

# Review of demand and capacity for hospital redevelopments



As many organisations seek to progress their business cases for hospital redevelopments following the announcement of 40 new hospitals by Boris in October 2019, the scrutiny of the New Hospital Programme team grows ever more stringent. They recently commissioned McKinsey to do a review of the modelling underpinning the demand and capacity requirements and consequently the square meterage, the number of beds, theatres and diagnostic facilities as well as the future-proofing the hospital design including consideration of the impact of further pandemics. This review identified a number of focus areas to target and forms the basis of 'roundtable meetings' that are being held with organisations as part of the test and challenge process.

At CF, we have recently been asked to undertake several quick detailed analytical reviews of the assumptions used both by organisations and by their commissioners to support their approvals, in preparation for these meetings. This has built on the fact that regulators considered our work in demand and capacity modelling as exemplary.

We provide an evidence-based, low-cost solution to ensure that redevelopment teams understand the rationale for the assumptions in their modelling, they have been stress tested and compared with our experience across multiple business cases and are data driven with clear analytical explanations. We provide an independent review of the robustness and applicability, acknowledging that in modelling, all changes and levels of ambition should be viewed in aggregate of the overall ambition of the Trust and their system partners, to ensure they are deliverable and understand the interdependencies of the numerous assumptions used when making changes. This includes an understanding of what is within the gift of the Trust to deliver and what requires ICS partners, who would be engaged as part of our project, to work together on further detailed analysis and the development of an agreed delivery framework/methodology.

Our approach underpins this analytical review, working closely with the redevelopment and local modelling teams, high level engagement with ICS partners and where agreed, the regional review teams and the New Hospital Programme team. The output is a detailed report, including the analysis completed, conclusions and recommendations which is iterated closely with the clients throughout the project. We will hold dedicated meetings with the leadership of the programme to walk through the report, the findings and advice for communications with the regional and national teams. As one client described it – 'we want a really constructive challenge of our assumptions and outputs to see if we have a robust basis for our capacity planning and what the potential areas of challenge are'.

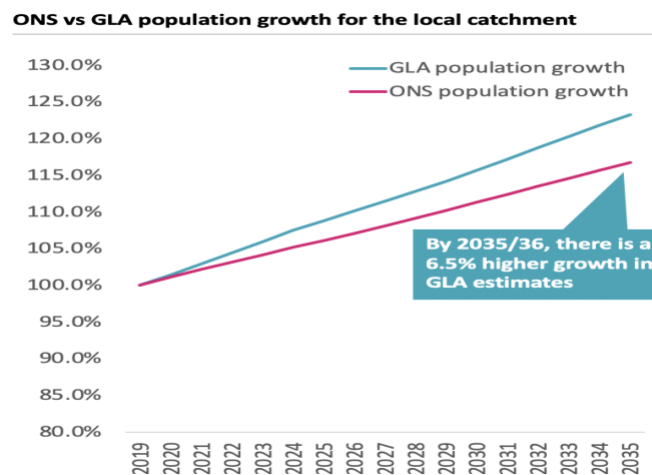
Overall effects of the changes on the bedded requirement for a Hospital in 2035/36

Area	Possible change	Decrease	Increase
Demographic growth	Reduce the Crossrail growth	9	
Inpatient spell avoidance	Reduction based on local CCG benchmarking	27	
<b>Total of recommended changes</b>		<b>36</b>	
Demographic growth	Use ONS growth instead of GLA	33	
Non-demographic growth	No change		
Length of stay – elective	Reduction in elective LoS for >48hrs to best practice, or reduce assumption to top quartile	6	4
Length of stay – non-elective	Reduction in non-elective LoS for >48hrs to best practice	23	
Conversion to daycase / AEC	Ambition is currently high and above best practice seen in other hospitals		11
Inpatient spell avoidance (COVID)	Opportunity indicates a lower value than from the current activity avoidance		6
Occupancy – elective	Increase elective occupancy to 92%	1	
Occupancy – non-elective	Increase non-elective occupancy to 90%	30	
Service reconfiguration	No change		
Critical care beds	No change		

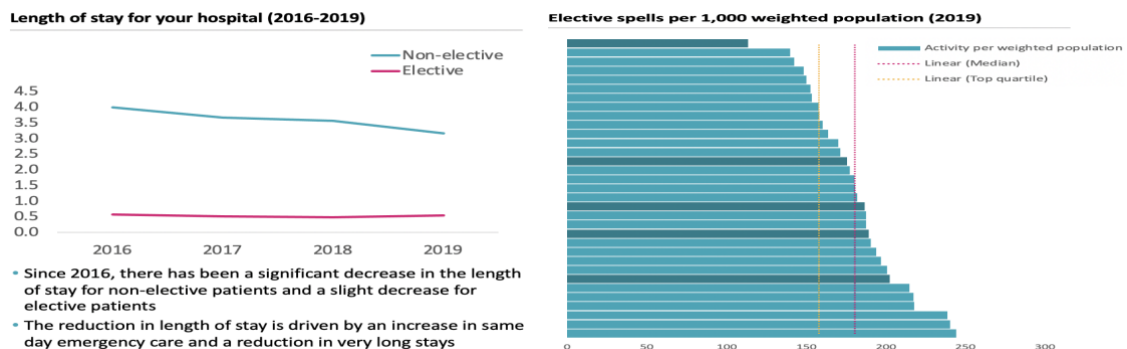
Typically, this type of review is 3 – 5 weeks and cost less than £30k inclusive of any expenses, excluding VAT and can be effectively done working remotely. It will test each of the assumptions underpinning modelling to date to stress test and assess appropriateness. It will not include clinical or operational testing through workshops, although this is something we can provide in addition. The project would be led by our lead Finance Partner, Bev Evans and supported by a dedicated expert consultant. The output is a report which covers the following content:

Contents	
Executive summary	3 – 4
Output tables	6 – 9
Demographic and non-demographic growth	11 – 13
Operational assumptions	15 – 18
Service reconfiguration	20 – 24
Efficiencies	26 – 37
Effects of COVID	39 – 44
Next steps	46

We compare the demographic growth assumptions used:



Length of stay and consequential impact on bed numbers requirement is a key factor:



One client said “I would like to thank the Carnall Farrer team for the work recently completed. The brief required a swift turnaround to meeting our requirements and the team engaged effectively with a wide number of stakeholders to complete the modelling and testing of assumptions required. The work was carried out whilst sympathetically recognising the extraordinary pressures services were under during the winter months. The team came with a good understanding of the requirements and knowledge of the local health system, which enabled them to complete the assignment to a high standard for our local boards to approve.”

If this is something that is of interest to you then please contact Bev Evans, Partner, at [bev.evans@carnallfarrer.com](mailto:bev.evans@carnallfarrer.com) and we are very happy to discuss how we can support you.

