

Managing a Predictable Business – using patient flow data across the continuum

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Why we needed to change

...review of the current environment

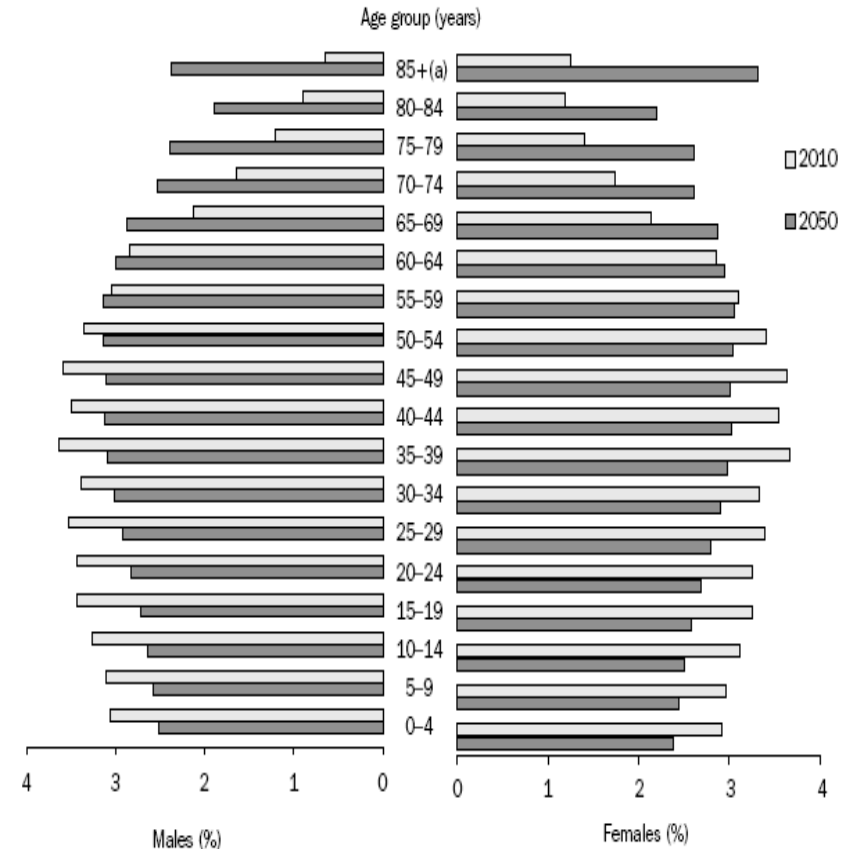


People are living longer

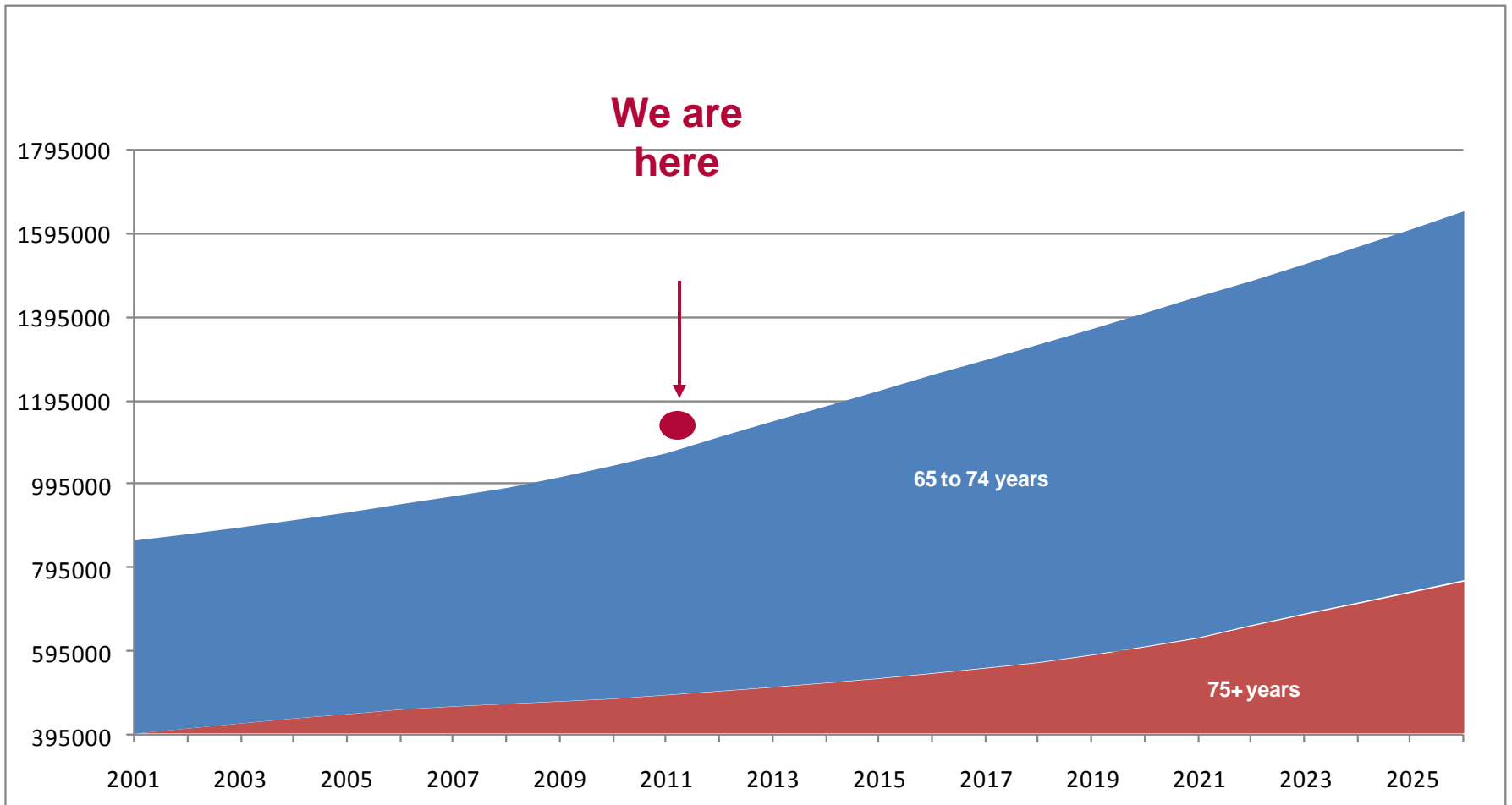
By 2050 26% of the population is projected to be 65yrs + & only 15% of the population being 0-14yrs

