

Report

Royal Infirmary Edinburgh Front Door Redesign

Edinburgh Integration Joint Board

10 December 2019



Executive Summary

1. This report is concerned with the 'front door' of the Royal Infirmary of Edinburgh (RIE). The front door comprises the entry points to acute hospital unscheduled care and includes the Emergency Department, Minor Injuries, Ambulatory Emergency Care and Surgical Receiving. Front Door services have been under continual and growing pressure for a number of years, and this is projected to increase in line with the changing population in Edinburgh and across Lothian over the next 14 years.
2. The case is made for further investment in the service to cope with this changing demand. This will include a significant capital investment, yet to be determined, to address the overcrowding as well as increased staffing in the longer term.
3. A draft of this report was considered by the Strategic Planning Group (SPG) on 22 November 2019.

Recommendations

4. The Edinburgh Integration Joint Board (EIJB) is asked to:
 - I. Agree to support, in principle, an application for capital investment in the RIE Front Door Services.
 - II. To agree that a programme of work is conducted in conjunction with the RIE and other Lothian Health and Social Care Partnerships (HSCP) to examine and develop, as appropriate, viable and cost-effective community-based alternatives to acute hospital care to reduce demand on the RIE Front Door.

Strategic Planning Group (SPG)

5. This report was considered by the SPG on 22 November 2019. Considerable time was set aside to discuss this Report in detail and the debate centred on the

evidence provided, the capital plan and potential future costs relating to workforce. The SPG satisfied itself that agreement in principle to the capital expansion was appropriate and noted that further work would be presented to the EIJB in due course. The SPG reserved its position on future revenue costs until the workforce plan was reviewed. Minor amendments were directed to be made and on that basis the recommendations were accepted for submission to the EIJB.

Background

6. Integration legislation required NHS Boards to delegate responsibility for planning unscheduled care, including accident and emergency services, to IJBs. In practice, this is undertaken in close collaboration with NHS Lothian, Acute Services and with neighbouring IJBs, which have a shared interest in Lothian Acute Hospitals.
7. The Integrated Care Forum is a Lothian-wide forum which takes responsibility for ensuring a coordinated approach to planning. Additionally, following the Scottish Government's decision to place NHS Lothian at Level 3 of the NHS Board Performance Escalation Framework, a cross Lothian forum has been established to address the performance issues relating to unscheduled care.
8. This proposal concerns the provision of safe and effective emergency medical services at the front door of the REI. The RIE Front Door comprises all entry points to acute hospital unscheduled care and includes the Emergency Department (ED), Minor Injuries, Ambulatory Emergency Care and Surgical Receiving Services. Front Door services have been under continual and growing pressure for a number of years. These pressures will increase, reflecting projections of a growing and ageing population in Edinburgh and across Lothian over the next 15 years.
9. The Scottish Government 2020 Vision for care to be provided "to the highest possible standards of quality and safety with the person at the centre of all decisions, whatever the setting, is reflected in NHS Lothian's vision for services.
10. Crowding is a key barrier to providing safe and effective care within the RIE ED. Within the publication *Crowding in EDs*, the Royal College of Emergency Medicine cites published evidence, which demonstrates that ED crowding is linked to increased mortality.
11. Crowding also affects the ED's ability to achieve and maintain sustainable performance against the Emergency Access Standard. Without change, there is unlikely to be significant improvement in performance against the standard.

12. The RIE ED, which opened in 2003, was originally designed during the 1990s to manage 80,000 patient attendances per annum. In 2008, 79,925 patients attended the ED. Attendances have continued to increase since 2008 and in 2018 119,783 patients were reviewed and assessed, with the department accepting anywhere between 330 to 400 presentations per day.
13. NHS Lothian has put in place interim measures to manage increasing demand, including a modular build to accommodate the minor injuries unit and a test of change to provide additional capacity for ambulatory emergency care and observation of patients requiring a stay greater than 4 and less than 12 hours. However, there is recognition that sustainable solutions are required to manage demand in coming years.
14. A redesign and extension of the current clinical space is required to enable the delivery of safe and effective services at the RIE Front Door. This will require capital investment. NHS Lothian applies a clear process for prioritisation and development of capital projects which is in line with Scottish Capital Investment Manual (SCIM) guidance. The guidance covers issues around investment appraisal, financial affordability and procurement, as well as project management and governance arrangements.
15. A core group, comprising clinical and management staff working across front door services, was established in autumn 2018 to develop the strategic case for change, and begin to develop proposals for the development of the RIE Front Door. In late 2018, it was recognised that there was a need to include a wider group of stakeholders in discussions. A Programme Board was subsequently established in March 2019 to determine the preferred scope of the redesign, along with a number of sub groups to develop the clinical model. Lothian's HSCPs have been invited to join both the Programme Board and its sub-groups.
16. Edinburgh HSCP will conduct further work in conjunction with the RIE and other Lothian HSCPs to examine and develop, as appropriate, viable and cost-effective community-based alternatives to acute hospital care to reduce demand on the RIE Front Door.

