



ROYAL UNITED HOSPITAL SPACE UTILISATION STUDY BATH, UK

As part of a larger project to reconfigure the RUH estate, BuroHappold's Smart Space team have been appointed to assess current performance of the outpatient departments in terms of space utilisation and efficiency. The hospital currently operates under a clinical village model where each specialty has a dedicated outpatient department adjacent to an inpatient ward. While providing some benefits, for example staff accessibility to both in- and out-patients, this model can lead to an inefficient use of space and long walking distances for patients.

An extensive data gathering exercise was conducted utilising data from readily available sources including clinic timetables and anonymised appointment data. This was supplemented with a comprehensive survey of 14 outpatient departments capturing real-time utilisation of clinic rooms and waiting areas, patient profiles, service times and waiting times, during a peak and off-peak period.

The study has helped highlight areas in the hospital where there are opportunities to improve the utilisation of the space, for example by merging departments, and areas where there are currently issues with over-crowding. Additional aspects of performance were also evaluated including patient comfort with respect to waiting times and waiting room density.

Using the data gathered and the understanding of the processes within each department, dynamic models for focal departments have been constructed to test options for merging and to inform the design.

Working closely with the Trust, architects, and contractors, our Consultancy team's role is to help optimise the design proposals in a way that improves space utilisation, efficiency and user experience throughout the hospital.

A major improvement in performance, together with potential savings of over £3mn, is being realised through intelligent

relocation and merging of low utilisation outpatient departments. Our technology is allowing gathering of evidence on space use and 'optioneering' of numerous future layouts to accommodate some departments within the existing space, obviating the need to commission a new building. The result is not only improved space use, efficiency and energy consumption, but also improved staff utilisation and patient experience.

CLIENT
Royal United Hospital Bath NHS Trust

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