Heaviness past, heaviness present and heaviness future

Measuring, describing and finding solutions to exit block in acute hospitals

Neil Pettinger | 2 October 2025

The agenda

1) Terms and conditions
2) The Unscheduled Care Pathway Diagram
3) The Flow_ology Grid
4) The Gold Run
5) The Fullness Hypothesis (is dead)…
6) (Long live the) Heaviness Hypothesis!
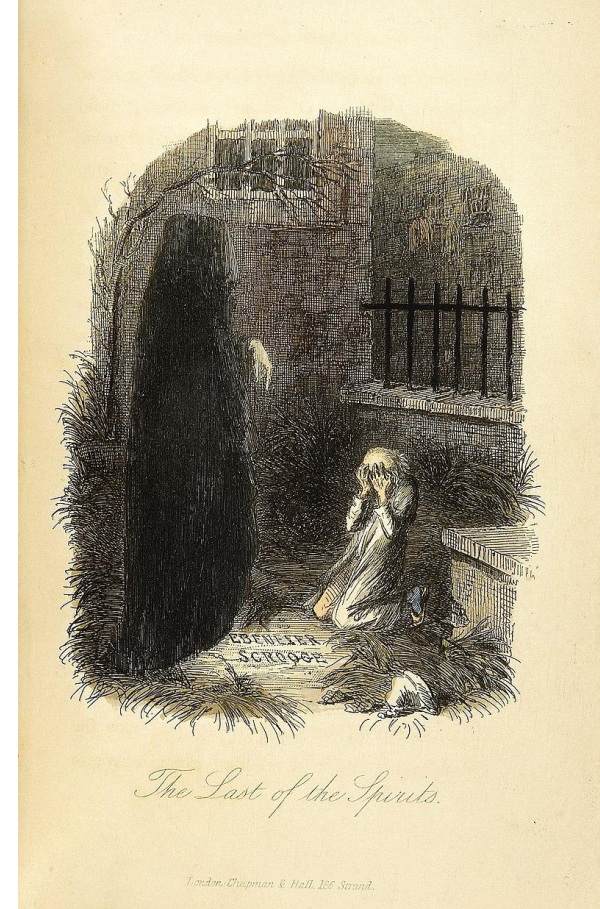7) Questions, comments and criticisms

1
Terms and conditions

Christmas Past

Christmas Present

Scrooge's third Visitor.

London, Chapman & Hall, 186 Strand.

Christmas Yet to Come

The Last of the Spirits.

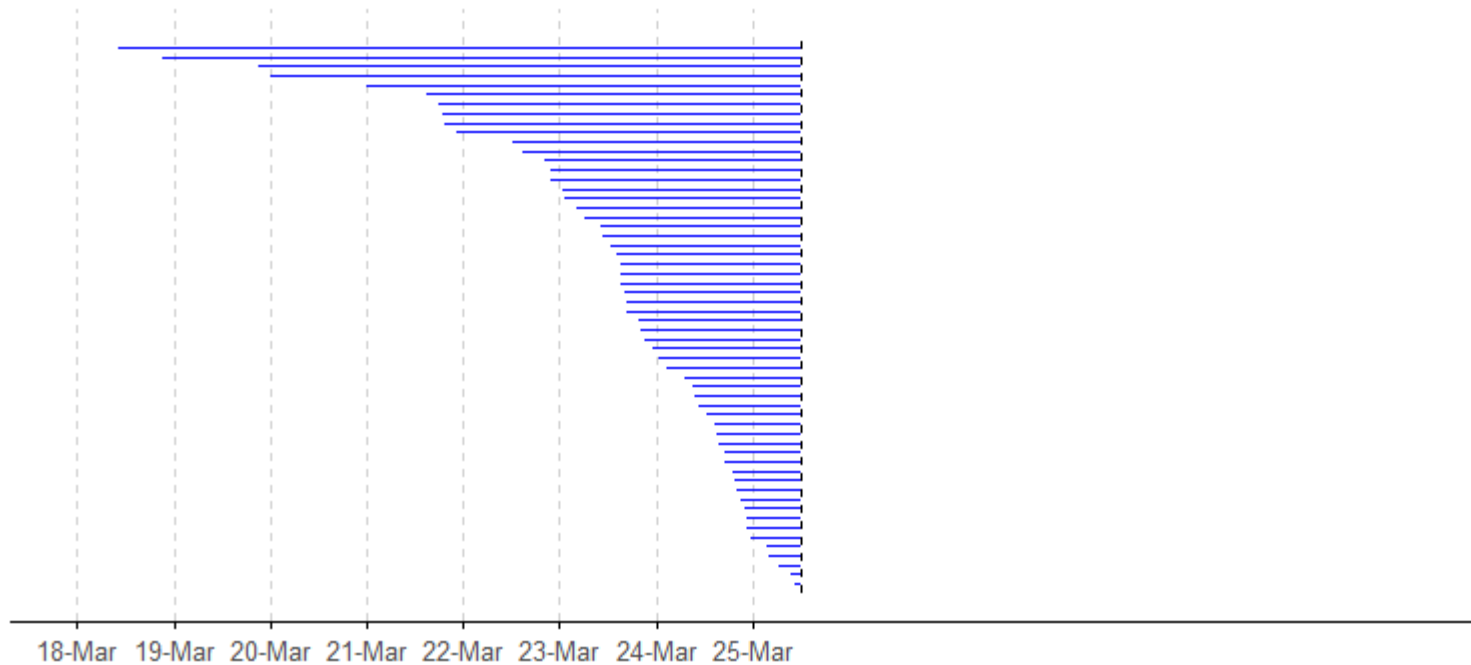London, Chapman & Hall, 186 Strand.

Heaviness Past

AMU Heaviness

Mon 25 March 2024 | 12:00
No. of AMU inpatients captured by the snapshot = 58
Average length of stay so far = 47.6 hours
Accumulated bed hours = 2,761

18-Mar 19-Mar 20-Mar 21-Mar 22-Mar 23-Mar 24-Mar 25-Mar
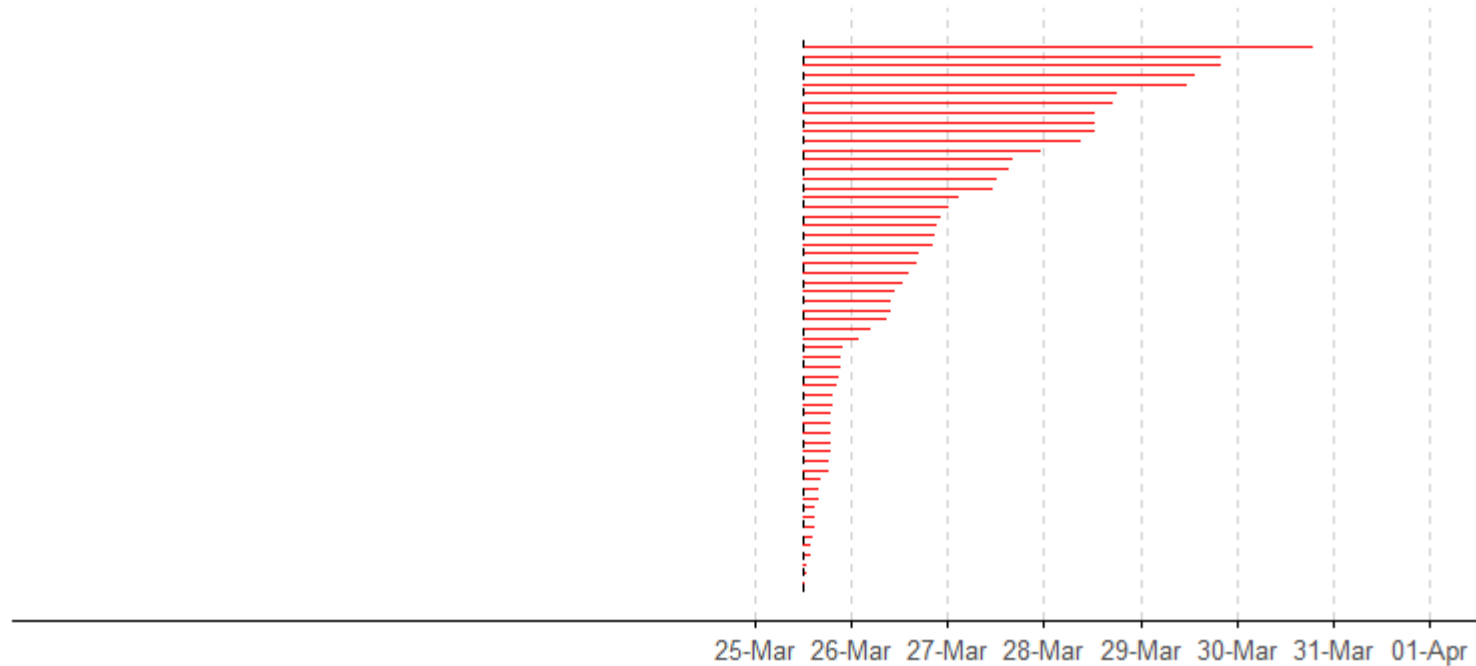
Heaviness Yet to Come

