

Using field research + parametric analysis to inform medical planning & design

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ABSTRACT: A lot of research has been done on healthcare facilities and a substantial evidence-base is in place. Yet, for every new project, owner and design teams spend an extraordinary amount of time to determine the right configuration, frequently starting from scratch. Although research is considered important, it becomes less “relevant” in the course of the project based on a lack of sync in research and project timelines, and the challenge of contextualizing existing research to the current project scope. In this presentation we will share the development and deployment of a field research + parametric analysis module called a “design diagnostic” that was developed to assess on-site conditions (based on observed, reported and spatial data) and inform the planning and design of the Med-Surg and ICU of a new medical tower. Findings from the research study showed that current work processes were sub-optimal, in part due to the spatial configuration that caused large distances for relatively minor tasks. The research also showed that point to point distance (summarized via a heat map) had to be put in the context of the frequency and sequence of key activities. Design teams used information from the field research, and the parametric analysis of walking distance and visibility, to develop unit configurations, which were then tested in a full-scale mock-up during design development.