

A Year Like No Other: The Eighth SSNAP Annual report

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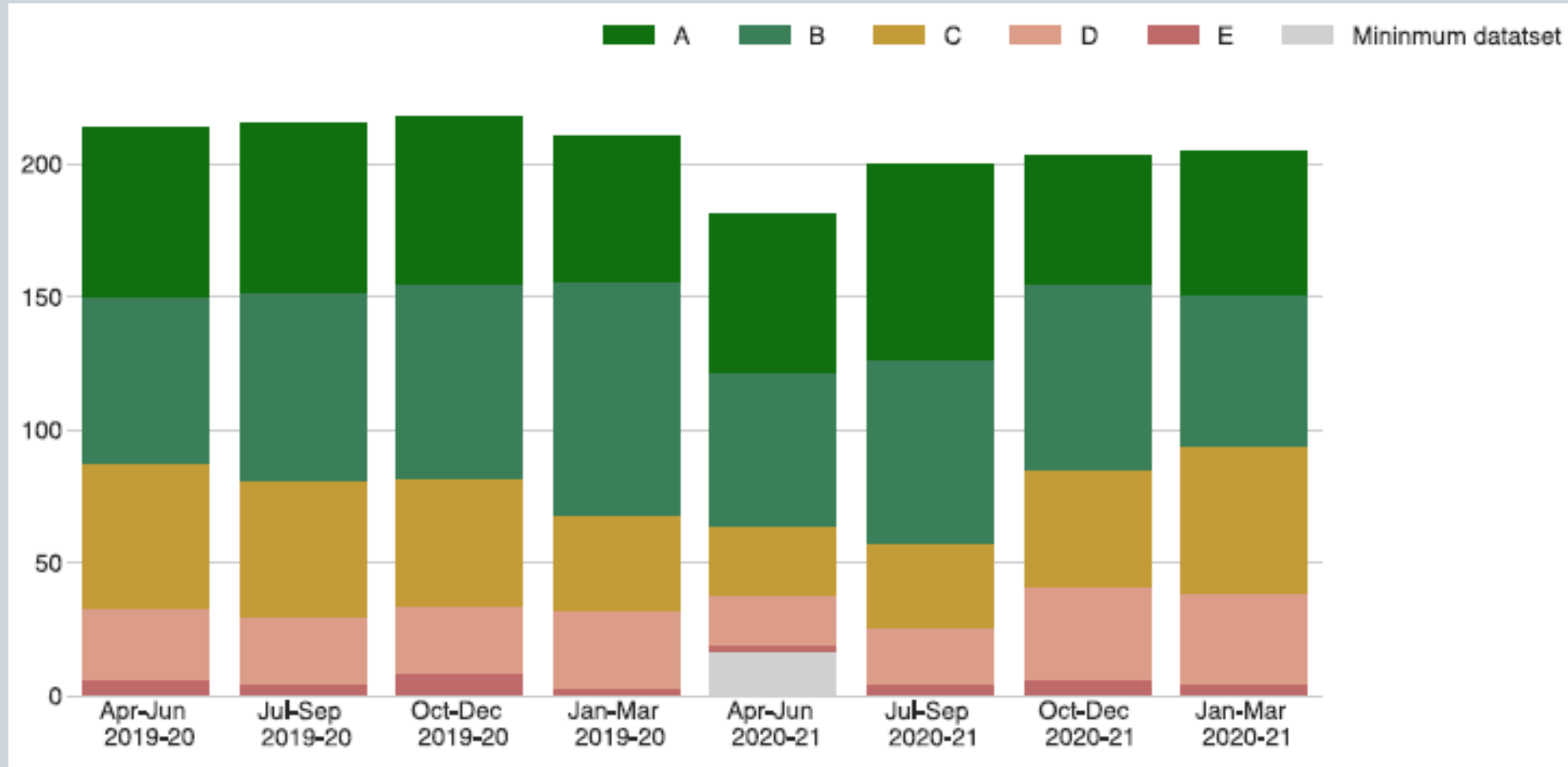
Sentinel Stroke National
Audit Programme

KING'S
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LONDON

- Findings on the impact of Covid on the Stroke Care Pathway
- Concluding thoughts
- Questions and Answers

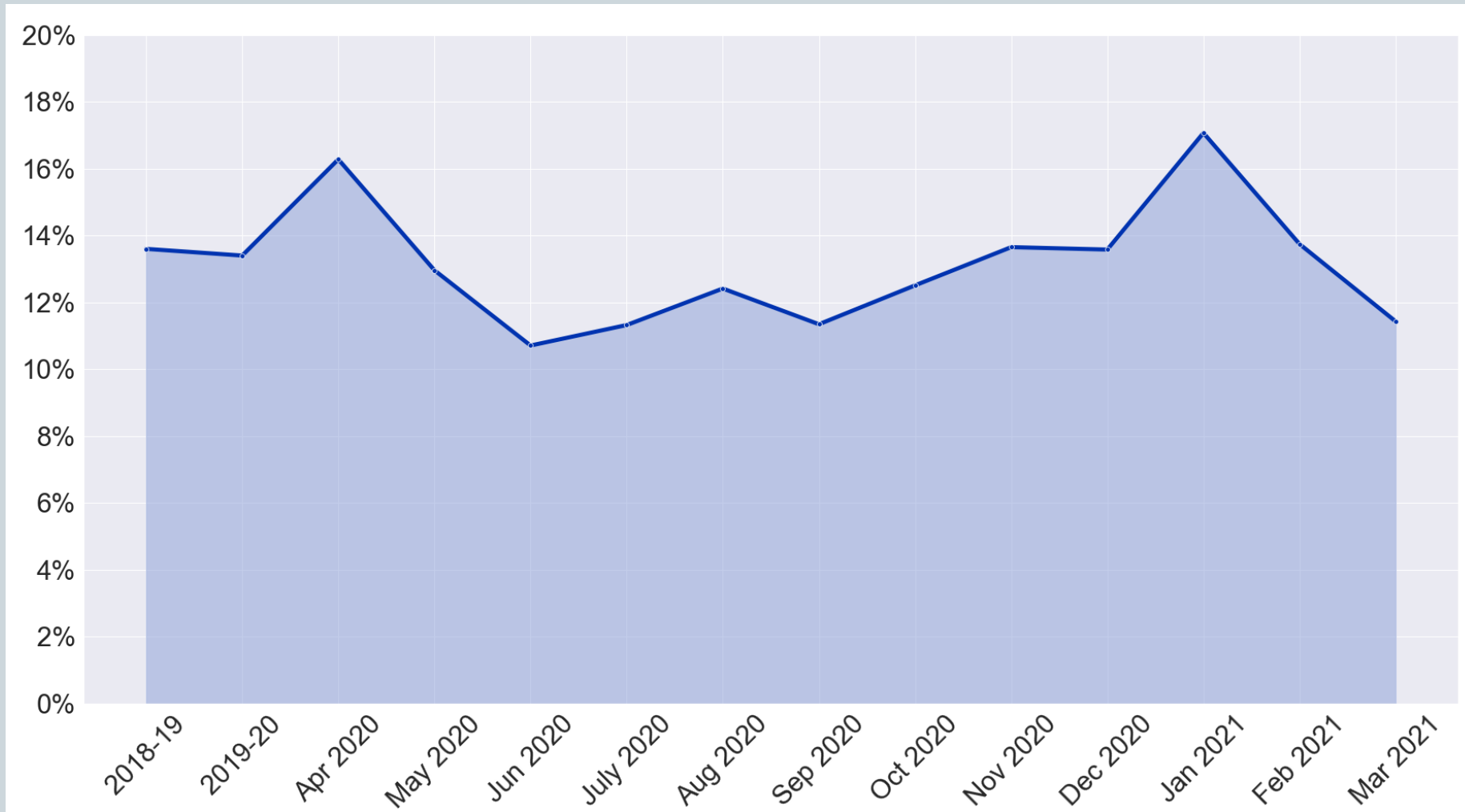
Changes in SSNAP scores over time

Number of teams



Source: Sentinel Stroke National Audit Programme (SSNAP) July 2013 to March 2021 National results

In-hospital crude mortality rate



Source: Sentinel Stroke National Audit Programme (SSNAP) July 2013 to March 2021 National results. Item reference: K21.3

CLINICAL AND POPULATION SCIENCES



Stroke Care in the United Kingdom During the COVID-19 Pandemic

Abdel Douiri¹, PhD; Walter Muruet, MD; Ajay Bhalla, MD; Martin James², MD; Lizz Paley³, MSc; Kaili Stanley, BSc; Anthony G. Rudd⁴, FRCP; Charles D.A. Wolfe, MD; Benjamin D. Bray⁵, MD; on behalf of the SSNAP Collaboration

BACKGROUND AND PURPOSE: The coronavirus disease 2019 (COVID-19) pandemic has potentially caused indirect harm to patients with other conditions via reduced access to health care services. We aimed to describe the impact of the initial wave of the pandemic on admissions, care quality, and outcomes in patients with acute stroke in the United Kingdom.

METHODS: Registry-based cohort study of patients with acute stroke admitted to hospital in England, Wales, and Northern Ireland between October 1, 2019, and April 30, 2020, and equivalent periods in the 3 prior years.