AMU Future Heaviness

Mon 25 March 2024 | 12:00
No. of AMU inpatients captured by the snapshot = 58
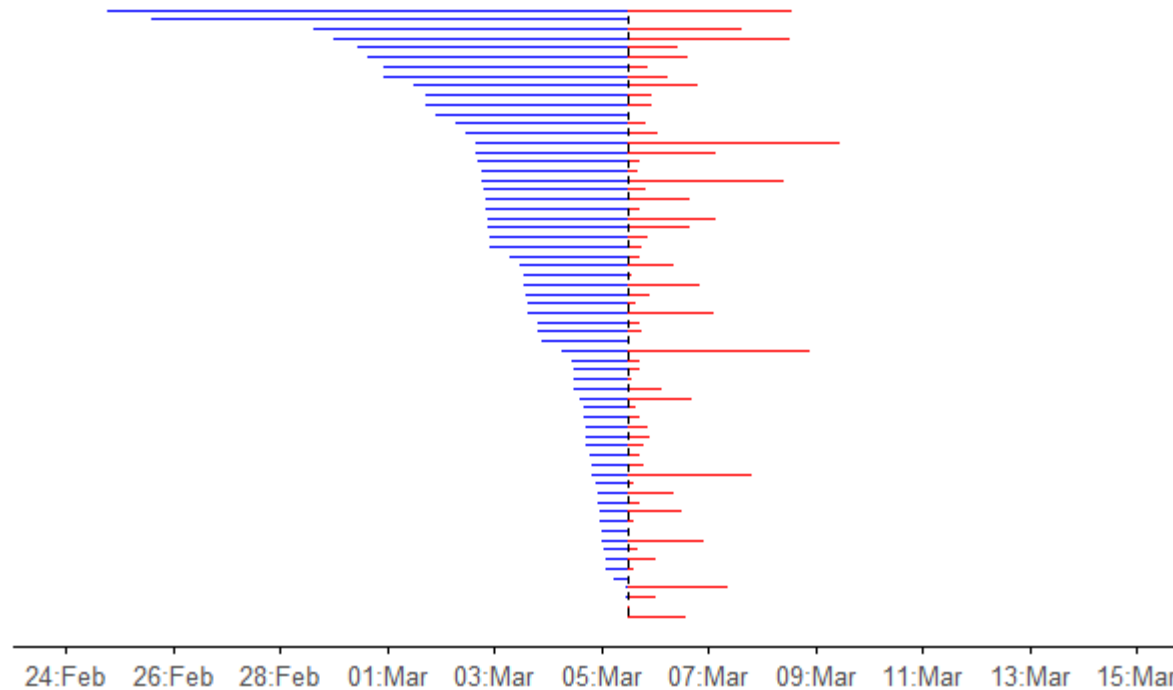Average length of stay still to come = 31.1 hours
Bed hours still to come = 1,804

25-Mar 26-Mar 27-Mar 28-Mar 29-Mar 30-Mar 31-Mar 01-Apr

Heaviness Present

Heaviness past and heaviness still to come

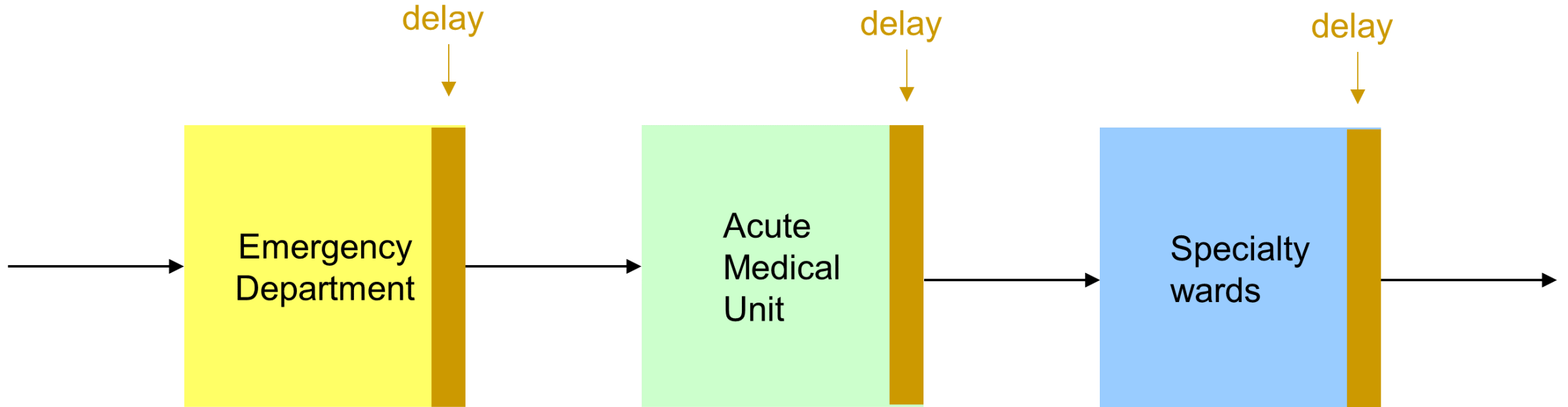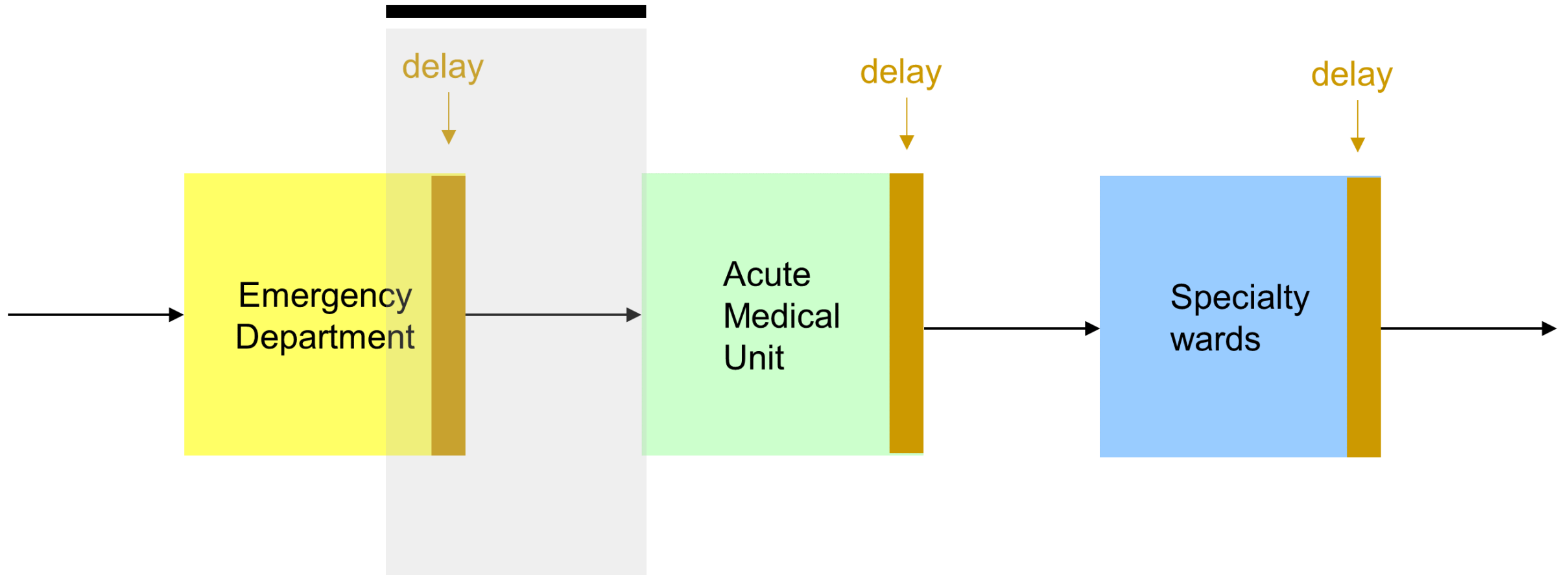65 AMU inpatients overlapped midday on 5th March 2024

2
The Unscheduled Care Pathway Diagram

The Unscheduled Care Pathway
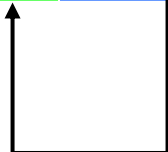(massively over-simplified!)

The ED to AMU handover

3
The Flow_ology Grid

The Flow_ology grid

	A&E	Assessment	Wards
Tue 25th November: 70.5% compliance			
How many?	166 attendances	49 admissions	59 admissions
How long?	240 minutes	22.0 hours	4.6 days
How full?	25.7 patients	49.1 patients	411 patients

The chain reaction

	A&E	Assessment	Wards
Tue 25th November: 70.5% compliance			
How many?	166 attendances	49 admissions	59 admissions
How long?	240 minutes	22.0 hours	4.6 days
How full?	25.7 patients	49.1 patients	411 patients

The chain reaction

Tue 25th November: **70.5% compliance**			
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4
The Gold Run

Blockbusters

Blockbusters (British game show)

Article   Talk

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From Wikipedia, the free encyclopedia

This article is about the television game show. For other uses, see Blockbuster.

> This article **needs additional citations for verification**. Please help improve this article by adding citations to reliable sources. Unsourced material may be challenged and removed.
> Find sources: "Blockbusters" British game show – news · newspapers · books · scholar · JSTOR *(August 2010)* *(Learn how and when to remove this message)*

Blockbusters is a British television quiz show based upon an American quiz show of the same name. A solo player and a team of two answer trivia questions, clued up with an initial letter of the answer, to complete a path across or down a game board of hexagons.

