

Digital Skills and Research Methods (BMSW4003)

Research Skills for Healthcare

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Introduction

This report will look at the technologies used at Guy's and St Thomas' hospital, which has a long history of first-class care, innovative research, innovation, and teaching. As part of one of the largest ongoing investment programs in the NHS, we always have several exciting projects on hand to keep us at the forefront of health developments. Even with all these advances, it is not exempt from dealing with some adversities, so I will report one of the problems that the hospital causes in the summer of 2022 with IT caused by high temperature.

On the other hand, I will also present research and data presented by House Commons on the waiting time to be attended by the NHS service and how it has dealt with this demand.

Different technologies used in the modern health care workplace

Over the years, with the support of technology, the health area has achieved enormous achievements. Guy's and St Thomas' hospital works in research to discover new cures for many diseases and is also one of the most advanced in England and a pioneer in discoveries such as:

Mary Seacole MRI Center

Mary Seacole MRI Center is a new world-class medical imaging center opened at St Thomas Hospital has the newest artificial intelligence technology with clinical MRI scanners to improve patient care and improvement research discoveries.

The new facility will allow an added 7,000 patients each year to be examined by means of the latest medical technology, dipping waiting lists.

The Center is dedicated to enabling new developments in artificial intelligence to be deployed across the NHS to benefit patient care. It is already offering advanced imaging techniques and technologies to scan babies in the womb, diagnose cancer, and treat cardiovascular and neurological sicknesses in adults and babies.

Aquablation

Guy's Hospital is the first NHS center in central London to offer aquablation therapy to help men with non-cancerous enflamed prostates. The medical team at Central London Hospital performed the Aquablation procedure on 10 patients in one day – more than any hospital in the world.

SABR

Guy's and St Thomas' turn out to be the first NHS fund in London to use an innovative radiotherapy procedure to treat a woman's dangerously irregular heartbeat. Stereotactic ablative radiotherapy, or SABR, is an exact form of radiotherapy that is often used to treat different types of cancer.

Virtual reality

The Trust recently hosted Europe's prime virtual reality surgical training event with over 30 junior surgeons from London. Cutting-edge recreation technology allows students to exercise and develop their surgical skills in a safe environment before walking into a real going room.

Research Interest

a) Problem Statement

While doing research on the health sector, I came across some news this year, that one of the largest and most reputable hospitals in Great Britain, Guy's and St Thomas' has recently experienced IT problems that caused several inconveniences with cancellation of several services with this increased the waiting list.

Trust Chief Executive Professor Ian Abbs apologized: "My fellow executives and I want to extend a sincere apology to all those who have been affected by the very serious IT issues we are facing."

Guy's and St Thomas' faced summer 2022 problems after its IT system failed as Britain experienced record temperatures. Both datacentres, one at Guy's Hospital and the other at St Thomas' Hospital, stopped working. The air conditioning units designed to keep them cool failed.

The hospital (GSTT) in London had to cancel operations, postpone appointments, and divert seriously ill patients to other hospitals in the capital.

As a result, the fund's 23,500 employees lost access to the clinical applications they use to store and share information about patients' history and condition.

With this, going a little deeper into my research, I discovered that with the pandemic, the health sector has been facing major problems, many people are on long waiting lists, many of the health and social care sectors have been affected.

The choice of this topic is very important because this problem the NHS has already been facing before 2020, England experienced an increase in demand, together with a drop in performance in the main measures of waiting time, these pressures increased after the COVID-19 pandemic.

b) Research Idea

The NHS has faced a growing waiting list for care even before the pandemic, even after decades of funding arrangements have failed to keep up with rising demand for service and growing staff shortages. A series of sectors have had their performances affected by the waiting time to access services such as: ambulance, cancer, mental health, planned hospital care and emergency services.

Covid-19 has also contributed to increased wait times for care, with many services operating at reduced capacity during the pandemic and pent-up demand being created as large numbers of people fail to show up for care.