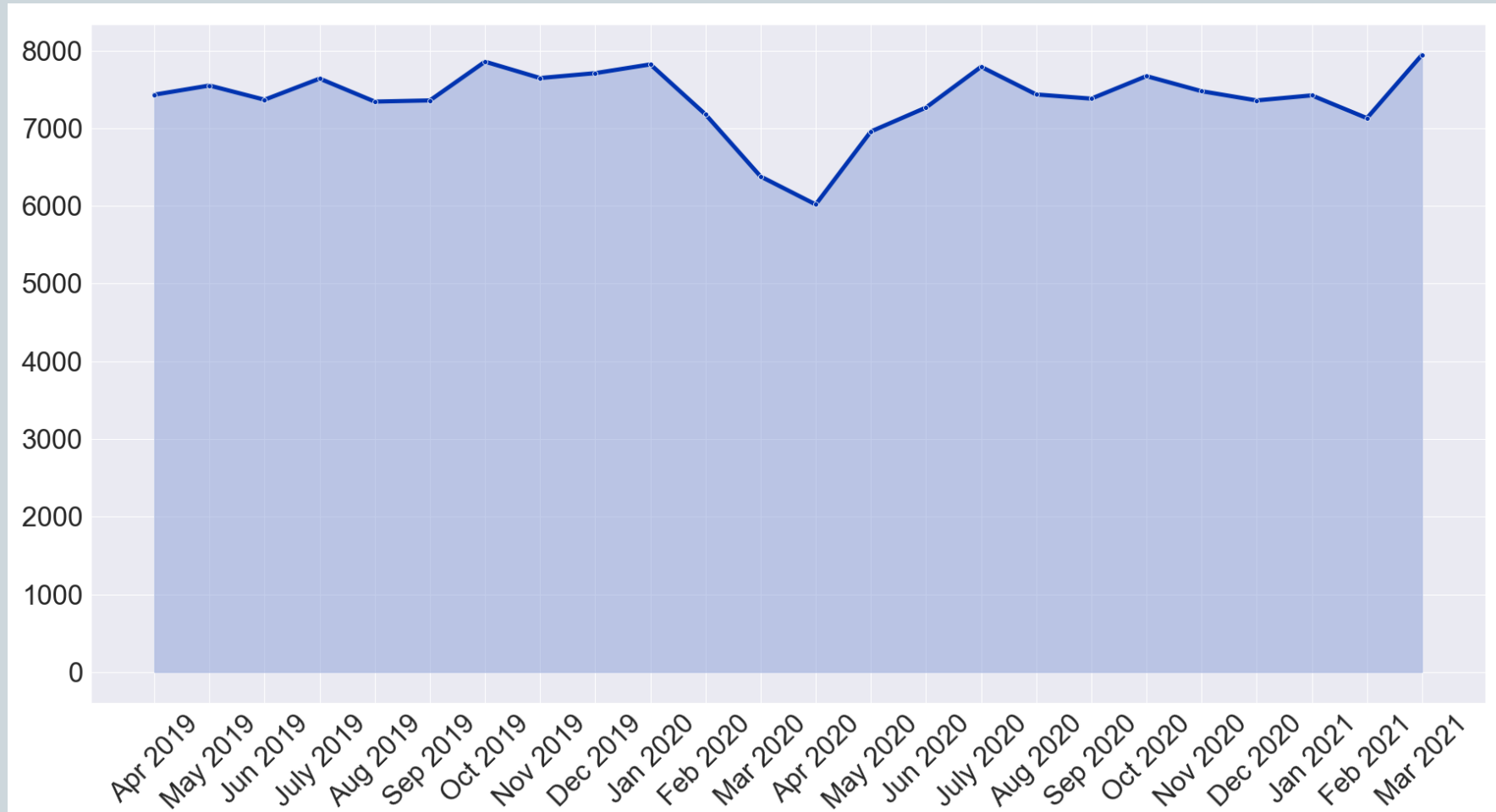
RESULTS: One hundred fourteen hospitals provided data for a study cohort of 184 017 patients. During the lockdown period (March 23 to April 30), there was a 12% reduction (6923 versus 7902) in the number of admissions compared with the same period in the 3 previous years. Admissions fell more for ischemic than hemorrhagic stroke, for older patients, and for patients with less severe strokes. Quality of care was preserved for all measures and in some domains improved during lockdown (direct access to stroke unit care, 1-hour brain imaging, and swallow screening). Although there was no change in the proportion of patients discharged with good outcome (modified Rankin Scale score, ≤ 2 ; 48% versus 48%), 7-day inpatient case fatality increased from 6.9% to 9.4% ($P < 0.001$) and was 22.0% in patients with confirmed or suspected COVID-19 (adjusted rate ratio, 1.41 [1.11–1.80]).

CONCLUSIONS: Assuming that the true incidence of acute stroke did not change markedly during the pandemic, hospital avoidance may have created a cohort of untreated stroke patients at risk of poorer outcomes or recurrent events. Unanticipated improvements in stroke care quality should be used as an opportunity for quality improvement and to learn about how to develop resilient health care systems.

Key Words: incidence ■ neuroimaging ■ quality of health care ■ registries ■ stroke

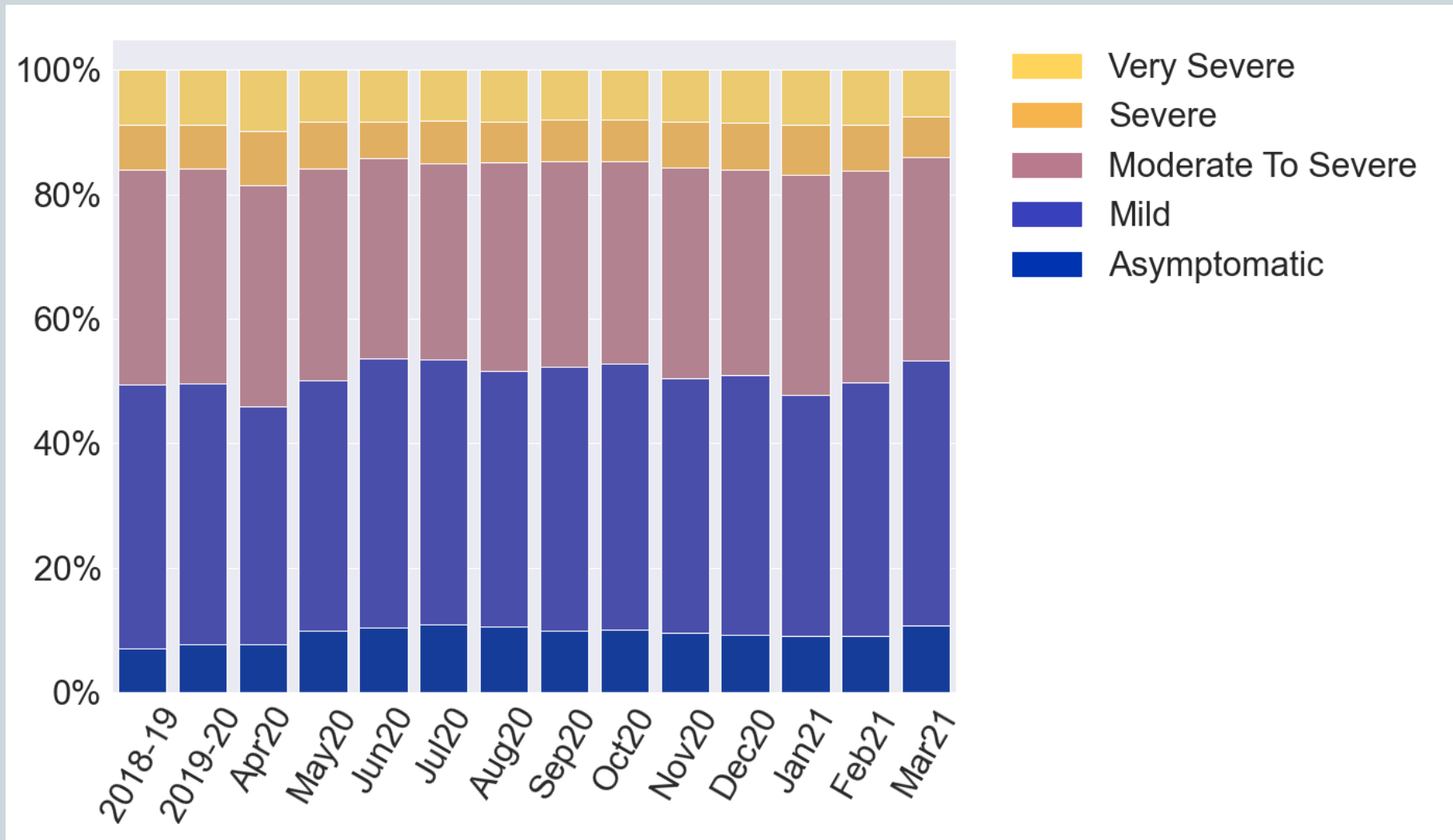
Impact of COVID-19 on stroke

Number of stroke patients admitted to hospital



Source: Sentinel Stroke National Audit Programme (SSNAP) July 2013 to March 2021 National results. Item reference: H1.1

