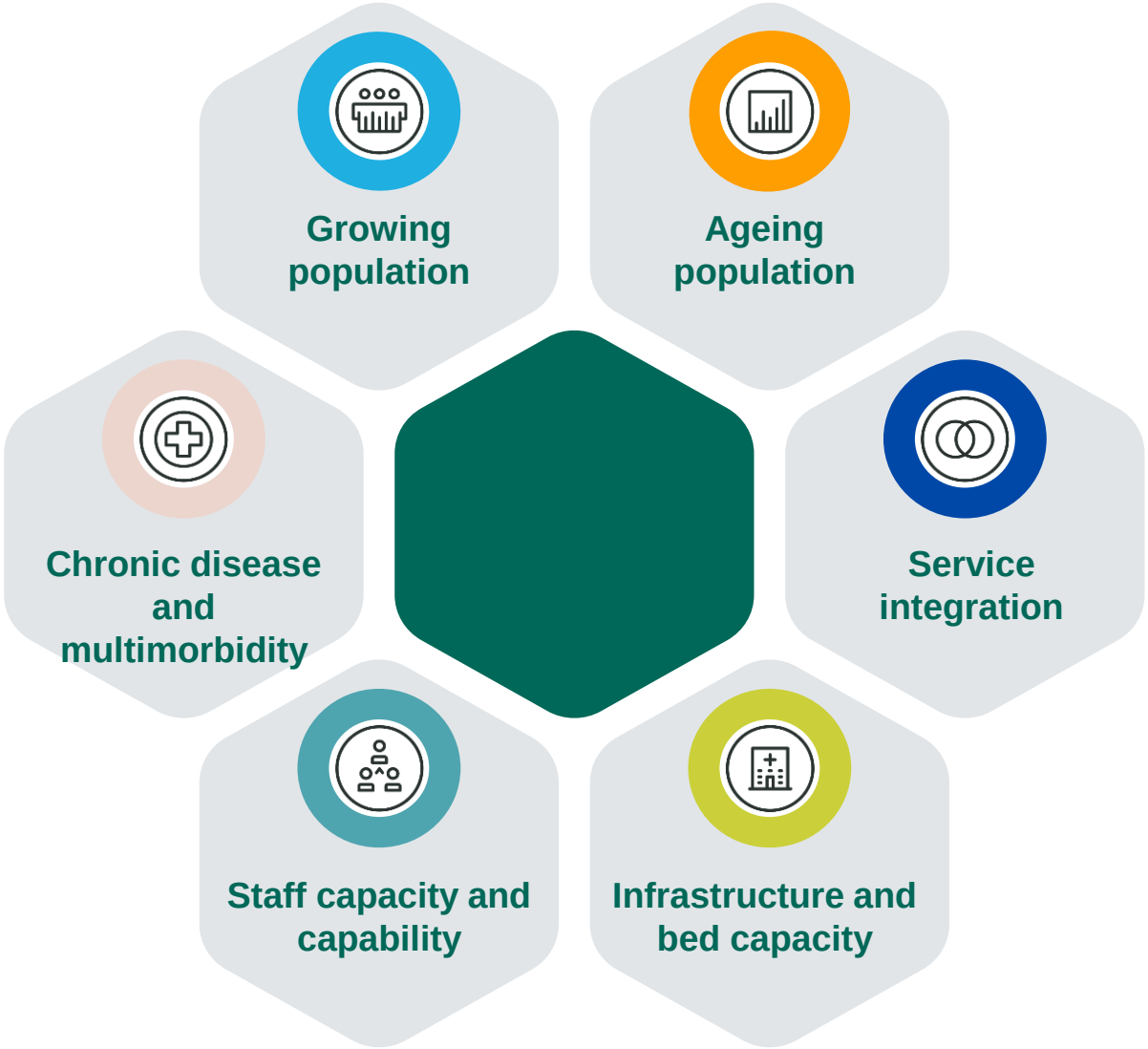
Patient Flow Academy

Dr. Rosa McNamara, National Clinical Lead Emergency Medicine Programme

13th November 2024

Healthcare demand and delivery in Ireland



Bed capacity in Ireland

2.9

Hospital beds per 1,000 population in Ireland

4.3

OECD hospital bed average per 1,000 population

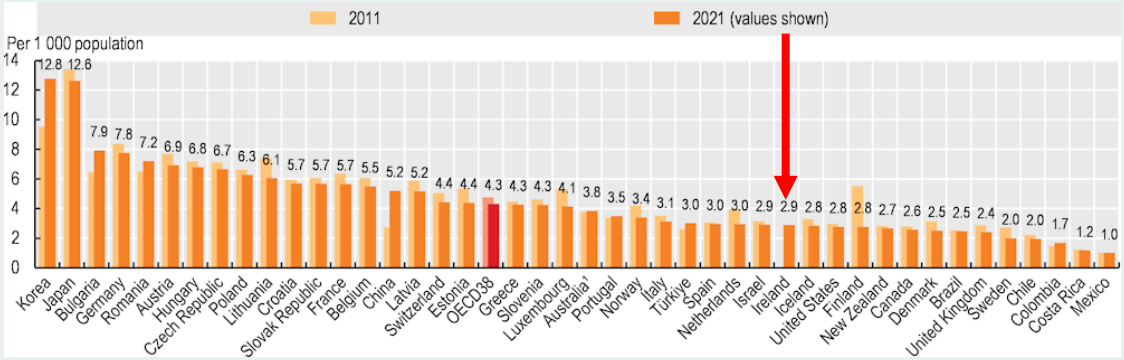
90%

Occupancy rate of curative acute care beds in Ireland

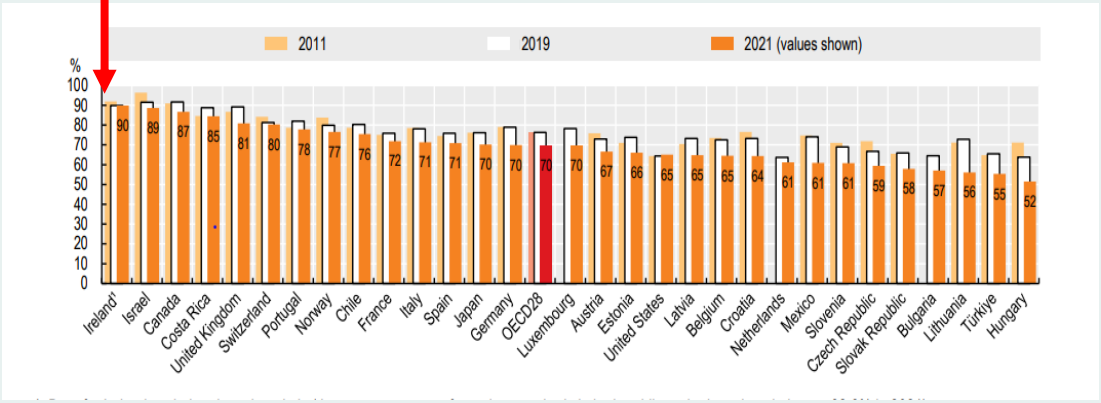
(OECD average is 70%)

OECD Health Statistics 2023

Hospital Beds



Bed Occupancy



UEC activity and performance YTD

(week ending November 3rd)

Activity

+8.1%

