



Health Performance Visualisation Platform-HPVP

Paula Kavanagh

HPVP Programme Manager

Integrated Information Service -IIS eHealth





Health Performance Visualisation Platform - HPVP

HPVP is an Integrated Information Service- IIS Data Analytics platform, established to assist hospitals in operational management through the provision of accurate and timely data. It also provide a national overview of service delivery based on data from the participating hospitals. It is a web based platform, designed to automate and visualise key hospital information from the existing hospital information systems.

Objectives of the HPVP Programme:

To deliver a platform that will improve hospital operational efficiency and patient access outcomes by using data extracted from existing hospital systems to deliver insights across key domains ED, Beds, OPD, Surgery and Medical Imaging:

HPVP displays a range of information from high level reports to granular information

- ▶ Viewing data and analysis over a range of frequencies- 15 minutes, hourly, daily, weekly
- ▶ Watch trends over time to develop an understanding of hospital processes and flow of patients through departments
- ▶ Manage waiting lists through targeted activities
- ▶ Monitor long waiters and chronological scheduling on Waiting lists
- ▶ Provides a personal profile of charts and analysis that helps inform the way we work – at operational or strategic levels.





HPVP Key Domains

HPVP is a single centralised access point for information with reporting across three levels; national, regional (Hospital Groups/ Health Regions and hospital operational level). It supports other key services and dashboards provided by the IIS.



ED

Emergency Dept
activity information



BEDS

Admissions,
Inpatient bed flow
and management



OPD

Outpatient waiting
lists, clinic activity
and capacity



Surgery

Scheduled surgery
waiting lists, theatre
utilisation and
capacity



Imaging

Medical imaging and
diagnostics
(GI Scopes and
radiology imaging)



HPVP - Improving Access to Data across the Health Service

Improving services to the public

- At a national level, HPVP provides pseudonymised patient level data and aggregated data on provision of services across acute hospitals.
- At Hospital Group/Health Regions, and regional leadership teams, a cross hospital view of services is available.
- At hospital level, an operational view with patient level identifiable data is available showing the patient journey through ED, Admission, Surgery, Discharge, OPD Clinic and more.

National

HSE and DOH

H.Group/ H.Regions

Hospitals

Operational



HPVP Scope and Progress to date

PHASE 1 (2021 – 2023)

Scope: 28 acute public hospitals
(20 Statutory, 8 Voluntary)

PHASE 2 (2024 – 2028)

Scope: 50 acute public hospitals

HPVP is available in the following 21 hospitals with plans in place for further hospitals in early 2024.

2022	Hospital
Jan-22	Sligo
Feb-22	Mayo
Mar-22	Letterkenny
Apr-22	Mullingar, Portlaoise Cavan, Tullamore
May-22	Cork, Galway, Mercy, Kerry, Drogheda, Tipperary, Limerick (PAS)
Jun-22	Wexford, St Luke's, Portlincula
Jul-22	Navan, Connolly (IPMS)
Oct-22	Connolly (ED)
Nov-22	Portlaoise (MI) Drogheda (MI)
Dec-22	MI: Tipperary, Wexford, Connolly

