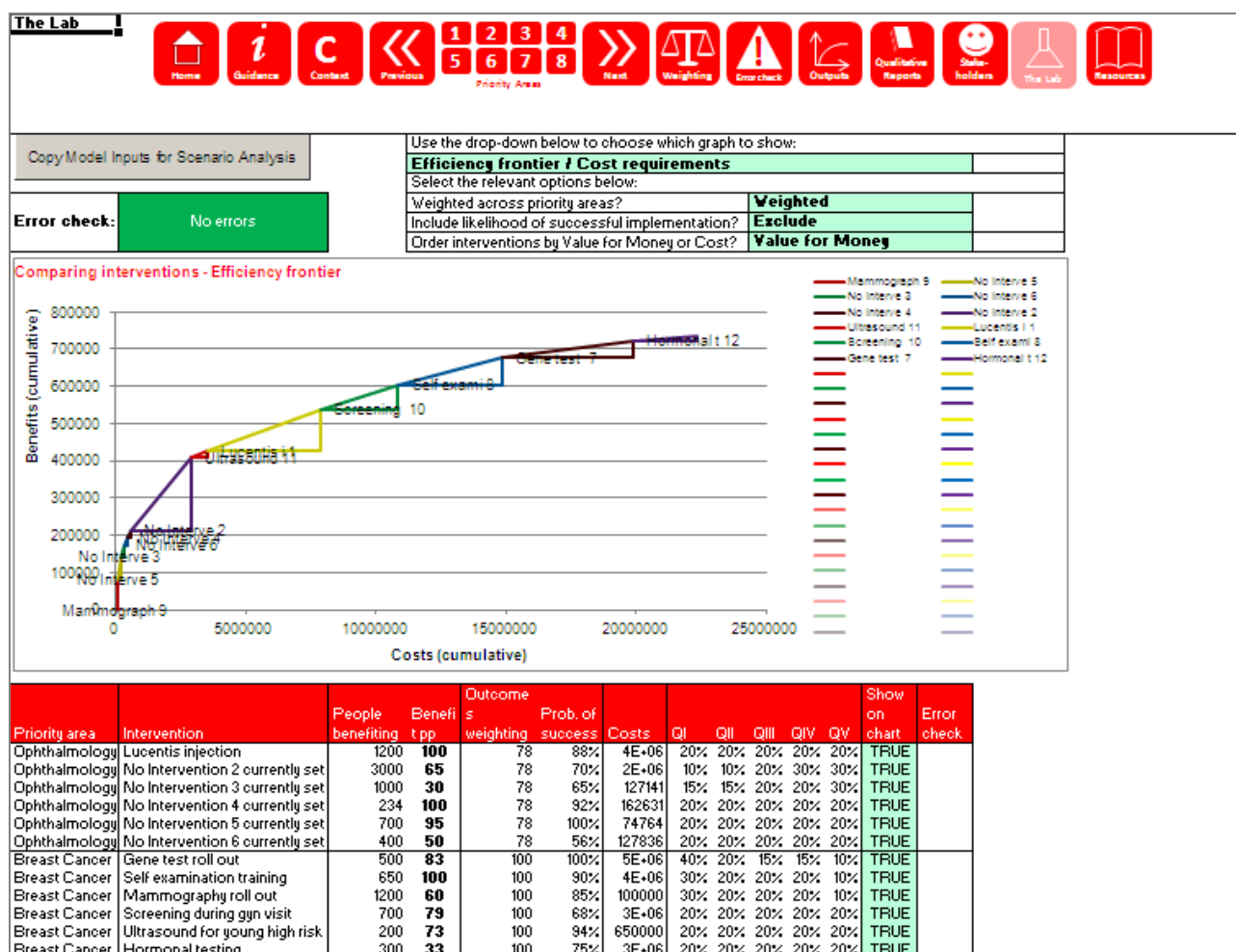
The graph above the table is showing data from the table with the red heading. The graph area can show a range of different graphs by using the drop-down menu: it can show all the graphs that are shown in the outputs page (benefits, value for money triangles, etc).

