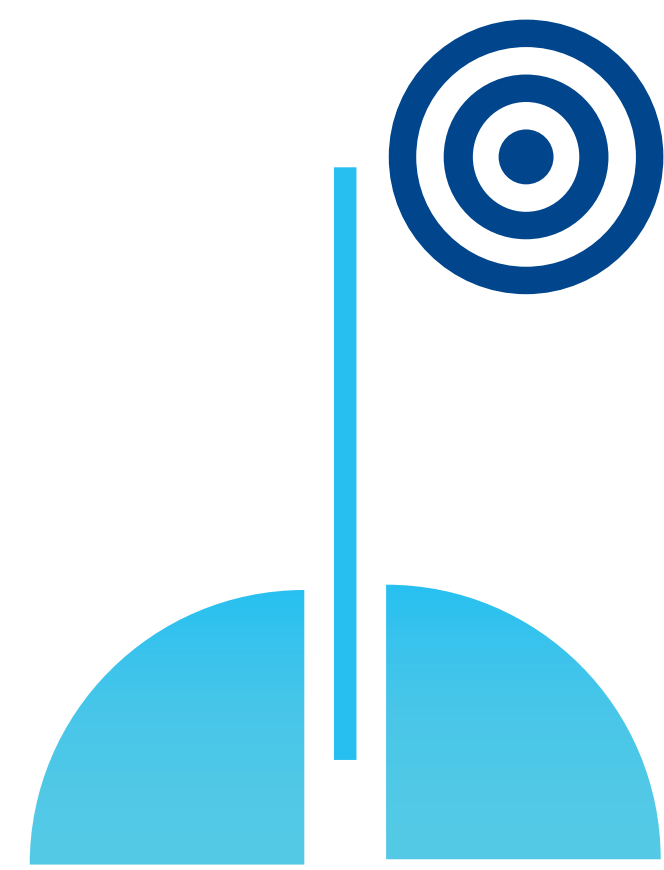


Using the Socio-Technical Allocation of Resources (STAR) approach to support five ICSs to set priorities for the COPD pathway

Introduction

We worked with five integrated care systems (ICS) through 2022 and 2023 to help them set priorities for the chronic obstructive pulmonary disease (COPD) pathway, with a specific focus on addressing the wider determinants of health.



The aims of the programme were to:

- Develop a common understanding of the COPD population in each area, understand the COPD pathway (i.e., the interventions and programmes offered to prevent and treat COPD) and identify the key challenges for COPD prevention and treatment locally.
- Assess the relative value for money of the different interventions in the COPD pathway in each area.
- Create a priority list of the pathway improvements (i.e., interventions or programmes) that could be implemented in each area.

The STAR (socio-technical allocation of resources) approach includes facilitated workshops, called decision conferences, during which numerous stakeholders are asked to discuss and identify the main challenges faced in a specific pathway. This leads to a list of possible interventions which are prioritised using the STAR approach to find those likely to be most cost effective or impactful in terms of improving people's lives and reducing health inequalities.

This is part of our Smarter Spending in Population Health programme which aims to support ICSs and Places to allocate resources more efficiently, through scalable and systematic approaches to resource allocation.

Why STAR?

- In this project, we aimed to support the ICSs to think about the wider determinants of health when allocating resources. We also wanted to develop a methodology for resource allocation that can be applied elsewhere, without the need for external support.
- As ICSs are now responsible for commissioning services for a whole population, they need to engage multiple stakeholders from across the whole care pathway.
- As part of the Smarter Spending in Population Health programme, we aim to promote the use of decision tools that can be applied by ICSs elsewhere. The simplicity and flexibility of the STAR technique made it the most attractive from this point of view.
- STAR, which is a simplified version of multiple-criteria decision analysis (MCDA), was chosen for this programme for its structured approach to including multiple stakeholders in decision making and for its acceptability and accessibility. These make the value-for-money analysis accessible to people who are not health economists. The visual models produced also allow decision makers to articulate a clear rationale for changes to resource allocations.