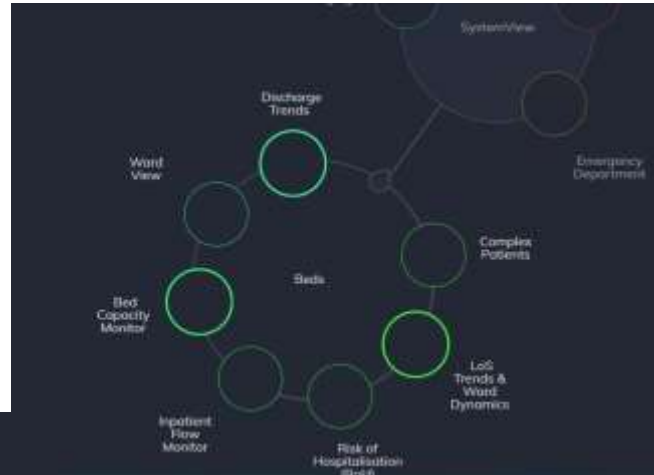
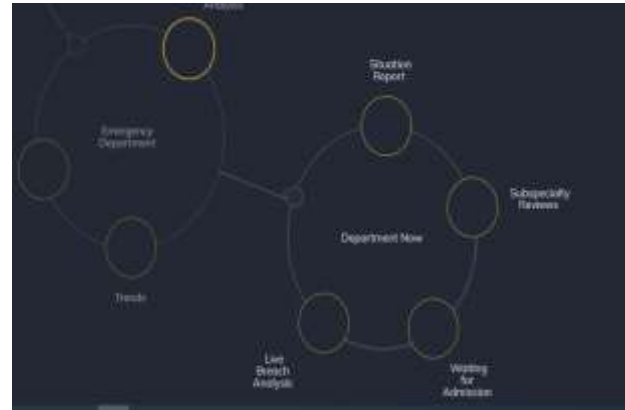
2023	Hospital
Feb-23	Limerick (ED)
Mar-23	MI: Tullamore, Kerry, Portlincula, Mayo, Navan, Mullingar, Letterkenny
Apr-23	MI: Galway, Cork, Limerick, Cavan
May-23	Naas (ED), Sligo (MI)
Jun-23	Waterford (<i>Validation Outstanding</i>), St Luke's (MI) (<i>Validation Outstanding</i>)
Sep-23	(MI Hourly) CUH GUH
Dec-23	Naas (Theatre, PAS, MI)

2024	Hospital
Q1	CHI, St James's, St Vincent's
TBC	Mercy (MI), Tallaght, Cappagh, Mater, Beaumont

Legend
Live
Planned
To Be Planned



HPVP Pathway- SystemView





Example of a Hospital ED Overview on HPVP

Department Overview

88 Current Patients

207 Presentations Today

210 Expected Presentations

-3 Presentations Today vs
Expected Presentations

7 Presentations Expected Next
Hour

77.3 PET % Today

Presentations by Arrival Hour



Waiting ED Patients by Wait Type & Time





Example of a Hospital ED Patient Waiting Summary

Patients Waiting

- 13 Patients Waiting to be Seen
- 0 Patients In Waiting Rooms
- 16 Patients Waiting for Subspecialty Review
- 12 Patients Waiting for Subspecialty Review > 1 Hr
- 37 Patients Waiting for an Inpatient Admission
- 33 Patients Waiting for an Inpatient Admission > 1 Hr

Summary

- 35 ED Patients Waiting for Admission
 - 2 Patients Waiting in Time
 - 33 Requests Waiting > 1 Hour for Admission
- 35 Pending Ward Requests
 - 0 Patients AWA > 45 Minutes
 - 0 Patients Awaiting > 30 Minutes for Ward Transfer
- 87.6 Current Max. Wait for Admission (hr)