Technological advances have aided us to live healthier for longer: -

- pre hospital thrombolysis
- pre hospital assessment for primary angioplasty
- drug therapies
- surgical advances



Trends in NSW Population Growth People aged 65 years and older



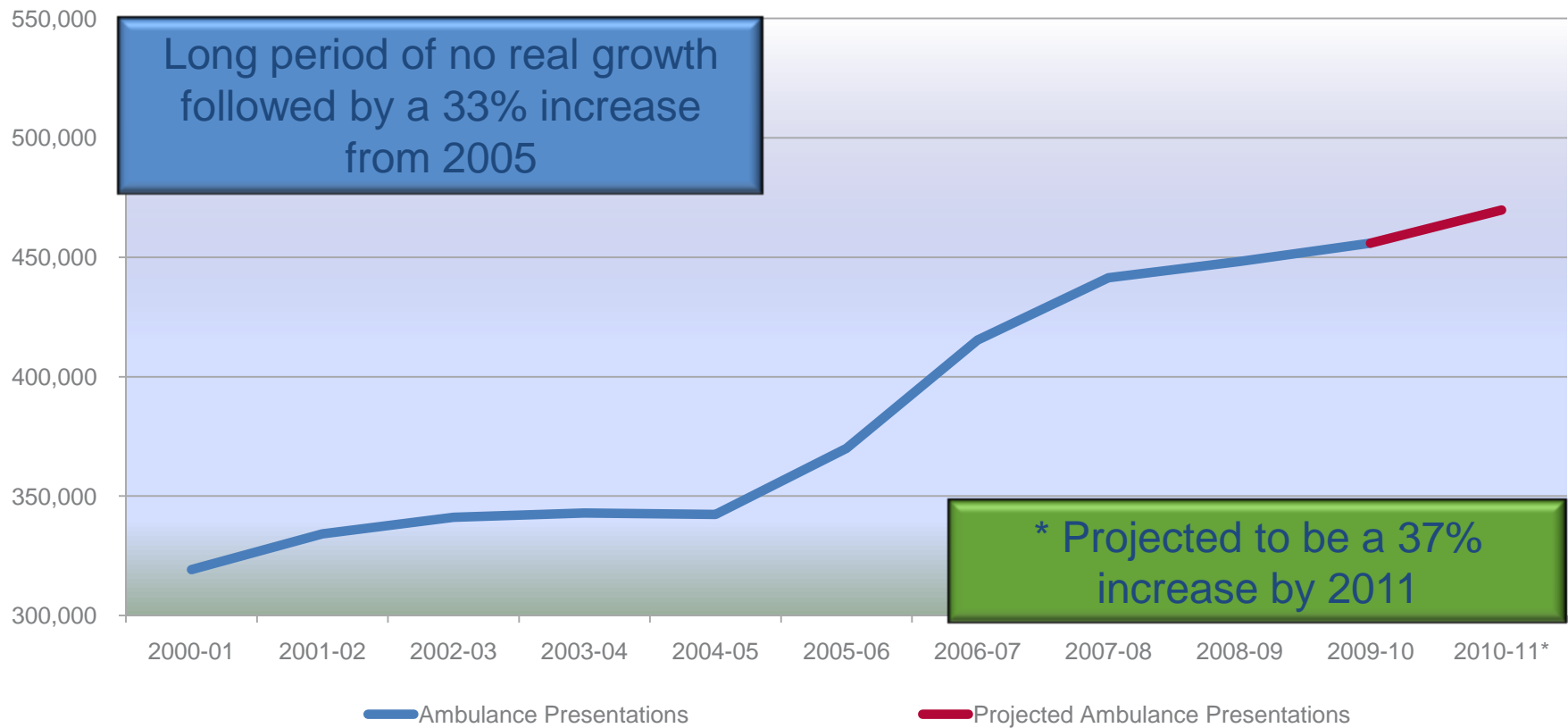
Our largest and fastest growing patient groups present a challenge...