The programme premiered on 29 August 1983 on ITV and ran for ten series, ending on 19 May 1993. It has since been revived for four additional series, the most recent of which was a comedy version hosted
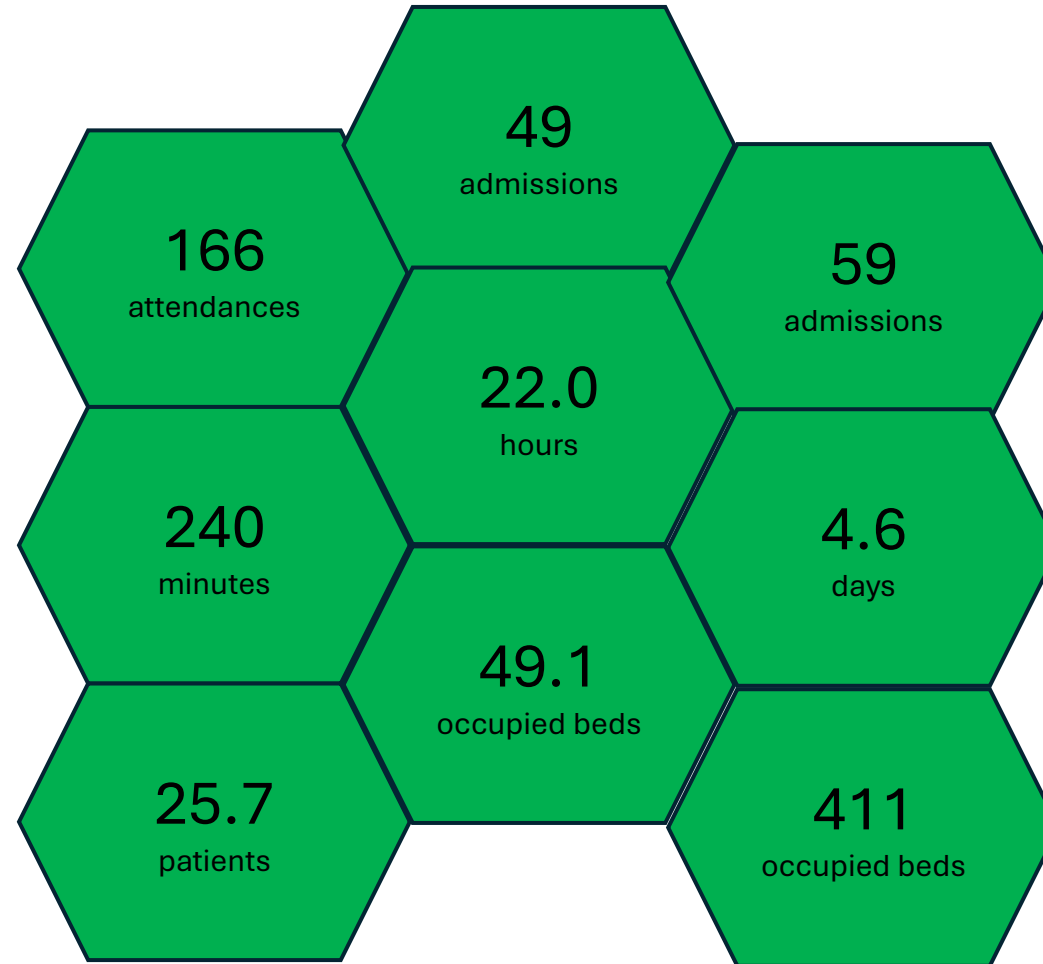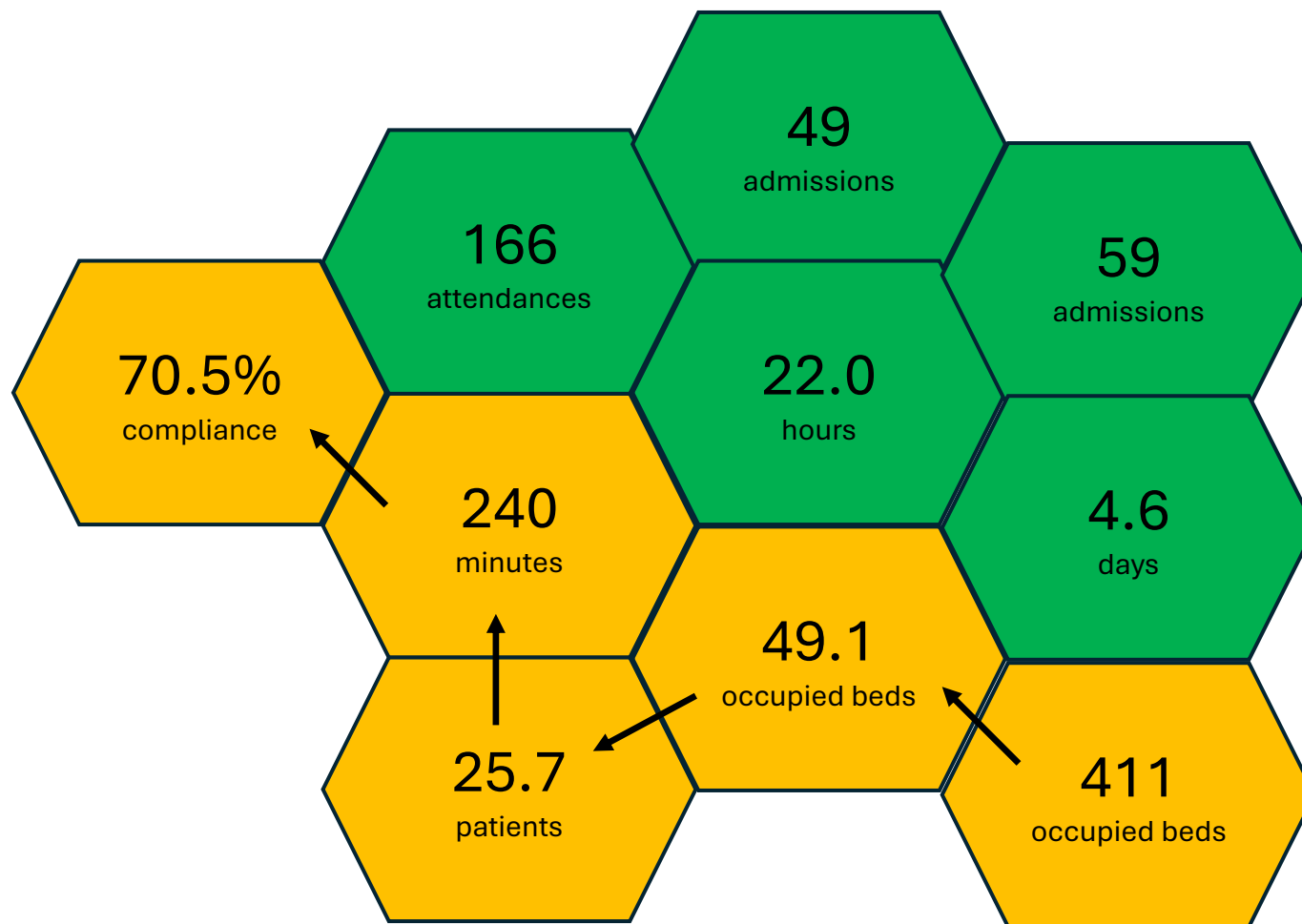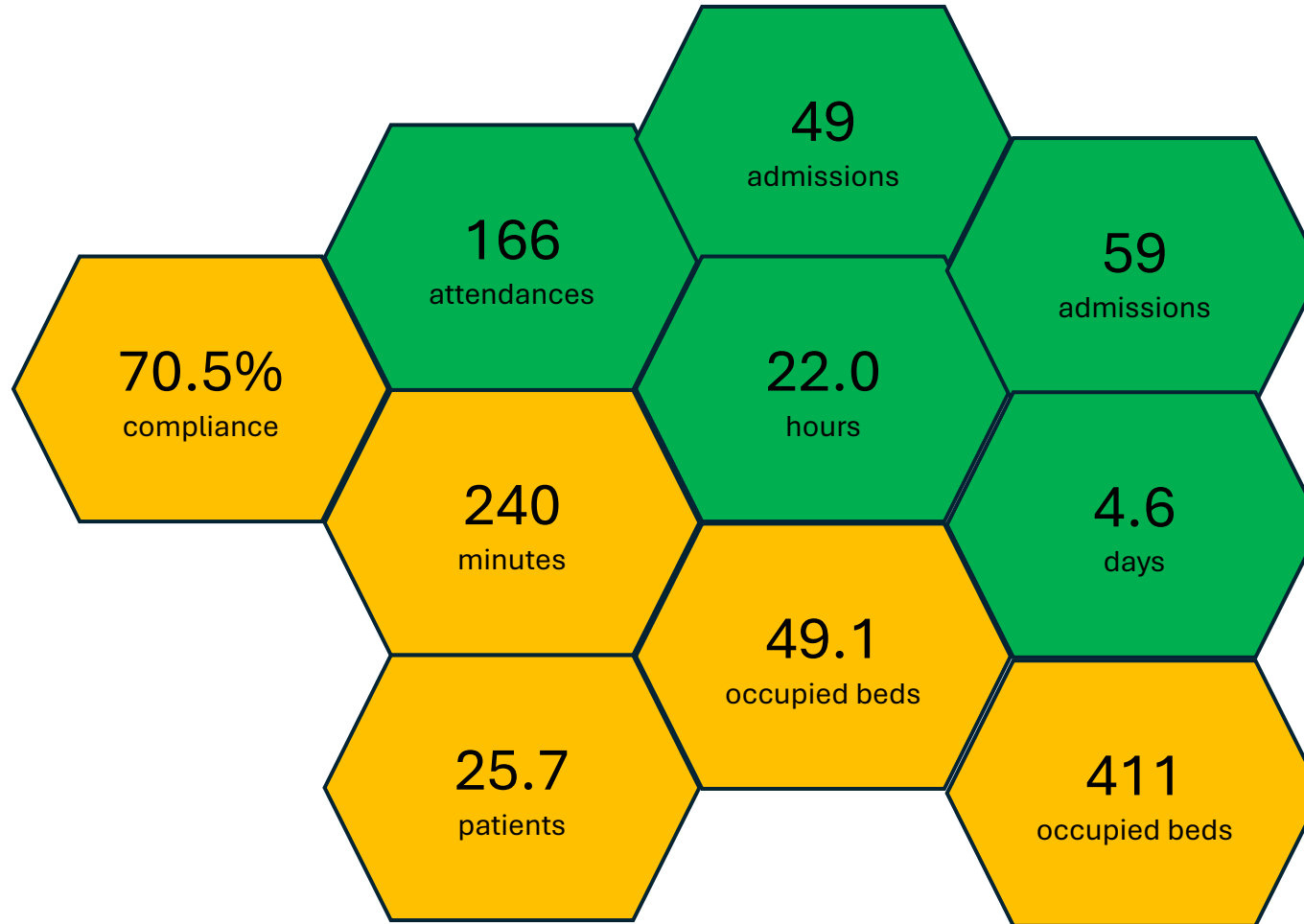
Blockbusters