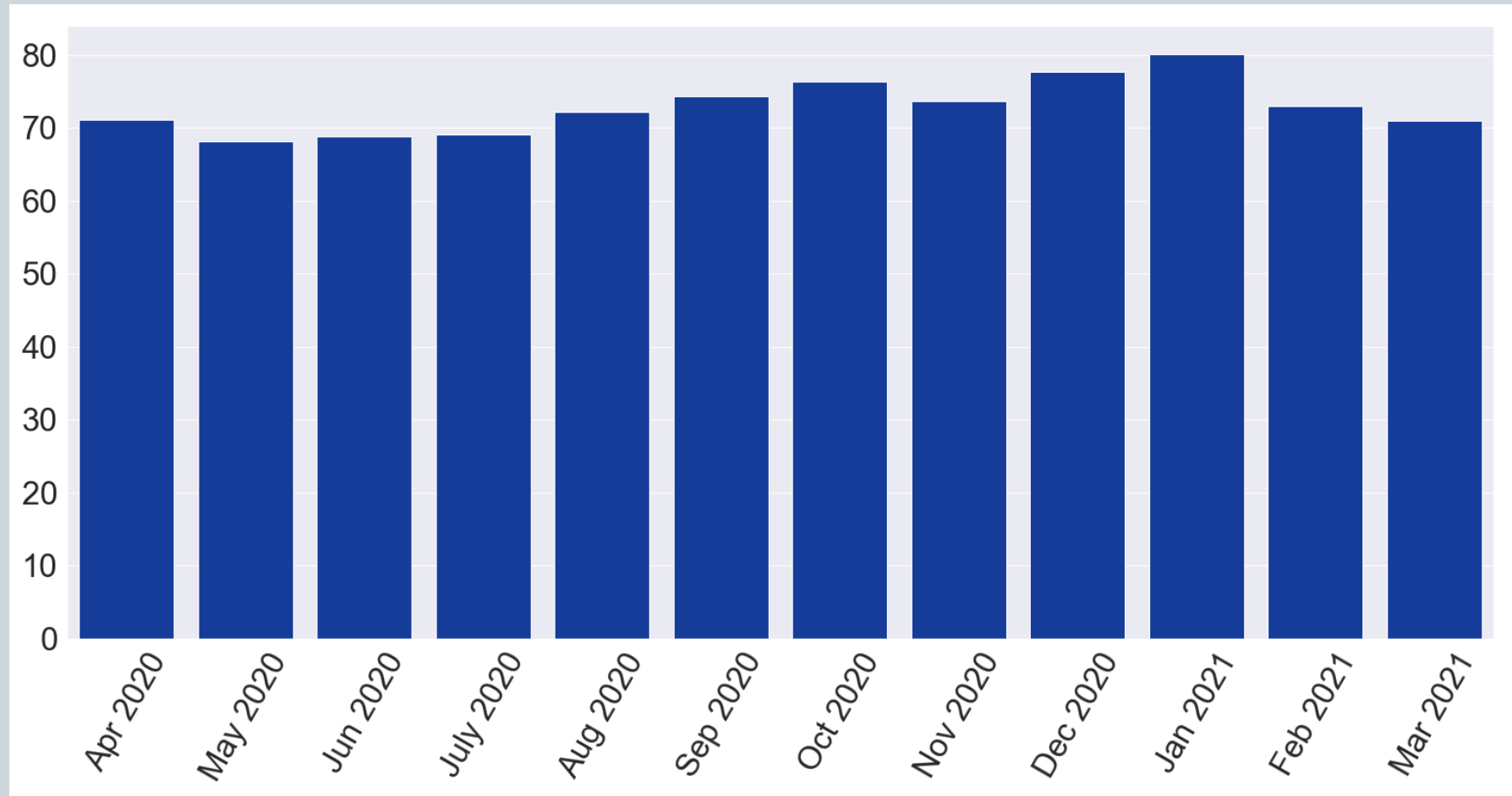
Distribution of NIHSS on admission to hospital



Source: Sentinel Stroke National Audit Programme (SSNAP) July 2013 to March 2021 National results. Item reference: F9.17-F9.27

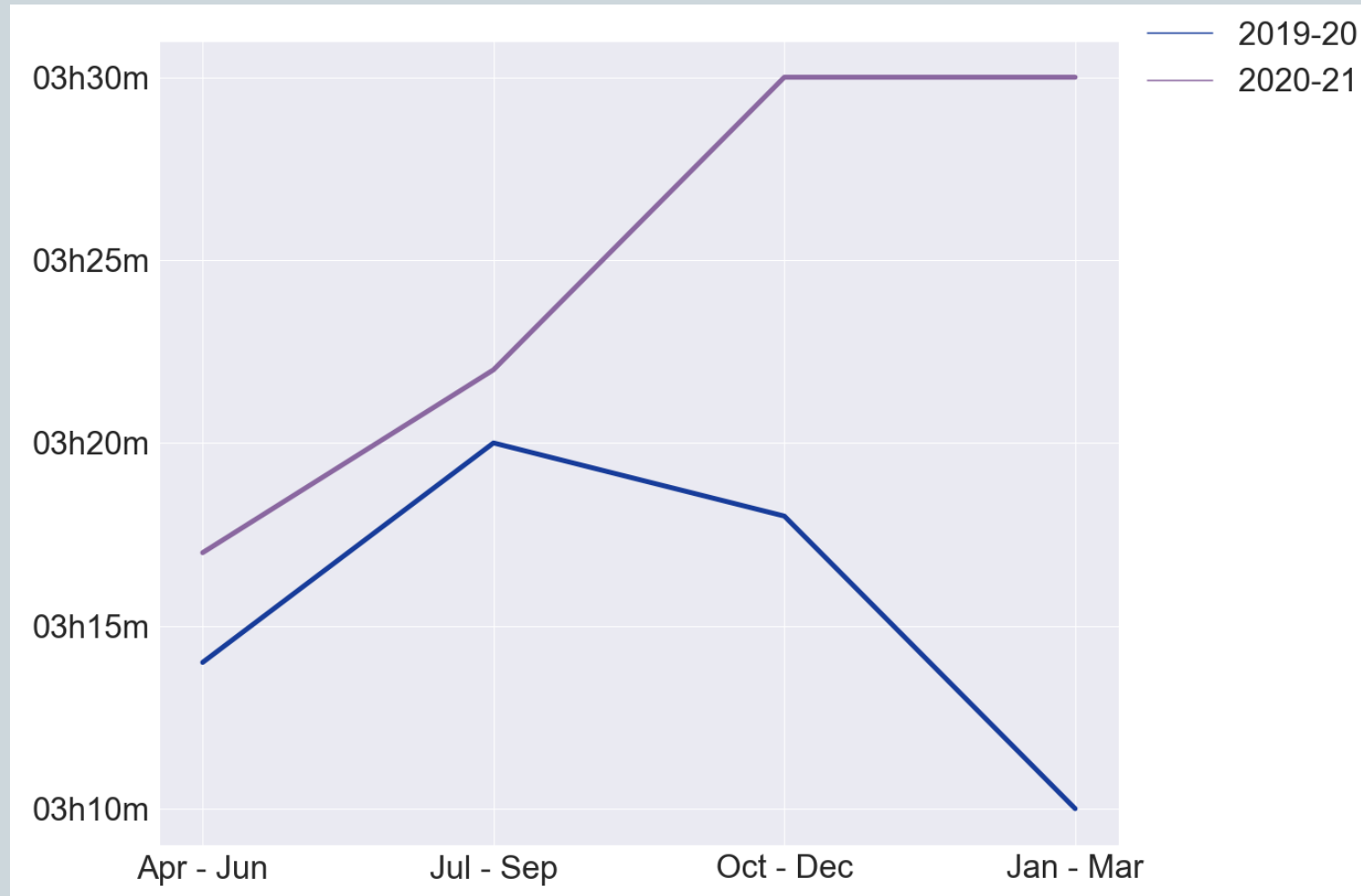
Ambulance activity during the pandemic

Median time from call to arrival



Source: Sentinel Stroke National Audit Programme (SSNAP) July 2013 to March 2021 National results. Ambulance Quality Indicators (<https://www.england.nhs.uk/statistics/statistical-work-areas/ambulance-quality-indicators/>) K150.

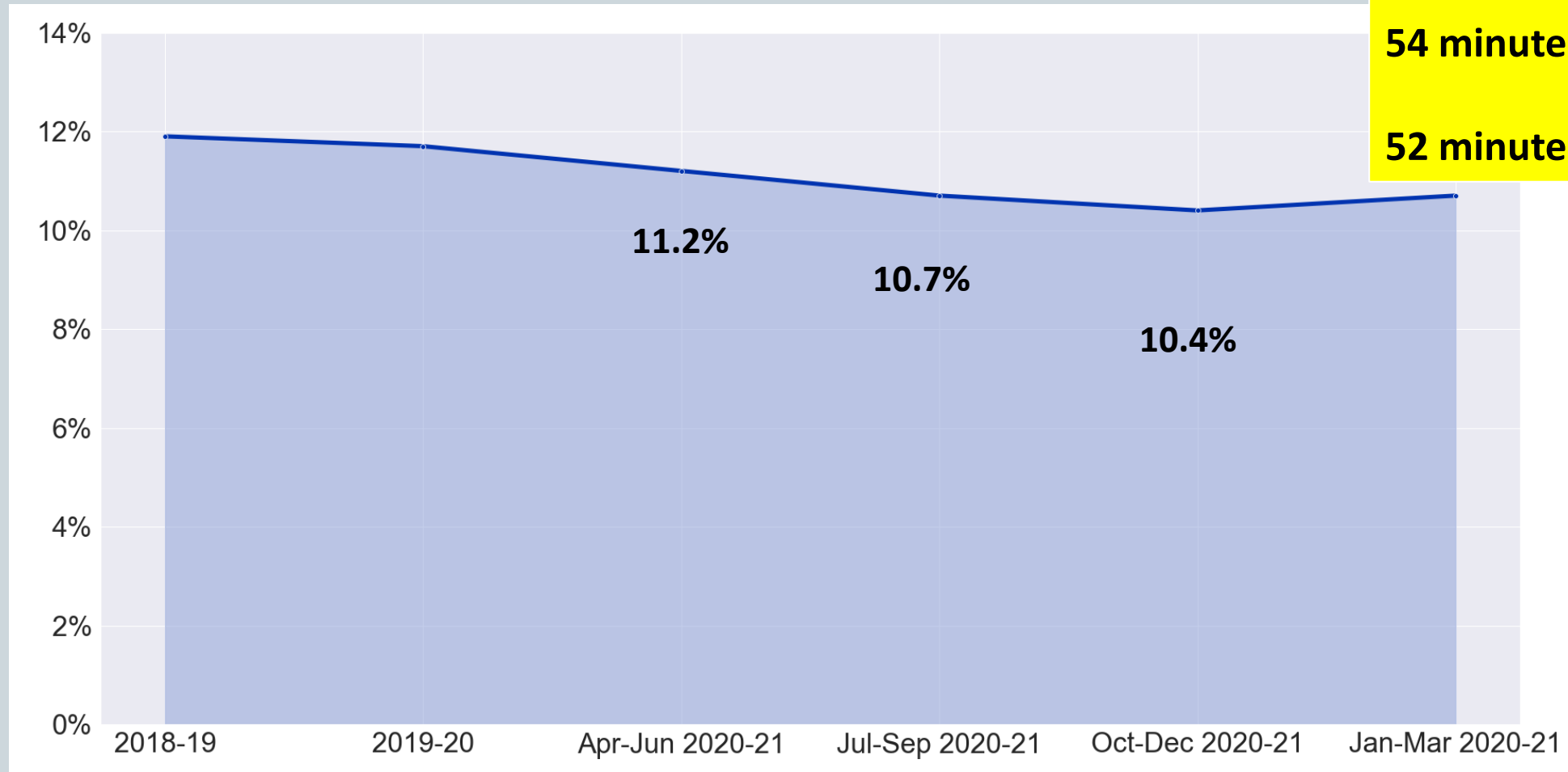
Median time from onset of stroke to arrival at hospital



