



# An Introduction to the Patient Flow Academy

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16<sup>th</sup> October 2023



# Overview



Healthcare demand and delivery in Ireland



The importance of patient flow and international experience



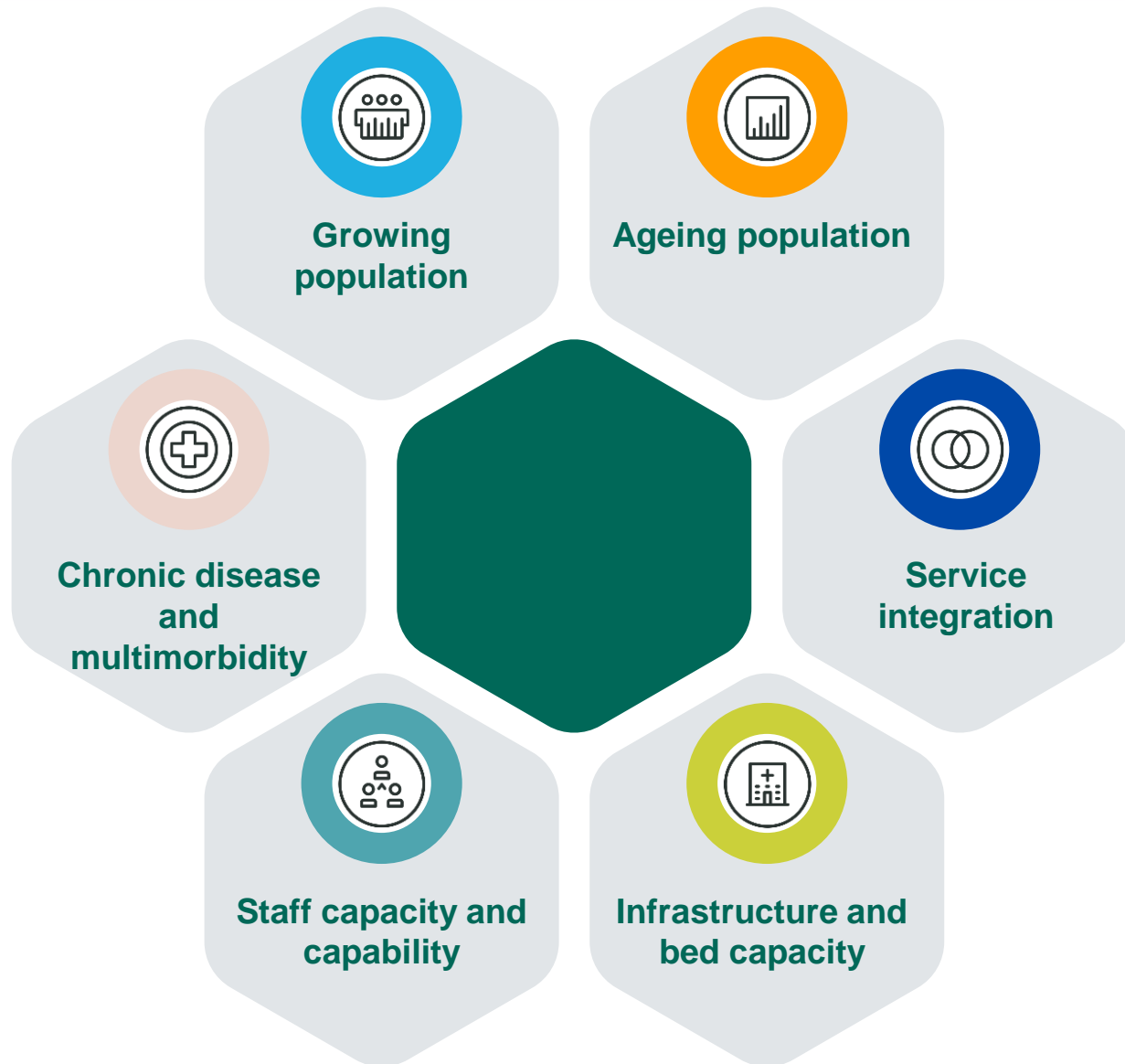
Barriers and facilitators to patient flow



The HSE Patient Flow Academy



# Healthcare demand and delivery in Ireland





# Healthcare demand and delivery in Ireland



## Reform programmes and plans guided by the Sláintecare vision:

- Regional Health Areas
- National Urgent and Emergency Care Plan
- Enhanced Community Care
- Waiting List Action Plan



# Healthcare demand and delivery in Ireland

## Urgent and Emergency Care Demand

### Compared to 2022:

**+0.3%** | ED attendances

**+4.9%** | ED attendances patients ≥75 years

**+3.8%** | ED admissions

**+4.2%** | ED admissions patients ≥75 years

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### Compared to 2019:

**+7.7%** | ED attendances

**+21.7%** | ED attendances patients ≥75 years

**+7.9%** | ED admissions

**+16.4%** | ED admissions patients ≥75 years



# Problem Statements



Delay in  
Response Time to  
999



Delay in  
Ambulance  
Handover



Delay in Triage



Delay in time to be  
seen by  
Manchester Triage  
Category



Delay in Patient  
Experience after  
being seen



Delay in  
Admission to Bed



Lost Beds due to  
Non Valued Added  
Care



Delays in  
accessing  
Community  
Services



Communication  
Inadequacies





# TROLLEY CRISIS

## **October trolley watch stats show 'almost' double numbers this year than same period in 2020**

INMO figures show that there are five times as many children on trolleys compared to October 2020.

↗ 17.2k

💬 26

Oct 31st 2021, 4:34 PM



# CRISIS

## **Waiting list figures on the rise as more than 550,000 patients waiting for an appointment**

The IHCA criticised the latest figures and said the Government had failed to meet its own 2019 targets.