in attendances in 2024 vs the same period last year

+7.5%

in admissions in 2024 vs the same period last year

KPI Performance

-11.9%

in 8am Trolleys total in 2024 vs the same period last year

-24.0%

in DTOC patients in 2024 vs the same period last year

-7.7%

in 24hr PET Breaches in 2024 vs the same period last year

-10.9%

in >75yrs 24hr PET Breaches in 2024 vs the same period last year

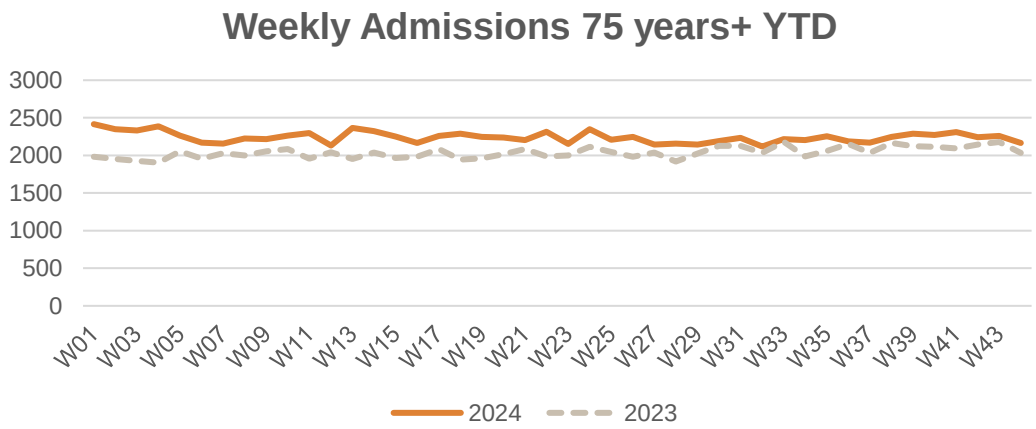
Despite increasing activity demands, performance across a range of metrics has improved.

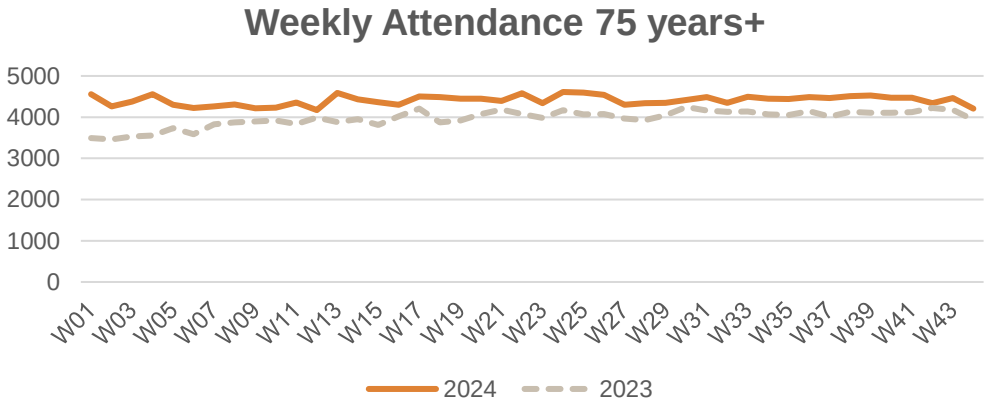
UEC activity and performance (75 years+) YTD *(week ending November 3rd)*

