

MAU-Definition

Medical Assessment and Planning Units (MAPU) are designated hospital wards that are specifically staffed and equipped to receive medical inpatients for assessment, care and treatment for up to a designated period (usually 36-48 hours) prior to transfer to medical wards or home if appropriate.



IMSANZ- Position statement 2006

MAU- Description

These units are supervised by general physicians and concentrate patient assessment and planning activities with the aim of streamlining care processes and length of stay (LOS) for patients that have an anticipated LOS of greater than 24 hours.

These units are different to emergency department (ED) short-stay observation units (SOU) and emergency medical units (EMU) which are supervised by ED staff and involve medical and surgical patients whose LOS is expected to be 24 hours or less.

“ The Third Door”

- Alternate diagnostic and treatment centre in the hospital designed to ease the burden of the Emergency Department.
- It is suitable for non-critical medical patients who are expected to stay in hospital for less than 48 hours.
- In most cases, the triage nurse in the Emergency Department identifies the patient as potentially appropriate for admission.
- In some cases, GPs and geriatricians can refer patients to Medical Assessment Units.
- Designed specifically to expedite the care of complex and elderly patients presenting to hospital

MAU- Requirements

- Dedicated medical, nursing and allied health staff
- Effective communication and referral systems with:
 - Emergency Department triage
 - Community services
 - Primary care services
 - GPs and inpatient services.
- In most cases, Medical Assessment Units are appropriate for patients who have had a prior assessment by a doctor, be it a GP or at another hospital

MAU- 20 units across NSW

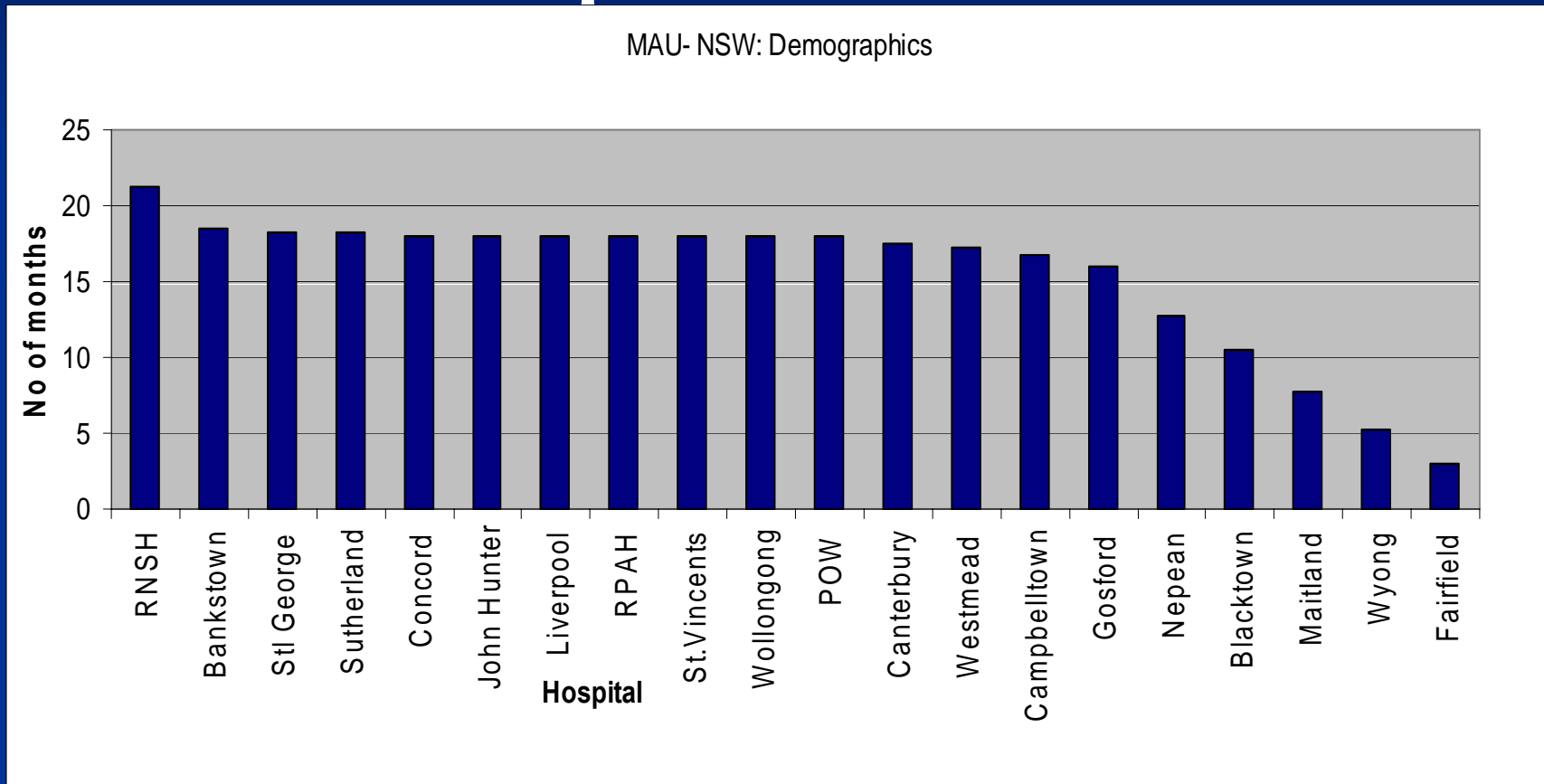
- Royal Prince Alfred
- Royal North Shore
- Nepean
- Westmead
- St George
- St Vincents
- Blacktown
- Bankstown
- The Children's
- John Hunter
- Sutherland
- Gosford
- Wyong
- Wollongong
- Canterbury
- Maitland
- Liverpool
- Campbelltown
- Concord
- Prince of Wales