- **Half** of all hospital beds are occupied by people aged over 65
- Hospital presentations by the over 75 age group are **growing 20%** per annum
- Average length of stay in hospital is 4 days. For people aged over 75 this jumps to **9 days**
- **77%** of Australians over the age of 65 have at least one chronic condition

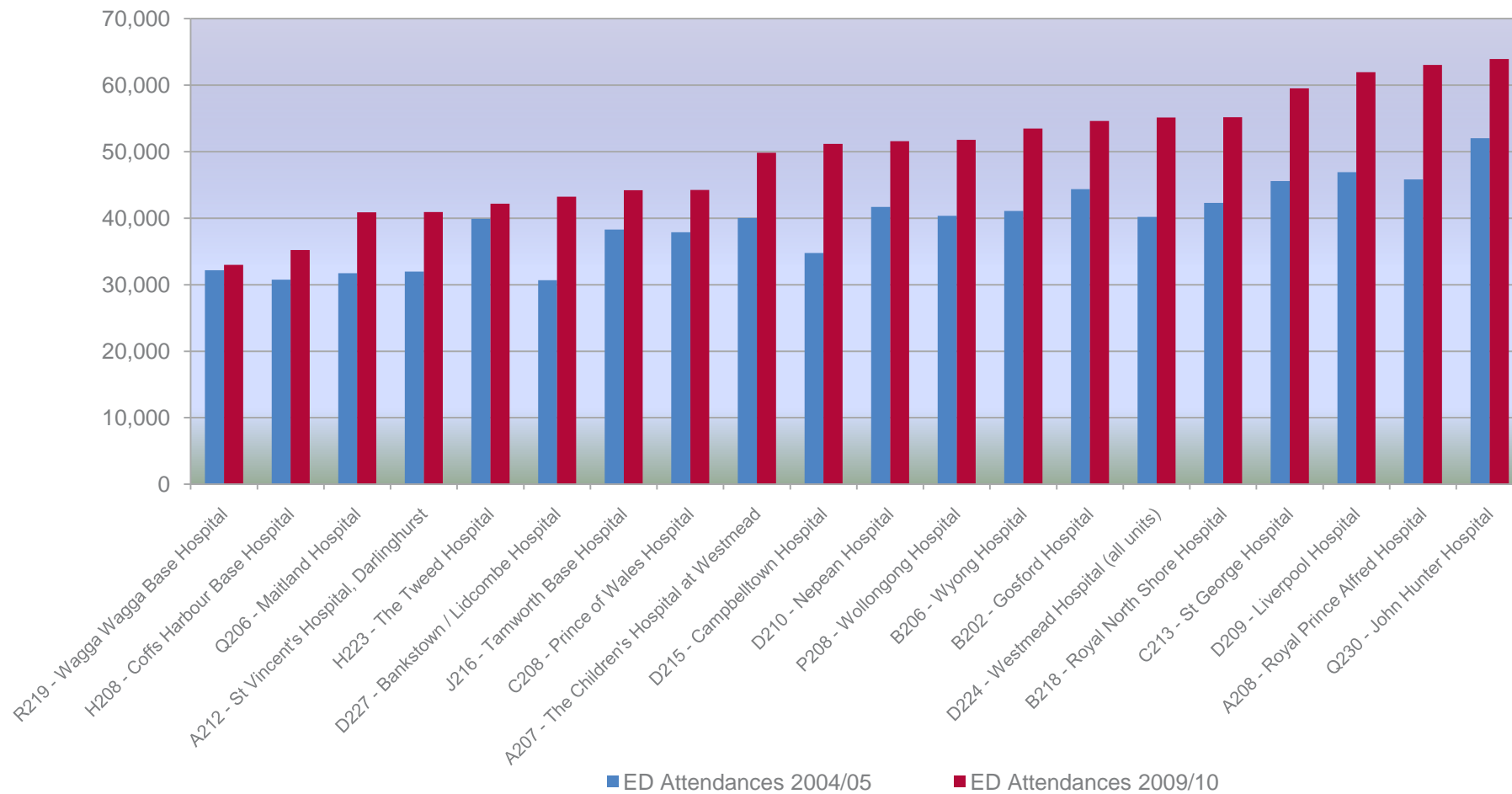


Ambulance presentations are increasing in NSW and are predicted to continue increasing