+11.4%
in attendances (75 years+) in 2024 vs the same period last year

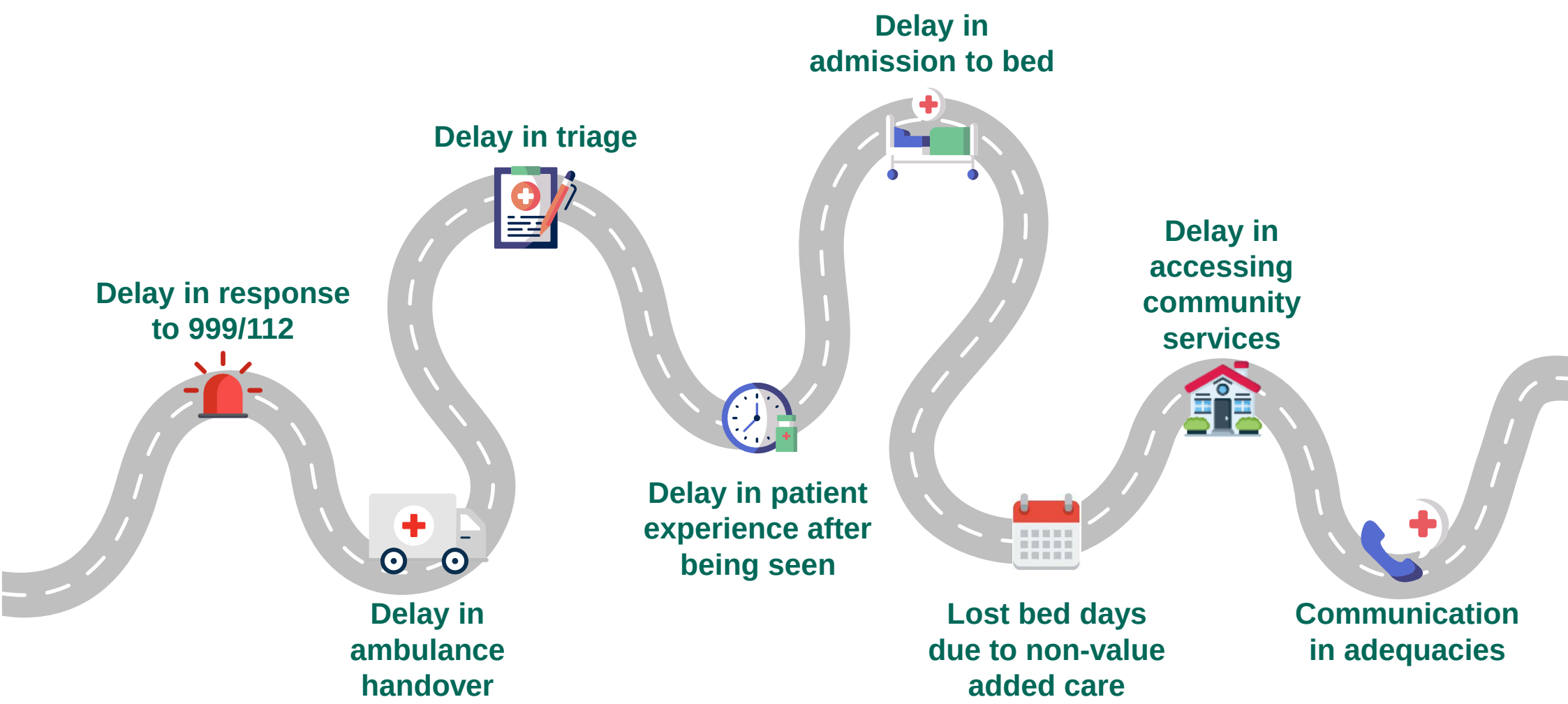
+10.4%
in admissions (75 years+) in 2024 vs the same period last year

14,437
24hr 75+ Years PET Breaches YTD





Problem statements



The challenging delivery context in Ireland

We know that patients are experiencing delays in accessing services and long waits, despite the continuing efforts of our hardworking staff.

Irish Examiner

Emergency departments under 'significant pressure' as HSE issues plea

Emergency departments under 'significant pressure' as HSE issues plea ... The HSE has said that a number of emergency departments are under "...

23 Jan 2024

The Irish Independent

More than 600 patients fit for discharge cannot leave hospitals as scores of others wait for a bed

Hundreds of patients who are fit for discharge cannot leave hospital as scores of others on trolleys in emergency departments endure...

20 Dec 2022

The Irish Sun

Urgent HSE warning as over 491k patients on waiting lists with pressures causing knock-on effects...

Urgent HSE warning as over 491k patients on waiting lists with pressures causing knock-on effects.

14 Aug 2023

RTE.ie

Ambulance response times increase annually since 2019

New figures obtained from the National Ambulance Service show that the average response time by ambulances for Category 1 life-threatening...

21 Apr 2023

Patient flow - Why it matters

Cross-sectional retrospective observational study of every ED in England from April 2016 – March 2018

There is a **dose-response effect** to **delays in hospital admission and mortality.**

Between 5 and 12 hours, delays cause a predictable dose-response effect.

