



Maximising care

Find out how students from London Business School worked with the NHS to improve maternity services and delivery of cancer treatment

With budgets becoming ever tighter, greater efficiency is top of the agenda for all public sector organisations. None more so than the UK's National Health Service (NHS) which has an annual budget of some £113bn, deals with over a million patients every 36 hours and hires more than 150,000 doctors and 377,000 qualified nursing staff.

Among the most famous hospitals in the country is London's St Thomas'

(one half of an NHS Foundation Trust that also includes Guy's), located just by Westminster Bridge with iconic views across the Thames.

But it wasn't the views that attracted Nicos Savva of London Business School. "I hope to identify future research questions to create knowledge that can be generalised," he says. "How a modern hospital organises itself is very well aligned with my research." Like many NHS trusts, Guy's and St Thomas' is an

enormous operation with 13,500 staff and annual turnover of £1.24bn.

Savva wanted to find a partner organisation to work with as part of the MBA programme's London Business Experience element. "The challenge with the London Business Experience is to identify what is useful to the organisation we work with *and* to the students," Savva explains. "Our aim is to contribute something of value in two weeks."

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The bottleneck game

Guy's and St Thomas' provided two highly practical projects. The first was in maternity services based at St Thomas'. The hospital has the capacity to deliver 6,600 babies a year funded by the NHS but, last year, only 6,430 were born there. This has financial implications since the hospital's resources are not fully utilised (and also means fewer parents can take a photo of their newborn with Big Ben behind them).

"There is the need in maternity services to balance two conflicting targets: meeting NHS numbers and avoiding congestion," observes Savva. "This is complicated by finite capacity – the hospital can deliver at most 25 babies per day – and uncertainty over delivery dates as well as drop-out rates (mothers who book to deliver at the hospital but have a miscarriage or choose to go to another hospital)."

The team of 25 LBS MBA students and two PhD students was charged with developing a model to assess the appropriate number of women who needed to be booked in order to achieve the desired goal of 6,600 deliveries a year – while ensuring that the hospital's daily capacity was not exceeded too often. The students interviewed pregnant women and members of the hospital team and examined how bookings were made.

"The students complemented sophisticated analytical models, such as Monte Carlo simulation, with contextual knowledge (surveys and interviews with GPs) to understand the patient journey and identify cost-effective ways to influence more women to consider the hospital as a place to give birth," says Savva.

Among the recommendations that emerged was that the maternity unit needed 145 bookings a week in order to balance the two conflicting targets of maximising resource utilisation while not exceeding daily capacity. The students also recommended that the maternity service was advertised to GPs and increased its online presence, which included setting up a dedicated Facebook group.

Jenny Blundell, general manager of women's services at Guy's and St

The students looked at how the hospital could offer cancer patients a first appointment within seven days

Thomas', who has an EMBA from LBS, says: "What surprised me about working with the students was how quickly they were able to pick up the key issues and to come up with recommendations. It reinforced what we should be focusing on and reassured us in some areas that we are focusing on the right things. Having the ideal number of bookings was especially useful. It was the number we were working to but to have it validated is important."

Rapid care

The second student project looked at how the hospital could offer cancer patients a first appointment within seven days. Guy's and St Thomas' Trust is set a target to see cancer patients within 14 days of them being referred to the hospital and offer them treatment within 62 days from referral. These are national targets and the hospital gynae-oncology service, which cares for women with suspected ovarian, cervical and endometrial cancer, already aims to see patients within seven days.

"This is very important as, of course, cancers can increase in size rapidly so shorter waiting times mean more time for treatment for patients that do have cancer, and less anxiety for patients that turn out not to have the disease," says Savva.

Interestingly, the research by the students found that capacity was not the bottleneck – as is often reported in the media. Instead, the process that converts referrals to appointments was identified as the key. The challenge was to create a streamlined process by which patients could visit the clinic within seven days. In addition, the student team suggested that patients could be streamed more effectively to increase capacity utilisation. The hospital is now working to refine the recommendations and to make seven-day waiting a reality.

Interrogate the data

In addition to tackling these two specific issues, Savva believes that the learning for the students – and for himself – is more broad. "The reality is that people in the hospital are motivated and want the best for their patients," he says. "But people tend to understand their immediate environment. The challenges, as explored by the students, are often a system issue. What's interesting about the NHS is that, unlike other organisations, people largely agree on the issues and system-level data that can help identify solutions exist. There are, however, multiple stakeholders involved so making the most of the information systems in place is difficult and so, too, is getting to what really needs to be done."

Meanwhile, at the frontline where systems and data are converted into treating patients, Blundell believes that such collaborations between academic institutions and practitioners offer real value. "It is very helpful to have someone external coming in and looking at the problem as a whole," she says.

"There is more work to be done on getting the right data, but the important thing the students were able to do was to interrogate the data and then tie it back to how the operational side of the organisation works." ■

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