MAU Weekly Summary Report – W/E 23.08.09

MAU Implementation Dashboard

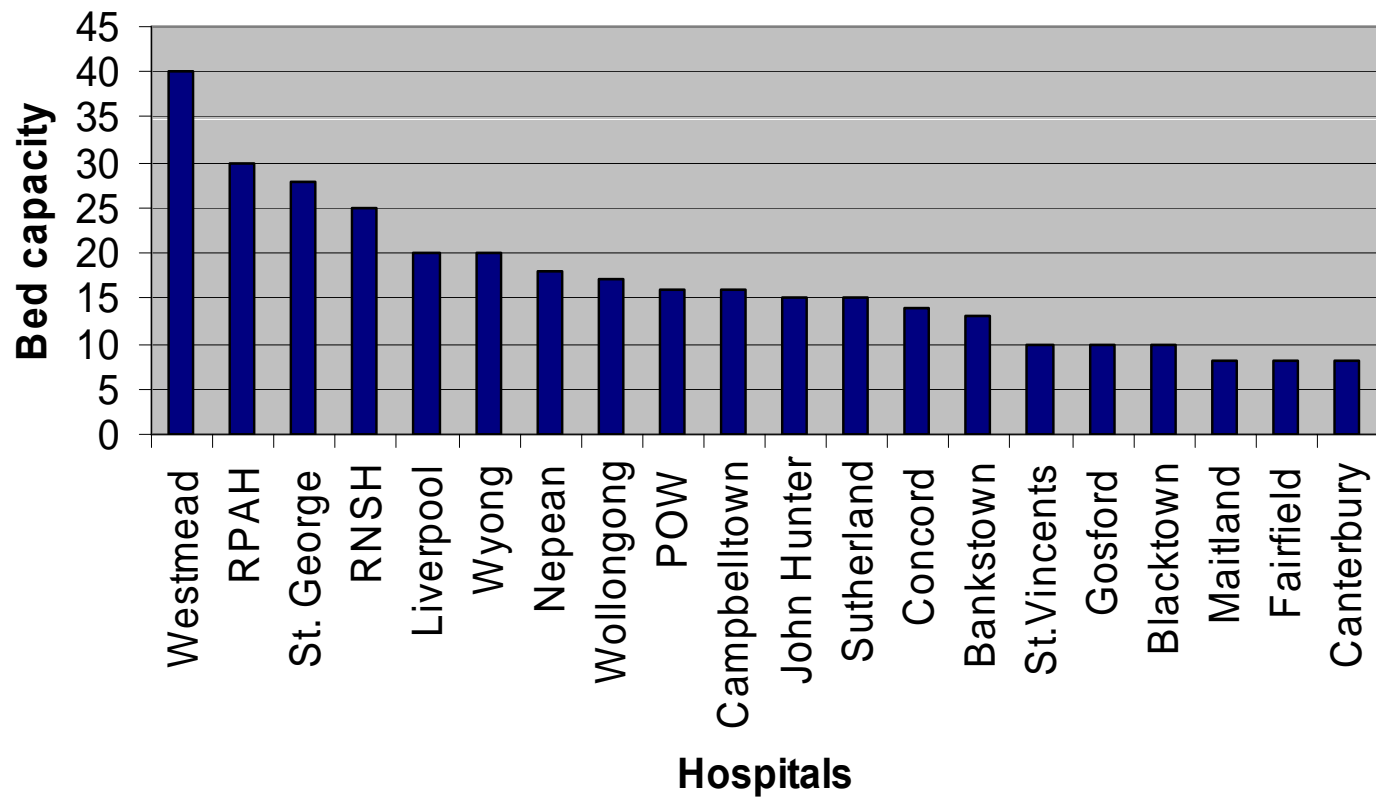
Hospitals	Go Live Date	Bed Numbers				
		MAU Funded Beds 07/08	MAU Funded Beds 08/09	MAU Funded Beds 09/10	Current # Beds opened	MAU Capacity
RNS	21.01.08	12		2	21	25
Bankstown	17.03.08	10			13	13
St George	25.03.08	15	6		21	28
Sutherland	26.03.08	7		2	9	15
Concord	31.03.08	8			14	14
John Hunter	31.03.08	15			15	15
Liverpool	31.03.08	15	4	1	20	20
RPAH	31.03.08	15			15	30
St Vincent's	31.03.08	10			10	10
Wollongong	01.04.08	12	4		17	17
POW	01.04.08	8		6	16	16
Canterbury	14.04.08	8			8	8
Westmead	24.04.08	15			15	40
Campbelltown	05.05.08	10			16	16
Gosford	02.06.08	10			10	10
Nepean	08.09.08	10		6	14	18
CHW	31.03.08		4	4	15	15
Blacktown	17.11.08		10		10	10
Maitland	09.02.09		8		8	8
Wyong	20.04.09		20		20	20
Fairfield	01.07.09		8		8	8
Sydney Children's	04.08.09			8	8	8
Port Macquarie	Oct-09		8		0	8
Tweed	TBA				0	TBA
Lismore	TBA			8	0	TBA
Coffs Harbour	TBA			8	0	TBA
Calvary Mater	TBA			8	0	TBA
Orange	TBA			8	0	TBA
Mona Vale	TBA			8	0	TBA

MAU- No of months operational



MAU- Bed capacity

MAU: Bed capacity



MAU- Similarities across units

- Admit medical patients
- Have a front-loaded allied health team who sees patient same day , usually within few hours of admission
- Target length of stay of 48 hrs
- Twice daily meetings with a focus on discharge planning
- Usually exclude Triage category 1 & 2

Similarities- exclusion criteria

- Critically unwell patients
- Haemodynamically unstable
- Pregnancy
- Children
- Acute mental illness
- Have a clearly defined condition requiring subspecialist care: eg acute MI, febrile neutropenia, stroke

MAU – Differences

- Generalist vs subspecialist admission
- Over 65 vs all comers
- Opening hours
- Ability to accept admissions from non-ED sources- GP's, clinics, community
- Dedicated MAU CNC/Registrar/RMO available
- Monitored beds
- Co-location of MAU beds in the ED area
- Ability to take patients requiring isolation