Key risks

17. Failure to address the current pressures at the RIE Front Door will result in an inability to consistently meet public and service user expectations in terms of the 4 hour emergency access standard, and in care being delivered from sub-optimal facilities.

Financial implications

18. In relation to capital costs, the redesign will require substantial investment. While exact costs cannot be provided at this stage, they will be appraised as part of the capital governance process.
19. No revenue increases would be anticipated in the next 2-3 years in respect of this proposal. NHSL would provide a workforce plan looking ahead for the next 5-10 years outlining the resource implications of workforce increases directly linked to population-driven activity growth. Thereafter, it would be for EIJB, given its statutory responsibility for strategic planning and commissioning of these services, to decide whether it wished to fund this increase or invest in alternative options put forward from elsewhere. These would need to deliver at scale and the SPG was briefed that growth was not limited to patients who “didn’t need to be there”, but across all triage categories.

Implications for Directions

20. There are no implications for Directions at this stage. Formal Directions will follow at the end of the capital planning process once approved by the EIJB.

Equalities implications

21. There should be no specific equalities implications as a result of these proposals, as they concern specifically the improvement of existing services at the RIE Front Door and not a material change to those services. A full Inequalities Impact Assessment will be carried out as part of the next stage of the capital governance process.

Sustainability implications

22. The proposal to redesign RIE Front Door Services supports a more sustainable service for the future.

Involving people

23. The RIE Front Door Redesign Programme Board and Clinical Model Sub-Groups have engaged a range of staff working across the RIE Front Door plus HSCP colleagues, to ensure engagement in these proposals.

24. Complaints and compliments regarding the RIE ED during 2018 have been reviewed in the development of these proposals, and satisfaction surveys have also been carried out during tests of change.
25. Staff, patients and members of the public will be further involved in the next stage of the capital governance process, as we begin to redesign the RIE Front Door.

Impact on plans of other parties

26. Plans to date have, and will continue to be, developed in collaboration with both Acute and HSCP colleagues.

Background reading/references

27. None

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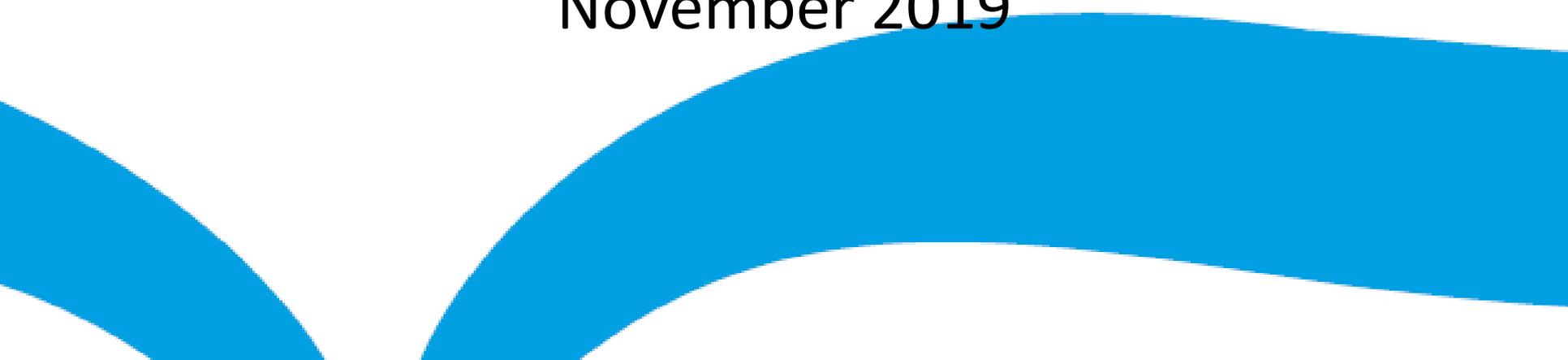
Appendices