Source: Sentinel Stroke National Audit Programme (SSNAP) July 2013 to March 2021 National results. Item reference: H3.1

Reperfusion treatment

Percentage of patients receiving thrombolysis



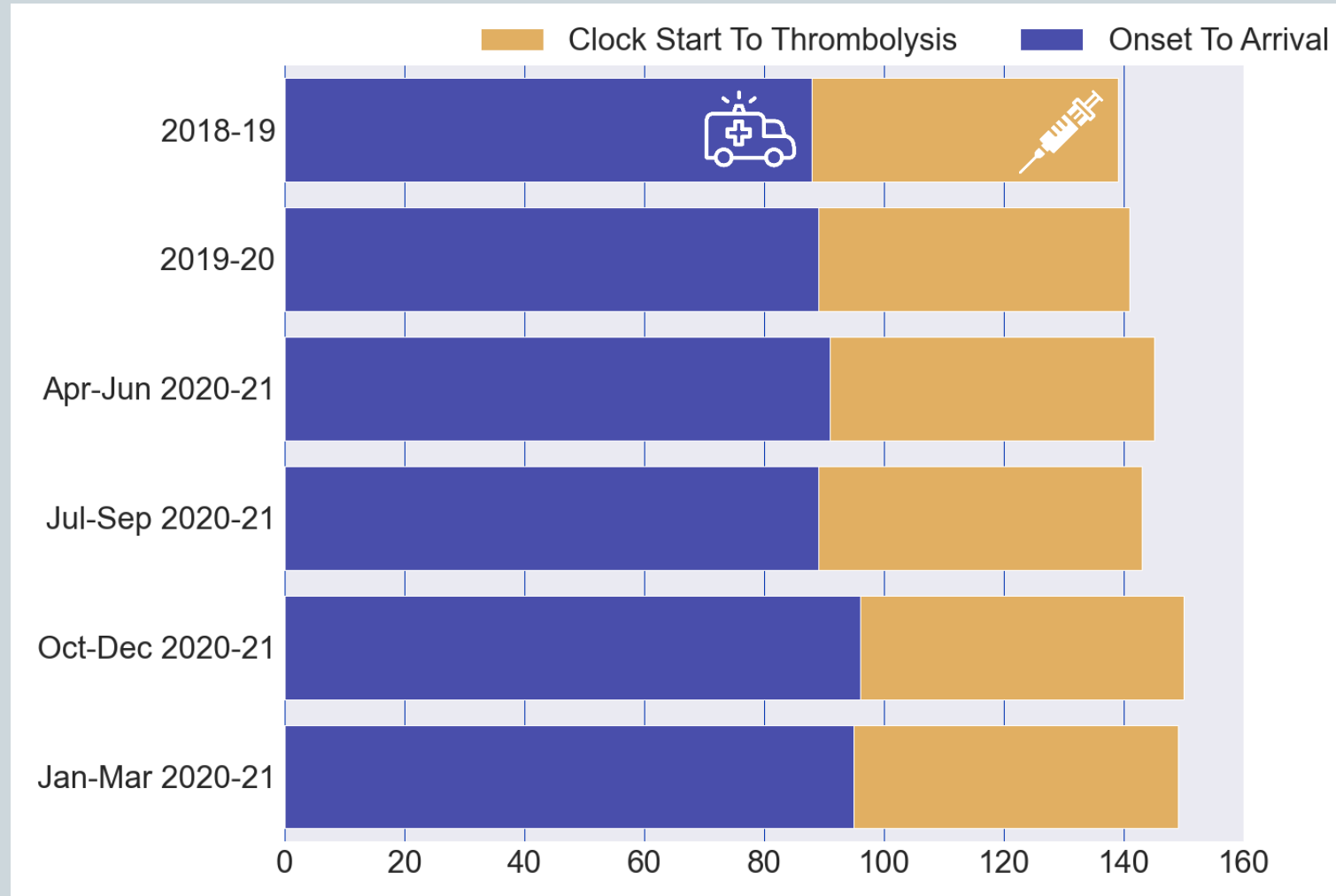
Door to Needle Time

54 minutes (2020/21)

52 minutes (2019/20)

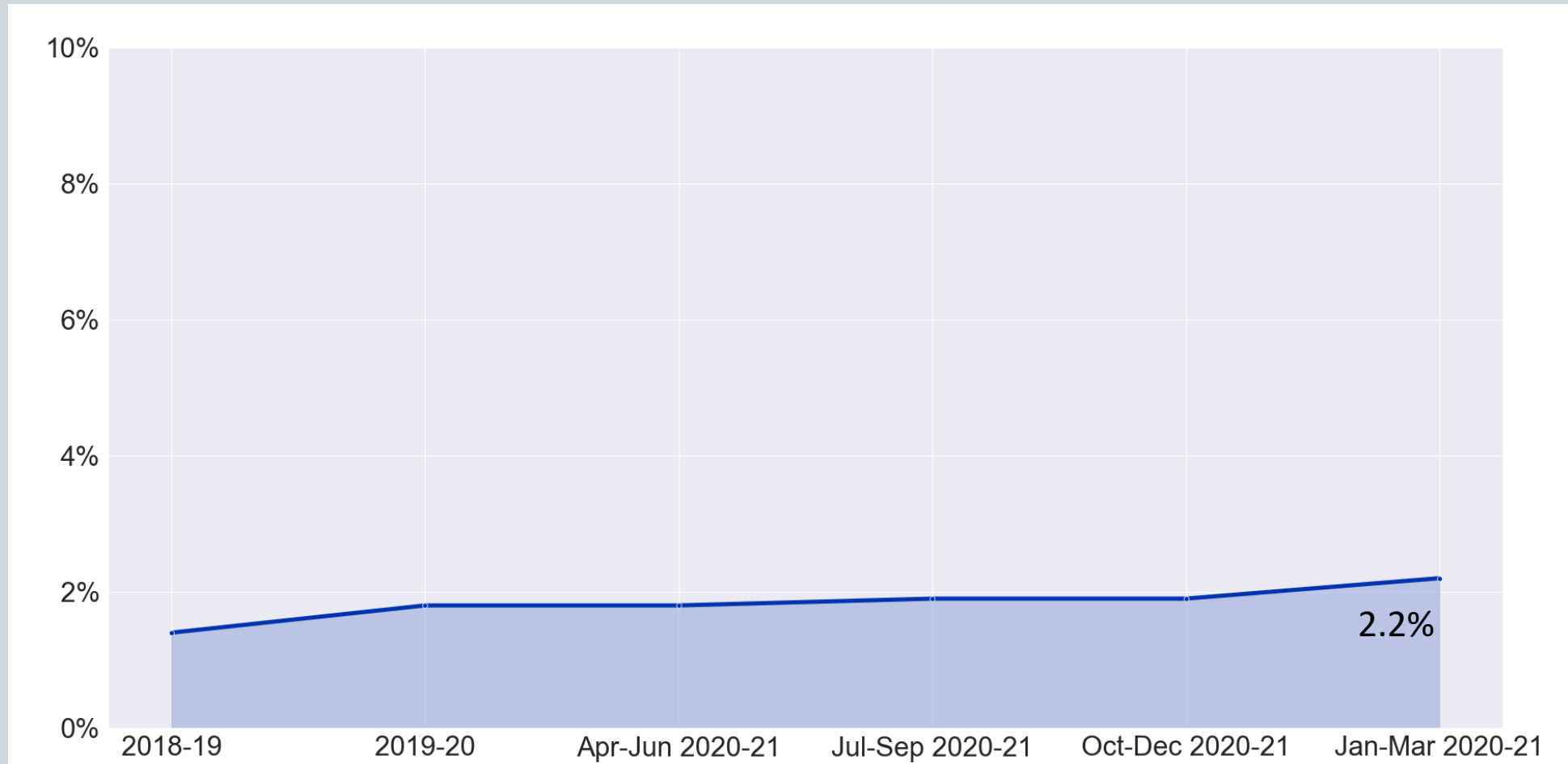
Source: Sentinel Stroke National Audit Programme (SSNAP) July 2013 to March 2021 National results. Item reference: H16.3

Median time from stroke onset to thrombolysis



Source: Sentinel Stroke National Audit Programme (SSNAP) July 2013 to March 2021 National results. Item reference: H16.42 and H16.45

Percentage of all stroke patients receiving mechanical thrombectomy



Source: Sentinel Stroke National Audit Programme (SSNAP) July 2013 to March 2021 National results. Item reference: H20.3

Regional variation of thrombectomy cases delivered in Comprehensive Stroke Centres across England, Northern Ireland and Wales

