



Empowered patients  
Sustainable healthcare

# Seismic changes in emergency healthcare activity

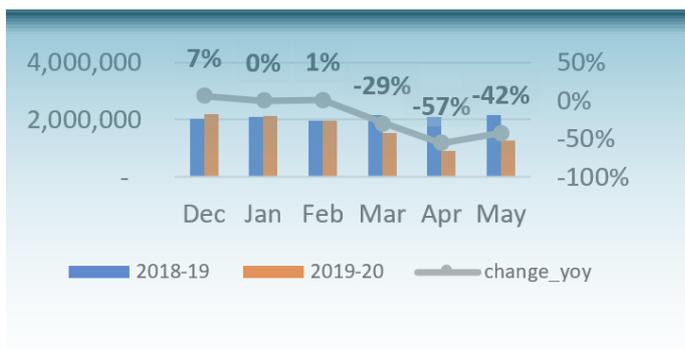
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As someone relatively new to health data, more used to identifying fraudulent transactions in financial services, I have been surprised to see some of the large shifts in long-established trends. Over the last 6 months, England as well as the rest of the world, has been dealing with Covid-19. Infection control protocols have been put in place as the UK Government has responded to the pandemic. With fear of contracting Covid-19, people have changed their behaviour in accessing healthcare, as have many services in providing it, and this is particularly evident in the unscheduled care monthly data. Years of upwards trends have been reversed in a matter of weeks.

### Attendances

Compared to the same period last year, the total number of A&E attendances for all types has dropped by 21%, an unprecedented fall after many years of sustained increase; in fact, the last recorded drop was in back September 2017 when there was a 1.7% year-over-year (YoY) decrease.

The graph below shows A&E attendances



We can see how the pandemic has had a central role in this decrease by comparing the number of attendances before and after the start of the pandemic. The three months prior to the UK lockdown (December to February), the number of attendances saw a slight YoY increase (2.5%), while during the months March to May, we notice a sharp fall of 42%, compared to the same period last year.

By assessing the different categories of services provided by A&E departments, we see a YoY decline in attendances over the past 6 months (December 2019 to May 2020):

- Type 1: Consultant-led clinics for the worse emergency cases, register the lowest decrease at around 17%.
- Type 3 and 4: Clinician-led minor injury units, walk in centres, show as 26% decrease in attendances.

This supports the hypothesis that the lower acuity attendances have declined, but there have also been worrying reports of the decline in acute cardio-vascular presentations. This is a concern and may cause excess deaths and poor outcomes if untreated.

### Admissions

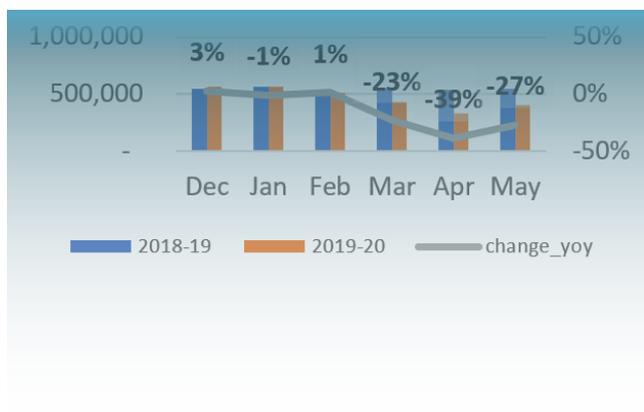
Similarly, we see a reduction in admissions, although lower compared to attendances. There were 470,000 fewer admissions in the past 6 months compared to last year, which is a

decrease of 14%. This is the first decline in admissions since February 2017, when we registered a 3.3% fall compared to the previous year.

Interestingly, because of Covid-19, the conversion rate depicting the ratio of people admitted to the hospital after attending A&E from March to May 2020, has only increased to 31%, which is 6% higher compared to the same months in 2019 (25%).

With the reduction in attendances and the fact that only the most acutely unwell patients would still go to A&E in the pandemic context, this could have been much higher and represents the substantial efforts within the NHS to establish effective community pathways.

**The graph below shows emergency admissions**



However, fewer attendances and admissions has resulted in quicker turnaround times for patients. Our analysis shows that the percentage of A&E attendances that were transferred or discharged in less than 4 hours from admission has risen to 89.4%. This is more than a 4% increase compared to the same period, March to May in 2019 (85.1%).

## Conclusion

The data clearly demonstrates that through the combination of Covid-19, the UK lockdown and changes in population behaviour, there has been a significant reduction in A&E usage. This has allowed for some 'social distancing' within A&E Departments and although it's too early to say what the longer-term trends will be, with initiatives such as 'talk before you walk', this could very quickly establish an entirely new baseline and time series.

### **About HN**

HN is a data driven health-tech company, specialising in AI guided patient identification, remote clinical coaching, customised home monitoring and virtual ward solutions.

Established by clinicians and researchers at Karolinska Institute in Sweden, the company moved to the UK in 2015. We focus on the practical application of population health management by identifying high-cost, high-need patients, and supporting them to improve their outcomes and reduce their care consumption. HN has collaborated with the Nuffield Trust on a randomised controlled trial of AI guided clinical coaching within the NHS with excellent results.

Working to support the NHS Long Term Plan, our powerful analytical solutions and tailored care plans improve the health and wellbeing of patients, whilst creating more sustainable health and care systems. [hn-company.co.uk](https://hn-company.co.uk)

### **About Federico Nagy**

Prior to working at HN, Federico worked in data consultancies, telecommunications and FinTech companies. Originally from Italy, Federico has a MSc in Statistical Sciences from the University of Milano Bicocca.

For further information, please contact [Angela Bambridge](#).