# Effect of hours awaiting admission on ED Trolley on SMR

- Cross-sectional, retrospective observational study
- Every ED in England April 2016 to March 2018. The primary outcome was death from all causes within 30 days of admission
- 7,472,480 patients admitted relating to 5,249,891 patients
- Statistically significant linear increase in mortality from 5 hours after time of arrival at the ED up to 12 hours (when accurate data collection ceased) ( $p < 0.001$ )
- 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

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Clifford Mann deceased

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### 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.

### 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.<sup>1-4</sup> (The 4-hour

### 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.

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'.<sup>5</sup>

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.<sup>6</sup> By 2019-2020, over 3.2% of all ED patients waited in the ED for more than 12 hours from their time of arrival.<sup>7</sup> 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.<sup>8</sup>





## Why it matters

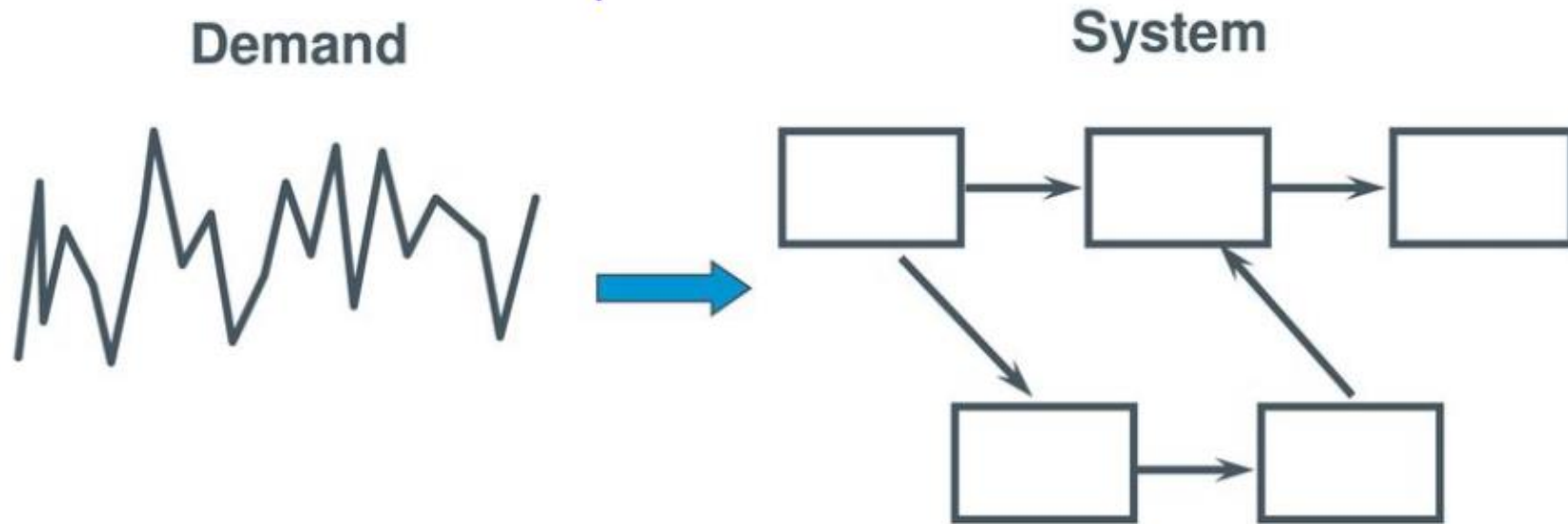
*“The number one reason to improve the movement of patients through health care settings is because “bad flow” is disrespectful to patients and families.*

*Our inability to more effectively design and manage processes also wears on clinicians and staff – decreasing their efficiency and productivity, undermining joy in work, contributing to burnout, and decreasing job satisfaction. Both our patients and families bear most of the burden.*

*We make patients wait in the wrong places. We make them seek care in the wrong units. If you were to walk through most hospitals today, you will find multiple problems with patient flow.”*

Bisognano, 2016  
(IHI President Emerita and Senior Fellow)

# Hospital Flow: Strategies for System Optimization





# Principles of Patient Flow

## Effective communication



Communication is essential when it comes to patient flow management. Healthcare providers should communicate effectively among themselves, with patients, and with their families to ensure patients receive timely, appropriate care.

## Efficient resource management



Appropriate allocation of resources such as staff, equipment, and facilities needs to be ensured to improve patient flow. Ensuring adequate resources are available can minimise wait times, reduce delays and facilitates the movement of patients within and between hospitals and community services.

## Streamlined processes



Streamlining processes such as registration, triage, tests, and treatment can significantly reduce patient waiting times. Hospitals and community services should focus on automating redundant processes, eliminating bottlenecks and prioritising critical cases.

## Continuous monitoring and improvement



Continuous monitoring and improvement of patient flow processes can lead to a better patient experience. Management can use data-driven insights and feedback mechanisms to identify areas for optimisation.

## Integrated collaborative effort



Patient flow management requires collaboration between departments, stakeholders, and healthcare providers within the hospital and community. It is essential to work as a team to ensure smooth movement and adequate resource allocation.



# Current Barriers to Patient Flow

## Large patient volumes

High patient volumes can cause overcrowding and long wait times, particularly at peak times of the day.

## Ineffective IT

Inadequate information technology and electronic health records may cause a breakdown in patient flow and reduce the effectiveness of care transitions.

## Discharge planning challenges

Insufficient planning for patient discharge may increase the length of stay, particularly for older adults.



## Staff shortages

A lack of staff can cause delays in patient care, including triage, admissions, transfers, and discharges.

## Inefficient processes

Slow processes like inefficient patient registration and data entry can lead to a long wait time for patients.

## Inadequate communication

Poor communication between departments like diagnostic imaging, pharmacy, and lab may cause a breakdown in patient flow and increase wait times.

## Limited resources

Limited resources such as medications, beds, and equipment may cause a delay in the delivery of patient care and subsequent discharge of patients.