For every 82 admitted patients, whose time to inpatient bed transfer is delayed beyond 6 to 8 hours from time of arrival at the ED, there is one extra death.

OPEN ACCESS

Association between delays to patient admission from the emergency department and all-cause 30-day mortality

Simon Jones [1,2] Chris Moulton [3,4] Simon Swift [2,5] Paul Molyneux [2] Steve Black [6] Neil Mason [2] Richard Oakley [2] Clifford Mann [3,7]

Handling editor Simon Carley

[1]Department of Population Health, New York University School of Medicine, New York, New York, USA
[2]Methods Analytics, London, UK
[3]The "Getting It Right First Time" programme, NHS Improvement, London, UK
[4]Emergency Department, Royal Bolton Hospital, Bolton, UK
[5]Index Unit, University of Exeter Business School, Exeter, UK
[6]Black Box Data Science Ltd, Biggleswade, UK
[7]Emergency Department, Musgrove Park Hospital, Taunton, UK

Correspondence to
Dr Chris Moulton, Emergency Department, Royal Bolton Hospital, Bolton, UK; Chris.Moulton@boltonft.nhs.uk

Clifford Mann deceased

Received 30 April 2021
Accepted 15 November 2021
Published Online First 18 January 2022

ABSTRACT

Background Delays to timely admission from emergency departments (EDs) are known to harm patients.

Objective To assess and quantify the increased risk of death resulting from delays to inpatient admission from EDs, using Hospital Episode Statistics and Office of National Statistics data in England.

Methods A cross-sectional, retrospective observational study was carried out of patients admitted from every type 1 (major) ED in England between April 2016 and March 2018. The primary outcome was death from all causes within 30 days of admission. Observed mortality was compared with expected mortality, as calculated using a logistic regression model to adjust for sex, age, deprivation, comorbidities, hour of day, month, previous ED attendances/emergency admissions and crowding in the department at the time of the attendance.

Results Between April 2016 and March 2018, 26 738 514 people attended an ED, with 7 472 480 patients admitted relating to 5 249 891 individual patients, who constituted the study's dataset. A total of 433 962 deaths occurred within 30 days. The overall crude 30-day mortality rate was 8.71% (95% CI 8.69% to 8.74%). A statistically significant linear increase in mortality was found from 5 hours after time of arrival at the ED up to 12 hours (when accurate data collection ceased) (p<0.001). The greatest change in the 30-day standardised mortality ratio was an 8% increase, occurring in the patient cohort that waited in the ED for more than 6 to 8 hours from the time of arrival.

Conclusions Delays to hospital inpatient admission for patients in excess of 5 hours from time of arrival at the ED are associated with an increase in all-cause 30-day mortality. Between 5 and 12 hours, delays cause a predictable dose–response effect. For every 82 admitted patients whose time to inpatient bed transfer is delayed beyond 6 to 8 hours from time of arrival at the ED, there is one extra death.

Key messages

What is already known on this subject
- Small studies from Canada and Australia have indicated that there is an increased mortality rate among patients who experience delays in admission to an inpatient bed from the emergency department (ED).
- Counterfactual modelling has shown reduced patient mortality as a result of the NHS 4-hour operational standard. The NHS Benchmarking Network found a coefficient of determination (R^2 value) of 0.07 between time greater than 4 hours in the ED and a hospital's Summary Hospital-level Mortality Indicator.

What this study adds
- This study of over five million NHS patients shows an increase in all-cause 30-day mortality that is independently associated with delays to hospital admission from the ED rather than with crowding alone.
- The standardised mortality rate starts to rise from 5 hours after the patient's time of arrival at the ED.
- The increasing effect of long stays in the ED before inpatient admission can be measured and represented as a number needed to harm metric: after 6–8 hours, there is one extra death for every 82 patients delayed.

Linked

► http://dx.doi.org/10.1136/emermed-2021-212106

Check for updates

To cite: Jones S, Moulton C, Swift S, *et al*. *Emerg Med J* 2022;**39**:168–173.

INTRODUCTION

In England, by the end of the 20th century, demographic changes and reduced numbers of acute hospital beds had resulted in crowded emergency departments (EDs) and long delays for patients. In consequence, the NHS 4-hour operational standard was introduced in 2004 and shortly thereafter, the other nations of the UK and several other countries, such as Canada and Australia, introduced similar standards for ED waiting times.[1–5] (The 4-hour standard is a binary time threshold for discharge, admission or transfer; it starts when the patient arrives at the ED, and time in the ED beyond 4 hours is a 'breach' of the 'target'.)