As a result of long waits, patients face some discomforts, others see their illnesses getting worse, many cases of cancer being triggered later by long waits in overcrowded emergency rooms, this risky situation for patient safety.

As a result, the four-hour waiting time standard for urgent and emergency services has not been met since July 2015.

Another consequence observed by waiting time is the existence of a significant dimension of inequality in waiting times, with people living in more deprived areas being forced to wait longer for planned hospital treatment. The local health system will have to work to support and customize their waiting lists for these inequalities.

Key wait time standards were routinely breached throughout the year, even before the Covid-19 pandemic. The 62-day waiting time standard for cancer treatment has not been met since 2013/14, the 4-hour waiting time standard for emergency services was last met in July 2015, and the 18-week standard for Planned hospital treatment has not been met since February 2016. (Fund, 2022)

Despite receiving additional funding from health services to deal with demand and piloting new approaches to providing routine care and to alleviate some of the pressures on service, the scale of backlog of care, the pressures on the system and continued workforce shortages will take several years before waits for service decrease and access standards are met again.

c) Methodology for your chosen research

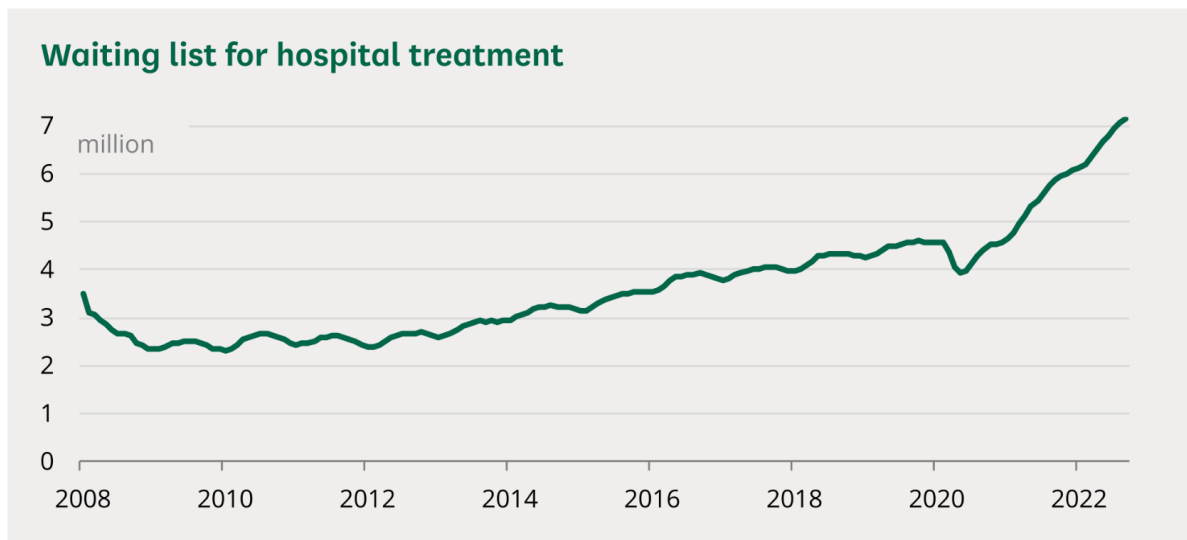
The methodology used is secondary based on a report compiled, gathered, organized by the Commons Library Research Briefing, and published in the UK Parliament in November 2022. Because it is a more economical and faster way to have access to research in relation to the secondary methodology. We can access up-to-date data on how the NHS is doing and look at waiting times over the last few years.

d) Sources

Throughout a short search through the website of the NHS, British Medical Association, UK Parliament, and online newspapers, with the use of keywords such as waiting time in the health system in England, I had access to some of the research and analysis of statistical data Updated monthly with new data.