# What is patient flow?

## Patient flow

is the ability of healthcare systems to manage patients effectively and with minimal delays as they move through stages of care



## Poor flow

Imbalance between demand and capacity to provide timely and high quality care

Crowded and unsafe environment

Non-cohorted wards

Boarded assessment units

Poorer clinical outcomes

Increased length of stay

Poor patient/staff experience

Delay in time-sensitive interventions

Higher healthcare costs

Increased morbidity and mortality



# International Experience of Patient Flow Academies

*Patient flow academies have been established in other jurisdictions including the UK, the USA and Australia:*



## Flow Coaching Academy, NHS UK

Flow Coaching Academies (FCA) established by a team based at Sheffield Teaching Hospitals NHS Foundation Trust.

The education provided by the academies focuses on teaching improvement science and coaching skills required to achieve sustained improvement.



## Getting It Right First Time Programme, NHS UK

Getting It Right First Time (GIRFT) is a national programme in the NHS developed to improve patient care and deliver efficiencies by removing unwarranted variation. It employs detailed reviews of healthcare services, benchmarking, and the implementation of data-driven change.



## Hospital Flow Professional Development Program, IHI, USA

The Institute for Healthcare Improvement (IHI) offers an in-person, blended learning Hospital Flow Professional Development Programme. The programme guides teams through detailed reviews of what it calls 'high-leverage strategies' to improve patient flow through hospitals. The IHI programme focuses on learning from the success of others.



## Patient Flow Collaborative, Safer Care Victoria, Australia

In 2017-18, Safer Care Victoria worked with 15 health services in Victoria, Australia through a Patient Flow Collaborative.

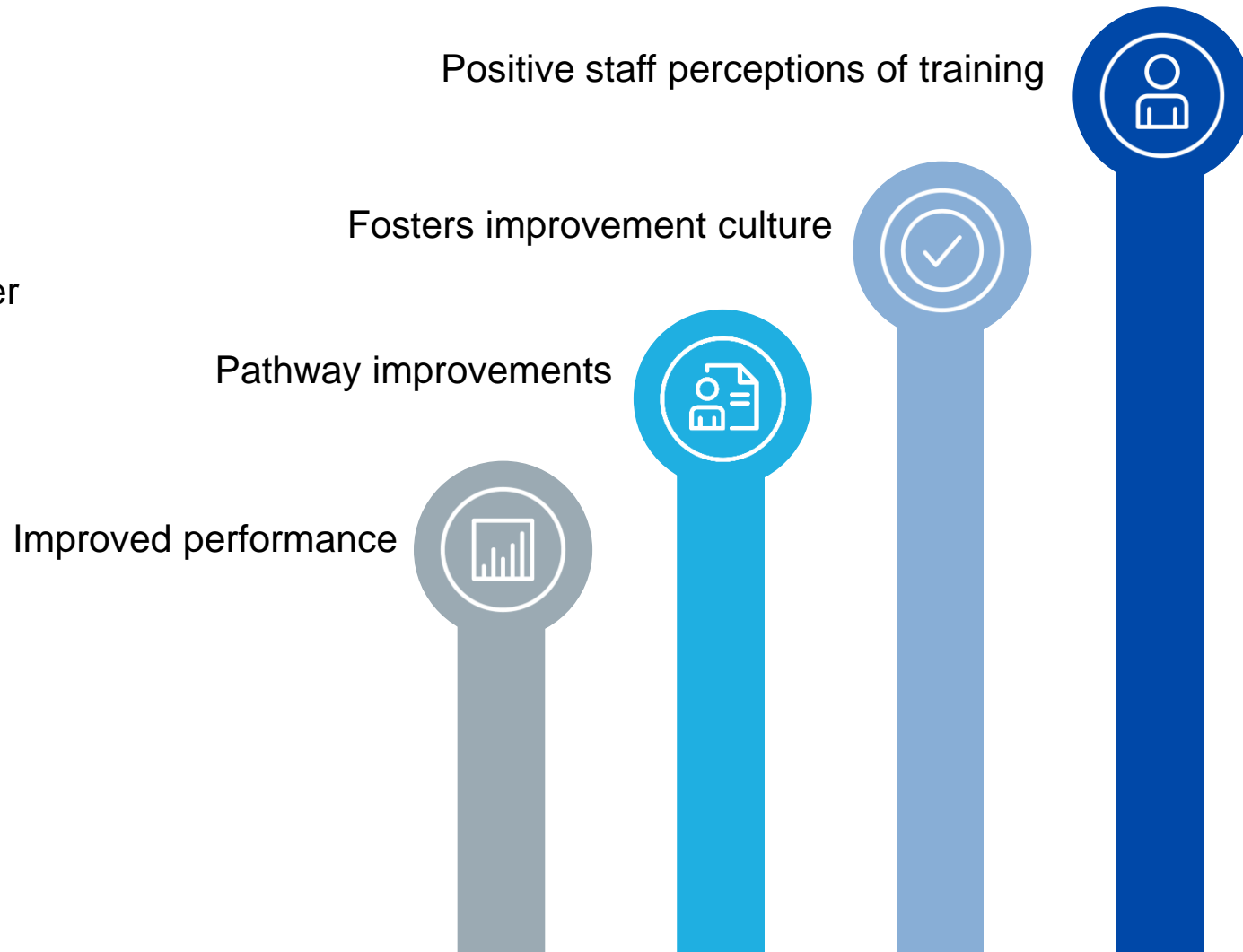
The 15 organisations worked towards both state-wide performance targets and individual initiative targets. The organisations collaborated with industry coaches to provide mentoring and capability development.