For more than a decade, the 4-hour standard served both patients and the NHS well but, during the past few years, further increases in the demand for urgent and emergency care have exacerbated long waits for hospital admission.[6] By 2019–2020, over 3.2% of all ED patients waited in the ED for more than 12 hours from their time of arrival.[7] Long ED delays are most often caused by 'exit block' due to a lack of available inpatient beds. This was demonstrated using data collected from all English EDs over a 90-day period by an NHS economics team. They showed that higher inpatient bed occupancy was correlated with longer ED waiting times, but with a non-linear association.[8]

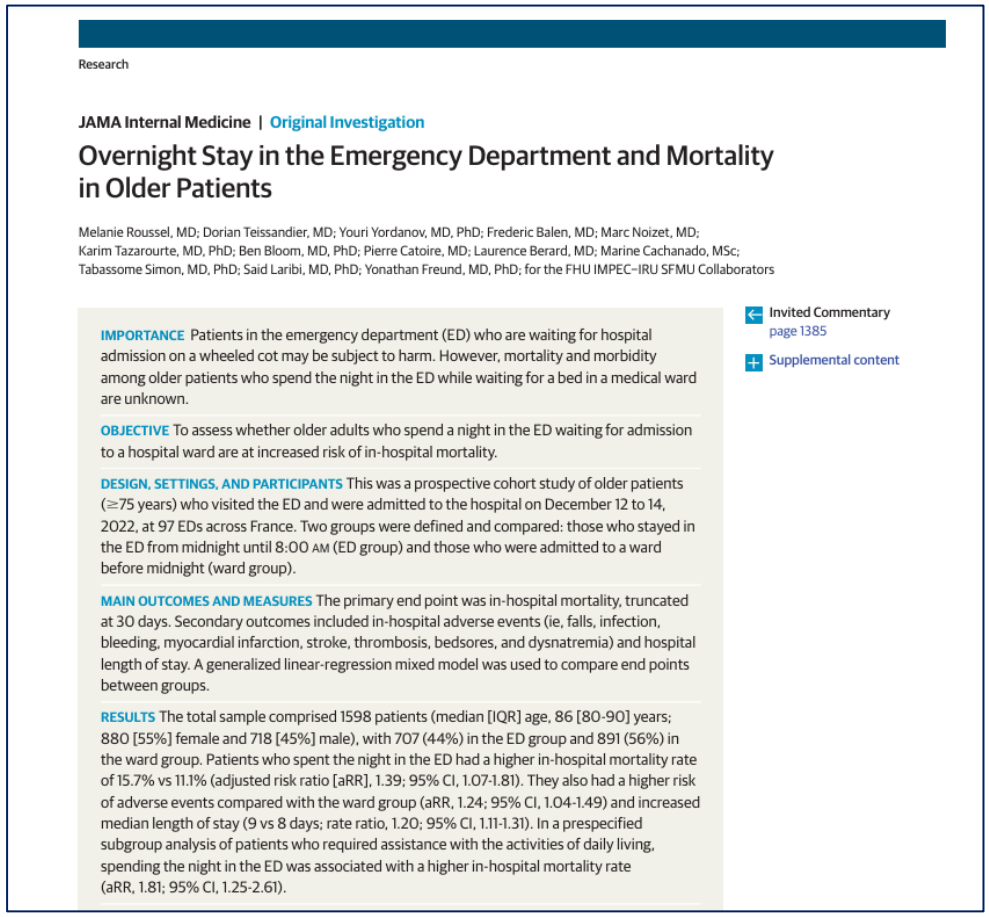
Patient flow - Why it matters

Prospective cohort study to assess if **older adults (≥ 75 years) who spend a night in the ED waiting for admission** to a hospital ward are at increased risk of in-hospital mortality

Two groups compared: those who stayed in the ED from midnight until 8:00 am (ED group) and those who were admitted to a ward before midnight (ward group).

Patients who spent the night in the ED had a **higher in-hospital mortality rate** of 15.7% vs 11.1%.

Patients who spent the night in the ED had a **higher median length of stay** of 9 versus 8 days.



Research

JAMA Internal Medicine | Original Investigation

Overnight Stay in the Emergency Department and Mortality in Older Patients

Melanie Roussel, MD; Dorian Teissandier, MD; Youri Yordanov, MD, PhD; Frederic Balen, MD; Marc Noizet, MD; Karim Tazarourte, MD, PhD; Ben Bloom, MD, PhD; Pierre Catoire, MD; Laurence Berard, MD; Marine Cachanado, MSc; Tabassome Simon, MD, PhD; Said Laribi, MD, PhD; Yonathan Freund, MD, PhD; for the FHU IMPEC–IRU SFMU Collaborators

IMPORTANCE Patients in the emergency department (ED) who are waiting for hospital admission on a wheeled cot may be subject to harm. However, mortality and morbidity among older patients who spend the night in the ED while waiting for a bed in a medical ward are unknown.

OBJECTIVE To assess whether older adults who spend a night in the ED waiting for admission to a hospital ward are at increased risk of in-hospital mortality.

DESIGN, SETTINGS, AND PARTICIPANTS This was a prospective cohort study of older patients (≥75 years) who visited the ED and were admitted to the hospital on December 12 to 14, 2022, at 97 EDs across France. Two groups were defined and compared: those who stayed in the ED from midnight until 8:00 AM (ED group) and those who were admitted to a ward before midnight (ward group).

MAIN OUTCOMES AND MEASURES The primary end point was in-hospital mortality, truncated at 30 days. Secondary outcomes included in-hospital adverse events (ie, falls, infection, bleeding, myocardial infarction, stroke, thrombosis, bedsores, and dysnatremia) and hospital length of stay. A generalized linear-regression mixed model was used to compare end points between groups.