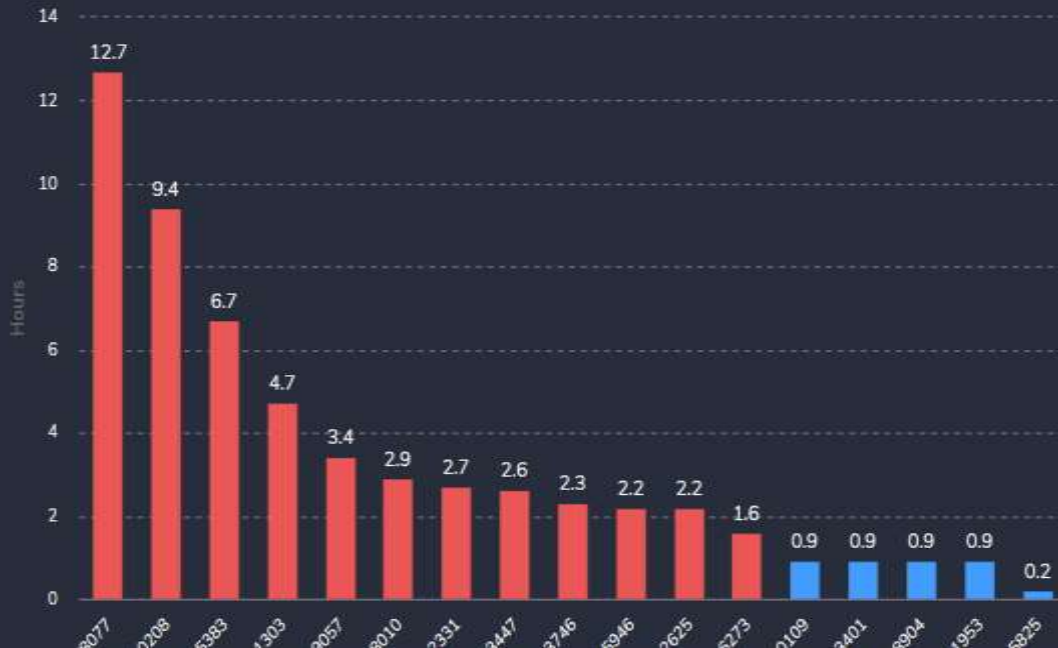
Waiting ED Patients by Wait Type & Time





Example of a Hospital ED Subspecialty Review

Patients Waiting for a Subspecialty Review by Time Waiting and Subspecialty Team



Summary

16 ED Patients Waiting for Subspecialty Reviews

12 Requests Waiting > 1 Hour for Subspecialty Reviews

12.7 Current Max. Wait for Subspecialty Review(hr)

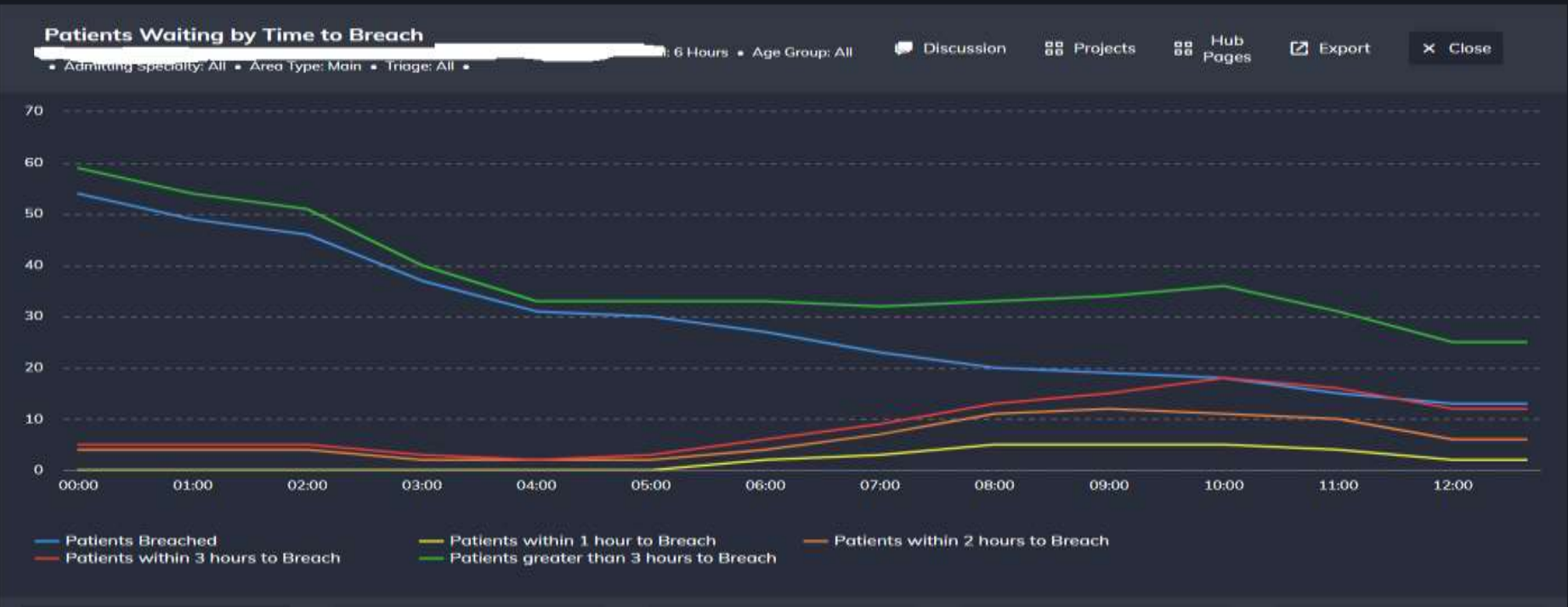
42 Reviews Requested Today

Patients Waiting for a Subspecialty Review by Subspecialty Team





Example of Hospital ED View of Breaches (6 hours)





Example of National ED View of Breaches (6 hours)

75+ Focus of ED Breaches over 6 hours

1071	Total in ED
501	Total Breached
478	Total Waiting to be Seen
124	Total Breached Waiting to be Seen
135	Total Waiting for SSR
83	Total Breached Waiting for SSR
215	Total Waiting for Admission
186	Total Breached Waiting for Admission