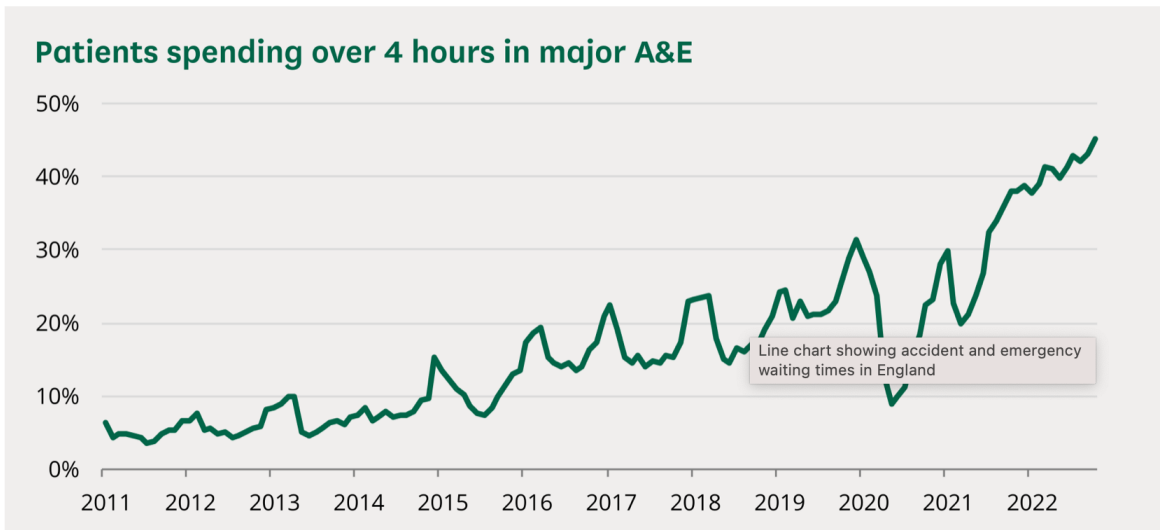
The service areas in which I intend to focus my research are: According to the data presented by the House Commons Library, we can see a summary of statistical data for the NHS in England, some graphs and data that help us to better understand the demand for waiting times in some areas:

- **Waiting list for hospital treatment**

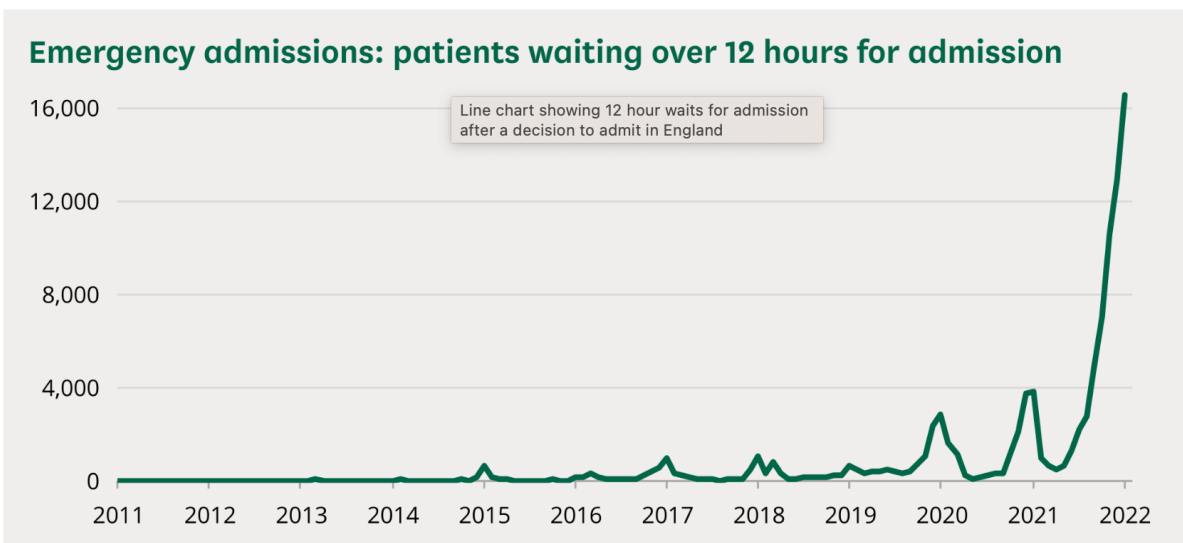


“The number of people on the waiting list for hospital treatment reached a record high of more than 7 million in September 2022. The waiting list has increased consistently between 2012 and 2019 and has increased the fastest since the beginning of 2021. 18 weeks has not been reached since 2016”.(Baker, 2022)

- **Waiting times in A&E**

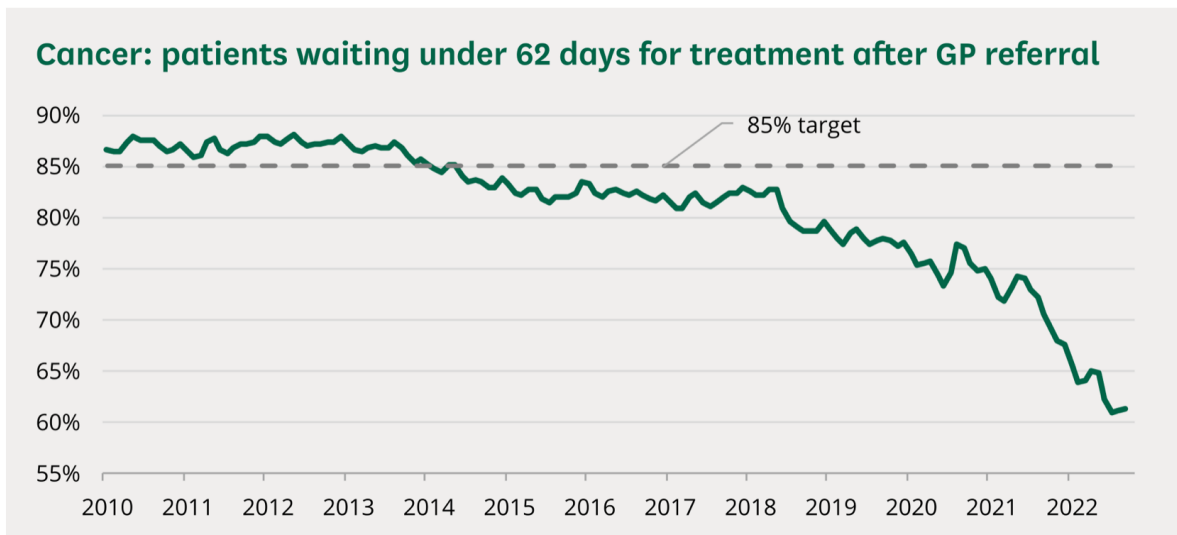


"The number of people going for A&E was above pre-pandemic levels in October 2022. Patients waiting more than 4 hours in hospital A&E became much more common between 2015 and 2020. A new record of 45.2% was reached in October 2022." (Baker, 2022)