In a similar way to the outputs page, it is possible to choose which interventions are shown on the graph by using the drop-down lists in the 'show on chart column' of the lab.

The table below the graph shows all the quantitative inputs that go into the toolkit, ie each corresponds with an input in the context, priority area or weighting input:

- People benefiting – this corresponds with the priority area input Stage 2, question 2
- Benefit per person – this corresponds with the priority area input Stages 3a and 3b
- Outcomes weighting – this corresponds with the weightings input Stage 1
- Likelihood of successful implementation – this corresponds with the priority area input Stage 2, question 6
- Costs – this corresponds with the priority area input Stage 2, question 7
- Quintiles size (7-I, 7-II, 7-III, 7-IV, 7-V) – this corresponds with the priority area input Stage 4b. The quintiles bonus at the bottom of the column corresponds to Stage 4 of the *Context* page.

By pressing the button at the top of the page labelled *'copy model inputs for scenario analysis'*, all data entered into the original input pages will be pasted as hard code into the model. Note that immediately after pressing this button, it will be impossible to undo previous actions on Excel.

It is then possible to change any of the inputs in the data table and update the charts on the right in real time. By doing so it is possible to experiment. So, for example, you could see how

an intervention's value for money improves compared to another intervention if you believe that by doubling the cost you can treble the amount of people benefiting from the intervention.

If at any point you wish the data table to be restored to the inputs within the input pages, then clicking the button again will bring this back. This will however lose any changes that you have made.

Given that by changing the numbers on the table a number of impossible scenarios could be inputted, the ;Error check' column will report when a mistake arises. Any errors identified will be further explained above the table.

Section 12: Resources

The resources page is a collation of the resources that appear as links within the *Priority area* and *Context* input pages. It shows the various resources available that appear there, how they can be useful to the prioritisation process, where to find them online and how to use them in practice. It also shows what area of focus each resource is likely to be useful for.

| External data sources - priority area specific				Priorities	Feasibility	Cost	Outcomes	Inequalities	Patient exp
Resource name	**Content**	**Why is this useful?**	**How to use the resource**						
National Diabetes Information Service	Broad selection of tools and data sources from key providers, covering all major elements of the commissioning process.	This provides an excellent source of links to useful data sources on prevalence of diabetes, potential interventions, costing, outcomes, value for money, inequalities and a range of other useful indicators. Other tools are also linked from this page (e.g. Variation in Inpatient Analysis Tool (VIA) and Diabetes footcare activity profiles)	From the linked page, go to "tools and data", then follow links in the table of contents to view a summary of the resource, then follow the external link to go directly to that tool or data source. We would particularly direct attention to the Variation in Inpatient Analysis Tool (VIA) and Diabetes footcare activity profiles. An additional resource that is likely to be very useful may be the "diabetes data directory" which shows which sources might be valid for particular questions	✓	✓	✓			✓
NHS - National Diabetes Audit	Central repository for information on diabetes care within the NHS; includes information on admissions, treatments, quality indicators and (some) outcomes.	Described as an audit "considered to be the largest annual clinical audit in the world", the NDA is designed to assist diabetes commissioning by making information available on all aspects of diabetes care within the NHS. It allows benchmarking of local services against other regions, as well as analysis of need, costs and outcomes.	Follow links on the linked page to the various information sources - the principal source is the NDA Dashboard (available at right). The PCT Profiles and the "NaDIA" Inpatient Audit are also particularly noteworthy.				✓		
NHS - Diabetes commissioning	Comprehensive guide to commissioning diabetes services, including links to external resources, guidance on their use and assistance in interpreting data	This is a very comprehensive resource, providing an excellent base for discussing your commissioning priorities. It provides an excellent gateway into further resources, as well as guidance on how best to use and manage those resources.	From the linked page, the site is organised on a step-by-step basis, with a detailed page on each step of the commissioning process.	✓	✓	✓	✓		✓
YHPHO - Diabetes outcomes versus expenditure tool (DOVE)	Data on expenditure on diabetes care and clinical outcomes, for all PCTs	Allows estimation of the proportion of the local population likely to be impacted by interventions and services in this area, along with costing data, benchmarking and likely health outcomes.	Download the tool from the linked page. In the downloaded Excel tool, use the dropdown lists to select which data you wish to view.	✓	✓	✓			

This page is printable and may be a useful guide to have to hand for the commissioning team or workshop participants.