Appendix 1

RIE Front Door Redesign

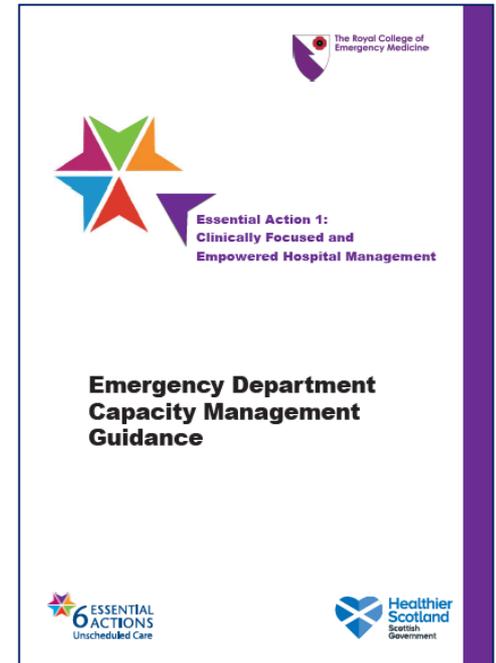
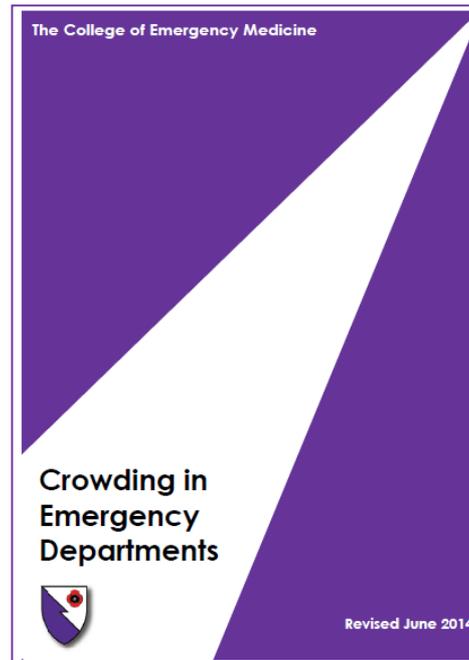
RIE Front Door Redesign