Inclusion criteria- Specific

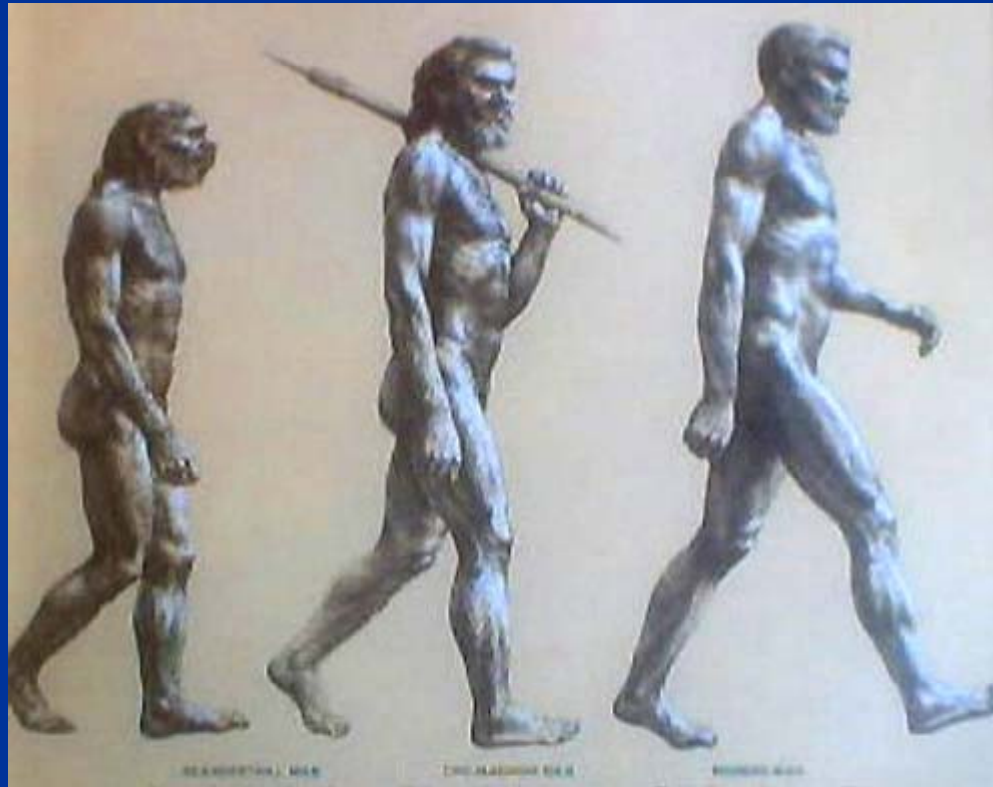
- Simple Gait disorders and falls in older people
- Incontinence of urine or faeces in older people unless an obvious acute cause such as a spinal injury, or an acute obstruction is identified
- Iatrogenic problems caused by polypharmacy
- Older patients with functional decline resulting from acute onset of a medical problem .Patients referred by ACAT, LMO for geriatric assessment who are not well enough to attend geriatric clinic
- Referral from Aged Care Facilities for planned SPC or IDC insertion, PEG or NG tubes or blood transfusion
- Chronic and complex patients (still to be defined)
- Non specific Medical patients(to be identified)

Broad inclusion criteria

- The MAU is available for all adult patients who are considered to be a medical admission and :
- Require a period of assessment and diagnostic work up
- Are non critical
- Are stable and do not require resuscitation and stabilisation.

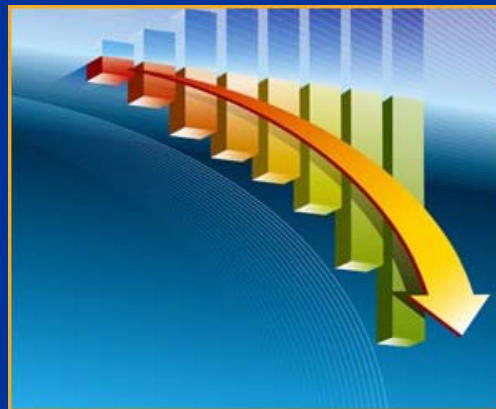
MAU

Progress...