RESULTS The total sample comprised 1598 patients (median [IQR] age, 86 [80-90] years; 880 [55%] female and 718 [45%] male), with 707 (44%) in the ED group and 891 (56%) in the ward group. Patients who spent the night in the ED had a higher in-hospital mortality rate of 15.7% vs 11.1% (adjusted risk ratio [aRR], 1.39; 95% CI, 1.07-1.81). They also had a higher risk of adverse events compared with the ward group (aRR, 1.24; 95% CI, 1.04-1.49) and increased median length of stay (9 vs 8 days; rate ratio, 1.20; 95% CI, 1.11-1.31). In a prespecified subgroup analysis of patients who required assistance with the activities of daily living, spending the night in the ED was associated with a higher in-hospital mortality rate (aRR, 1.81; 95% CI, 1.25-2.61).

Invited Commentary
page 1385

Supplemental content

Patient flow - Why it matters

We know that extended lengths of stay for patients can be associated with direct and indirect inpatient complications

Reduced mobility

Cognitive decline

Falls

Functional decline

Depression

Infections

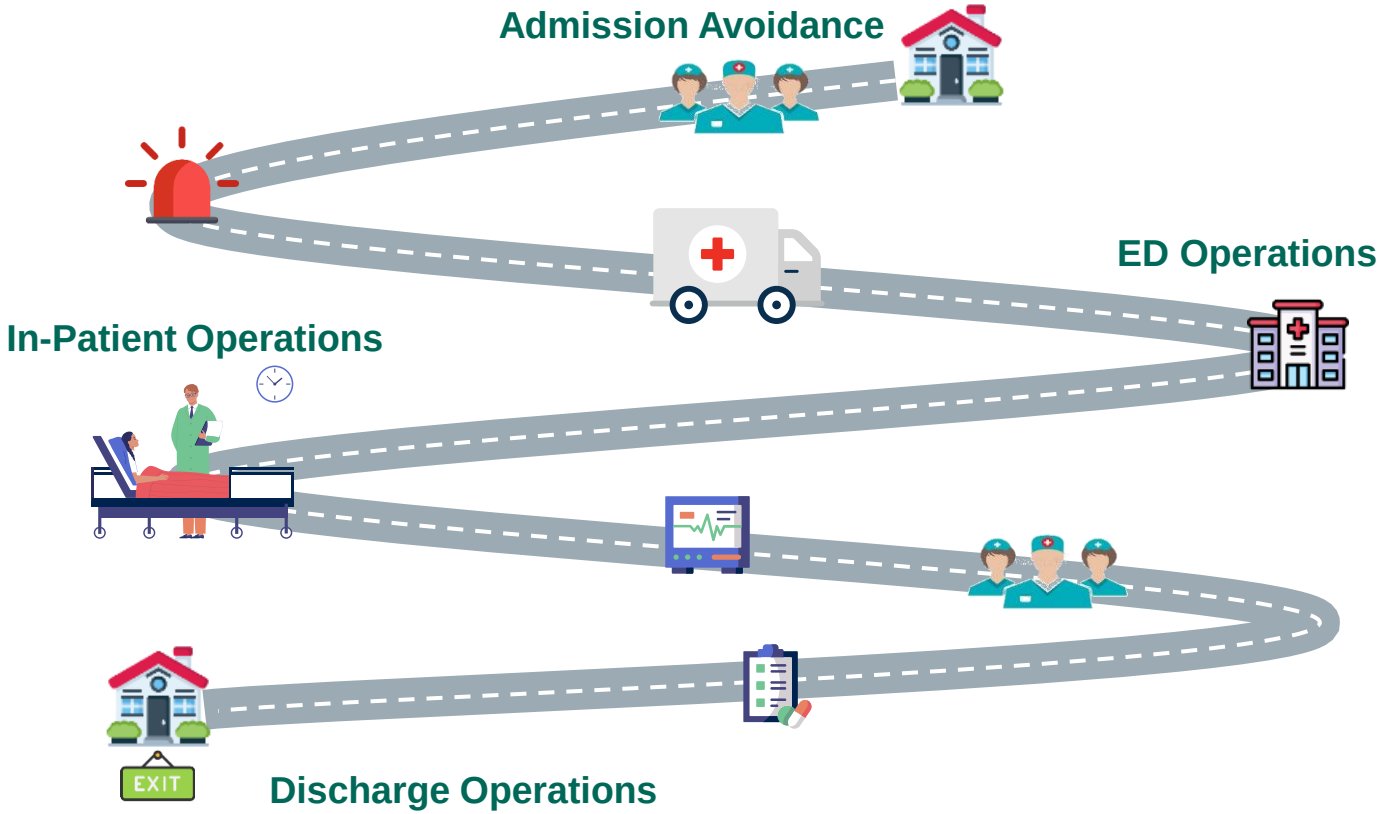
Hospital readmission

Morbidity and Mortality

Rojas Garcia et al., 2018

The need for a whole system approach

Effective patient flow is essential to ensure all patients have the right access, to the **right care**, at the **right time** and in the **right place** with minimal waiting times.



The interdependencies along the patient journey requires a **whole system approach** to improving patient flow.