# International Experience of Patient Flow Academies

## Evidence of Impact

Evaluations of patient flow academies in other jurisdictions suggest some evidence of the following benefits:





# Achieving Hospital-wide Patient Flow

The Right Care, in the Right Place, at the Right Time



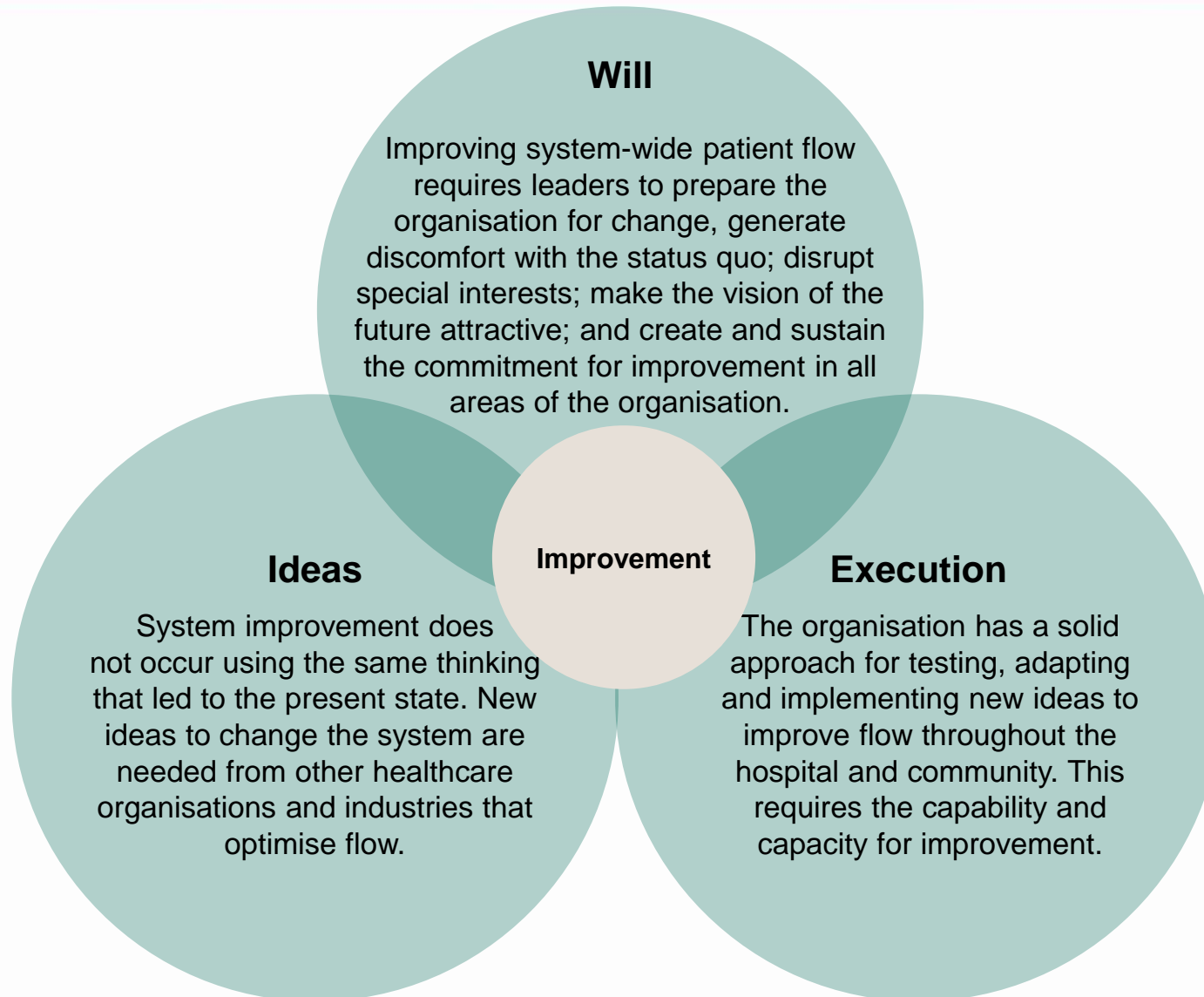
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# System Level Improvement Requires Wills, Ideas and Execution

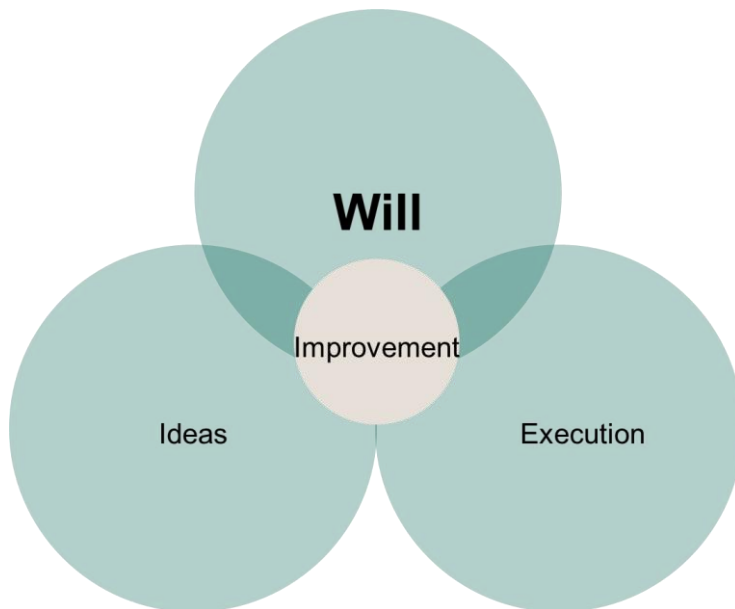




# Building Will for Improving Hospital-wide Patient Flow

Taking a system-level approach to improving hospital flow requires building will throughout the organisation, from the highest levels of leadership to point-of-care managers and staff.