Blockbusters and the gold run
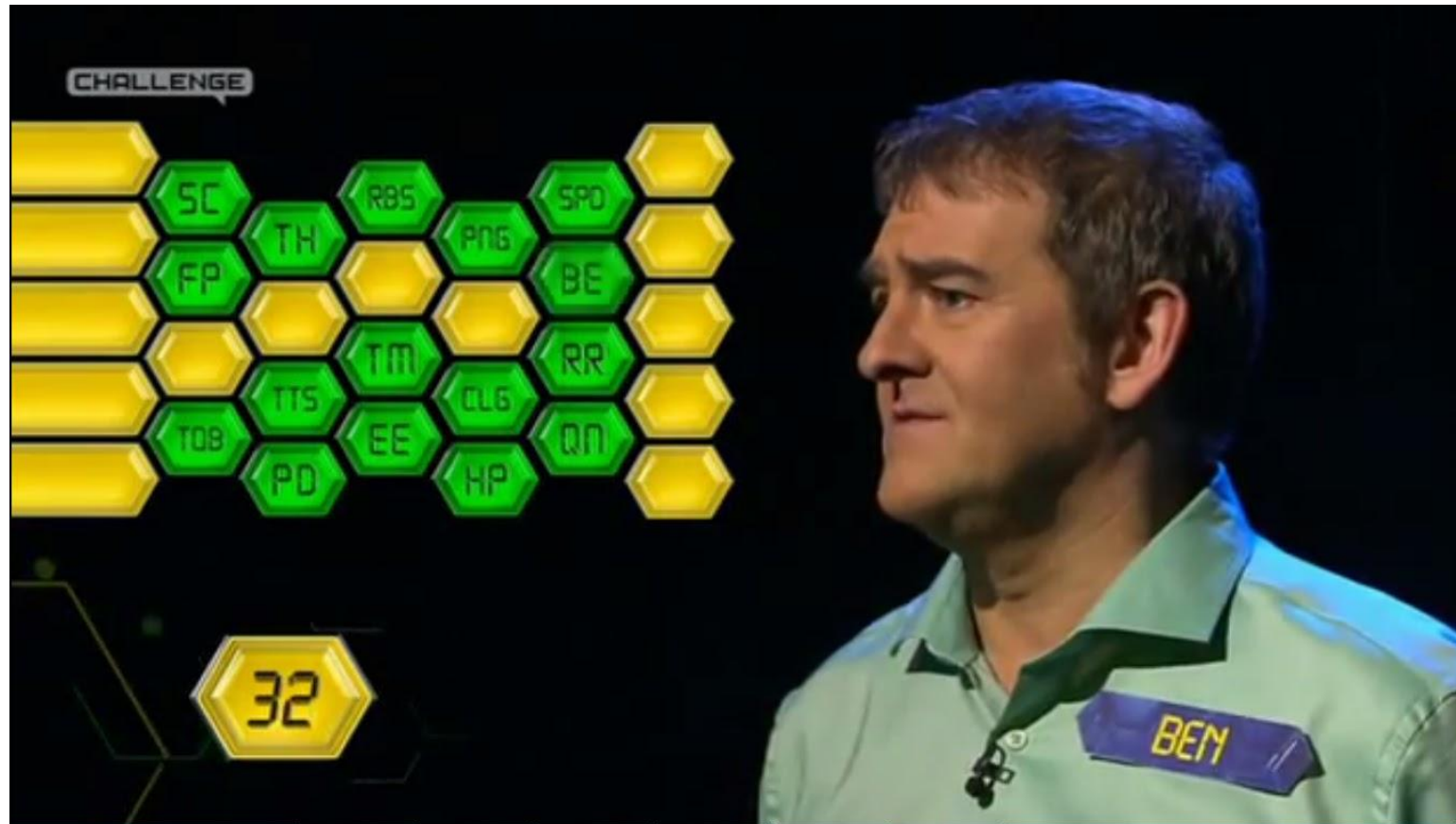
The grid re-designed in the spirit of Blockbusters

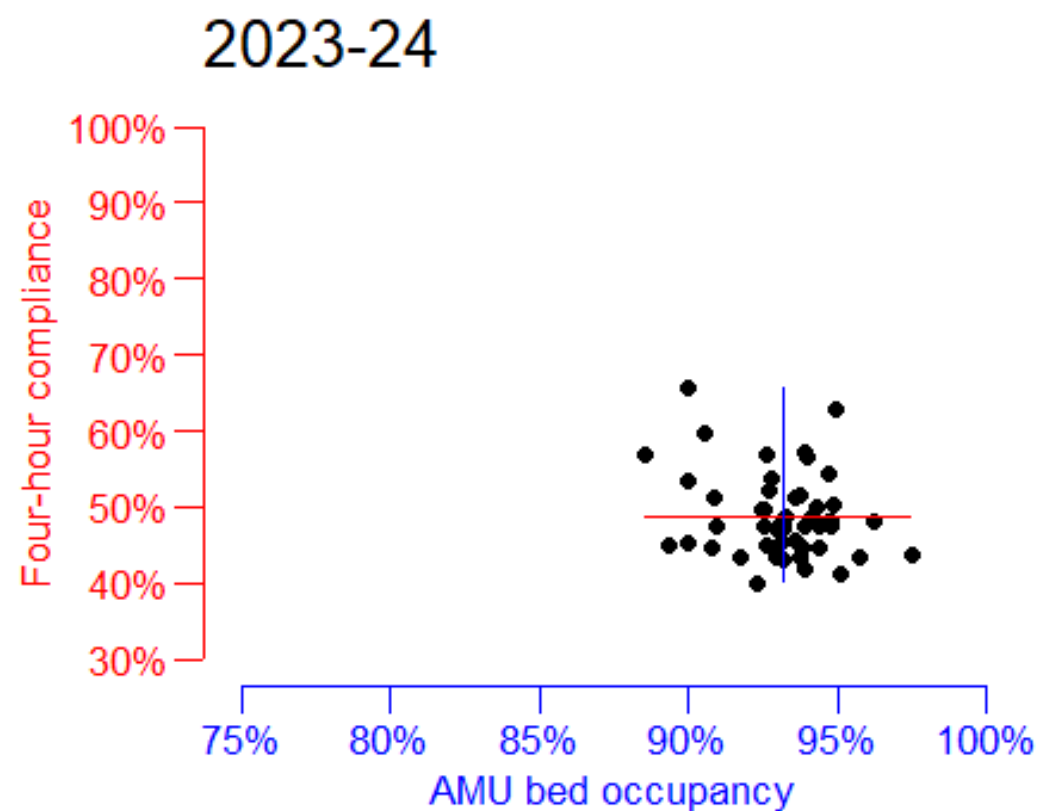# The gold run
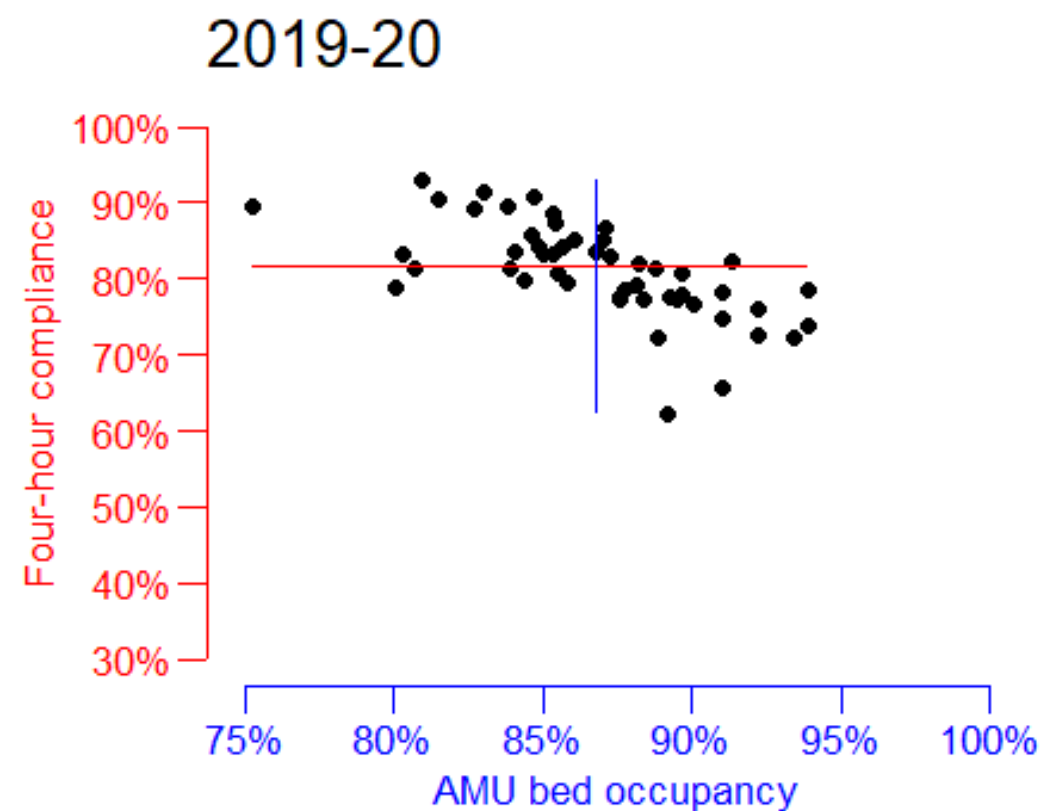
(Also looks a bit like a turtle. Weird.)
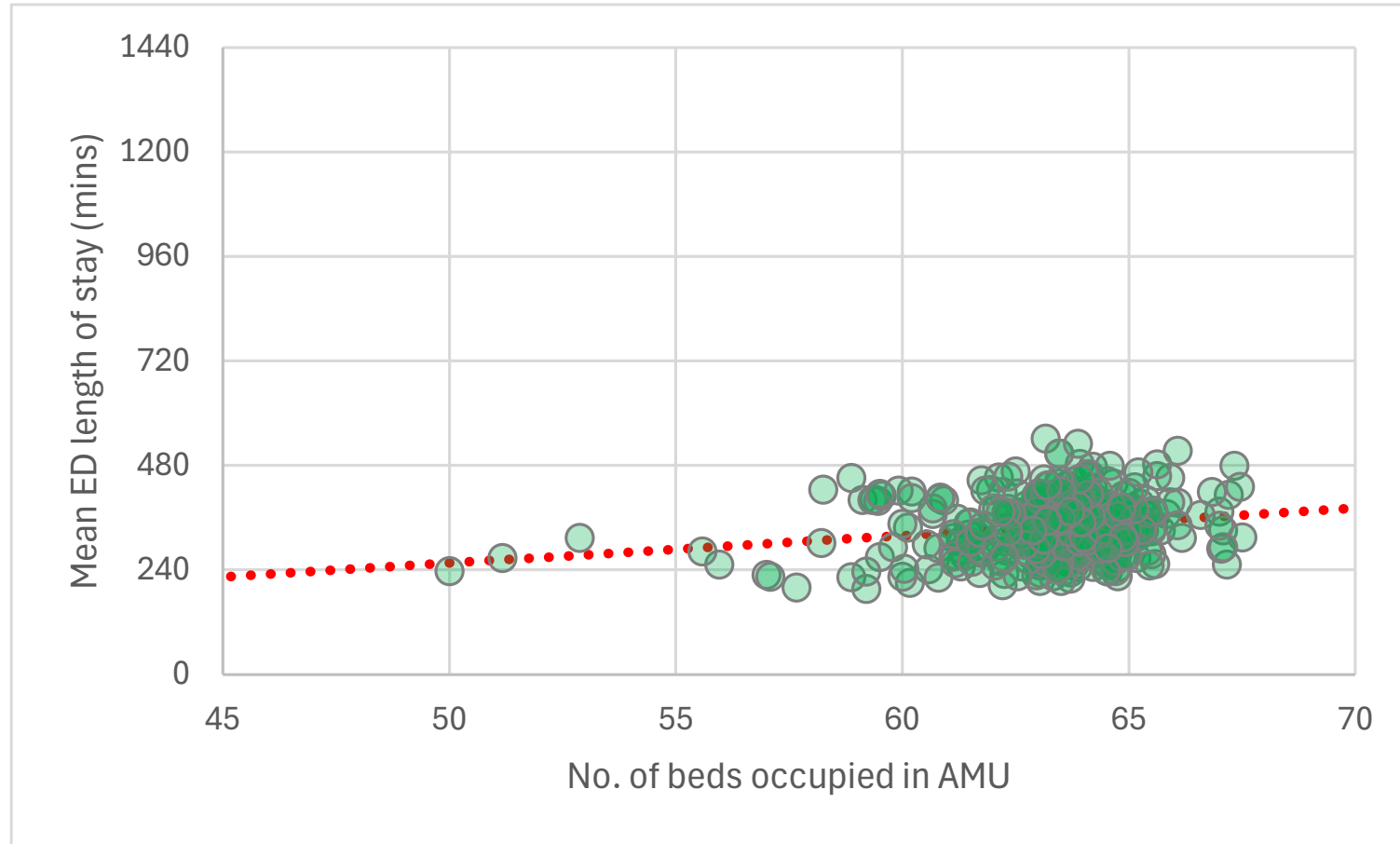
5
The Fullness Hypothesis (is dead…)