Number of thrombectomies per centre



Door in Door Out Time
2 hours 10 minutes

Annual Thrombectomy National Figures

Thrombectomy total: 1,763

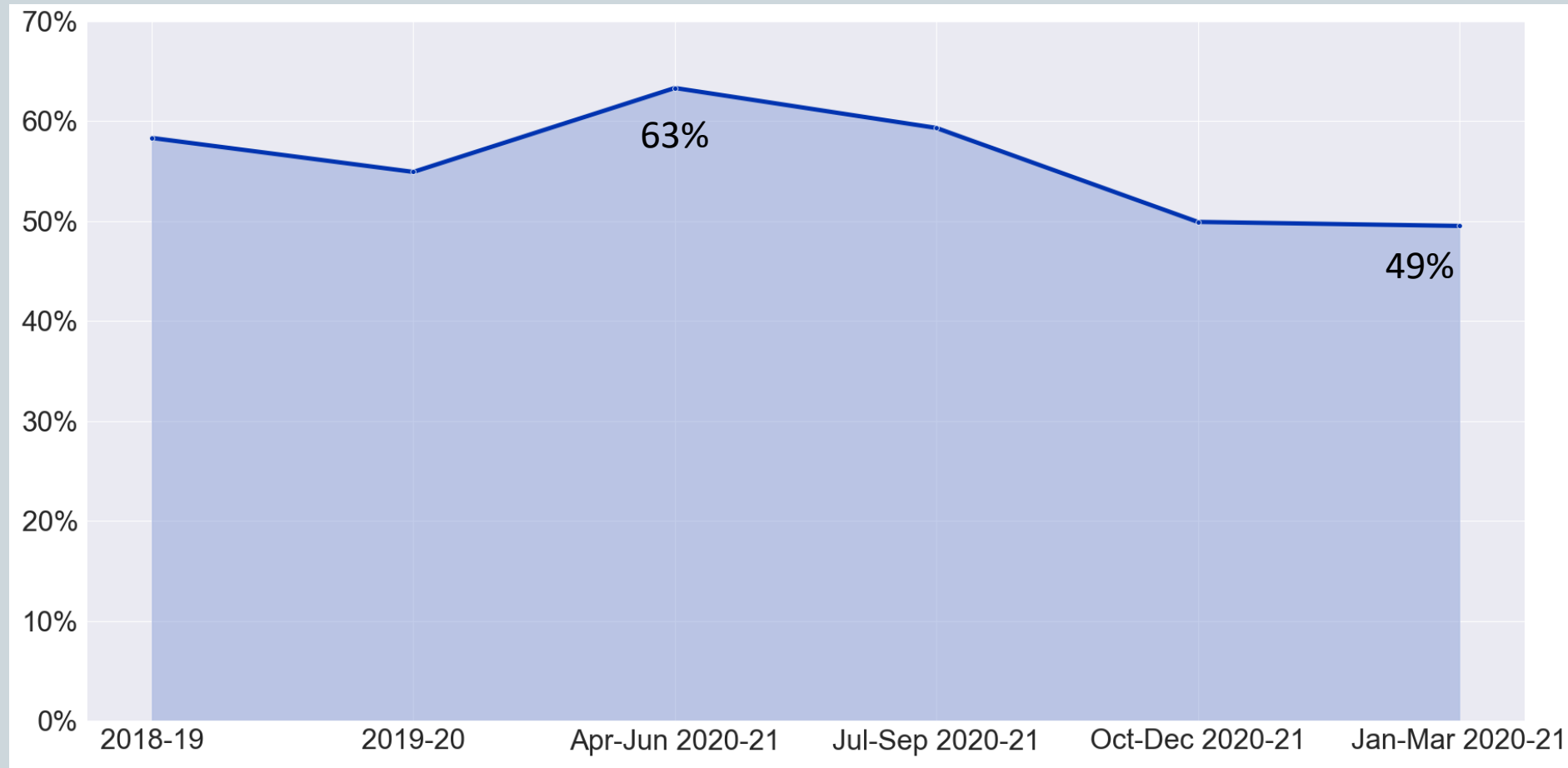
Strokes treated with thrombectomy: 2.01%

Transferred thrombectomy patients: 48.78%

Directly admitted thrombectomy patients: 51.22%

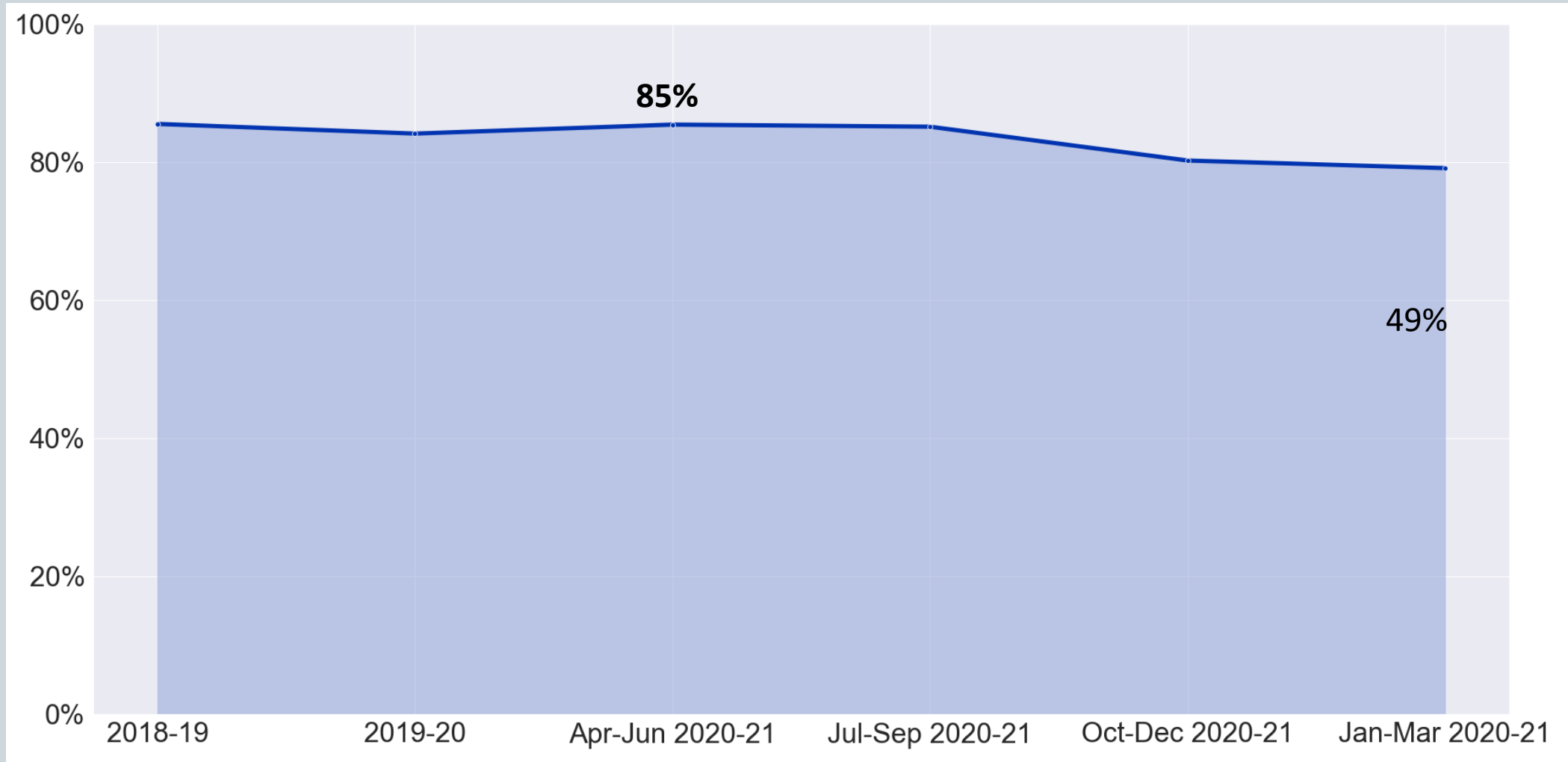
Access to specialist stroke care

Percentage of patients admitted to a specialist stroke unit within 4 hours of arrival



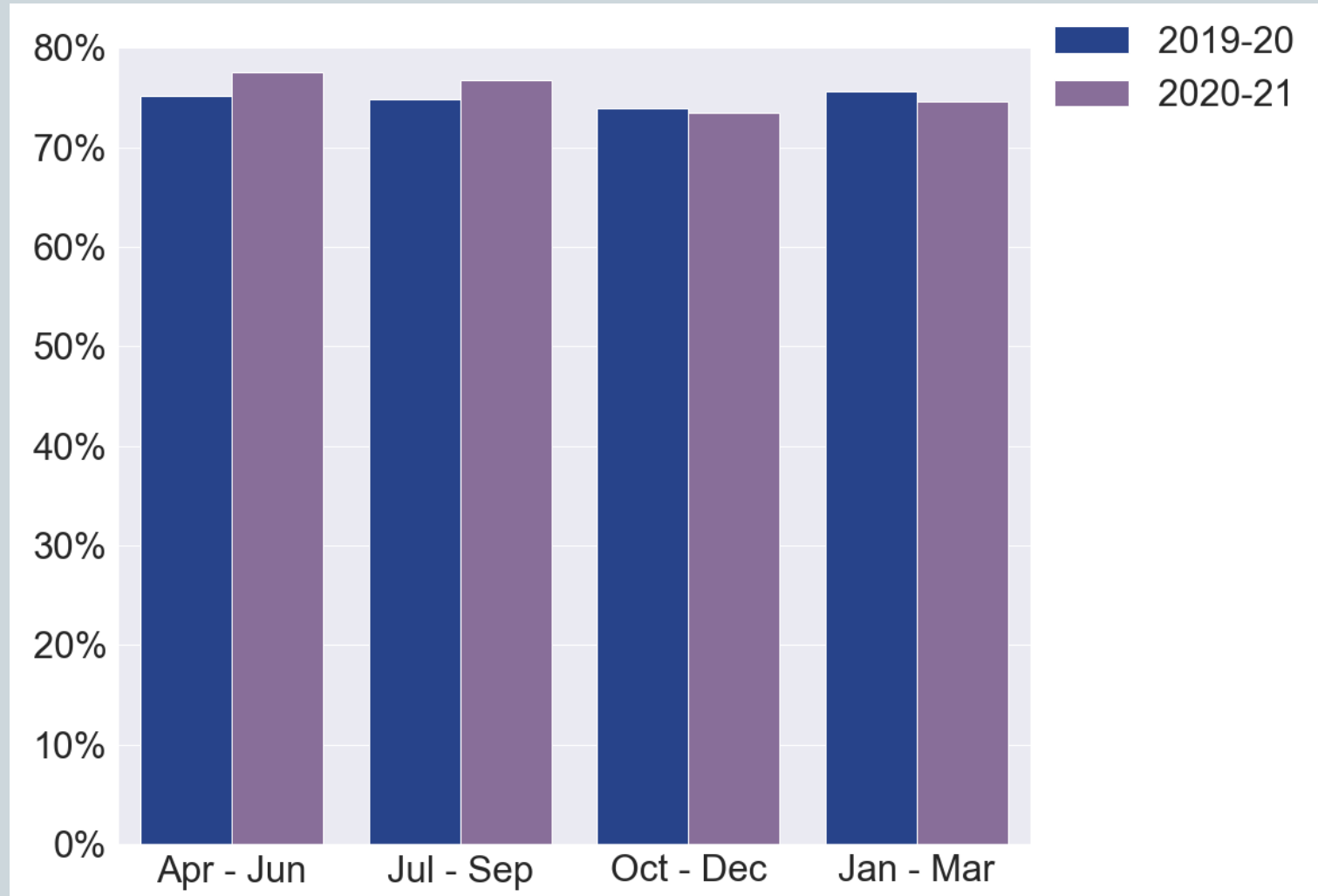
Source: Sentinel Stroke National Audit Programme (SSNAP) July 2013 to March 2021 National results. Item reference: H7.18.1