Five strategies for building will are:



1

**Make Delivering the Right Care, in the Right Place, at the Right Time a Strategic Priority**

2

**Align Medical Staff and Hospital Executives to Achieve Improved Flow**

3

**Adopt Value-Based Care Models to Support Improved Flow**

4

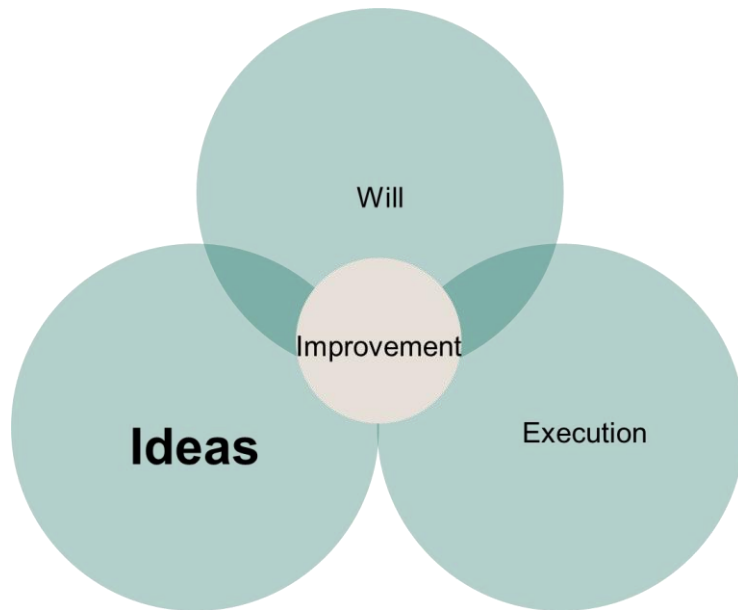
**Demonstrate That Improved Flow Has a Positive Return on Investment**

5

**Connect the Work of Departments and Units to Hospital-wide Flow Strategies**



# High-Leverage Change Ideas for Improving Hospital-wide Patient Flow



1

## Shape or Reduce Demand:

Integration, attendance and admission avoidance

2

## Match Capacity and Demand:

Data-driven operational management system for hospital-wide patient flow

3

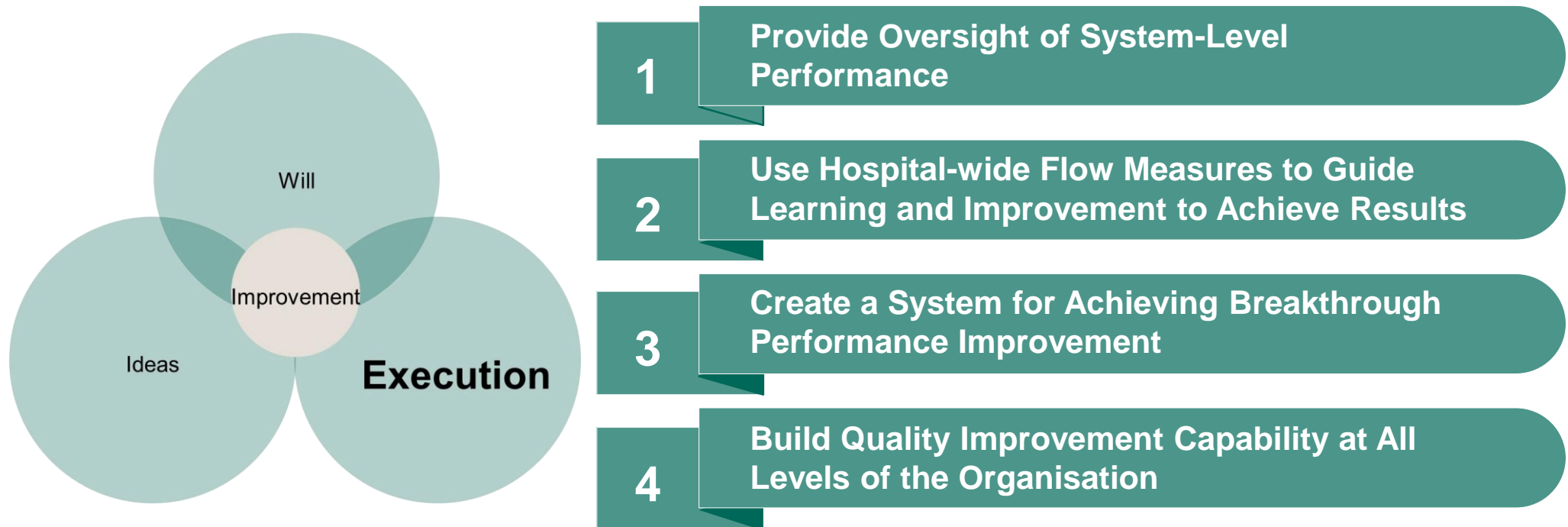
## Redesign the system:

LOS, Pathways and discharge planning



# Execution Strategies to Achieve Hospital wide Patient Flow

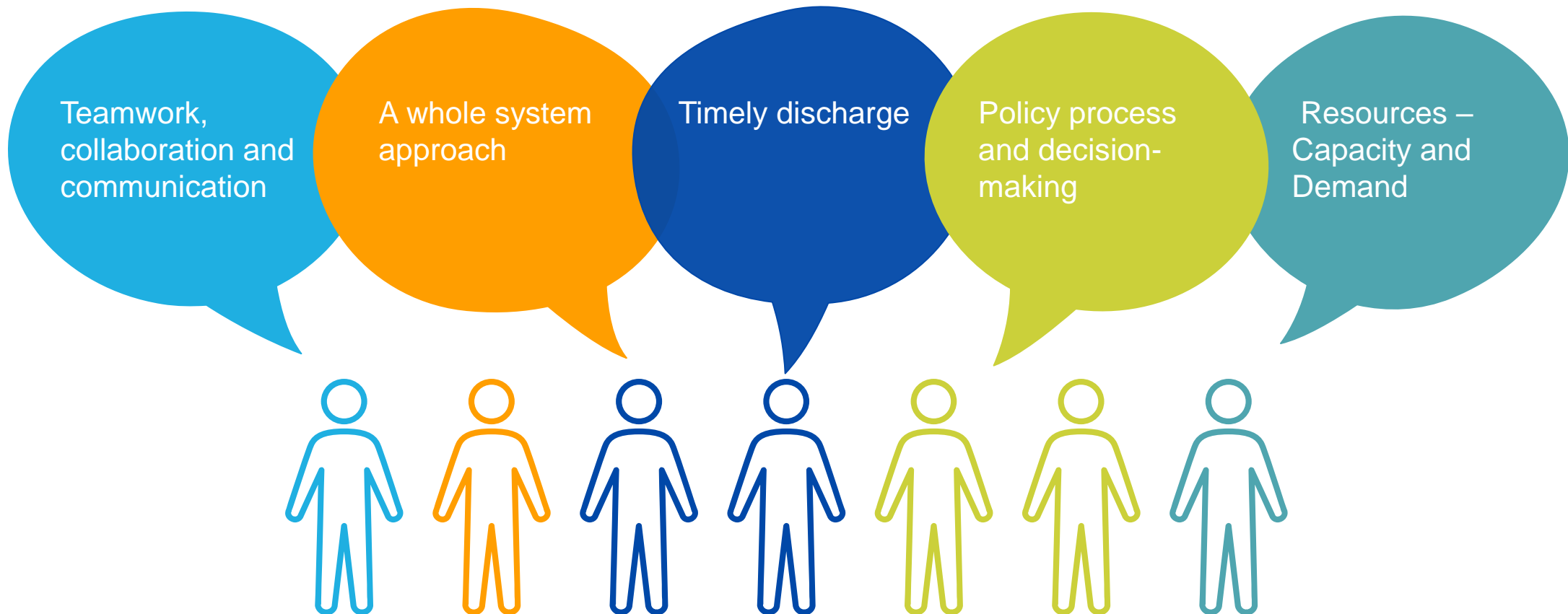
The key to execution is to plan and deploy a portfolio of improvement projects to achieve strategic goals, since no single initiative or set of unaligned projects will likely be enough to produce system level results