The relationship between AMU bed occupancy and four-hour compliance
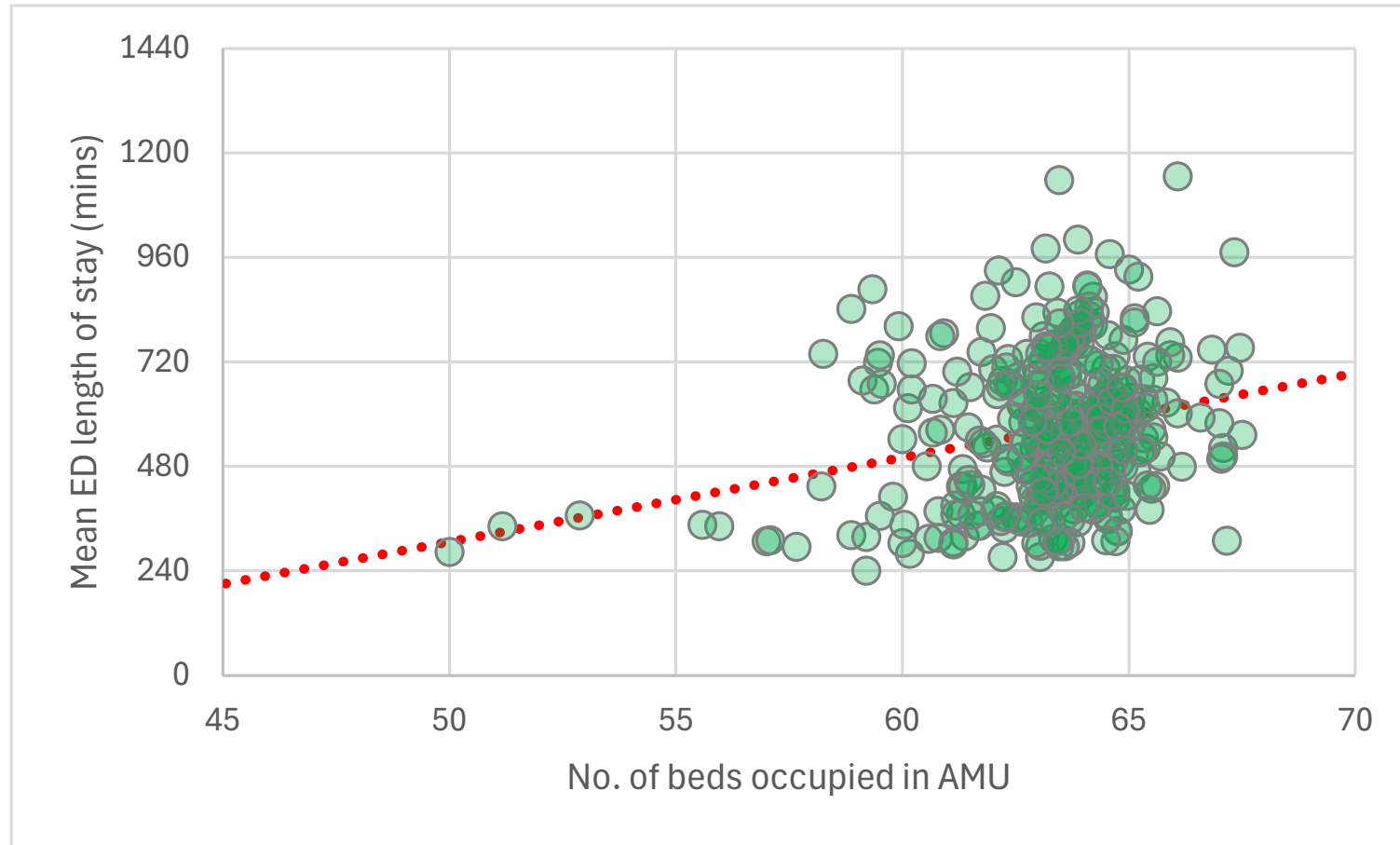
Anytown General Hospital
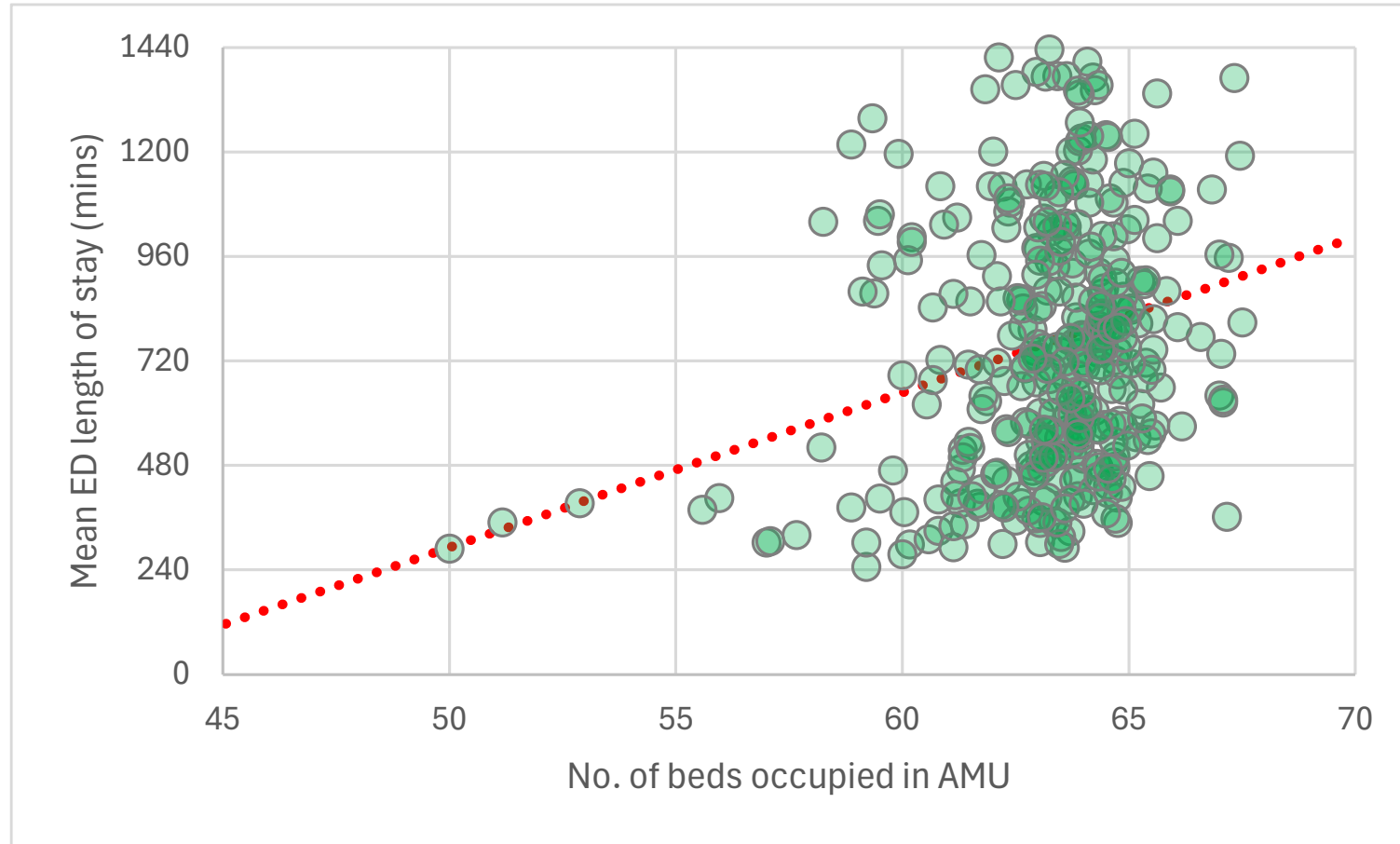
Vertical axis: all ED patients in 2023-24