Source = IQ Reporting Server: ED Attendances arrivals by ambulance by Year 2000-01 to 2009-10 & *DPE Predictions: 2010/11

ED Attendances in our top 20 busiest EDs have significantly increased since 2004/05



Source = IQ Reporting Server: ED Attendances by Year 2004/05 and 2009-10

How we changed ...New Models of Care



The Patient Journey Approach

Pre Hospital

**Emergency
Department**

Inpatient Care

Community

Expansion of Hospital in the Home (HiTH)

Establishment of Urgent Care Centres

RACF support and access

Extended Care Paramedics (ECP)

Paramedic pre-hospital thrombolysis and direct to Cath Lab models

Severe Chronic Disease Management

Streamlined ED Reception & Triage Processes

Fast Track Zones

Nurse Initiated Treatment protocols

ED equipment & communications enhancements

Expansion of MAU program

Capacity and Demand Predictive Tool

Short Stay Units

DOSA >90%

Extended Day Only surgery >75% of all planned surgery

Emergency Surgery Guidelines

Patient Discharge Units/Lounges

Expansion of Hospital in the Home (HiTH)

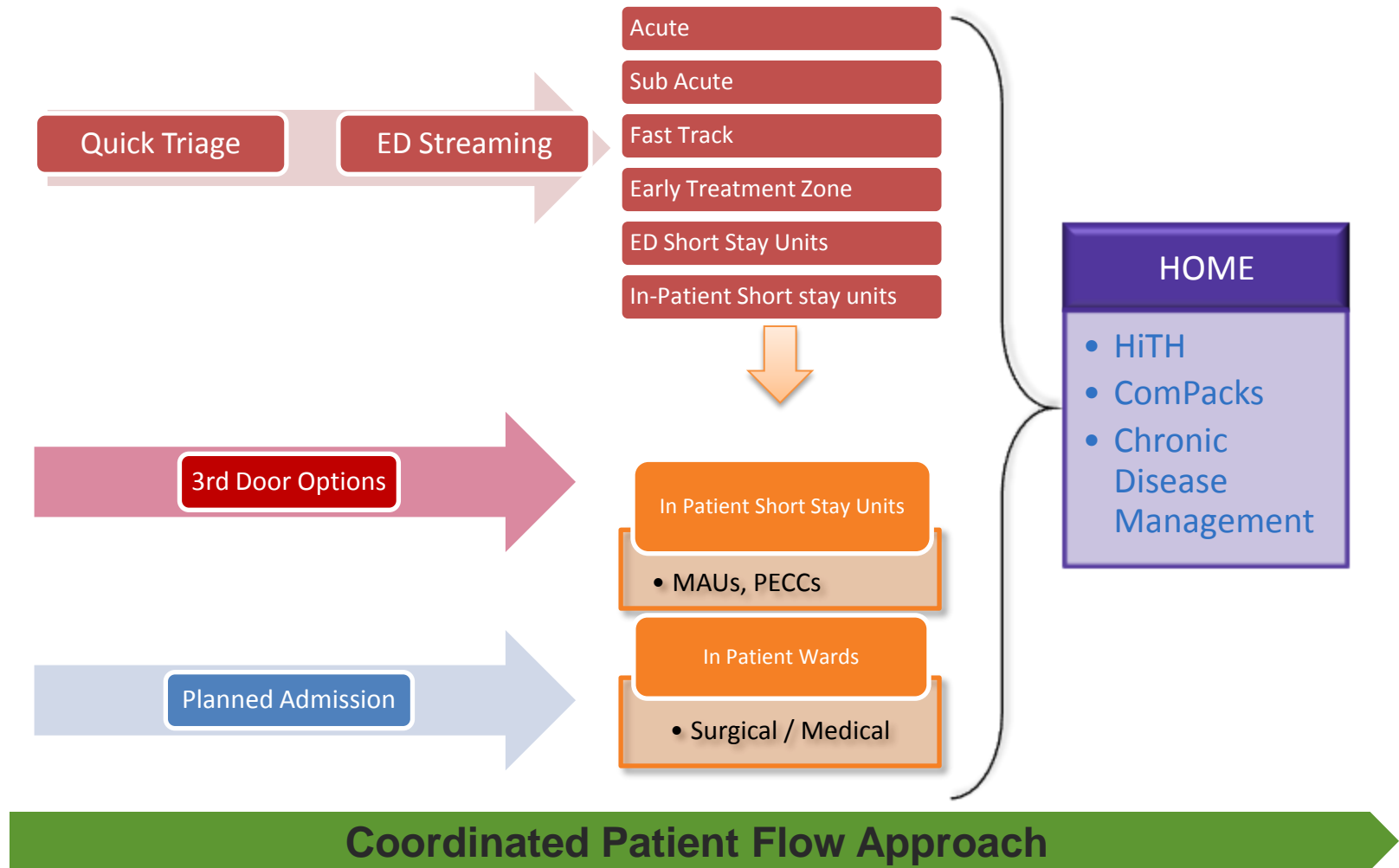
Expansion of ComPack's

Severe Chronic Disease Management

Patient Flow Systems

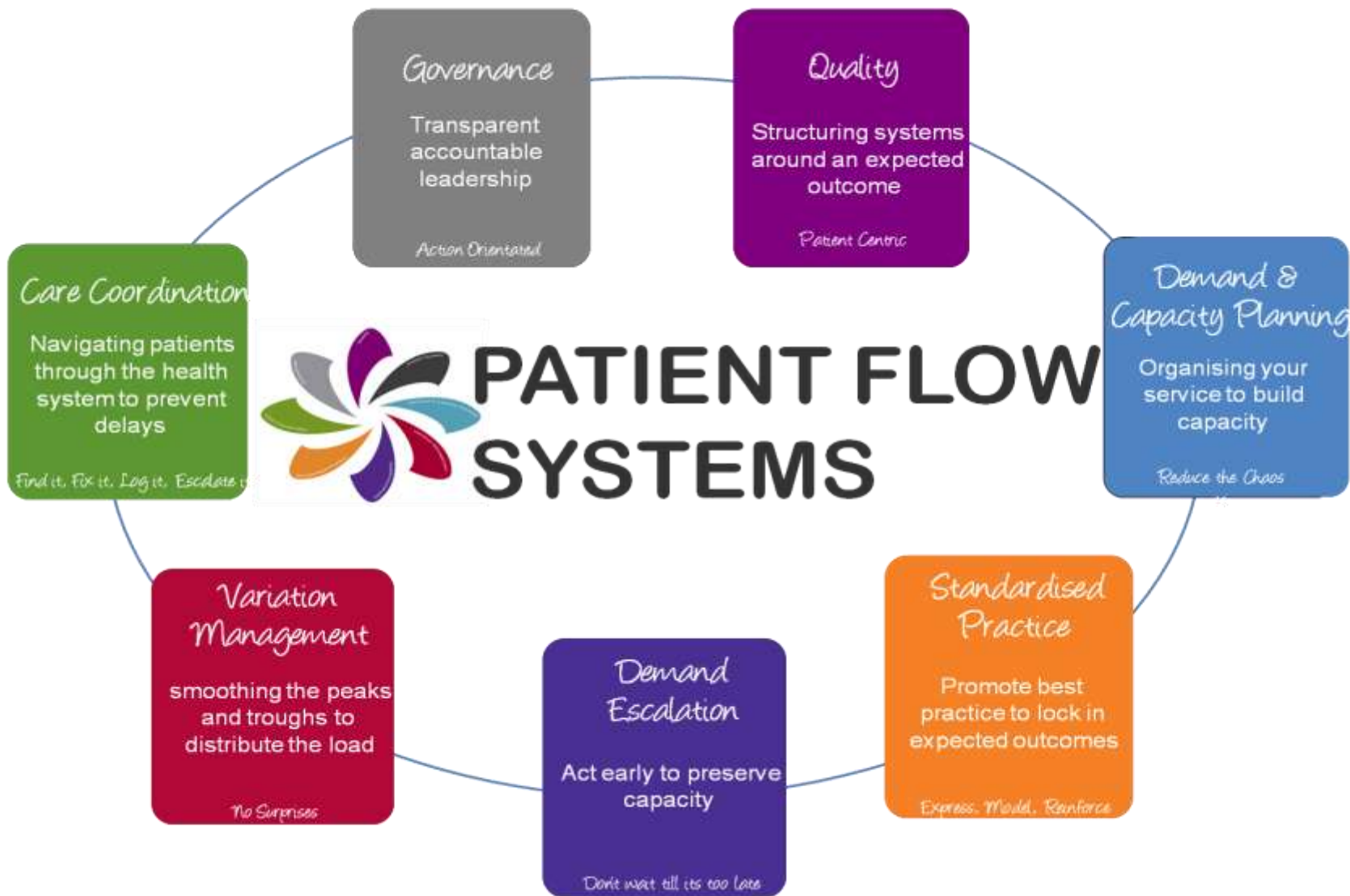
Program Management

New ways of entry and streamlining processes through the Acute Care Setting



Abbreviations: **MAUs**-Medical Assessment Units, **PECCs** – Psychiatric Emergency Care Centres, **HiTH**- Hospital in the Home, **ComPacks** – Community Packages

Patient Flow Systems Approach





Care Coordination

Care Coordination: Planning from Admission to Transfer of Care Policy Directive (DRAFT)