November 2019

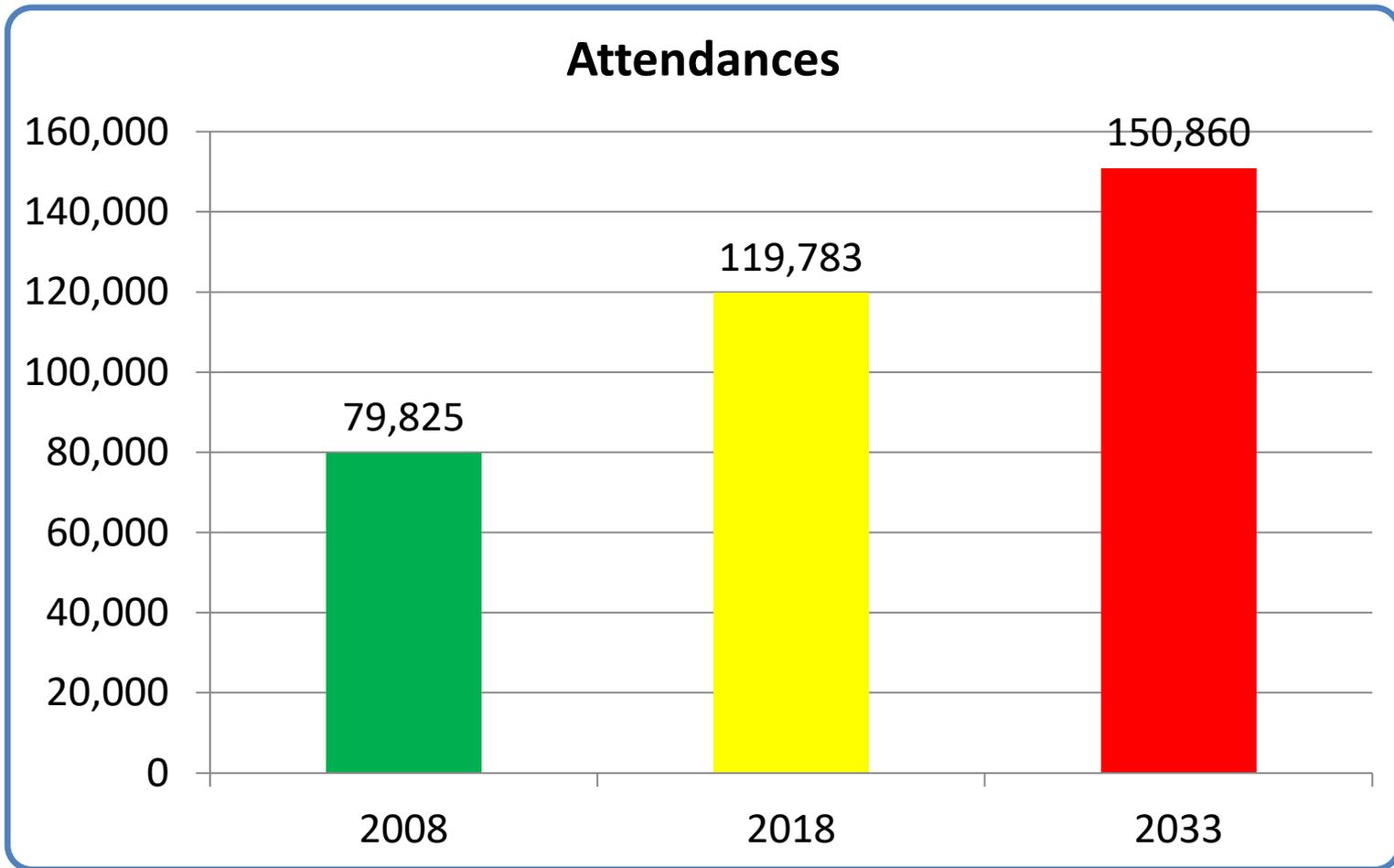


Crowding

- ↓ Patient experience
- ↓ Safety
- ↓ Quality
- ↑ Mortality
- ↓ Staff morale
- ↓ Performance



Why so crowded?