r = 0.20

Vertical axis: **admitted** ED patients in 2023-24

r = 0.24
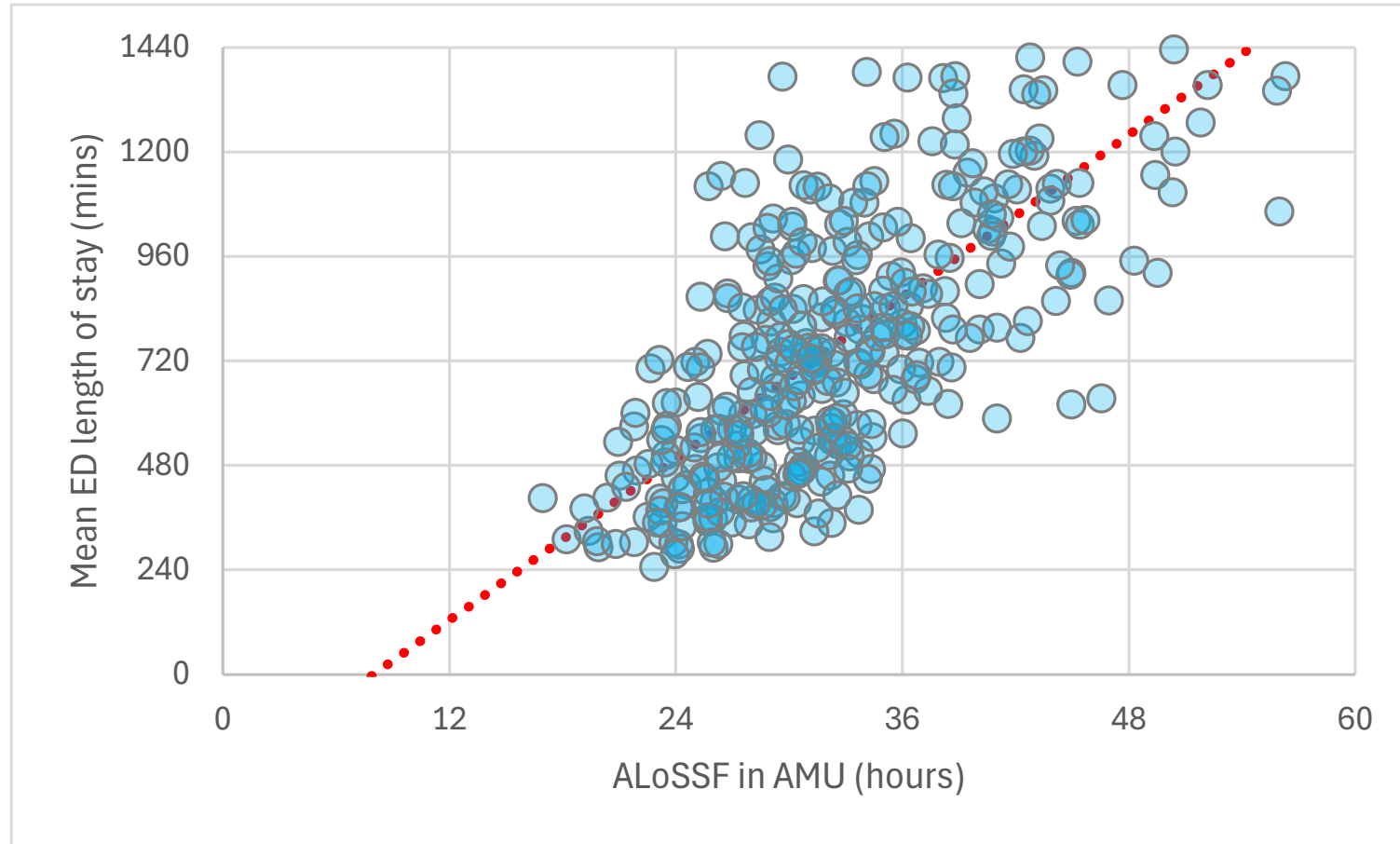
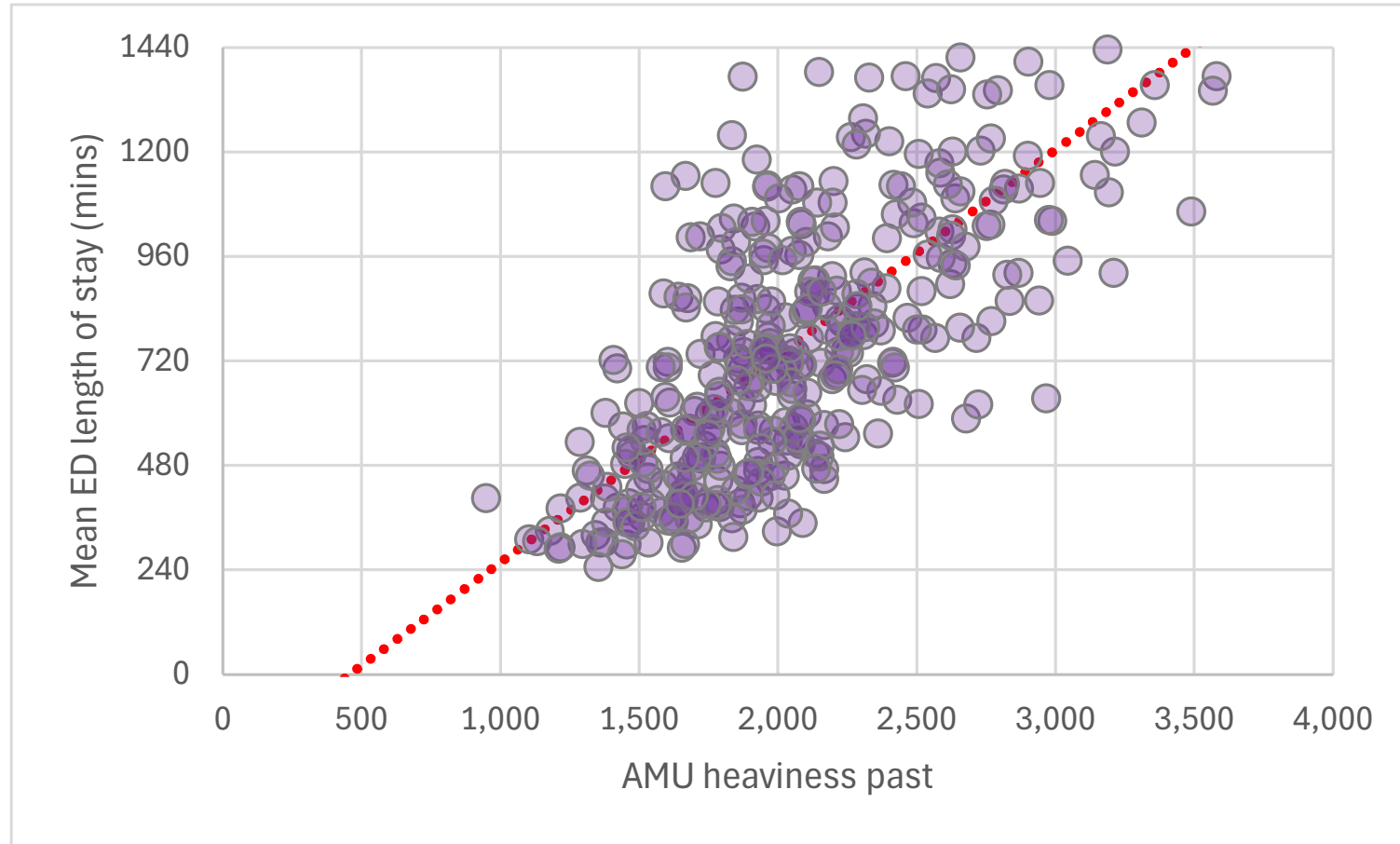Vertical axis: **AMU-bound** ED patients in 2023-24

r = 0.24

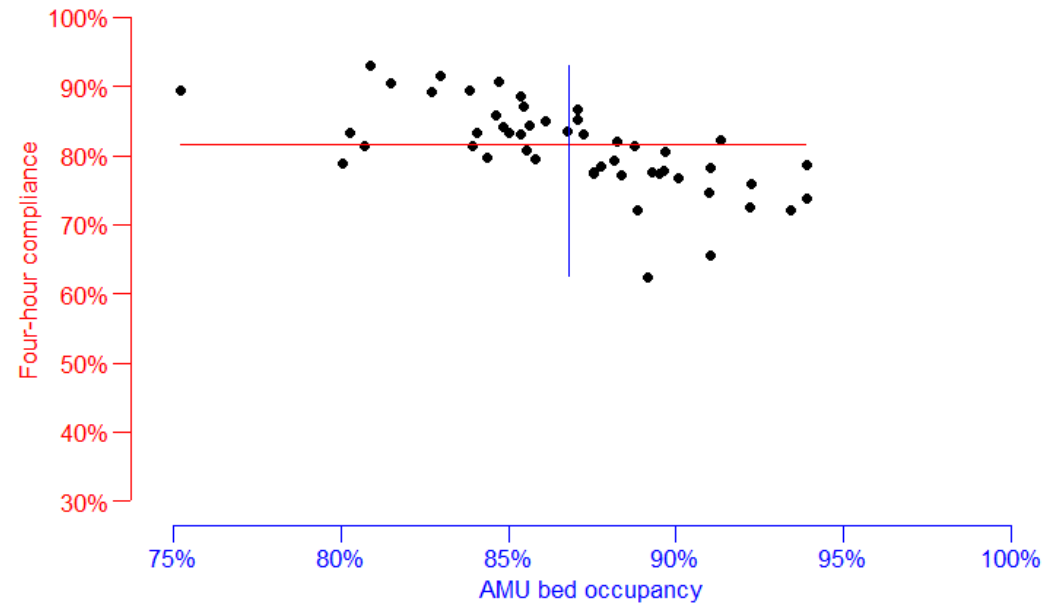Horizontal axis: **AMU length of stay so far**