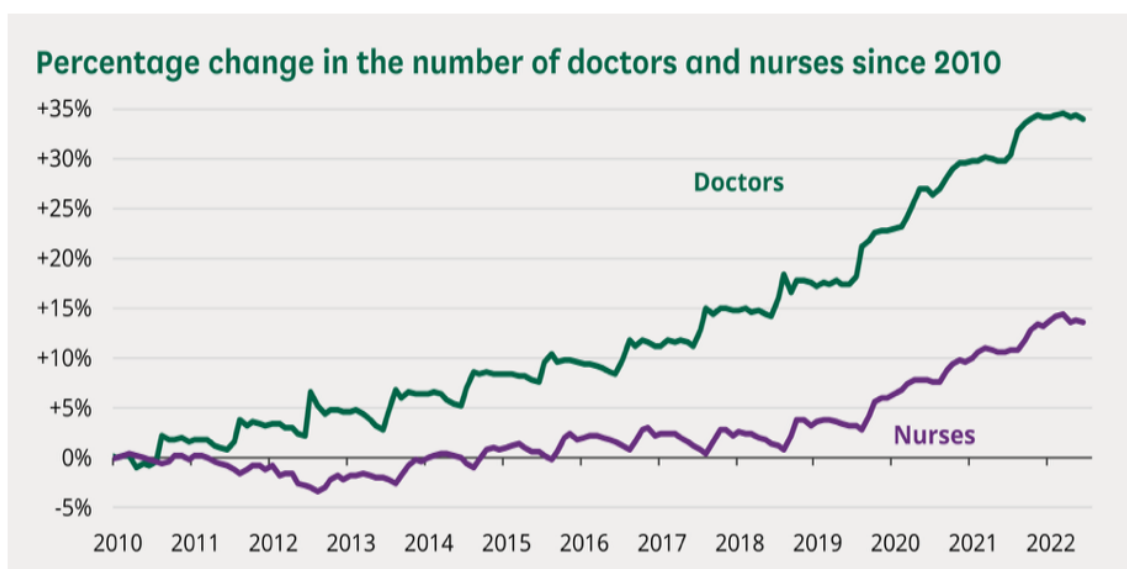
"The number of patients waiting more than 12 hours for admission after a decision to admit has increased substantially over the past two years." (Baker, 2022)

- **Waiting times for cancer treatment**



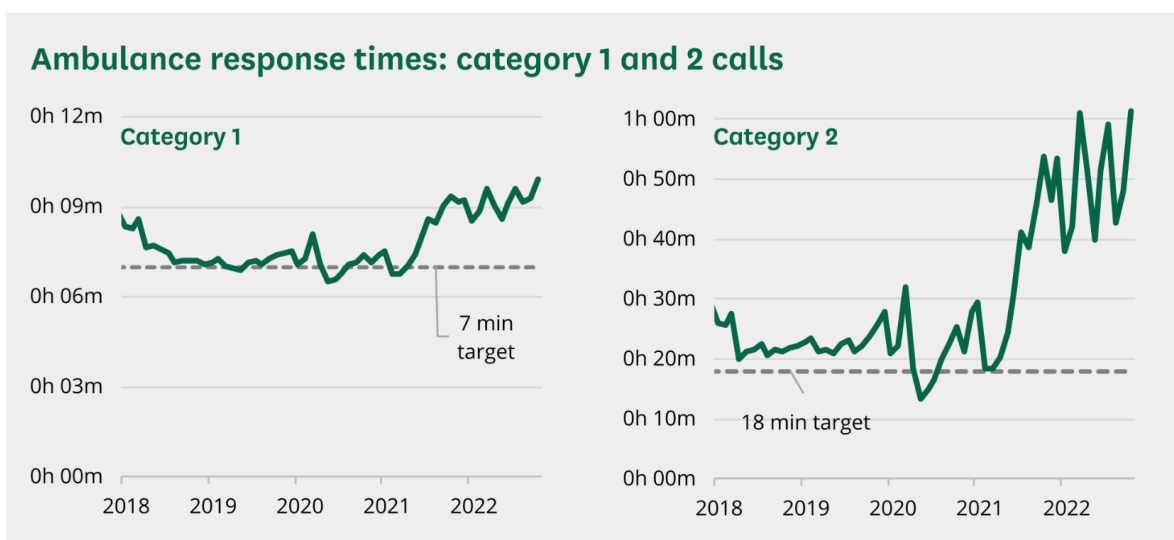
“The standard 62-day waiting time for cancer (measured from urgent GP referral to treatment) has not been met in recent years. Performance dropped between 2013 and 2018. Since the pandemic it has dropped further, with 60.5% of patients waiting less than 62 days in September 2022 (goal: 85%).” (Baker, 2022)