Percentage of patients spending at least 90% of their stay on a stroke unit



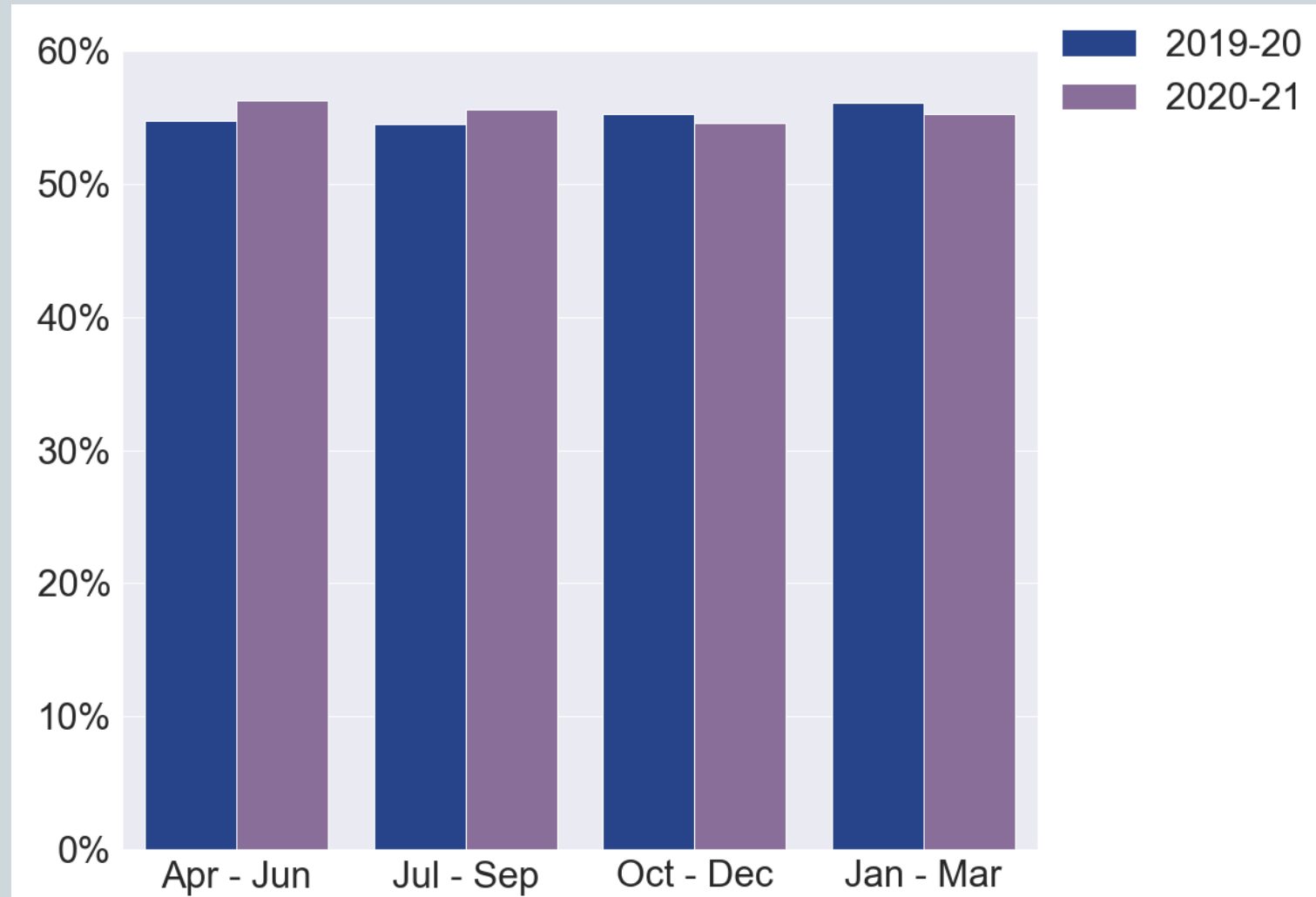
Source: Sentinel Stroke National Audit Programme (SSNAP) July 2013 to March 2021 National results. Item reference: K32.11

Percentage of patients receiving swallowing screening within 4 hours of arrival



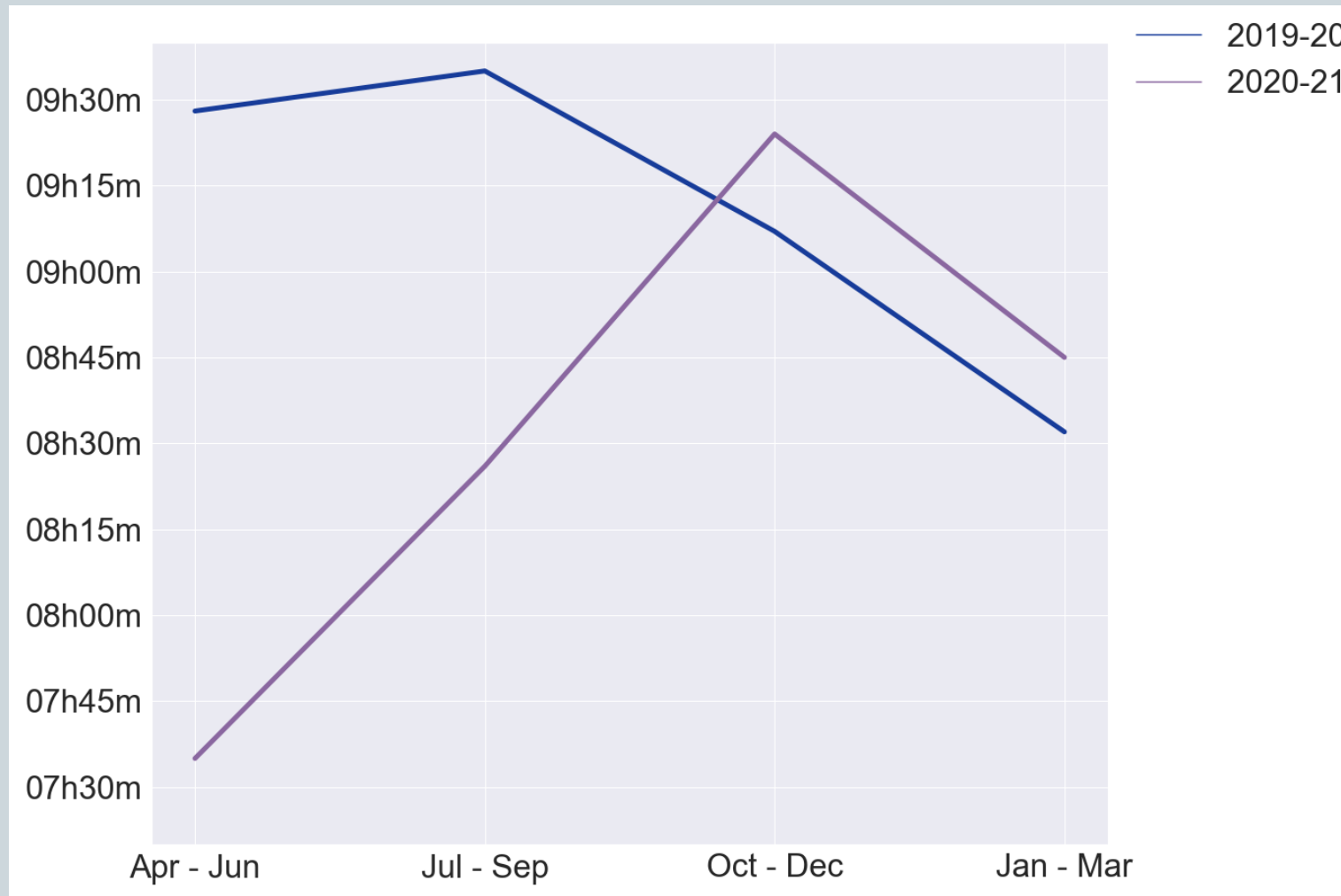
Source: Sentinel Stroke National Audit Programme (SSNAP) July 2013 to March 2021 National results. Item reference: H14.20