# How to improve patient flow

Effective patient flow ensures all patients have the right access, to the right care, at the right time and in the right place with minimal waiting times





# 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 quality 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 patient flow academy will be 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 drive a culture of quality improvement



Collaborate through an integrated whole system approach



Building staff capability through empowerment and engagement



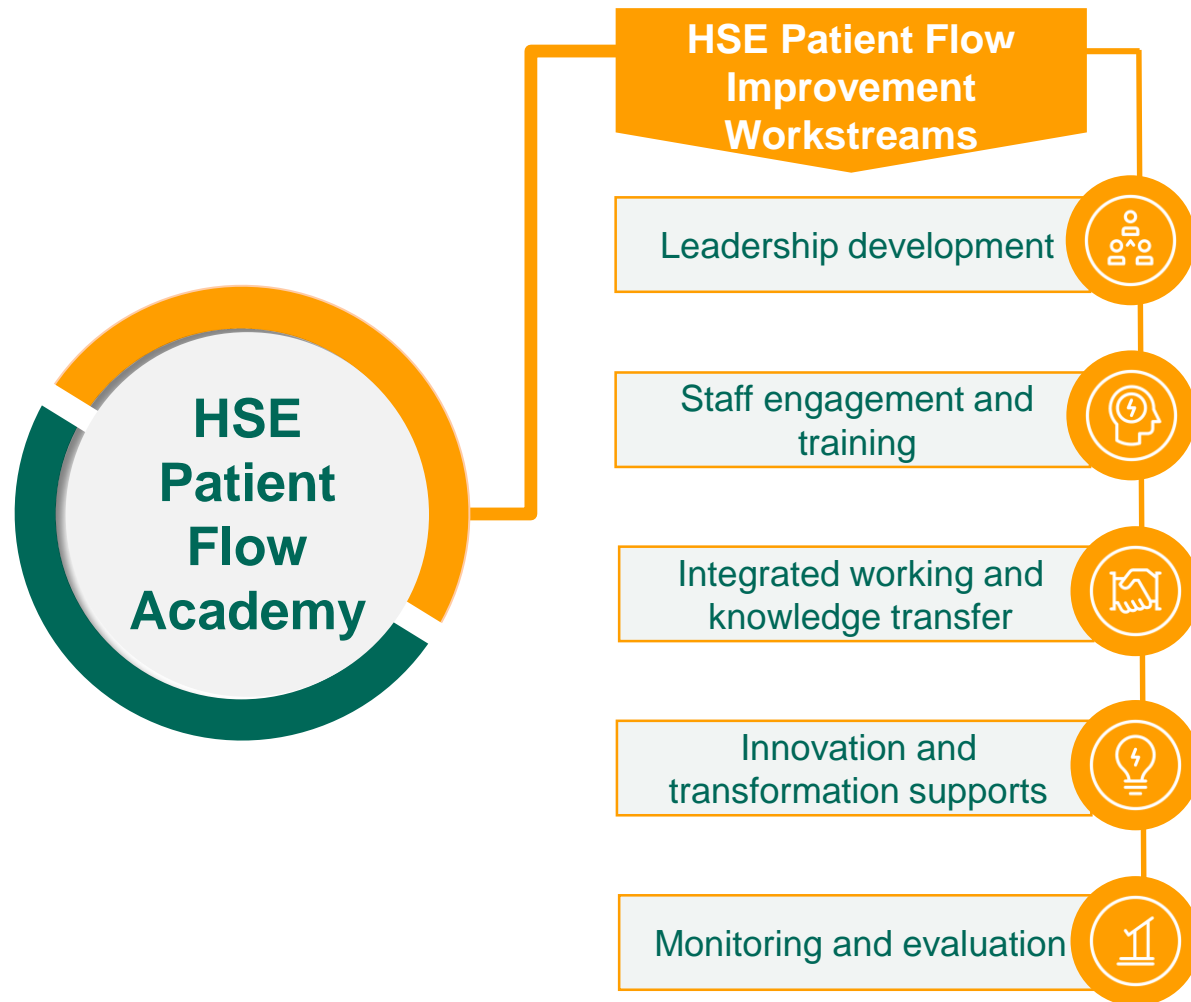
Supporting and evaluating innovations





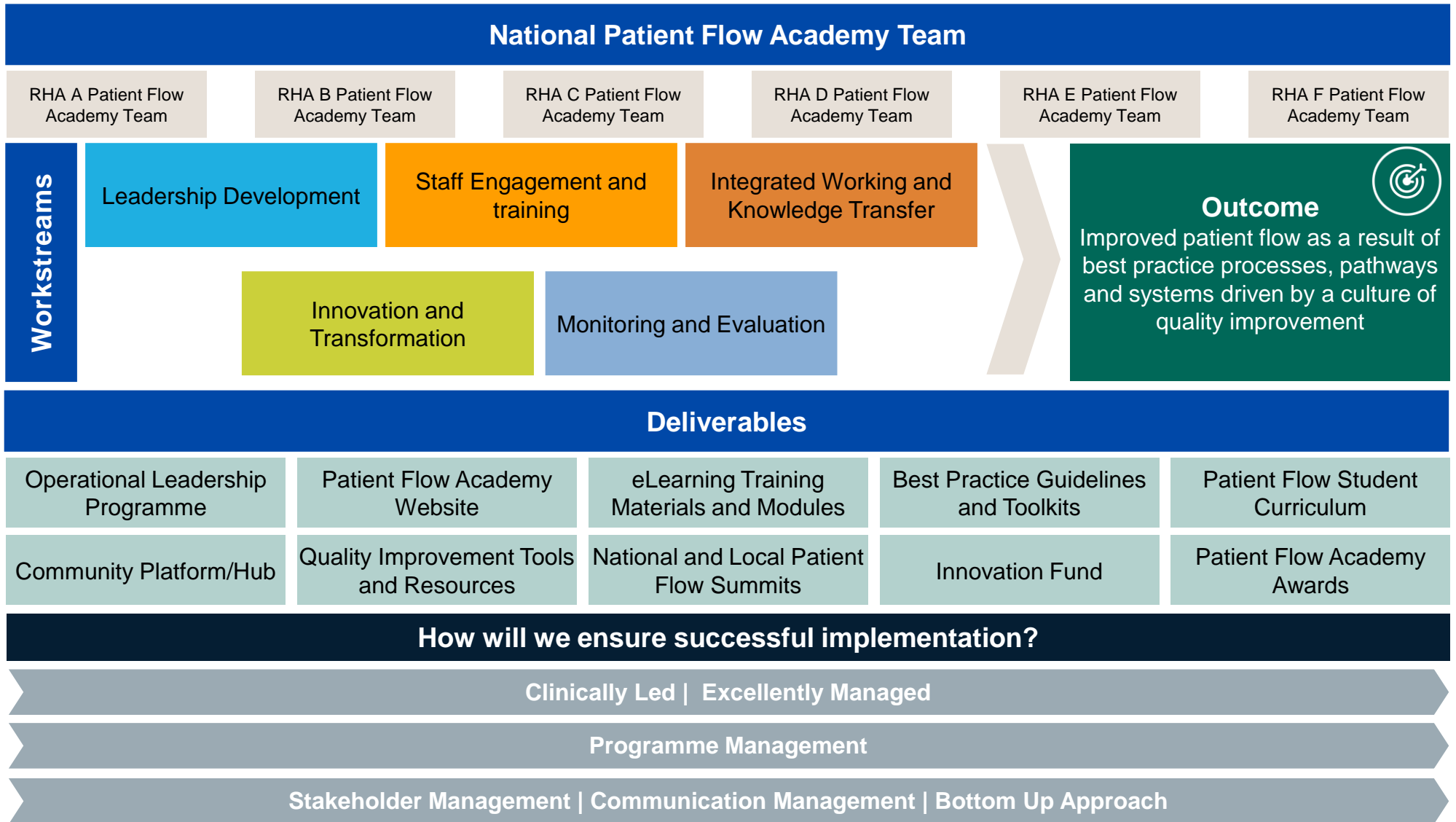


# HSE Patient Flow Academy



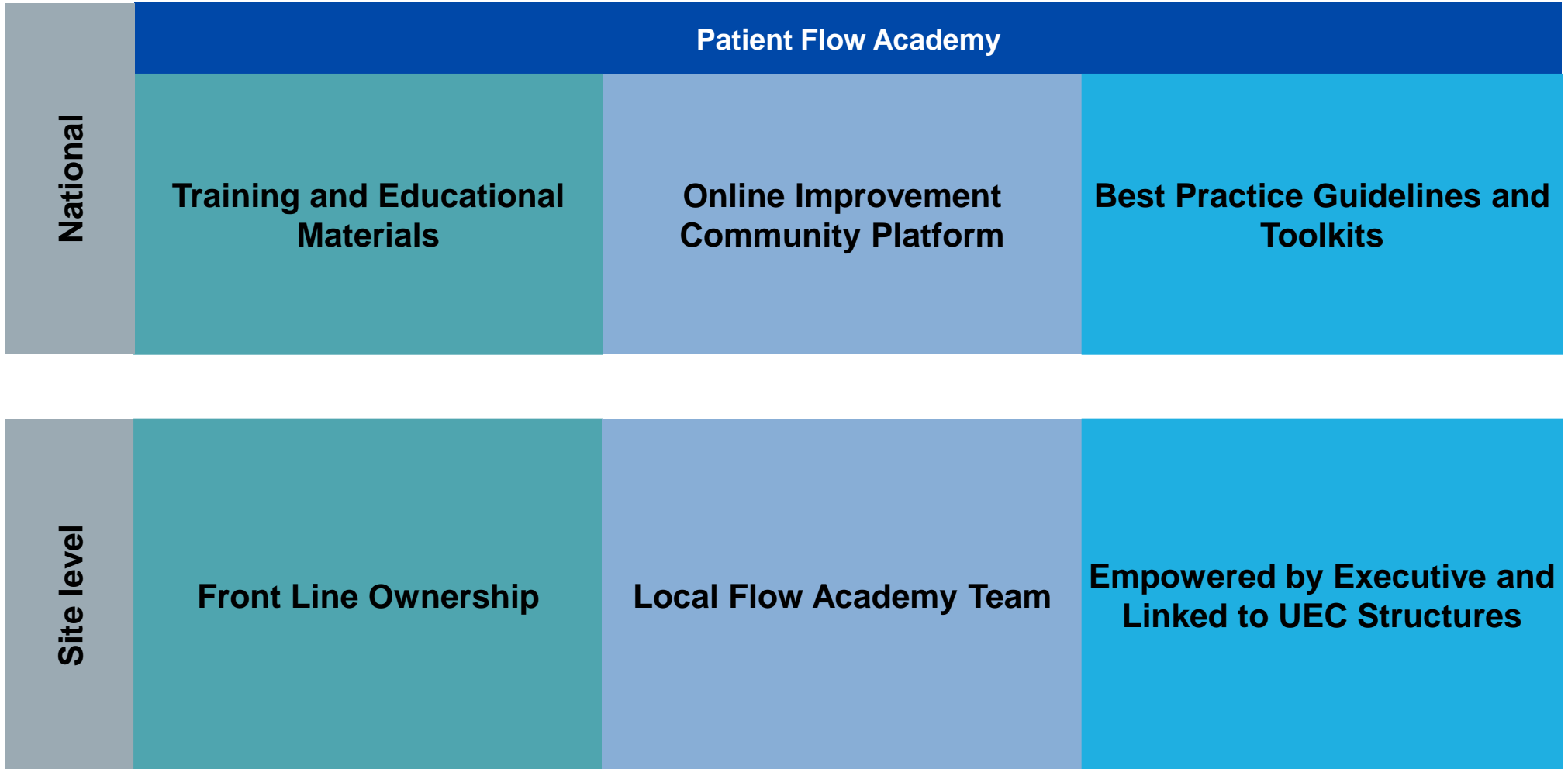


# Overview of Approach





# Patient Flow Academy Structure





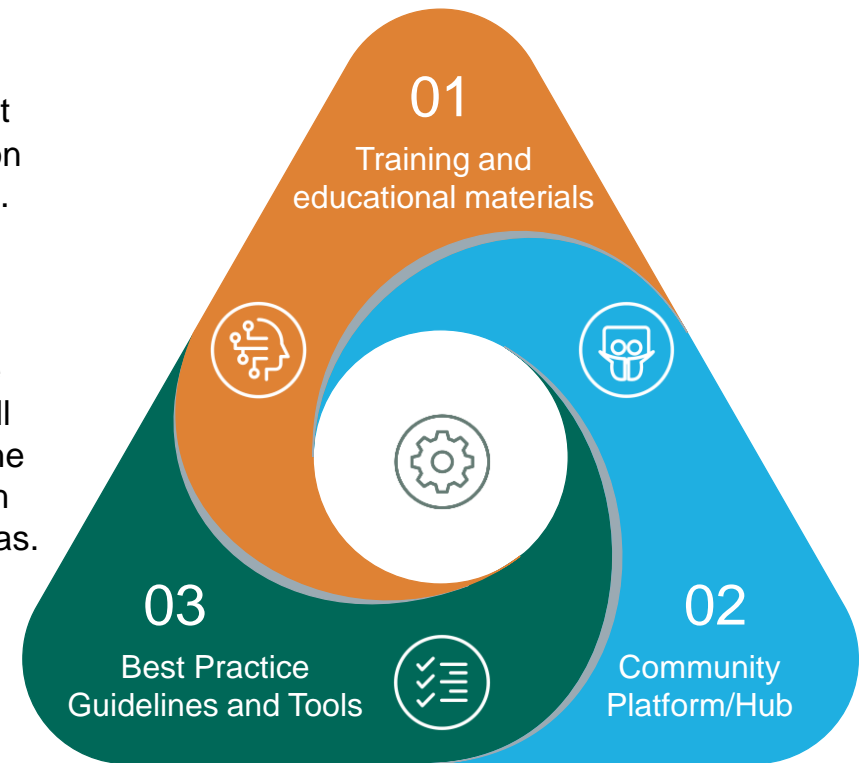
# Patient Flow Academy Structure: National Focus

*The HSE National Patient Flow Academy Team will develop materials, guidelines and tools to support education and knowledge transfer to support tailored local improvement actions:*