- **NHS staff numbers changed over time**



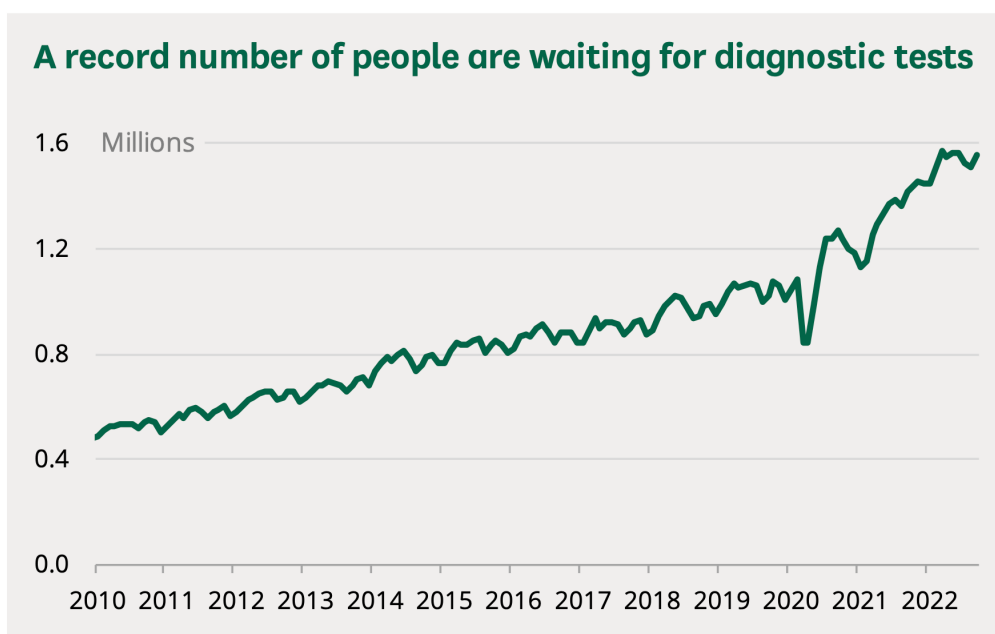
“The number of NHS staff has increased, with the number of doctors up by 14% and nurses by 11% over the last three years. However, the NHS vacancy rate increased from 7.6% to 9.7% last year”. (Baker, 2022)

- **Waiting times for an ambulance**



“Ambulance response times have increased, with the average response to a Category 2 call being over 1 hour in October 2022, compared to a target of 18 minutes”. (Baker, 2022)

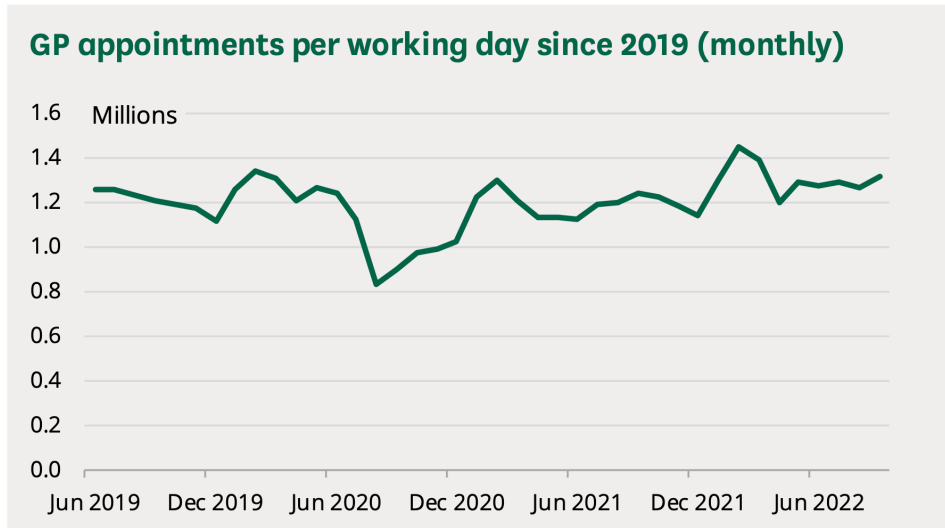
- **Diagnostic and activity wait times**



“As of September 2022, 1.55 million people are on the waiting list for a diagnostic test – close to the record levels reached in March 2022. Three years ago in December 2019, the waiting list was 1.02 million.