22	Total Waiting for Triage
1	Total Breached Waiting for Triage
11	Total Waiting for Discharge
6	Total Breached Waiting for Discharge
210	Total Patients Waiting for ED disposition
101	Total Breach Patients Waiting for ED disposition
154.67	Current Max LoS (hr)

Hospital Group	Hospital	KPI	Age Group	Admitting Specialty
All ▾	All ▾	6 Hours ▾	Aged 75+ ▾	All ▾

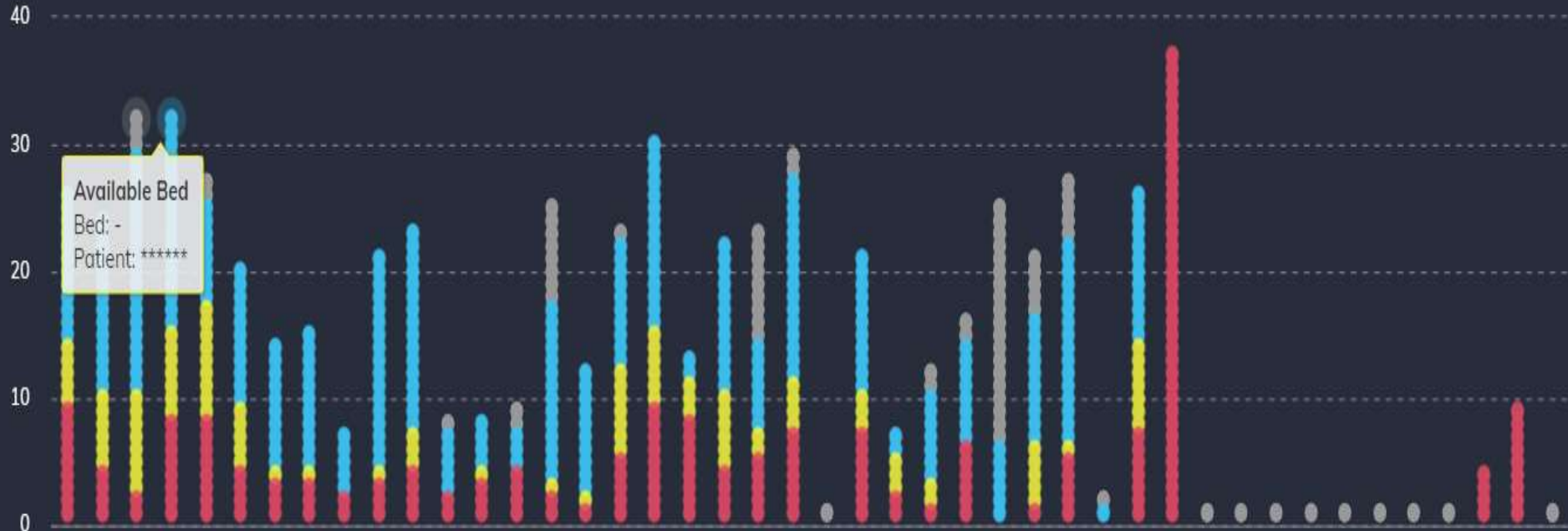
214	Total in ED
138	Total Breached
67	Total Waiting to be Seen
48	Total Breached Waiting to be Seen
40	Total Waiting for SSR
28	Total Breached Waiting for SSR
58	Total Waiting for Admission
51	Total Breached Waiting for Admission
2	Total Waiting for Triage
1	Total Breached Waiting for Triage
3	Total Waiting for Discharge
1	Total Breached Waiting for Discharge
44	Total Patients Waiting for ED disposition
28	Total Breach Patients Waiting for ED disposition
54.45	Current Max LoS (hr)