r = 0.71

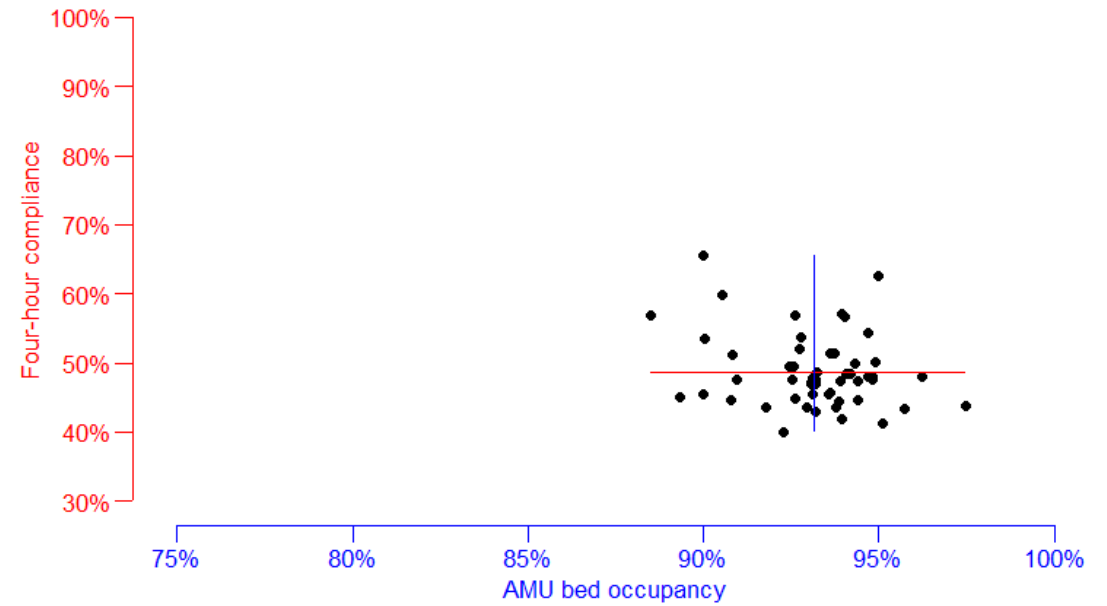Horizontal axis: **AMU heaviness past**

r = 0.72

The 52 weeks of 2019-20
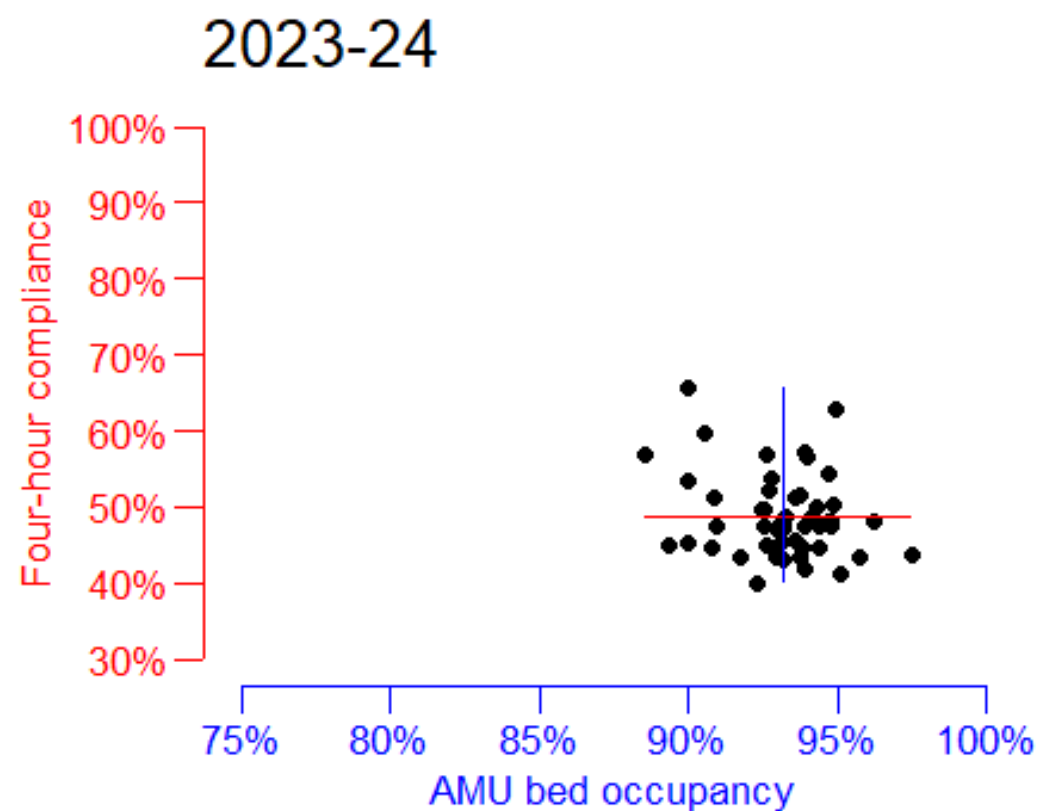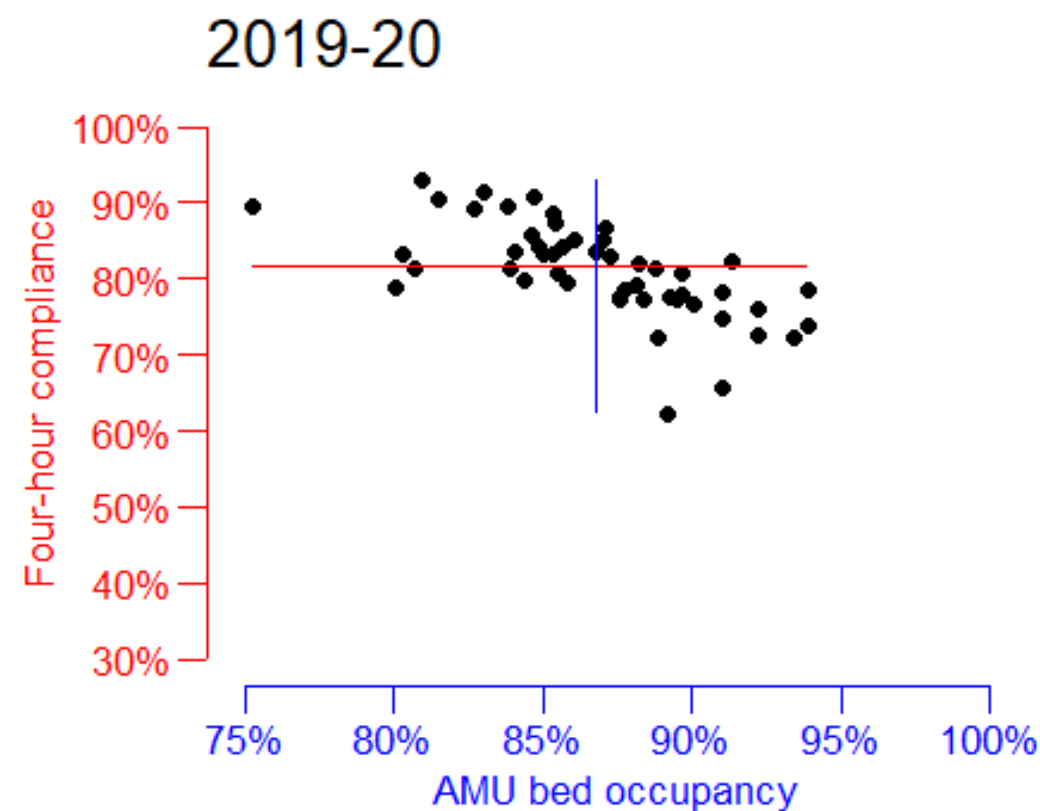Relationship between AMU bed occupancy and four-hour compliance

The 52 weeks of 2023-24
Relationship between AMU bed occupancy and four-hour compliance

The relationship between AMU bed occupancy and four-hour compliance
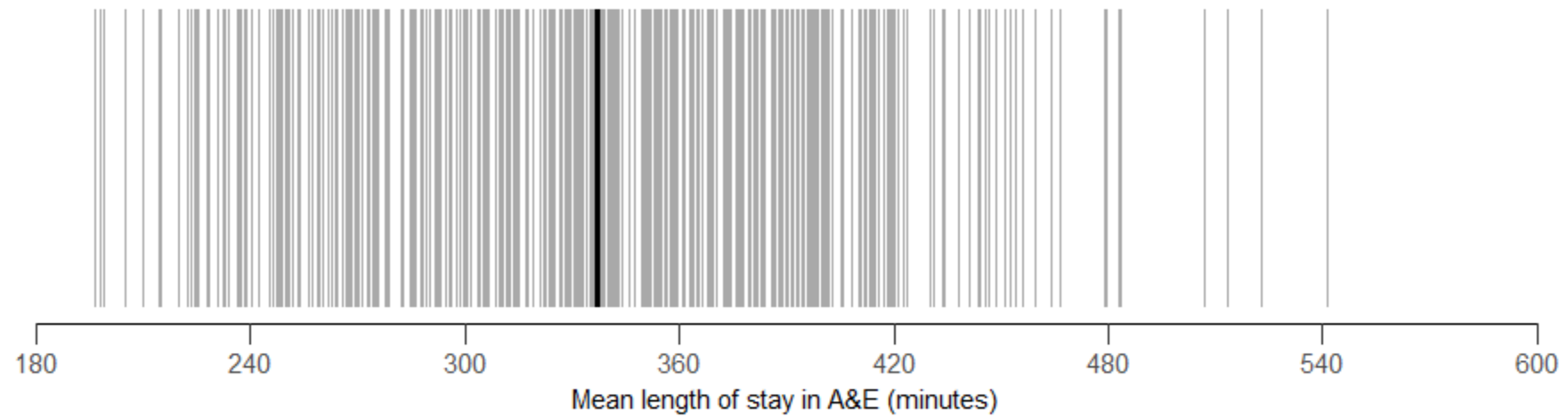
Anytown General Hospital

6
(Long live) the Heaviness Hypothesis!

Quite a lot of variation

Average length of stay in A&E on each of the 366 days of 2023-24

Mean length of stay in A&E (minutes)