- 1** Admission/pre-admission (incl Transfer Risk Assessment)
- 2** Multidisciplinary Team Review
- 3** Estimated Date of Transfer
- 4** Referrals and Liaison
- 5** Transfer of Care

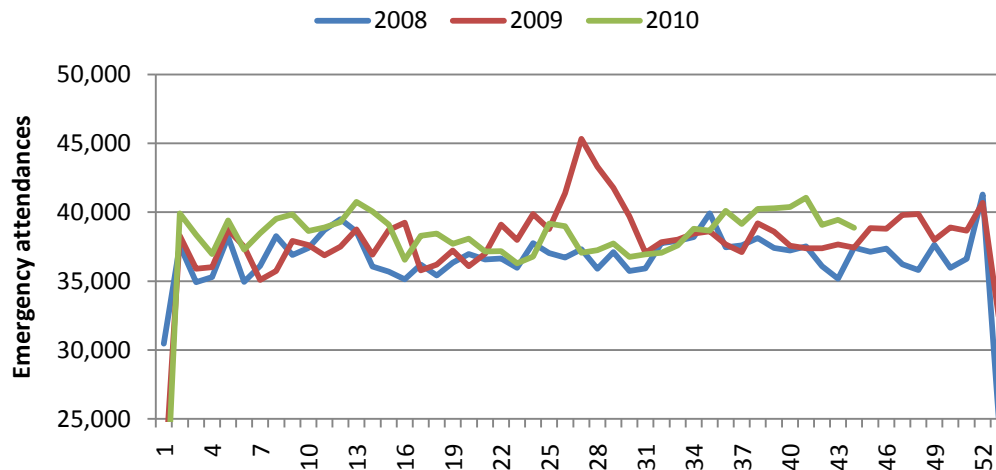


Predictability of Emergency Trends

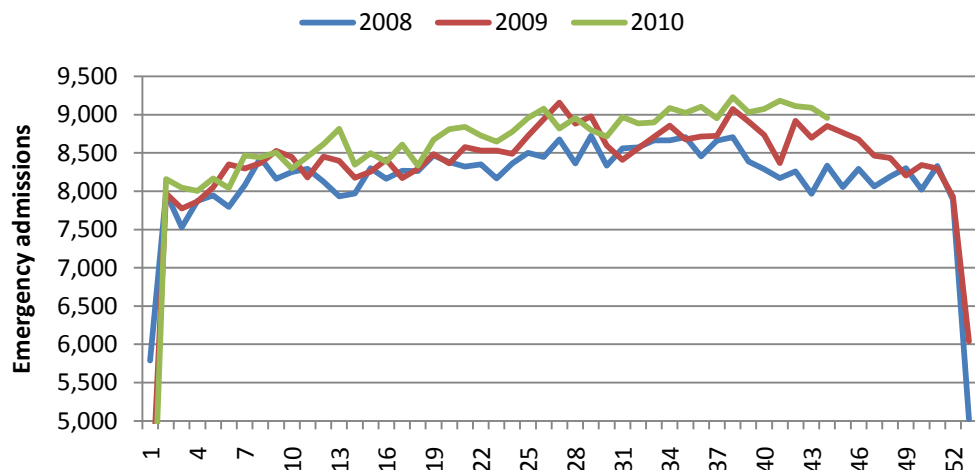
- Presentations are predictable

- Admissions are predictable

ED emergency attendances by week of year - NSW



ED emergency admissions by week of year

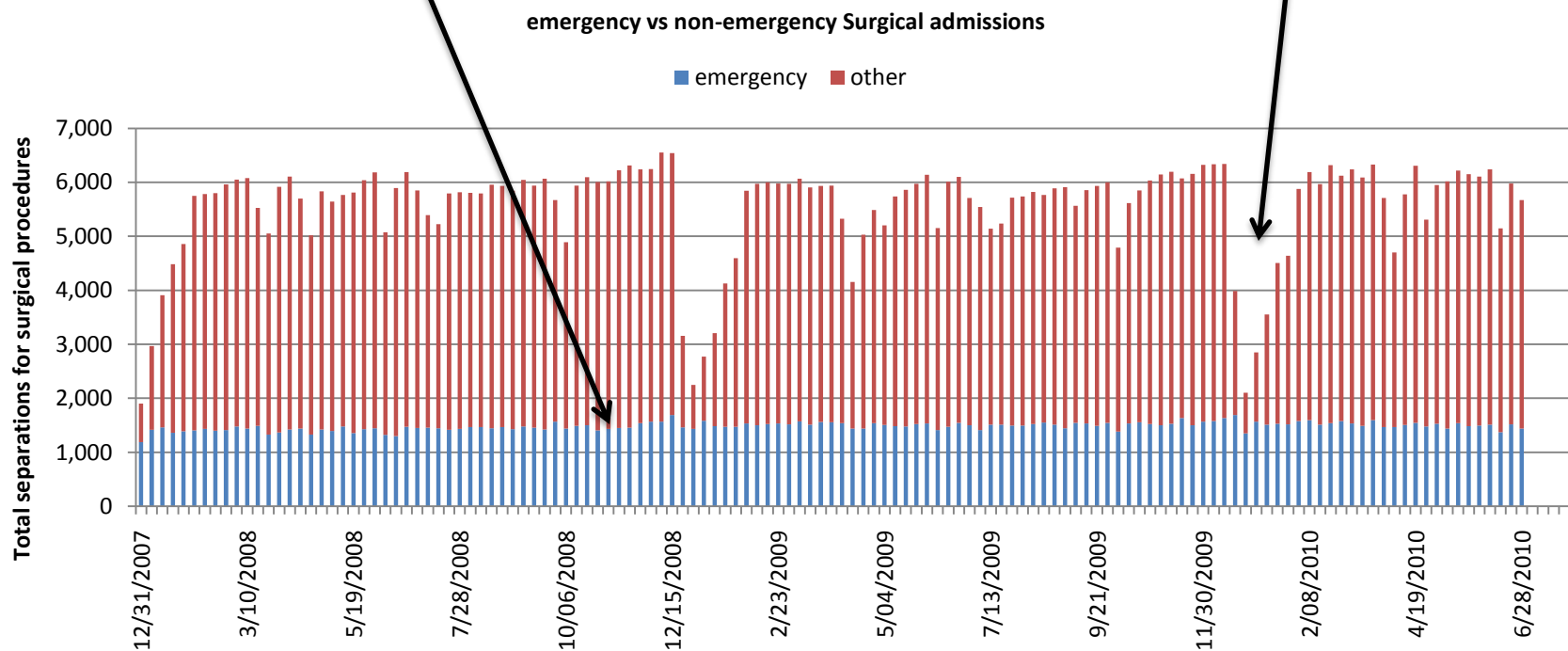




Predictability of Emergency Trends

Emergency Surgery is predictable

“Planned” Surgery is NOT!!





Demand Escalation

A structured format to escalate our response to demand

- **Demand escalation has two components**
 - Capacity Control Action Plan (C.A.P)
 - Proactive response to Capacity imbalances in the forthcoming 10 days
 - Escalate days before the problem occurs
 - Standardised Short Term Escalation Plan (S.T.E.P)
 - Proactive response to increasing activity/exit block
 - Unpredicted activity managed through interim short term solutions



Patient Flow Portal

Single Point of Access for 4 tools:

- 1 Bed Board
- 2 Integrated Length of Stay Monitor
- 3 Capacity and Demand Predictive Tool
- 4 Ward Activity Nursing Display



Bed Board

PatientFlowPortal aznum1 Log out Business Apps

Bed Management: SWAHS Auburn Hospital

Bed Board | Transfer | Bed Management | Reports

View Options: Patient Mode | Bed Mode