**01 Training and educational materials:** The National Patient Flow Academy team will develop an e-learning programme based on topics centred around the Five Fundamentals of Unscheduled Care. This training can be hosted on HSEland and targeted at different levels.

**02 Community Platform/Hub:** HSEland will also host an online patient flow improvement community platform/hub. This platform will aim to build patient flow capability and knowledge transfer across the RHAs by providing the opportunity for colleagues to learn from each other's improvement efforts and to collaborate on improvement areas.

**03 Best Practice and Guidelines and Tools:** The National Patient Flow Academy Team will develop best practice patient flow guidelines and tools to support application of practice guidelines and improvement efforts based on the 'Five Fundamentals of Unscheduled Care'. Guidelines will consider non condition based flow guidelines and condition specific flow guidelines.





# Benefits of Patient Flow Academy

The HSE Patient Flow Academy will help improve patient care, increase efficiency, enhance communications, optimise resource allocation, and increase patient satisfaction.





# Initial six month programme of work



Establishing National Patient Flow Academy Team



Development of educational materials and eLearning programme modules



Initiate Patient Flow Academy PMO



Development of an online community platform



Development of Patient Flow Academy website



Delivery of webinars based on initial best practice guidelines



Development of best practice guidelines

- *Integrated operations*
- *Demand and capacity analysis*
- *Ward processes*
- *Integrated discharge processes*




National patient flow summit





# Patient Flow Academy: Guidelines and Toolkits

Integrated operational hubs	Integrated operational grip	Demand and capacity analysis	Effective ward processes SAFER Huddles Red2Green
Escalation principles	Patient flow data and dashboards	Discharge to Assess (D2A) and Trusted Assessment	Ambulance handovers
Clinical Decision Units	Emergency Departments	Acute Medical Unit and other assessment services	Ambulatory emergency care
Frailty	Optimal integrated discharge processes	Primary Care/ECC streaming	Mental Health



**HSE Patient Flow Academy: Best Practice Guidelines and Toolkits**



Application locally to support improvement efforts







## We have tremendous assets













**You don't get excellence from pieces, you get excellence from connections**