Programme Board

**RIE Front Door Redesign
Programme Board**

**ED
Footprint**

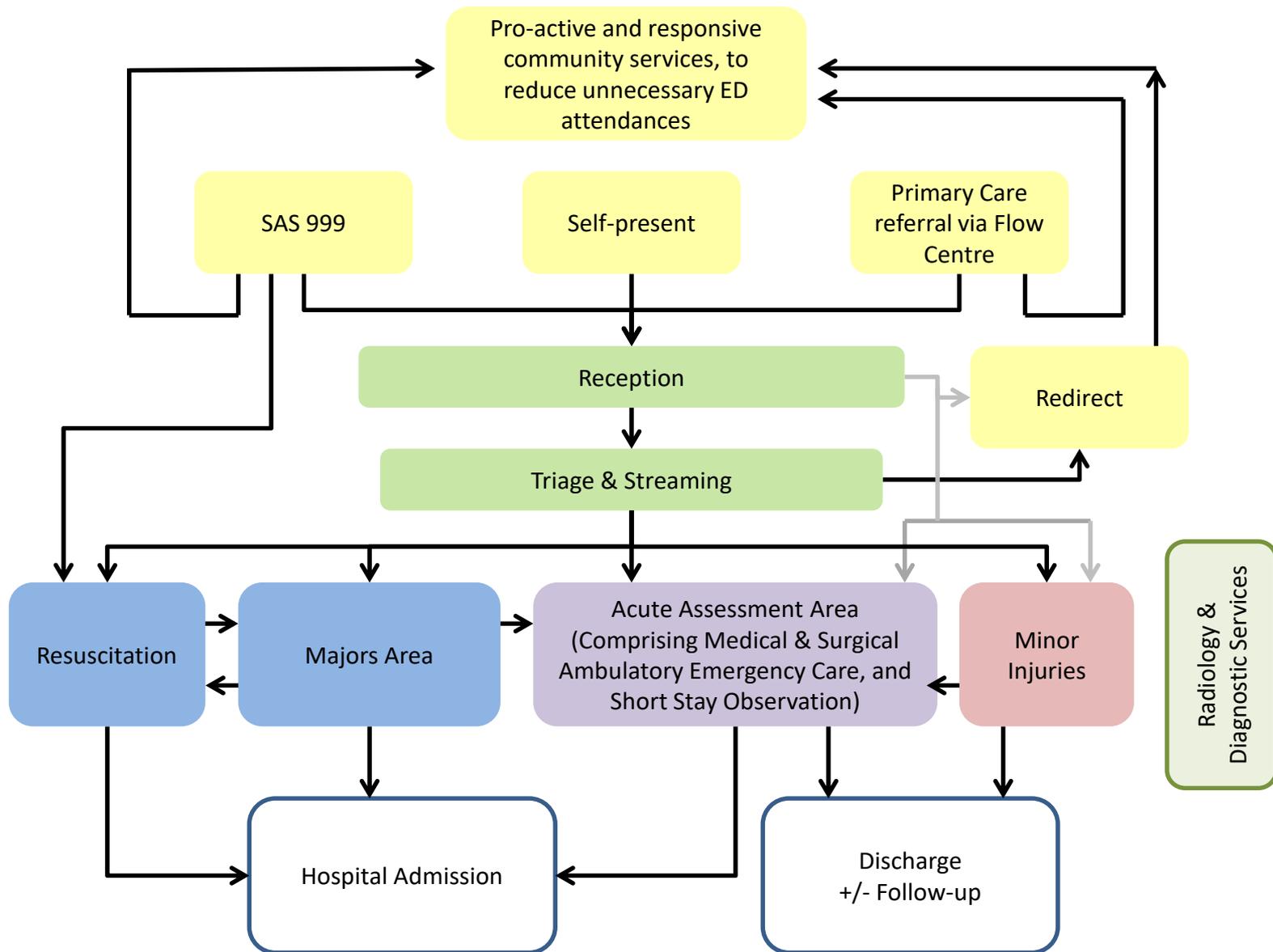
**Minor
Injuries**

**AEC and
SSOU**

**Surgical
Specialties**

Frailty

Clinical Model Overview



Current Patient Care Spaces

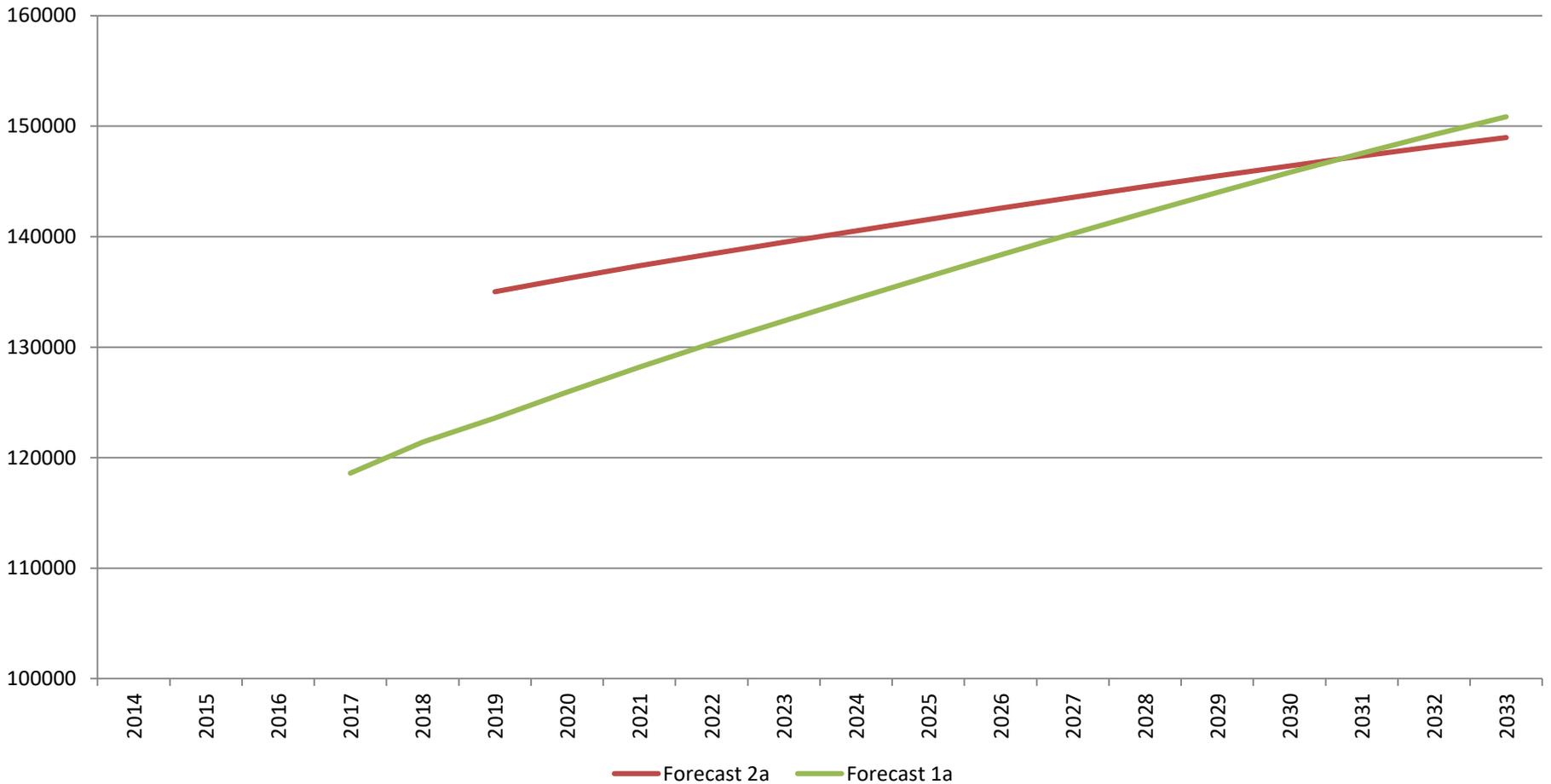
	Substantive	Additional	Total
ED HD/IC	33	0	33
Resuscitation	4	0	4
Isolation Room	1	0	1
Anaesthetic Room	1	0	1
Minor Injuries	0	8	8
Ambulatory Emergency Care	3	14	17
Short Stay Observation	0		
Surgical Receiving	12	0	12
Total	54	22	76