Facility Profile: Occupancy: 39.06% | Number of Patients: 109 | Bed Days to date: 792 | Average LOS: 9.9

EDT | Filter | Clear filters | Graph

Filtering Options:

- Doctor: Please select
- Show outliers:
- Specialty: Cardiology, Emergency Departments, ENT, Gastroenterology, General Medicine
- Bed occupancy: Please select
- Room type: Please select
- Bed status: Please select
- Bed type: Please select
- Bed tags: Please select
- Risks: Please select
- Patient tags: Please select
- Waiting For What: Please select

Filter Data | Reset Filters

Multiple filtering options

1	1	1	1	1	1	3	3	3
2	9	13						
0	0	0	0	1	1	2	2	2
1	1	1	2	2				
19	31	31	32	33	33	33	33	



Ward Activity Nursing Display (WAND)

PatientFlowPortal aznum1 Log out Business Apps

WAND - Ward View: SWAHS Auburn Hospital AMA

Filters 11 Patients

Room	Bed	Patient Name	Bed ID	Activity
Some room	Bed 05	HA, KYLAN	Bed 416	1
	Bed AMA414			
Room 2	EAGLESON, STELLA	Bed 413		2
	PEREIRA, DOMINGOS	Bed AMA412		0
	AMALAVANER, MANCAIY...	Bed AMAT02		-1
Singles	HAWAT, NADIA	Bed 01		0
	SENDURGUT, REMZI	Bed 417		0
	ELTAKCHI, ZAMERRODE	Bed 420		0
	WINTERS, FRANCIS	Bed 421		9
room8's new	Bed 04	NGUYEN, NGOC	Bed 415	0
Transfer	GEORGE, JAMES	Bed 418		0
	LUTAK, ANNA	Bed 419		13
	Bed AMAT03			

- Care Coordination:
- Use the WAND to manage patient movements and manage all information in the one place.
 - Manage a patients Estimated Date of Transfer. Maintain EDT history and record changes.