Methodology

- STAR provides a structured way to bring stakeholders together to think about allocating resources across the entirety of a disease pathway, programme of care or portfolio of investments.
- For each ICS, we facilitated two decision conferences. Before the first decision conference, we:
 - Worked with the ICS to identify the right stakeholders to participate in the process, covering the entirety of the COPD pathway.
 - Held a 'commitment to action' session for decision-makers to give practical demonstrations of how the STAR approach can improved decision-making.
 - Built a pack to prepare stakeholders for the decision conferences, including an explanation of the STAR process, information on the local population, preferences of patients with stable COPD and information on the current COPD pathway and on interventions that can impact the wider determinants of health.
- During the first decision conferences, focussing on the current care pathway, participants gained a shared understanding of the COPD population and pathway and were asked to assess the relative individual health gain, in terms of length and quality of life, for all parts of the pathway.
- A score of 100 was given the intervention thought to give the highest individual health gain (B_i) compared to not receiving the intervention. Zero represents no additional health gain. All other interventions were placed along this scale. This process allowed participants to compare different interventions and consider the trade-offs between them. (Figure 1)
- The relative individual health benefit score (B_i) was combined with the number who benefit (N_i) to create a 'population health benefit score' (PHB_i). This was then compared with costs in the efficiency frontier, a visual representation of the value for money of the pathway.
- In the second decision conferences, focussing on how the pathway could be improved, participants used the findings from the efficiency frontier to design new interventions or improve existing interventions. (Figure 2)
- We then estimated costs and scenarios for the new interventions and assessed how introducing each one would impact the efficiency frontier using 'numbers needed to treat' from the literature, an estimate on costs, individual health gain and the number who benefit. (Figure 2)
- A cost/population health ratio, comparing total additional pathway costs (including savings from things like reduced hospital admissions) and total additional population health gain, was created to support prioritisation decisions. (Figure 3)
- A ratio of 0.5 means it costs 50p for every additional unit of health gain generated. Ratios below 0 indicate cost savings and an increase in population health gain.
- Following this, we produced a report summarising the process and the results for each ICS.