2033 Requirement

	Requirement for Patient Care Spaces			
Function	Cubicles	Treatment Rooms	Chairs	Total
Minor Injuries	7	3	0	10
AEC & SSOU	10	3	4	17
Resus	8	0	0	8
Decontamination	0	2	0	2
Isolation	0	1	0	1
Majors	35	0	17	52
Surgical Receiving	12	2	4	18
Total	72	11	25	108

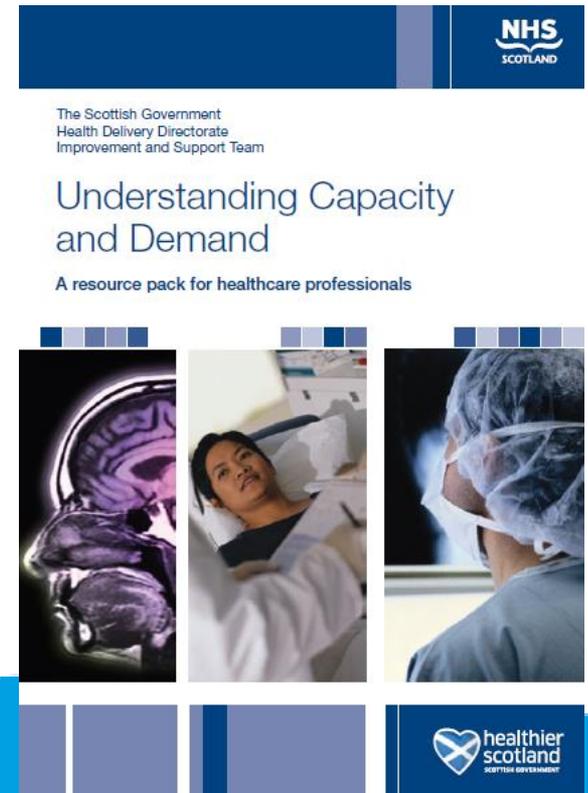
Activity (Adjusted)

RIE predicted attendances (adjusted for 2019 increase)