Appendix 3: Assessing health benefits – a practical guide

Assessing health benefits – a practical guide

The following exercise allows you to build health profiles for the interventions you are considering. If done exhaustively, this is a very difficult task which requires reviewing the literature and engaging with experts in order to fully interpret it. You will need to use the available information and, where necessary, the best estimates of the experts in the workshop to do this.

Try to build some health profiles for the interventions by drawing two lines on each graph to represent quality of life for the 'typical patient' with and without intervention. Each graph should show health profiles for a different intervention.
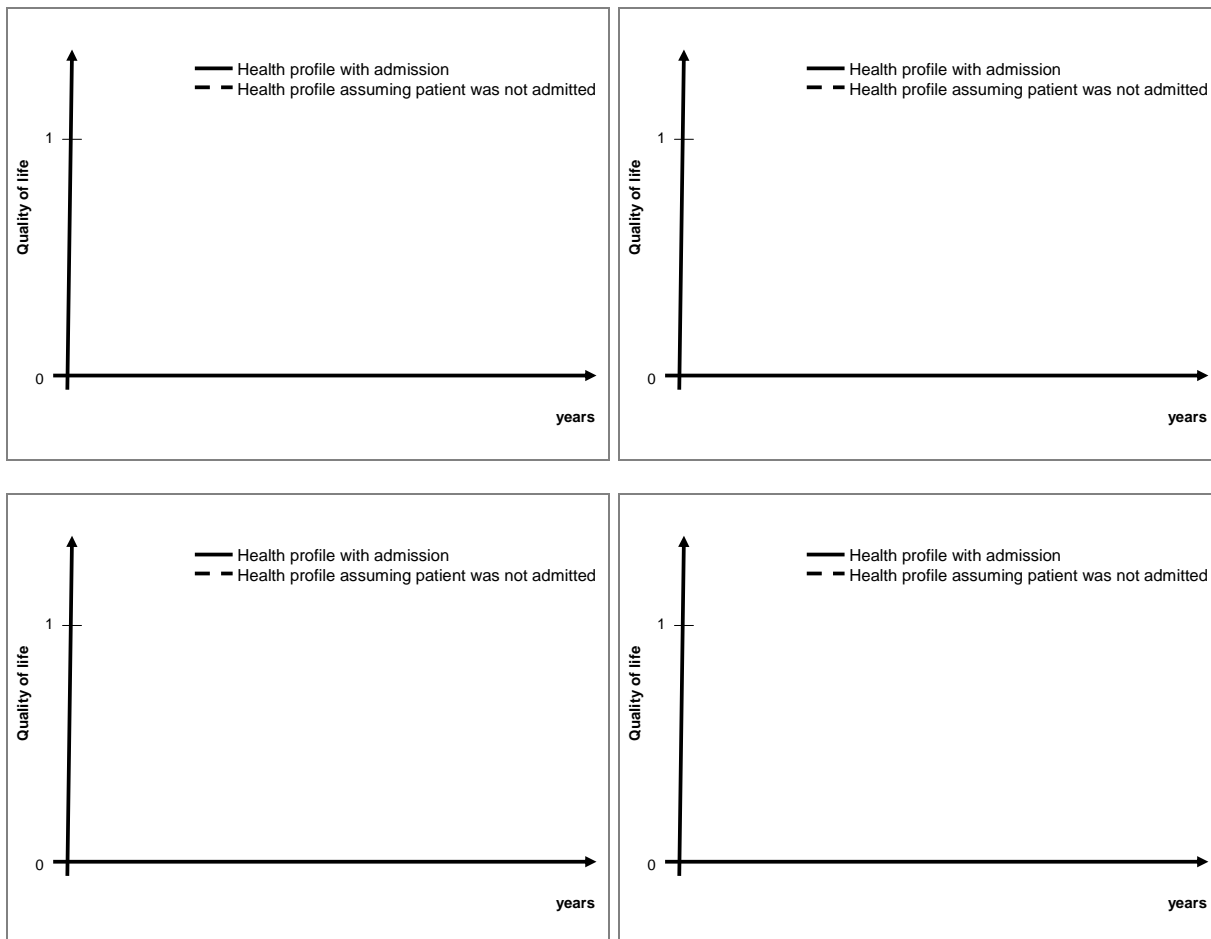
Once you have spent some time thinking about the benefits of the interventions in terms of quality of life, use this to generate some benefit scores directly that will be applicable to the tool itself.