Example of Hospital Wards Length of Stay (LOS)

LOS can be examined by hospital, by ward or by region. In this scenario, HPVP predicts the LOS for each ward and applies a colour code of those below average LOS, or above it.

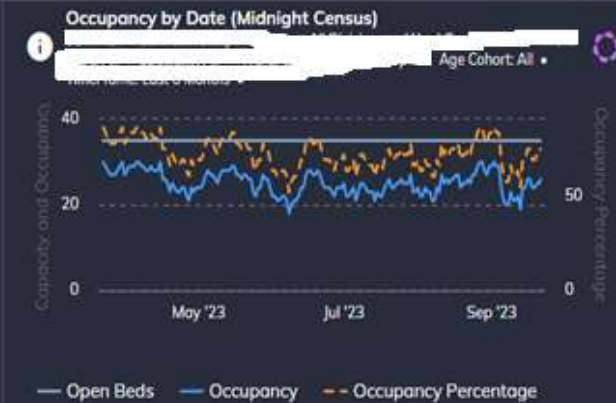
Patients by Ward and Ward LoS Status





Example of Ward Cohorting for Medical Specialties

MyView MyLists SharedLists MyProjects **SharedProjects** MyHub Medical Ward Cohorting Export





Example of HPVP Complex Patients Hub

Assist in meetings to manage patients with Delayed Transfer of Care (DTOC)

Age	Gender	Total LOS (days)	Ward LOS (days)	Flow Category	EDD	Consultant	Consultant Specialty	Current Diagnosis	ROH30	ROH60	[REDACTED]	Complex Discharge	Last Updated At
49	*****	34.6	34.6	Passive	-	[REDACTED]	MEDICAL		5.8%	8.8%	[REDACTED]	N <input type="checkbox"/>	- *****
89	*****	28.7	28.7	Passive	-	[REDACTED]	CARE OF OLDER PERSON MEDICINE		32.0%	49.2%	[REDACTED]	N <input type="checkbox"/>	- *****
59	*****	28.6	28.6	Passive	-	[REDACTED]	ORTHOPAEDIC		6.9%	10.3%	[REDACTED]	N <input type="checkbox"/>	- *****
89	*****	27.2	27.2	Passive	-	[REDACTED]	CARE OF OLDER PERSON MEDICINE		9.0%	14.1%	[REDACTED]	N <input type="checkbox"/>	- *****
59	*****	42.6	26.9	Passive	-	[REDACTED]	SURGICAL		13.6%	17.0%	[REDACTED]	N <input type="checkbox"/>	- *****