6. Theoretical Capacity

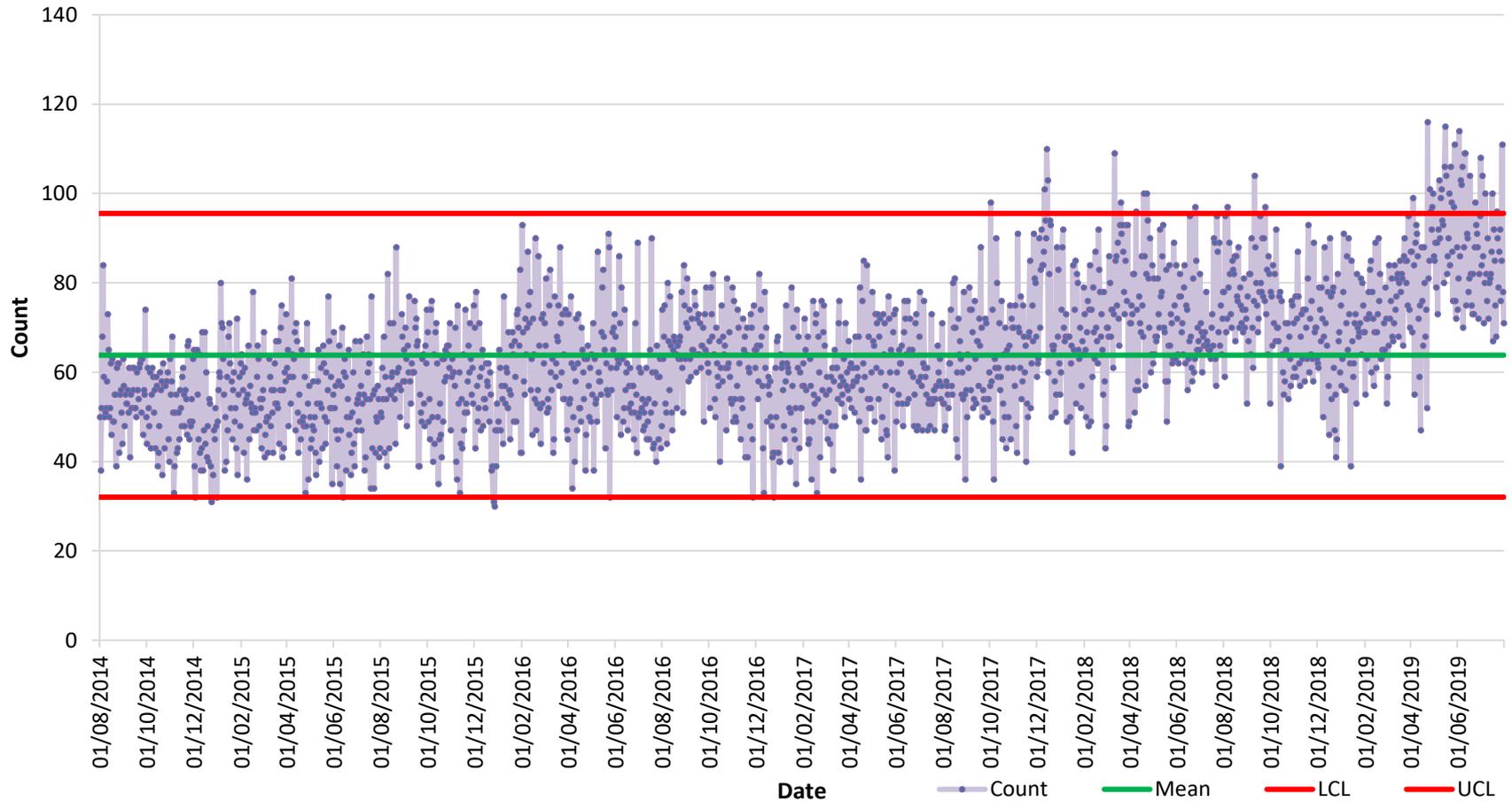
An accepted method for setting fixed capacity, using the 80% rule to take into account variation in demand



$$TC = \text{min demand} + 0.8(\text{max} - \text{min demand})$$

Assuming occupancy = demand

RIE ED Occupancy 1 Aug 14 to 31 Jul 19 at 18:00



Theoretical capacity (2)

Current requirement = 79 patient care spaces

2033 requirement = 100 patient care spaces

Assumptions:

- 26% increase in attendance spread evenly across 24 hours
- Use of 95% centile values to exclude special cause variation

☹ Depends of accuracy of forecast attendance

☹ Assumes current occupancy is acceptable

Validation: Site Visits

- St Thomas' Hospital, London
 - Wexham Park Hospital, Slough

 - Similar attendance figures
 - Recent reconfiguration
 - Variation in attendance profile
- 