Capacity & Demand Predictive Tool

Hospital Projected Activity Report Analysis

St Vincent's Hospital Current Demand Status Filters: EDD Mode - All Demand Status Range - All
 Admitted Patients in ED Speciality - All Clinical stream - All

	Tue, 11/05/10	Wed, 12/05/10	Thu, 13/05/10	Fri, 14/05/10	Sat, 15/05/10	Sun, 16/05/10	Mon, 17/05/10	Tue, 18/05/10	Wed, 19/05/10	Thu, 20/05/10	Fri, 21/05/10
Projected ED admissions	x	x	x	x	x	x	x	x	x	x	x
ED Total	x	x	x	x	x	x	x	x	x	x	x
Booked DOSA patients	x	x	x	x	x	x	x	x	x	x	x
Booked Overnight admissions	x	x	x	x	x	x	x	x	x	x	x
Transfers (other hospitals)	x	x	x	x	x	x	x	x	x	x	x
Direct requests	x	x	x	x	x	x	x	x	x	x	x
EDO	x	x	x	x	x	x	x	x	x	x	x
Total Elective	x	x	x	x	x	x	x	x	x	x	x
Total beds required	x	x	x	x	x	x	x	x	x	x	x
Projected Discharges	x	x	x	x	x	x	x	x	x	x	x
TOTAL DEMAND STATUS	4	1	-2	-4	-8	3	12	20	2	12	13
CUMULATIVE STATUS	4	5	3	-1	-9	-6	-6	26	28	40	53

Notes: ABC ABC ABC ABC ABC ABC ABC ABC ABC ABC ABC ABC
 Action: Escalate Escalate Escalate N/A N/A N/A N/A N/A

Hourly Graph - Summary - Prediction

11/05/10 12/05/10 13/05/10 14/05/10 15/05/10 16/05/10 17/05/10 18/05/10 19/05/10 20/05/10 21/05/10

Bed demand status

Legend: Demand (Blue), Capacity (Red)

Admissions/Discharges

Legend: Admissions (Blue), Discharges (Red)



Using the Patient Flow Portal

- Demand Escalation:
 - Use live data to identify tipping points for early escalation
 - Filter by specialty for targeted demand escalation strategies.
- Demand & Capacity Planning:
 - Use historical data to plan fourteen days ahead.
 - Know when patients are leaving based on Estimated Date of Transfer.
 - Use ‘Waiting for What’ to identify main constraints in a facility.



'Waiting for What' State Audit

- Eight AHS, 45 Sites, 61 wards/units participated in the audit (Thursday 21 October 10am) .
- 1, 219 patients included in the audit.
- Results:
 - **76% of patients experienced no delay.**

Top three delays reasons

- **5% waiting for a diagnostic procedure**
- **4% waiting for a team review**
- **3% other medical specialty review.**

Solutions Across the Patient Journey





Pre-Hospital Strategies

- State Cardiac Reperfusion Strategy:
 - Stage One: Pre-hospital assessment for primary angioplasty. Patients suspected of having a STEMI have their ECG sent from the ambulance to a cardiologist or the ED. Between **March and October, over 170** patients have been cared for in this way.
- Advanced Care Planning
 - Provides the opportunity for a people to plans ahead for health care related decisions in the event they do not have capacity to make those decisions for themselves. Documentation of Advance Care Plans/ Directives have **increased from 10 – 26%** over the last 12 months.



Emergency Strategies

- Medical Assessment Units (MAU)
 - 28 MAUs are now opened with three more opening by the end of 10/11. **MAUs have seen an increase of 43% attendance since 08/09.**
- Fast Track Zones
 - Fast track has been implemented since 2006 across NSW ED's. Fast Track specialises in seeing non-complex minor injuries. **Admitted patient waiting times has decreased by 8%,** whilst non-admitted waiting times has remained steady.



Inpatient Strategies

- Clinical Handover
 - Safe Clinical Handover implementation is part of *Stage One* of the governments response to the **Special Commission of Inquiry into Acute Services in NSW Public Hospitals (2008)**. It was seen that inadequate communication in the clinical setting contribute to adverse events in patient care. All eleven health services
- Capacity & Demand Predictive Tool
 - 22 facilities state wide have implemented the NSW Health Predictive Tool, with five additional sites going live this year.



Community Care Strategies

- COMPACKS
 - Community Packages (ComPacks) provide patients returning home from hospital with **case management and access to community services** for a period of up to 6 weeks. In 2004/05, **5,036** patients utilised ComPacks. This figure has tripled to **15,425** in 2009/10.
- Hospital in the Home (CAPAC)
 - Community Acute Post Acute Care (CAPAC) refers to the range of clinical services that can be delivered to patients in their home. In 2008/09 **40,495** patients were treated by Hospital in the Home /CAPAC services program. This increased to over **54,000** in 2009/10.



Further Information

Find us online:

<http://www.archi.net.au/e-library/performance/flow/pfs>

Questions