Figure 1 Example efficiency frontier

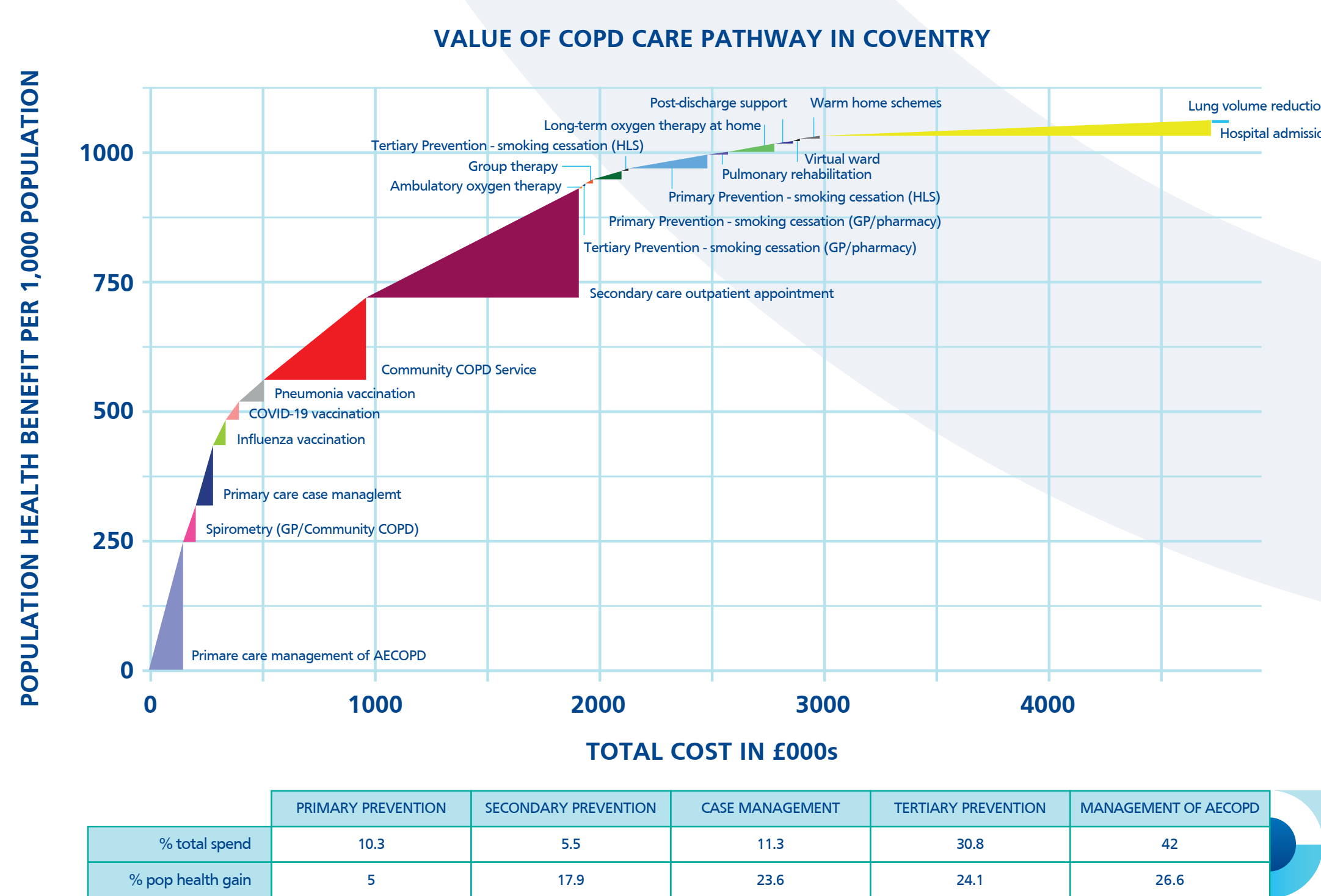


Figure 2 Impact of more effective use of the virtual ward in Gloucestershire ICS

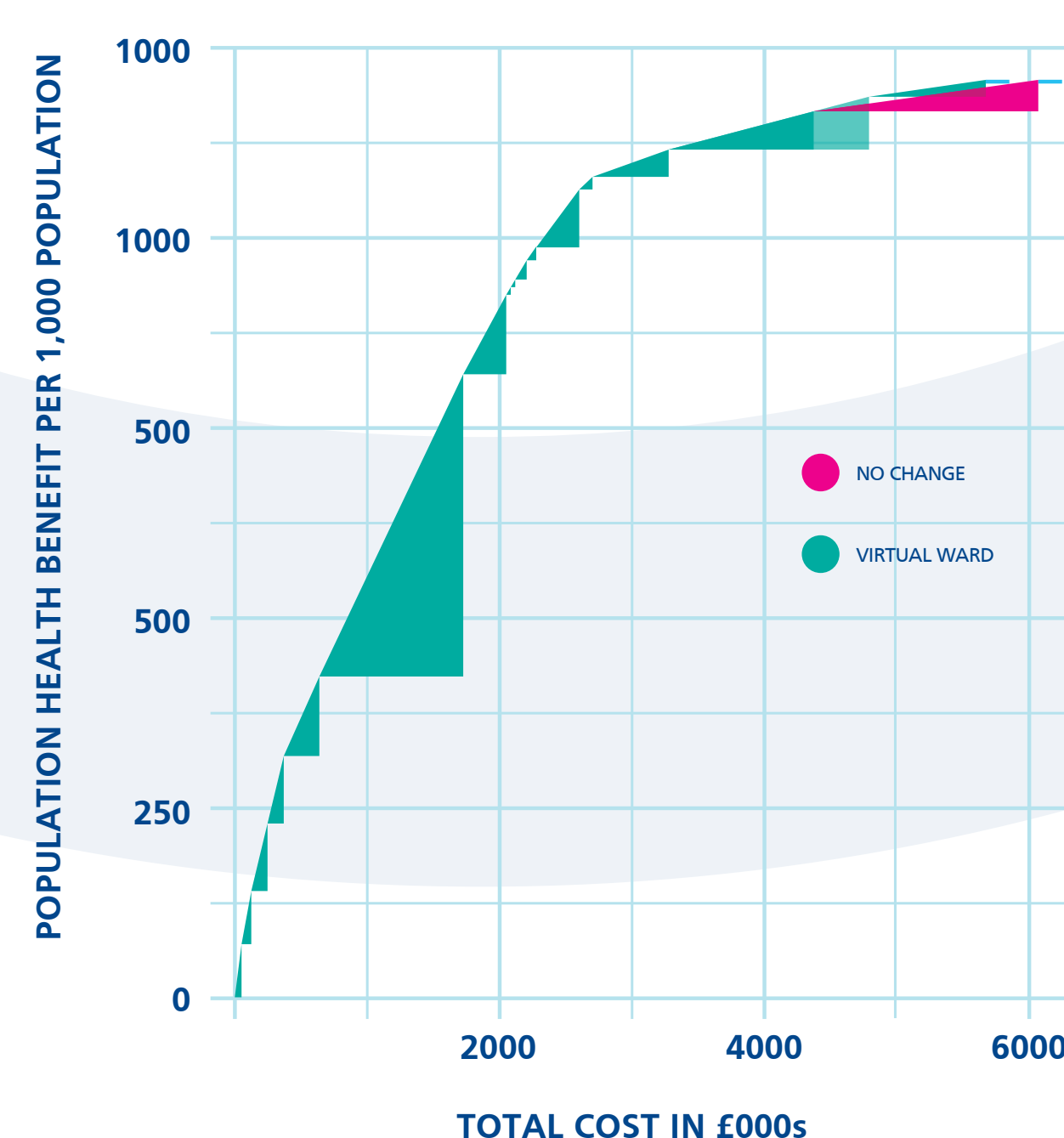


Figure 3 Example prioritisation table from Gloucestershire ICS

Ranking	Pathway improvement (scenario)	Cost Population Health Ratio
1	More effective use of the virtual ward	-19.09
2	Proactive case finding (most optimistic scenario)	-6.87
3	Improving uptake of MIndsong and KIActiv	-0.39
4	VBA for tobacco dependency	-0.03
5	Increasing uptake of PR (online offering)	-0.66
6	Vaping as a harm reduction pilot	0.32
7	Improving uptake of pneumonia vaccinations	0.47
8	MPT management of patients (1 PCN)	1.87

Ranking	Pathway improvement (scenario)	Cost Population Health Ratio
9	MPT management of patients (2 PCNs)	2.25
10	Proactive case finding (most pessimistic scenario)	2.36
11	MPT management of patients (3 PCNs)	2.61
12	Increasing uptake of smoking cessation services	3.00
13	Avoiding fuel poverty	6.67
14	Psychological support for patients	7.97
15	Increasing uptake of PR (improving completion rates in the current services)	11.34
16	Increasing uptake of PR (improving uptake through the standard route)	15.07

Recommendations

The pathway improvements modelled and recommended for implementation in each ICS varied based on their local population and system priorities. In all cases we encouraged the ICS to invest in the pathway improvements that had the best cost/population health ratio to ensure any investment led to the most health generated per pound spent.

Recommendations across the five systems included:

- More effective use of the virtual ward
- Promoting additional respiratory services through social prescribing
- Proactive case finding/increased screening
- Very brief advice (VBA) for tobacco dependency
- Increasing uptake of pulmonary rehabilitation services
- Introducing the myCOPD app
- Increasing uptake of smoking cessation services
- Conducting patients' yearly reviews through group consultations