Midlands Analyst Network Huddle - Questions raised during the presentation.

Understanding Waiting List Pressures

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Questions raised on Menti

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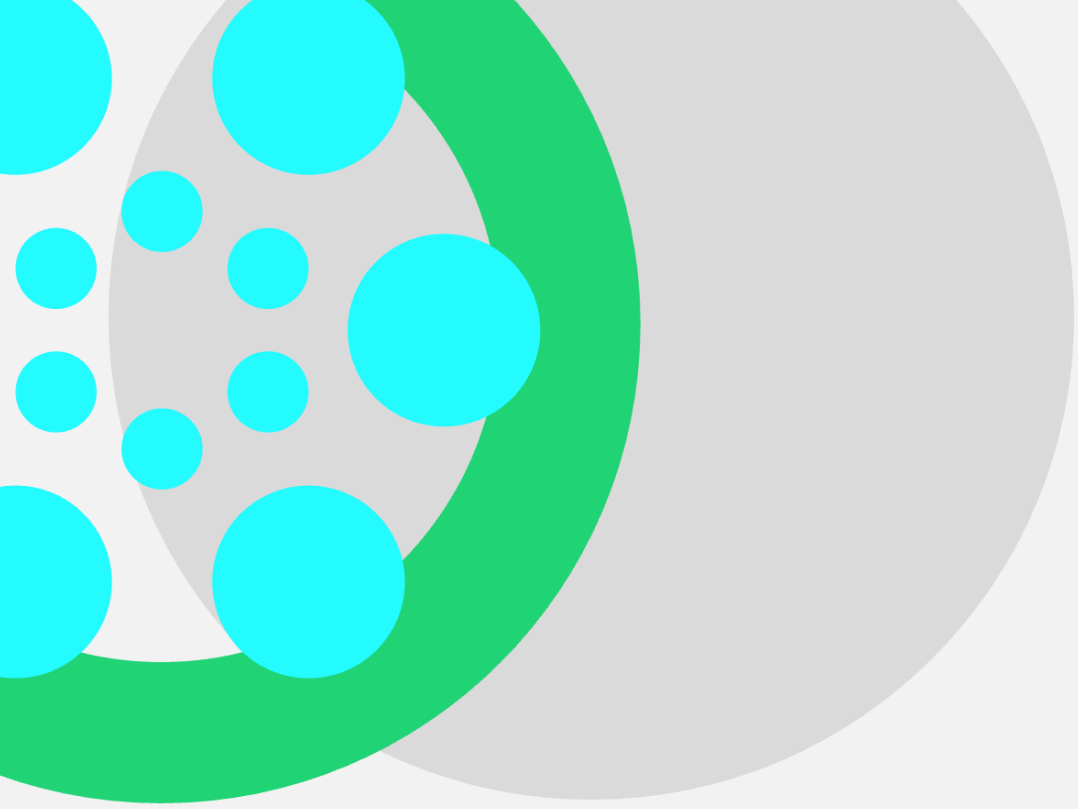
- Do you have any examples of where this has been applied and waiting lists have been successfully managed, targets met etc.?
    - It depends. Primarily to date, this had been a reporting tool. A bit like flight control, there are reports and recommendations that the managers can use or not. For obvious reasons, ultimately, the human is the decision maker. Mostly, the use has been reported to MFT NHS executives who make border decisions. Also, it has helped select patient groups in need of rerouting.
    - On the other hand, if used literally, it would work. I did a calculation for all of MFT NHS, and the calculation was that 15-20% more resource was needed to get the whole waiting list down. (I.e. you want to avoid the carpet problem if you push a bump down that it bubbles up somewhere else; this is one reason for the Pressure metric)
    - I am happy to discuss and work with anyone who wants to implement the advice directly.
- Could we have access to the spreadsheet you mentioned?
    - Darren is looking for mechanisms to share the system; it is a mix of SQL and Excel.
- What coding was used?
    - Initially SQL and R. Then some PowerBI. But ultimately, Excel, as that was the request from management. If there is some demand for it, I will discuss this with the team about putting something together in R.
- You mentioned that low variation is better – and it has dramatic effects on queuing performance. Are there any efforts at Manchester to reduce variation – in Demand (e.g., referring behaviour) and/or Capacity (e.g., less batch working).
    - There should be efforts to have periodic operation slots. However, the capacity management case needs to be won first. Stability capacity above demand is the first-order concern; then, the variance is the next concern.
- The waiting list may also serve as a rationing mechanism, 'hiding' some demand by putting patients off seeking treatment and/or medics referring, and/or patients on the list to renege. Have you seen any evidence yet of demand increasing in response to shorter waits – or is it early days?!
    - We initially analysed movement between priority groups and removal without treatment. It is a factor. At this stage, we simplified this. Indeed, the dip in 17-week waiters is a concern because the government reports a count above 18 weeks. So, there are other factors at play. We have yet to systematically investigate attrition through reneging, though there are models similar to those presented. That would be an excellent next step for certain.
- Are demand and capacity independent - i.e. what is the risk of induced demand?
    - Little's law and similar occur through the mean. So that is fine. Kingman's bound has an extension where is the variance of the sum demand minus capacity in the equation. Certainly, it may be possible to extend if the induced demand is known. We expect the impact on demand and capacity when waiting lists get very big. (People delaying treatment or going private; we have not modelled this as it is hard to measure directly. So, we focus on the demand and capacity measured over roughly three months). There could be an extension to deal with this.

Questions answered by Neil Walton (neil.walton@durham.ac.uk) and Darren Griffiths (darren.griffiths@mft.nhs.uk)

They asked to share their details and welcome any further questions.



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