Firstly, imagine a number of different patients equal to the number of interventions you are considering. Each of these patients has the exact same characteristics of the average patient who is about to receive the interventions you are considering. For each one, the intervention is expected to provide them with some benefits compared to not receiving it, either in terms of quality of life or reducing the risk of death.

Think about the benefits each of these individuals is expected to receive as a result of the intervention. As discussed previously, the area in between the two lines may be taken as being representative of the health benefit of intervention. For which of the patients do the benefits appear to be greatest? This benefit should be given a score of 100.

Now, consider the other patients and weigh their benefits compared to the 100 you just gave and a 0 score which means 'no benefit'. If you think a second person's benefit is about half as great as the previous one, then give it 50; if it is about a third, give it 33. It is possible that two interventions give exactly the same benefits and that two will receive a score of 100. Again, your judgement should reflect what is indicated by the graphs you have drawn above. Repeat with the remaining patients.

Intervention	Benefit score on a 0–100 scale

The following charts and table demonstrate how the benefit from an intervention represented by the area between the two lines on the chart may be translated into a score to be used in the tool.
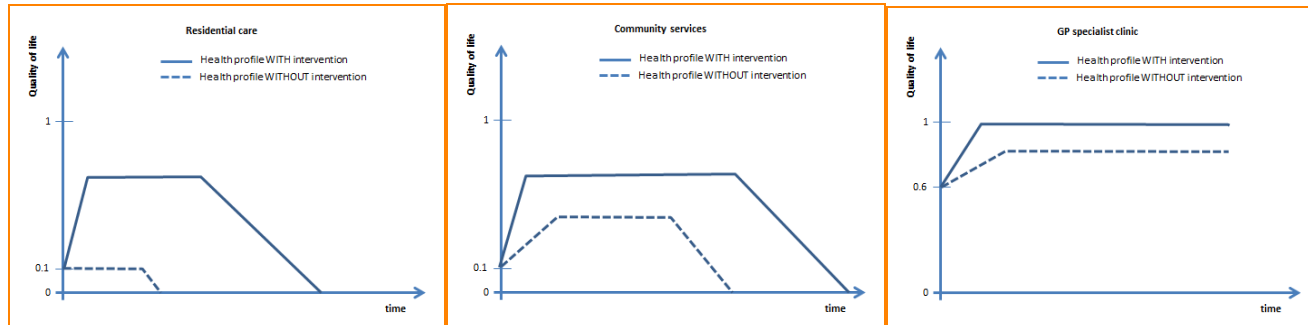
The 'QALY' gain can be calculated measuring the area between the health profile 'with' and that 'without' the intervention. So below, a visual estimate is used with a benchmark of 100 for the largest of the three (residential care).

Intervention	Benefit score on a 0-100 scale
GP clinics	25 units of benefits per person
Community Services for ED	50 units of benefits per person
Residential admissions to specialist hospital	100 units of benefits per person