Percentage of patients receiving brain imaging within 1 hour of arrival



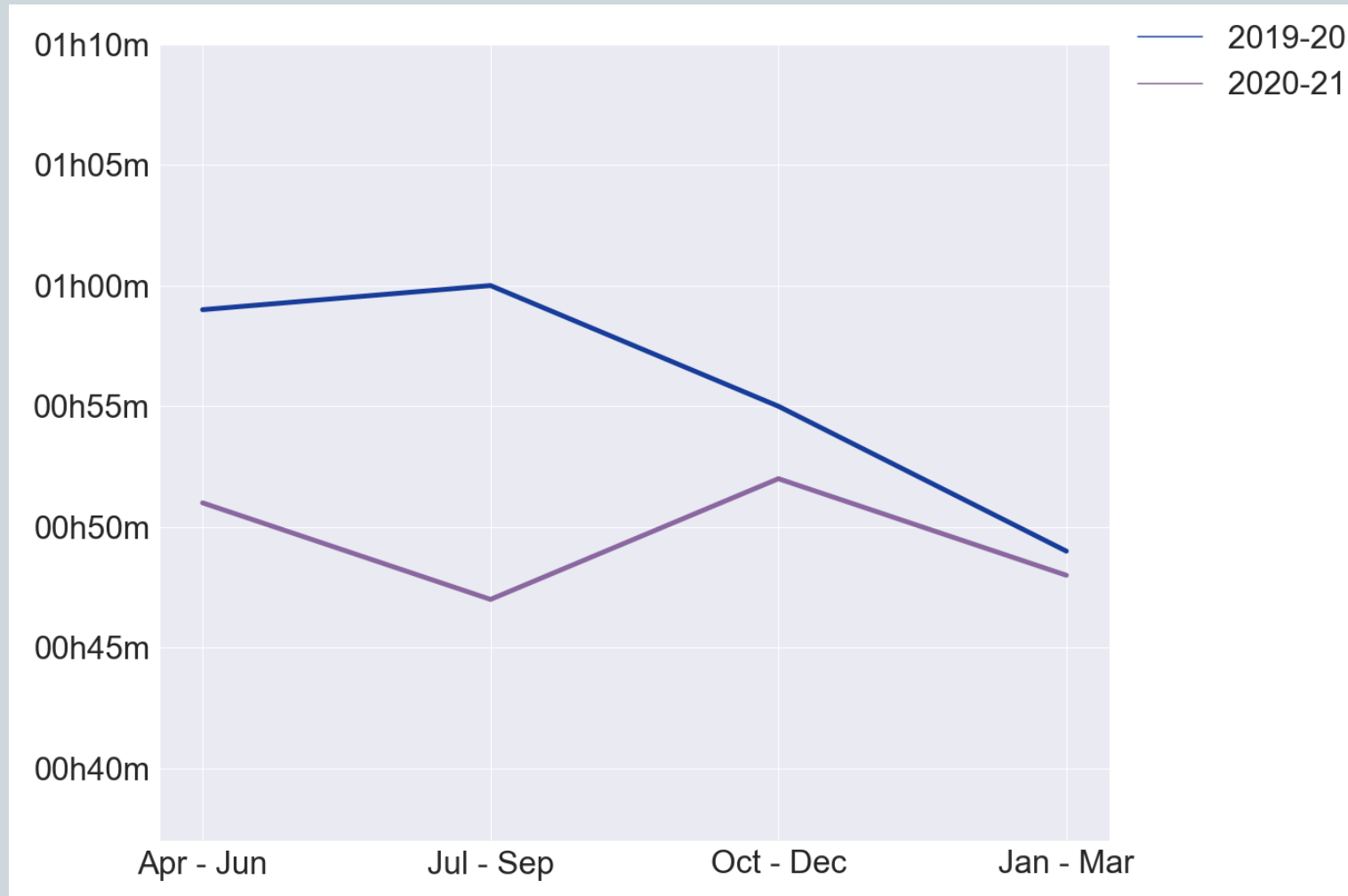
Source: Sentinel Stroke National Audit Programme (SSNAP) July 2013 to March 2021 National results. Item reference: H6.9

Median time from arrival to assessment by a stroke specialist



Source: Sentinel Stroke National Audit Programme (SSNAP) July 2013 to March 2021 National results. Item reference: H9.14

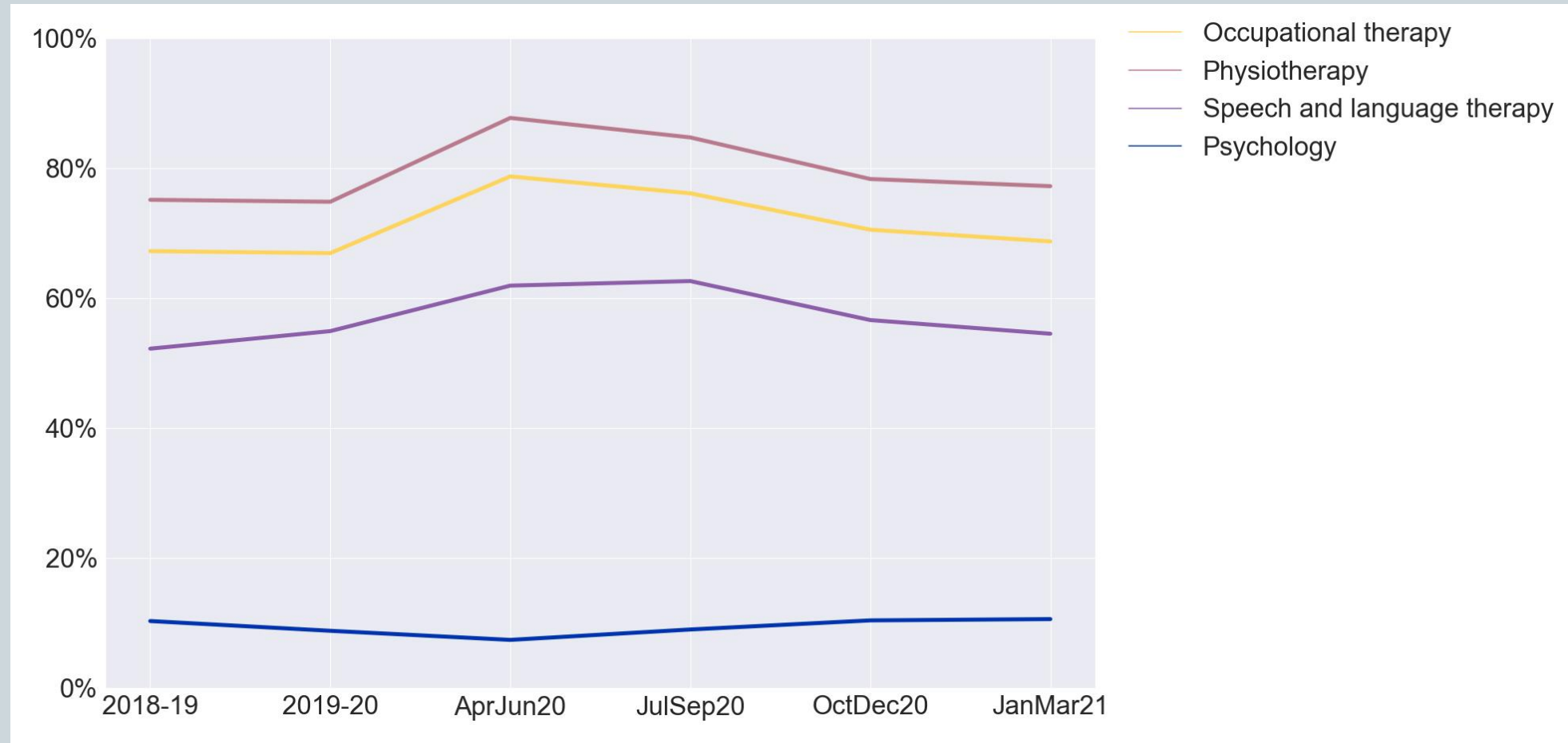
Median time from arrival to assessment by a stroke specialist nurse



Source: Sentinel Stroke National Audit Programme (SSNAP) July 2013 to March 2021 National results. Item reference: H8.14

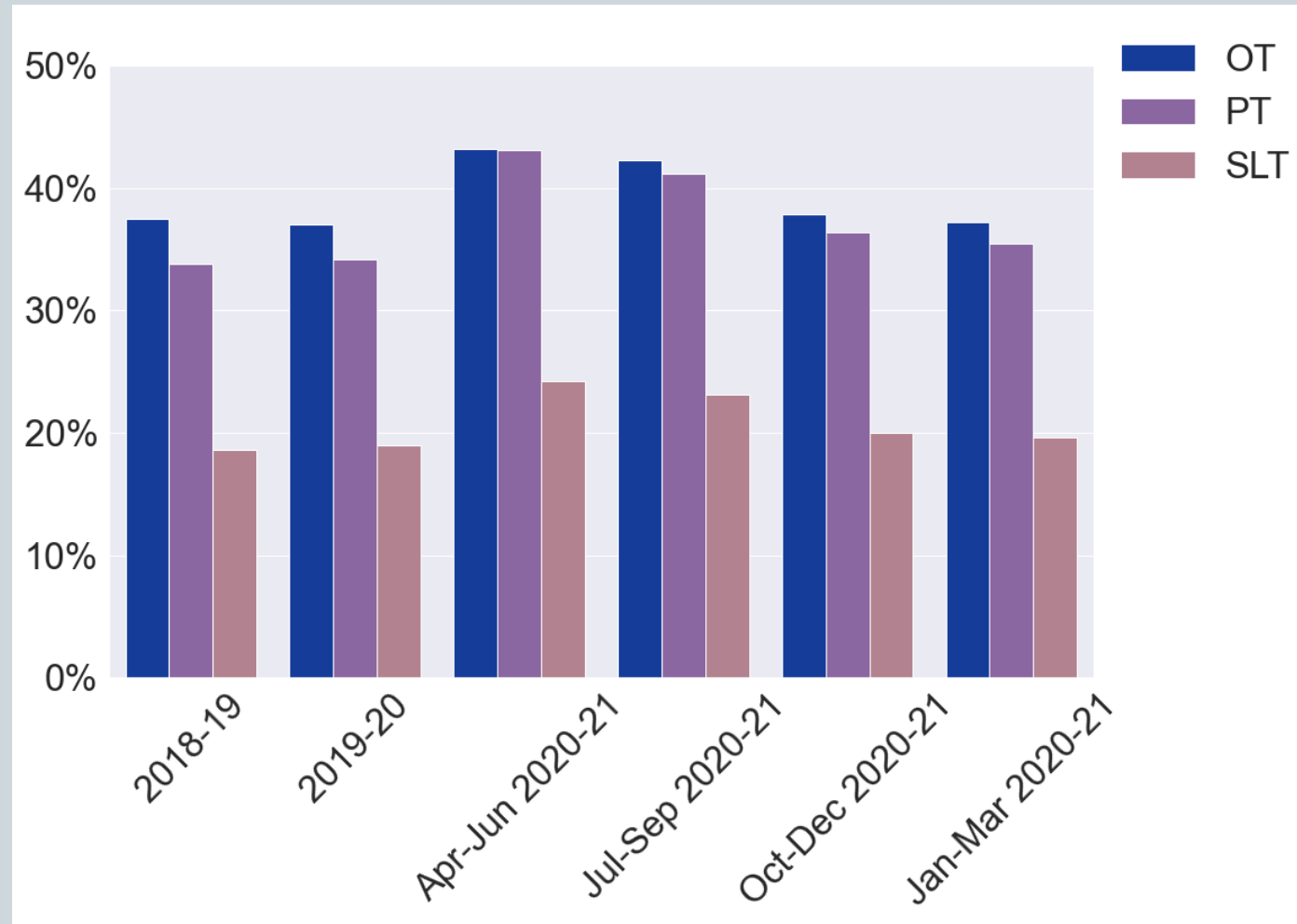
Inpatient rehabilitation

Median percentage of days on which therapy is received (by discipline)