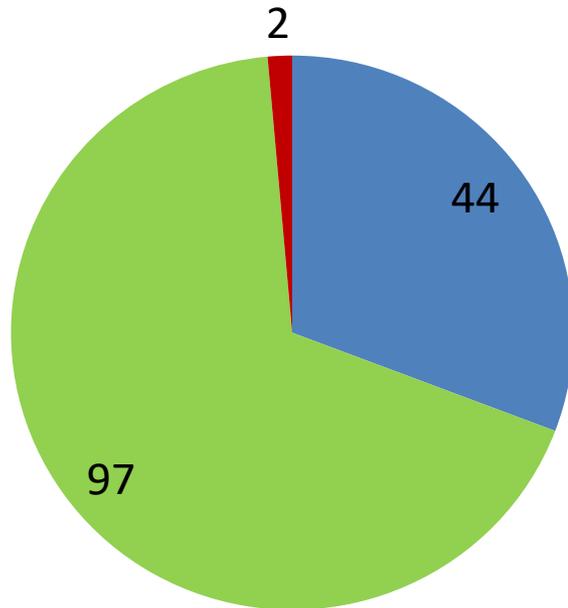
Royal Infirmary of Edinburgh	St Thomas' Hospital, London	Wexham Park, Slough
120,000 Projected: 142,000	150,000	124,000 Projected: Up to 150,000
Approx 400 per day	Designed for 420-450 per day	Up to 400 per day
13+	Adults plus Paediatric Unit	Adults plus Paediatric Unit
Hyperacute Stroke Major Trauma PCI	PCI No Biers Blocks on site	PCI
<p>Proposed: 108 spaces</p> <p>Minor Injuries: 10 AEC & SSOU: 17 Resus: 8 Decontamination: 1 Isolation: 2 Majors: 52 Surgical Receiving: 18</p>	<p>77 patient care spaces</p> <p>Streaming desk with 3 cubicles Urgent Care: 10 cubicles plus plaster room with 2 spaces Majors: 25 cubicles, including 3 rooms for mental health Resus: 8 cubicles AEC: 7 bays plus observed waiting area CDU (12 hr stay): 24 beds</p>	<p>124 patient care spaces</p> <p>2 x streaming rooms Minors: 8 cubicles plus Plaster and Eye Room 10 x RAT spaces 30 Majors cubicles (8 not open) Resus: 8 cubicles AEC 20 cubicles plus ten chairs (10 cubicles not yet open) Multi-specialty acute assessment 33 beds and 6 chairs</p>

Validation: ED Discovery

- To review a snapshot of attendances on a typical day (Monday April 8th 2019).
 - To explore alternative solutions, with a view to making the most efficient and effective use of resource, including:
 - *Current community services*
 - *Potential developments outside the hospital*
 - *Scheduling*
- 

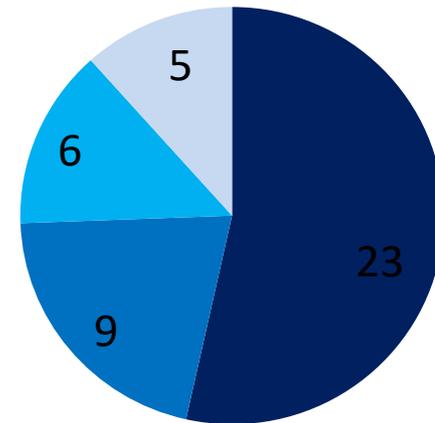
ED Discovery: Initial Conclusions

Triage Categories 4-9



- Could be seen elsewhere
- ED/MIU
- Not enough information

Alternatives



- GP
- Community Service
- Self Care
- Other

Validation: ED Size-It App

Takes you through a list of variables that define patient care spaces

Assumptions:

NHS Major Trauma Centre with Observation ward

150,000 ED Visits per annum

Apply existing data to variables

106-112 patient care spaces

Patient Volume and Acuties
Quantify Future Annual ED Visits

150,000 ED Visits

Enter % Acuity Distribution
Should Calculate to 100% 0 %

Highest Acuity: Resuscitation 0%
ESI 1 or Billing Level V: Immediate, life saving intervention required without delay

Emergent 0%
ESI 2 or Billing Level IV: High risk of deterioration, or signs of a time-critical problem

Urgent 0%
ESI 3 or Billing Level III: Stable, with multiple types of resources needed to investigate or treat

Less Urgent 0%

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Timescales: Next Steps

- Initial Agreement to F&R: November 2019
 - RIE HMG and Acute SMT: October 2019
 - IJBs: October 2019
 - LCIG: October 2019
 - F&R: November 2019
 - Business Case: March 2020
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