AMU less full and **AMU more full**

Average length of stay in A&E on each of the 366 days of 2023-24

Mean length of stay in A&E (minutes)
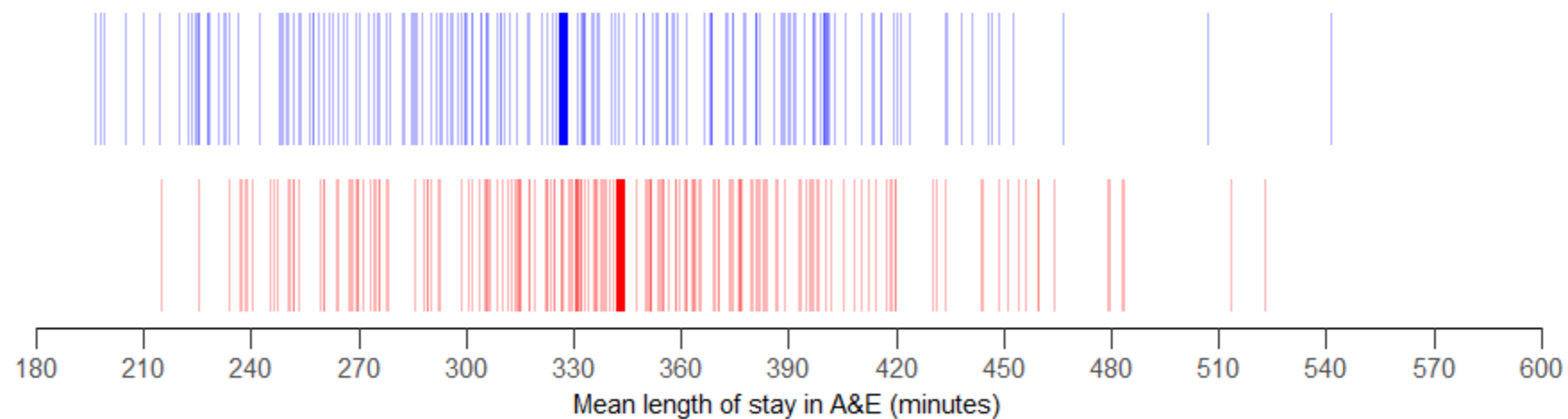
Source: Patient Management System, Anytown General Hospital
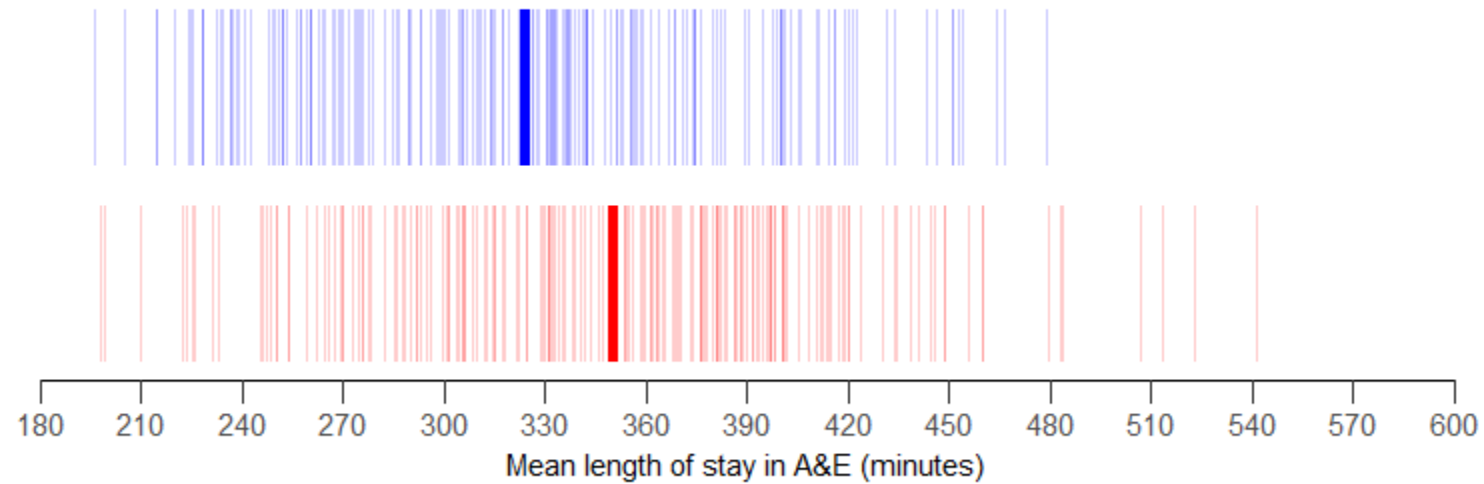
AMU less heavy and AMU more heavy

Average length of stay in A&E on each of the 366 days of 2023-24

Mean length of stay in A&E (minutes)
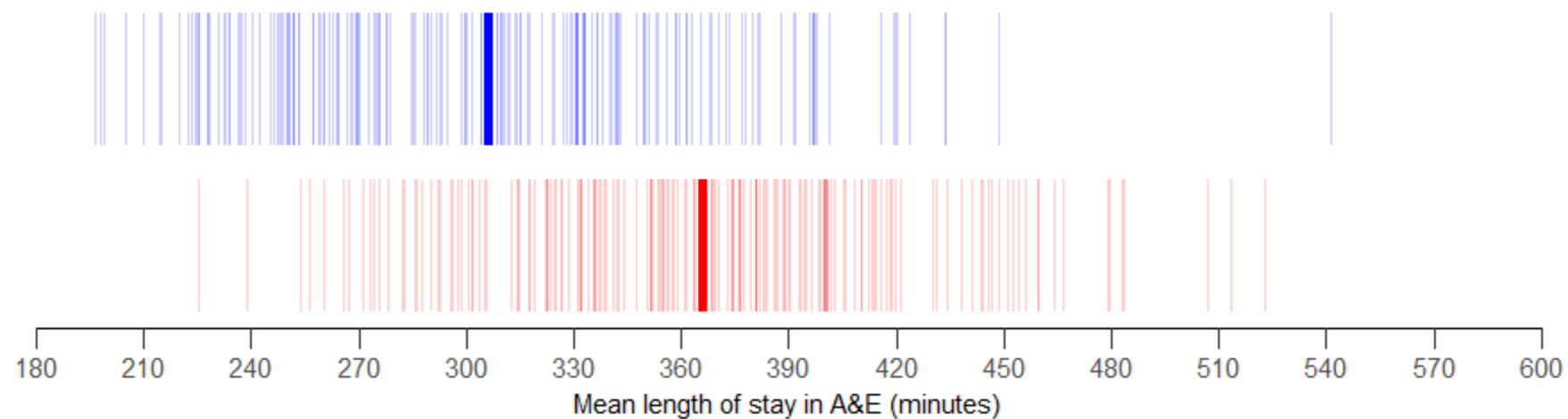
Source: Patient Management System, Anytown General Hospital

Specialties less full and specialties more full

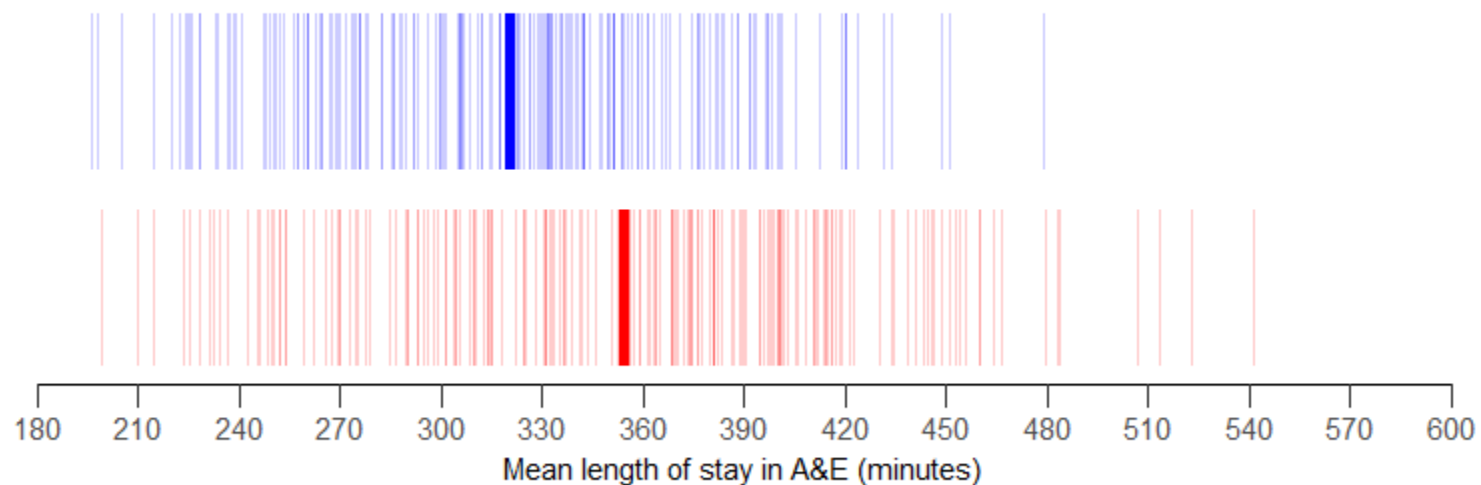Average length of stay in A&E on each of 366 days: 1 April 2023 to 31 March 2024

Mean length of stay in A&E (minutes)

Source: Patient Management System, Anytown General Hospital

Specialties lighter and specialties heavier

Average length of stay in A&E on each of 366 days: 1 April 2023 to 31 March 2024

Mean length of stay in A&E (minutes)

Source: Patient Management System, Anytown General Hospital

Specialties future-lighter and specialties future-heavier

Average length of stay in A&E on each of 366 days: 1 April 2023 to 31 March 2024

Mean length of stay in A&E (minutes)
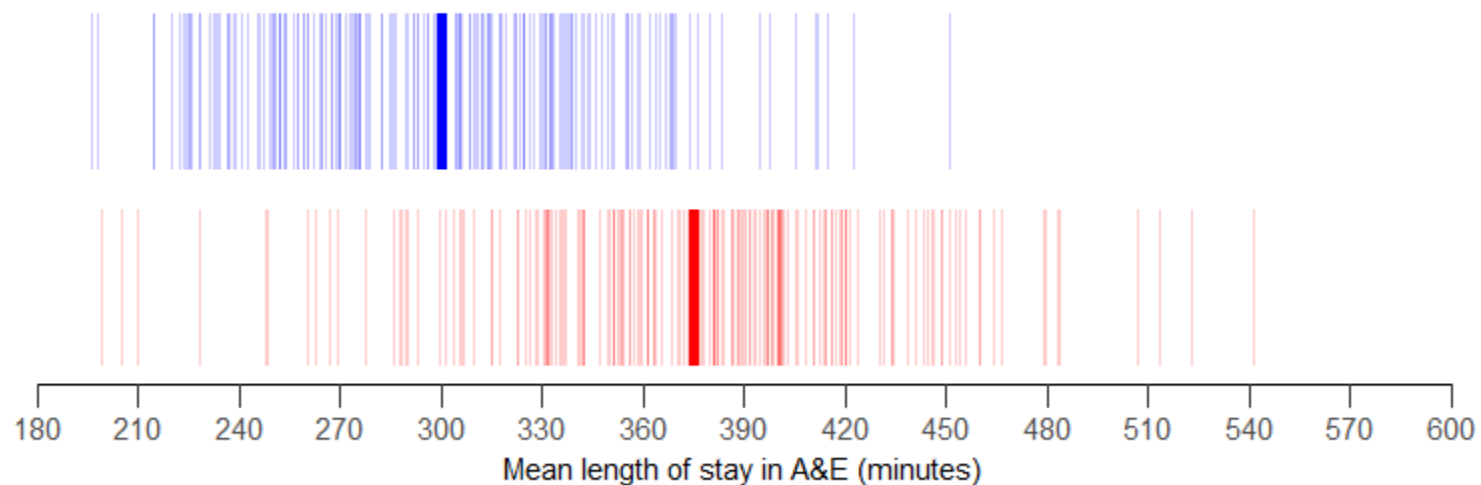
Source: Patient Management System, Anytown General Hospital

Why heaviness might help

Post-AMU General Medicine

		What is	What 'ought to be'…
	How many? (average per day)	6.4 admissions	5.6 admissions
×	How long? (average length of stay)	9.4 days	8.8 days
=	How full? (average no. of occupied beds)	60.2 occupied beds	49.3 occupied beds

Maybe it could help specialties look at length of stay and occupancy as joined-up metrics…