Source: Sentinel Stroke National Audit Programme (SSNAP) July 2013 to March 2021 National results. Item reference: K34.4, K35.4, K36.4, K38.4

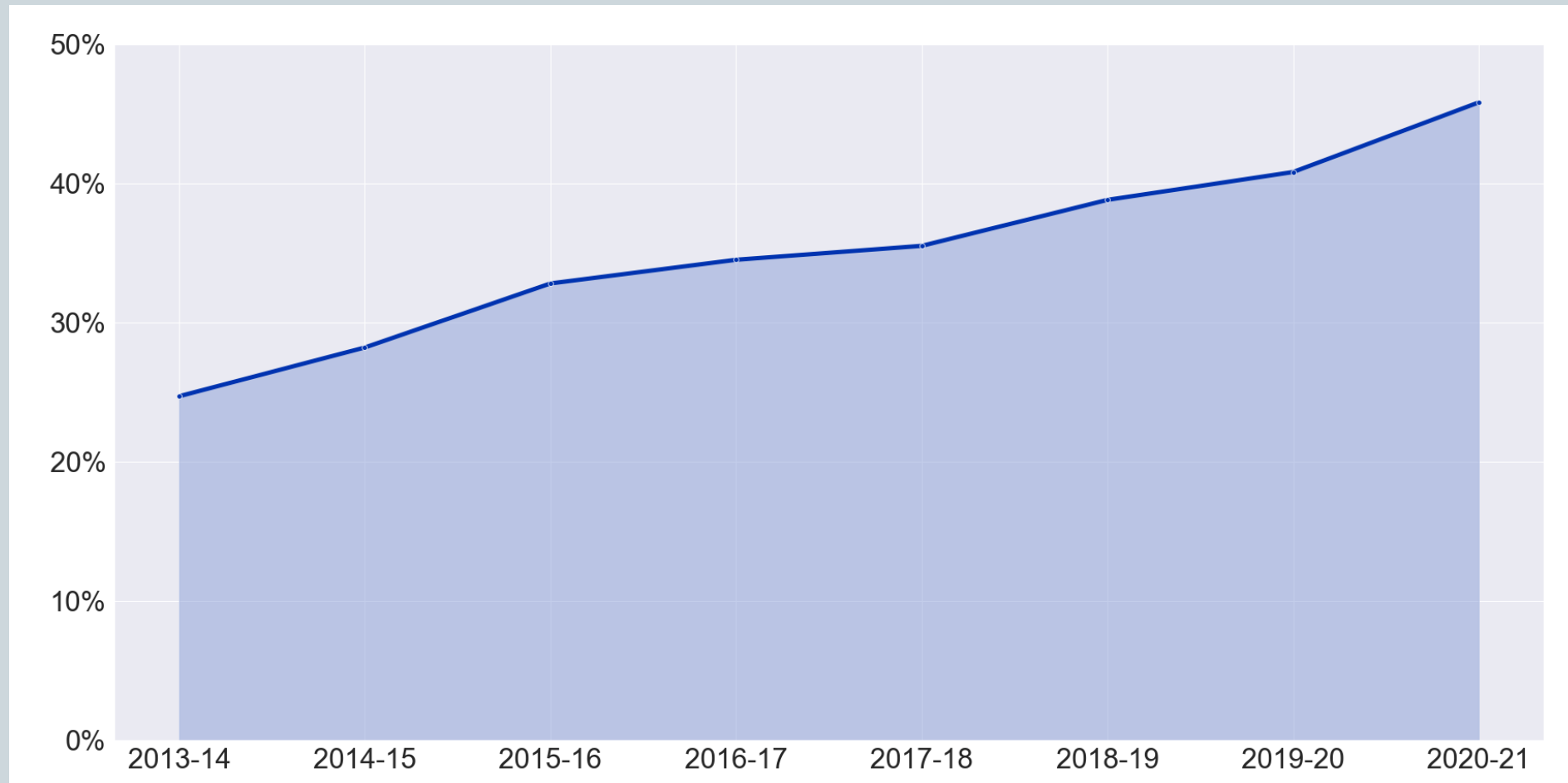
Percentage of patients receiving the equivalent of at least 45 minutes of therapy, 5 days a week (by discipline)



Source: Sentinel Stroke National Audit Programme (SSNAP) July 2013 to March 2021 National results. Item reference: K34.18, K35.18, K36.18

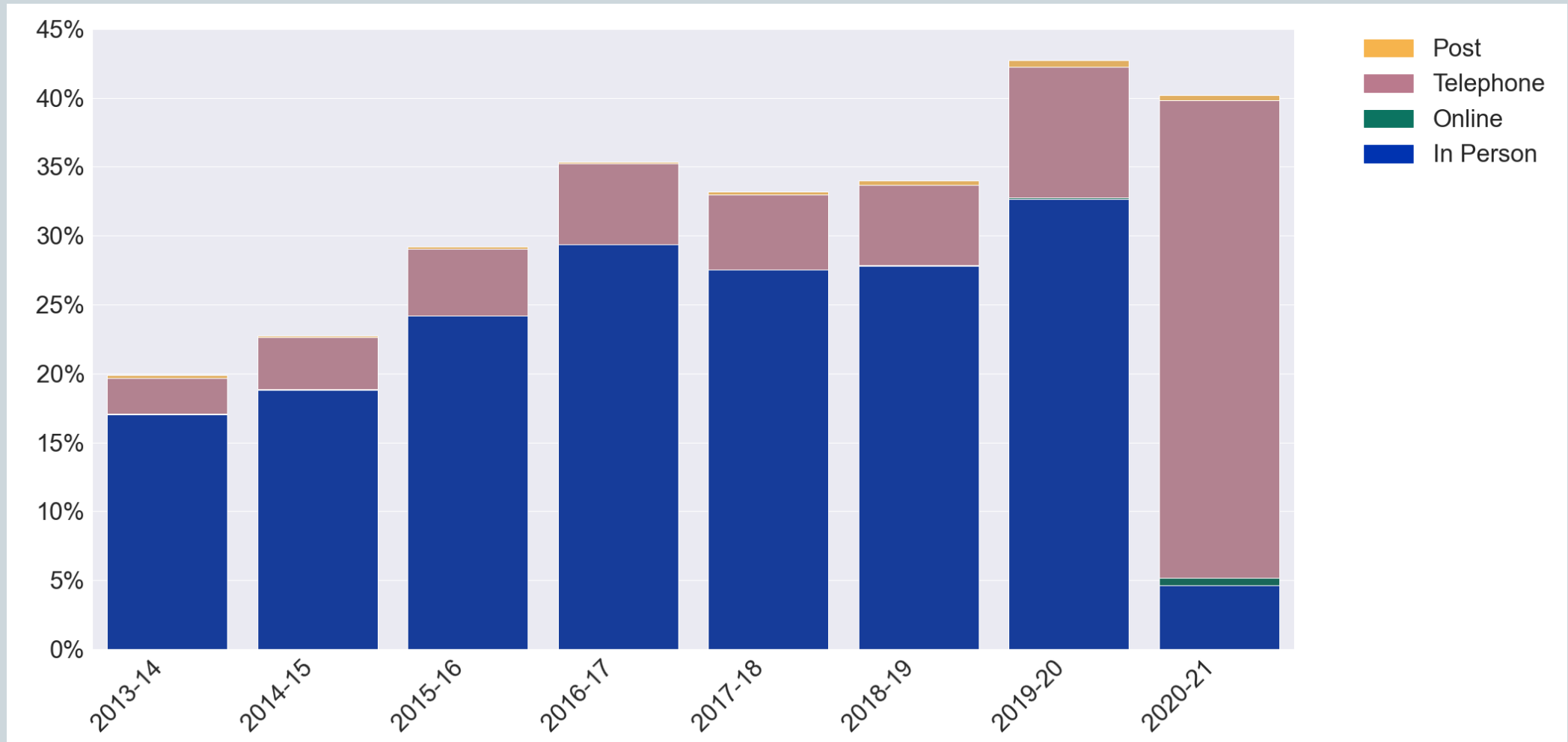
Rehabilitation at home

Proportion of patients discharged to the care of a skilled Early Supported Discharge (ESD) team



Source: Sentinel Stroke National Audit Programme (SSNAP) July 2013 to March 2021 National results. Item reference: K22.3

Percentage of patients receiving a six-month review, by assessment method



Source: Sentinel Stroke National Audit Programme (SSNAP) July 2013 to March 2021 National results. Item reference: M4.6

What have we learnt?

- **The commitment on the NHS workforce**
 - resilience
 - flexible/adaptable
- **Innovations**
 - Pre hospital video triage
 - Artificial Intelligence
 - Seven day therapy services
 - Pilot rehabilitation schemes
- **Challenges in delivering basic elements of evidence based care (stroke units, therapy, thrombolysis and mechanical thrombectomy)**
- **Stroke care is best delivered within a networked approach**

Thank you for attending 'Reporting and Clinical dataset changes'

If you would like to send us any comments remember you can do it by email to ssnap@kcl.ac.uk

Remember you can find SSNAP Helpline notes and guidance going to <https://ssnap.zendesk.com/>



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