Cancel

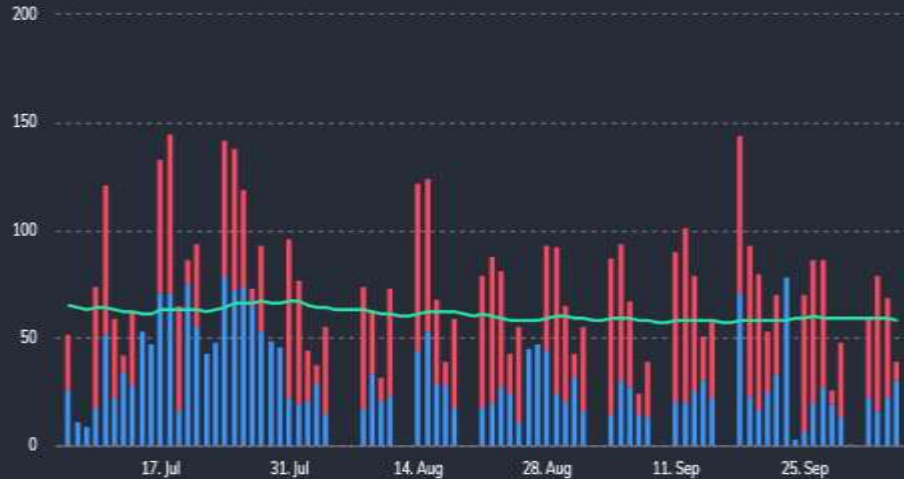
Save



HPVP –OPD Productivity

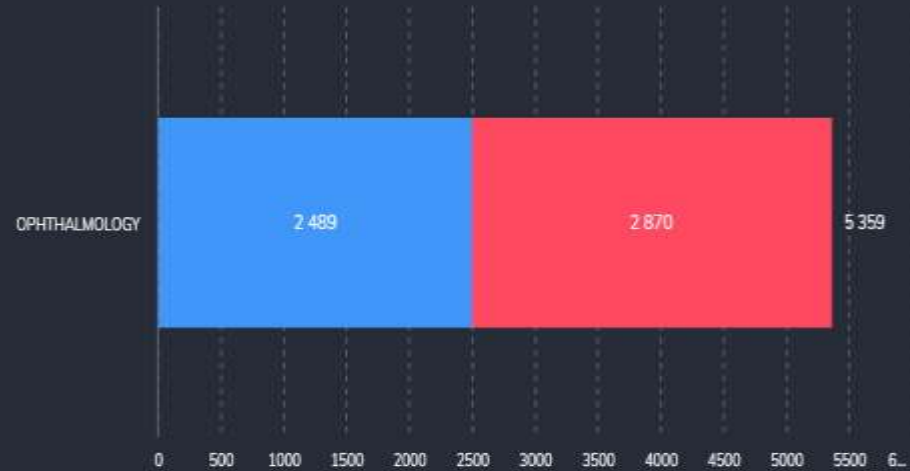
The HPVP team work in collaboration with Acute Operations to explore opportunities to improve productivity. HPVP provide a view for healthcare professions to see their activity clearly, identifying the ratio of new and review appointment per clinic. At present, HPVP are assisting hospitals to view 3 particular specialties: Ophthalmology, Dermatology and Orthopaedics.

Total Productive Appointments Over Time with Rolling Average (12 Weeks)



● New Appointments ● Review Appointments — Rolling Average (12 Weeks)