Principles of Patient Flow

- Effective communication
- Efficient resource management
- Streamlined processes
- Continuous monitoring and improvement
- Integrated collaborative effort

Current Barriers to Patient Flow

Staff shortages

Large patient volumes

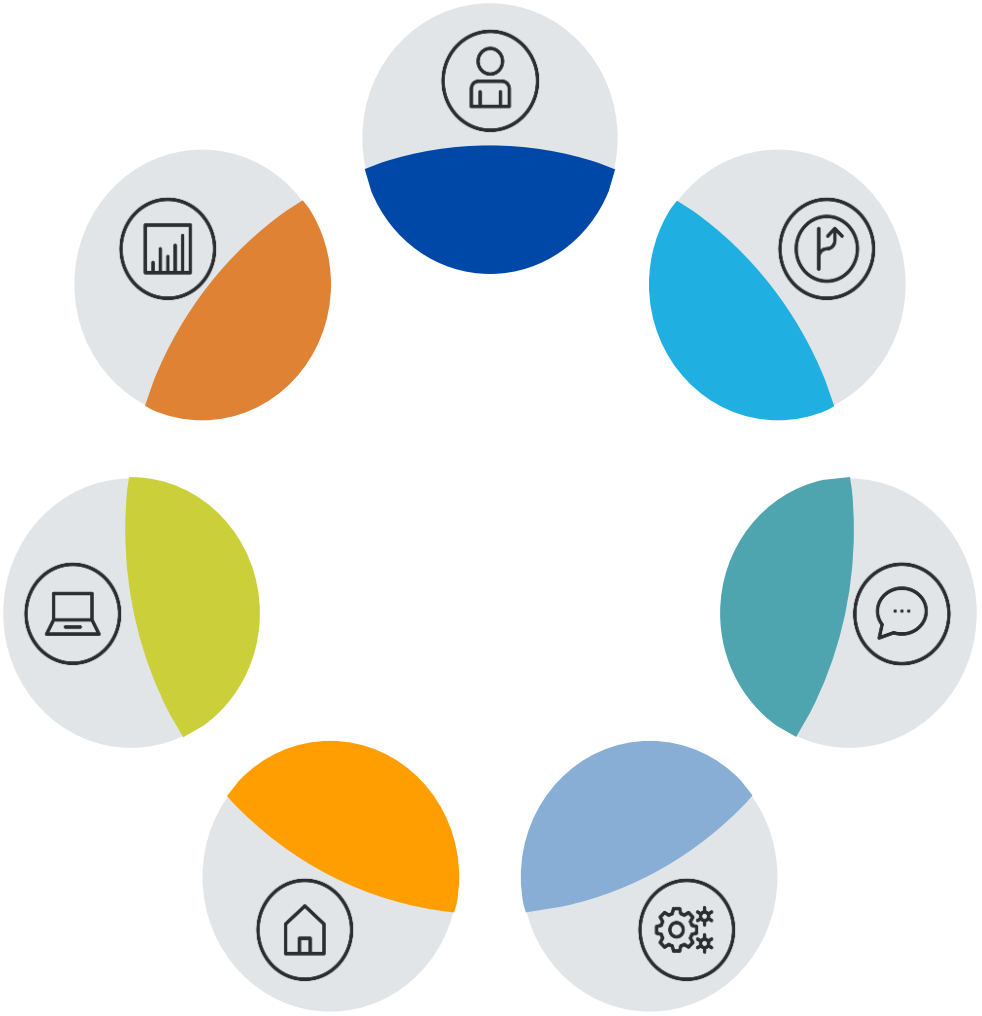
Inefficient processes

Ineffective IT

Inadequate communication

Discharge planning challenges

Limited resources



HSE Patient Flow Academy

The HSE Patient Flow Academy will improve patient flow by supporting health and social care staff to identify, define and improve processes, pathways and systems for the safe, timely and effective delivery of care driven by a culture of continuous improvement. This will be achieved through the development and delivery of supports and resources targeting the following workstreams:

Leadership development

To develop competent and capable leaders who are able to drive, achieve and sustain improvements.

Staff engagement and training

To develop staff awareness, knowledge, skills and attitudes regarding patient flow as part of a whole system approach.

Integrated working and knowledge transfer

To develop communities of practice which facilitates integrated working, sharing of best practice and knowledge transfer.

Innovation and transformation supports

To provide a suite of best practice resources and toolkits alongside practical supports to enable transformation.

Monitoring and evaluation

To monitor and evaluate the impact of the Patient Flow Academy including national and local patient flow improvement initiatives to support evidence-based practice.

Principles of Patient Flow Academy

The HSE Patient Flow Academy is designed based on the six guiding principles below:

Patient at the centre

Patient flow is everyone's responsibility

Connect top down and bottom-up approaches to support continuous improvement

Collaborate through an integrated whole system approach

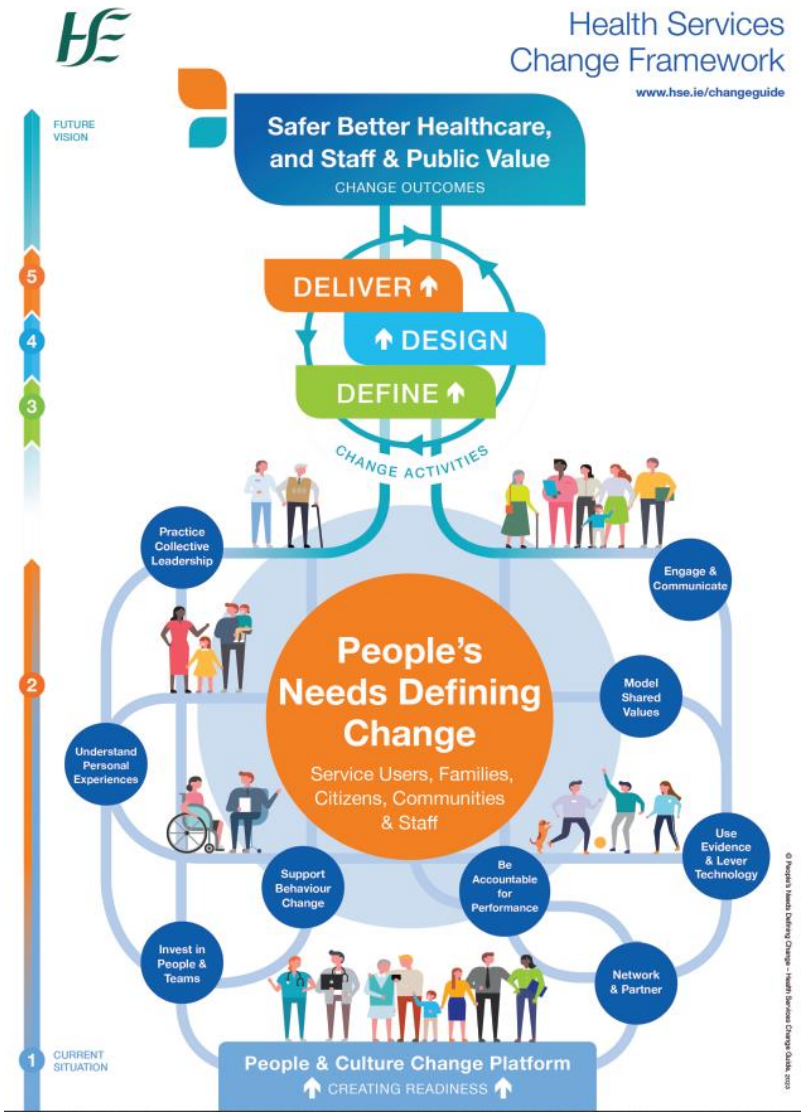
Building staff capability through empowerment and engagement

Supporting and evaluating innovations

HSE Change Guide: Creating Readiness

PRIORITY AREAS

- Practice collective leadership
- Model shared values
- Engage and communicate
- Understand personal experiences
- Invest in people and teams
- Use evidence and lever technology
- Support behaviour change
- Network and partner
- Deliver public value and be accountable



Initial programme of work

Our National Approach

Patient Flow Academy Working Group

Established to support and provide advice to the implementation of the initial programme of work

- WEBINARS
- BEST PRACTICE GUIDELINES
- EXEMPLAR SITE VIDEOS

Focus Areas 2024

- Integrated Operations
- Demand and Capacity Analysis
- Ward Processes
- Integrated Discharge Processes
- Older Persons and Frailty
- Length of Stay Reduction

Progress to Date: Webinars

Webinar 1	Webinar 2	Webinar 3	Webinar 4	Webinar 5
				
Introduction to the Patient Flow Academy	Operational Management of Patient Flow	Why patient time is the most important currency in patient flow	Optimal Management of the Older Person in Urgent and Emergency Care Services	Optimal Management of the Older Person in Community Services
April 2024	**May 2024**	**July 2024**	**August 2024**	**October 2024**

All webinar presentations are available on the HSE Patient Flow Academy webpage
https://www.hse.ie/eng/about/who/national-services/patient-flow-academy/

Patient Flow Academy

×

Spark

HSE

Patient Flow Academy
Excellence Awards Call

80 | applications received

Project examples include:

- Frailty at front door projects
- Community based admission avoidance pathways
- Model wards/ ward processes
- Length of stay reduction projects
- Innovative home care models to support discharge
- NAS Ambulance Transfer Projects

We have tremendous assets

You don’t get excellence from pieces, you get excellence from connections-Don Berwick

Patient Flow Academy Working Group

Special thanks to the Patient Flow Academy Working Group Members:

- Dr Mike O' Connor, National Clinical Advisor and Group Lead, Acute Hospitals
- Laura Monaghan, Client Director, HSE Communications
- Emma Smyth, Head of Service, Access Team
- Noreen Hynes, General Manager, Performance
- Tom Connaughton, NAS Quality and Patient Safety Advisor, HSE Dublin and Midlands
- Tina Fitzgerald, Unscheduled Care Lead, University Hospital Limerick (UHL)
- Denise Roxburgh, Urgent & Emergency Care (UEC) Lead, HSE Dublin and South East
- Lara Bourton Cassidy, General Manager & Transformation Lead, HSE Dublin and South East
- Mari O' Donovan, General Manager, Enhanced Community Care, Cork Kerry Community Healthcare (CKCH)
- Dr Rosa McNamara, Clinical Lead Emergency Medicine Programme and Consultant in Emergency Medicine, SVUH
- Sheila Leopold, Office of the Regional Executive Officer, HSE South West

In memory of
Willie Reddy, General Manager, Special Delivery Unit

For more information:

https://www.hse.ie/eng/about/who/national-services/patient-flow-academy/

End