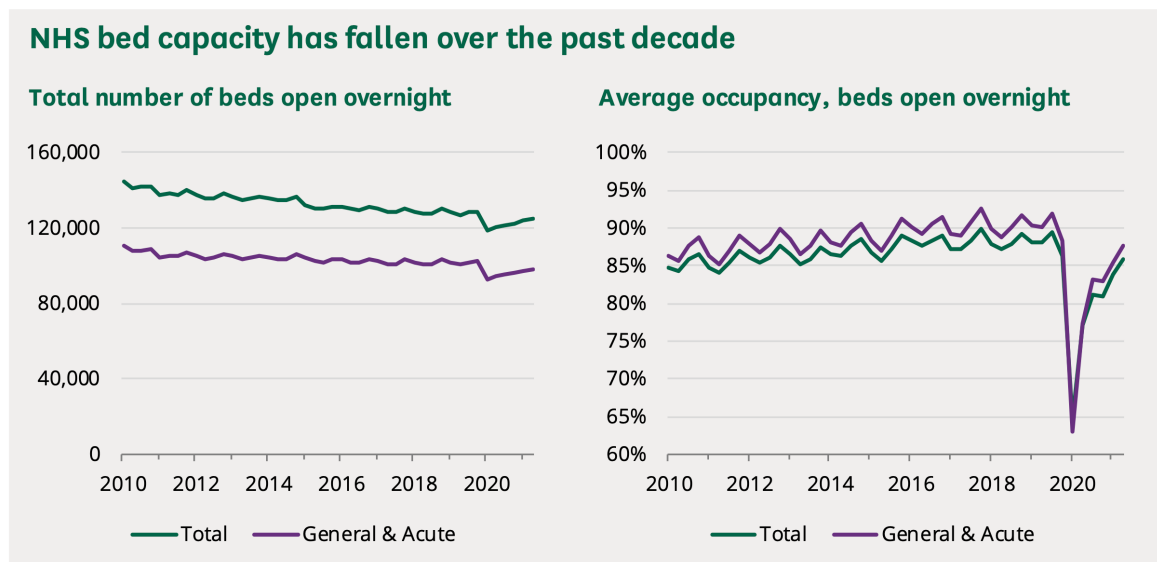
After a dip during the early stages of the pandemic, the waiting list began to rise to unusually high levels in January 2021. The chart overleaf shows trends since 2010". (Baker, 2022)

- **GP appointments**



"The figures shown in this chart are adjusted to add estimates for practices that did not submit data. The chart includes all appointments in general practice (including e.g. those with practice nurses) but does not include COVID-19 vaccine appointments". (Baker, 2022)

- **Availability and occupancy of beds**



"Bed availability fell 6% between 2011 and 2019. There was a further fall at the beginning of the pandemic due to measures put in place in hospitals to limit the spread of COVID-19. Bed numbers have since recovered to pre-pandemic levels. Bed occupancy remains slightly below pre-pandemic levels". (Baker, 2022)

Conclusion

summing up, after observing and analyzing some research and the latest news, we can observe that the health area, despite having made great technological advances and having achieved several discoveries, hospitals in England are pioneers in providing many services. The health service has faced many waiting problems in its first care sectors, even in response to the pandemic.

Now, after the pandemic, the waiting time has increased more and more, because the most serious cases were prioritized, leaving secondary services out of priority.

With this, the data presented and analyzed by the surveys, we can see that even with funding to help this economy, these services still took years to be regularized.

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