Total No of Appointments by Specialty and Appointment Type



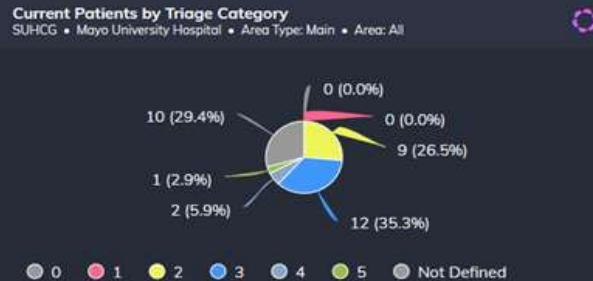
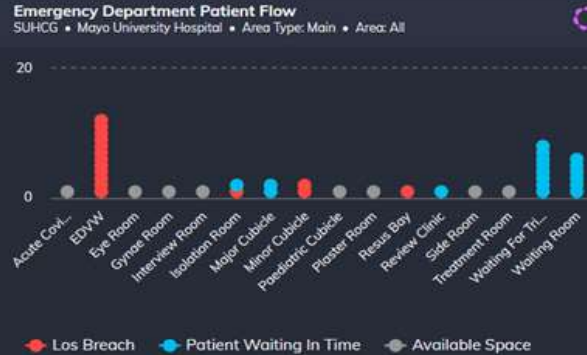
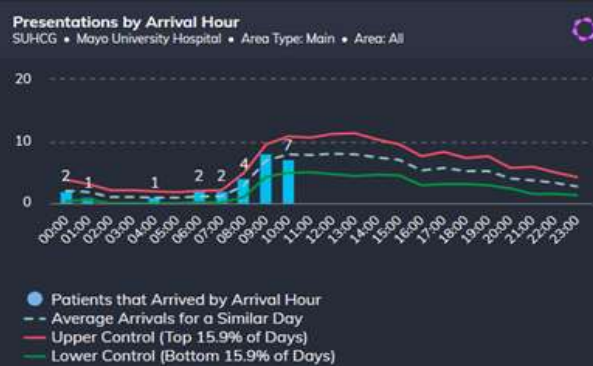
● New Appointments ● Review Appointments



HPVP "Always on" Large Screens

As Emergency Departments operate 24*7, the HPVP display must be 'always on', to ensure that the required information is available to staff.

Example below is displayed within Mayo University Hospital (MUH) as part of a large quality Improvement Initiative.



Patients Waiting for Admission

Hospital Group: • Hospital: Mayo University Hospital • Specialty: All • Area: All • Admitting Ward: All

Admitting Ward	Allocation	Specialty	MRN	Patient Name
		GENERAL MEDICINE	#110749330	*****
		GENERAL MEDICINE	#90242817	*****
		GENERAL MEDICINE	#197978526	*****
		GENERAL MEDICINE	#80297169	*****
		GENERAL MEDICINE	#234897947	*****



HPVP Service Improvement Initiatives

Domain	Service Improvement Initiatives
Outpatients	<ul style="list-style-type: none">• Waiting List: Introduction of booking groups and chronological management techniques• Demand and Activity: Identification and quantification of imbalances• Clinical: Audits of the patient attendances to assess cohorts and identify models of care changes• Clinic effectiveness: Monitoring of booking and retrospective activity levels
Surgery	<ul style="list-style-type: none">• Waiting List: Introduction of booking groups and chronological management techniques• Demand and Capacity: Identification and quantification of imbalances• Theatre Effectiveness: Opportunities for improvement of utility, overruns, late starts and cancellations• Perioperative Booking huddles to maximise booking effectiveness (and available time)
Medical Imaging	<ul style="list-style-type: none">• Waiting List: Introduction of booking groups and chronological management techniques• Evaluating productivity: Scanning, imaging and reporting effectiveness.
ED	<ul style="list-style-type: none">• Demand variation and resourcing• Overcrowding escalations• Real-time trolley wait tracking• Real-time PET monitoring and improved retrospective analysis• Models of care redesign
Inpatient	<ul style="list-style-type: none">• Executive Overviews including real time occupancy, Cohorting initiatives• Admission: processes, timeframes and escalations• Discharge before 10am• Risk of re-hospitalisation• Complex patient management (delayed transfer of care).



HPVP Programme Priorities

HPVP programme priorities in line with HSE National Service Plan

1

Be a key enabler of integrated care across the Health Regions - providing a view of acute activity to hospitals, Health Regions and at national level to support a patient-centred approach to healthcare.

2

Be a key enabler of National Programmes, supporting data driven decision making, to ultimately improve quality, access and service to people across the country.

3

Successful delivery of Phase 2 to provide a national standardised view across 50 hospitals, enabling the HSE to plan and monitor system-wide activity and capacity in near-real time, to ensure that activity levels are maximised, while at the same time ensuring the safety of patients and staff.



HPVP – Contact the team

Any Questions?

Contact HPVP National Programme Manager

paula.kavanagh@hse.ie

Your HSE Change Manager for HPVP

or hpvp@hse.ie