Key Performance Indicators

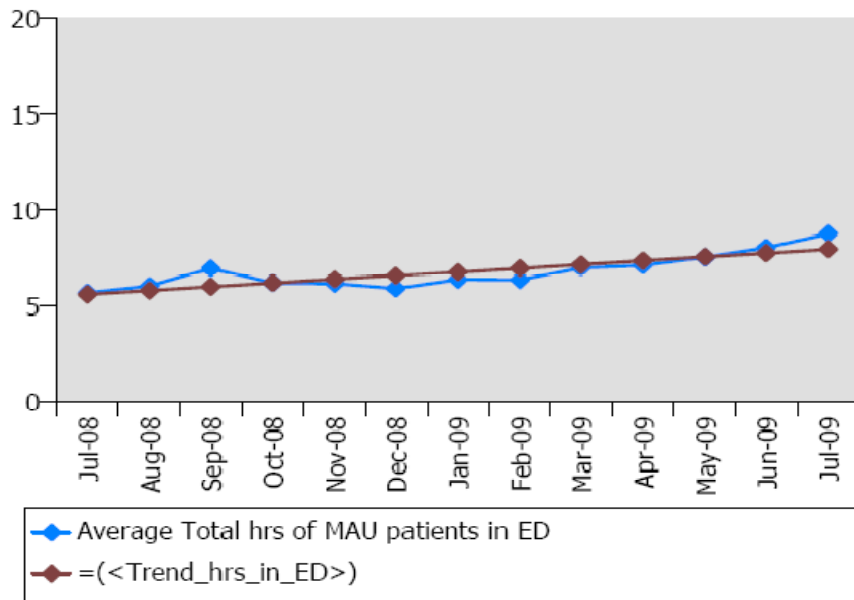
- Time spent in ED by MAU patients
- Length of stay within the MAU: < 48 hrs
- Length of stay once transferred outside the MAU: < 7 days
- Readmission rate within 28 days: < 10%



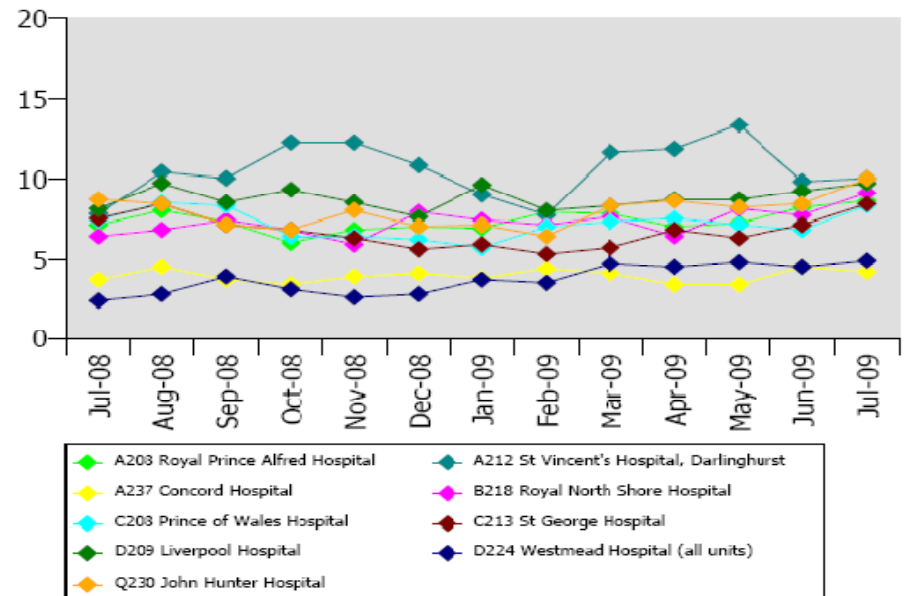
ED waiting time



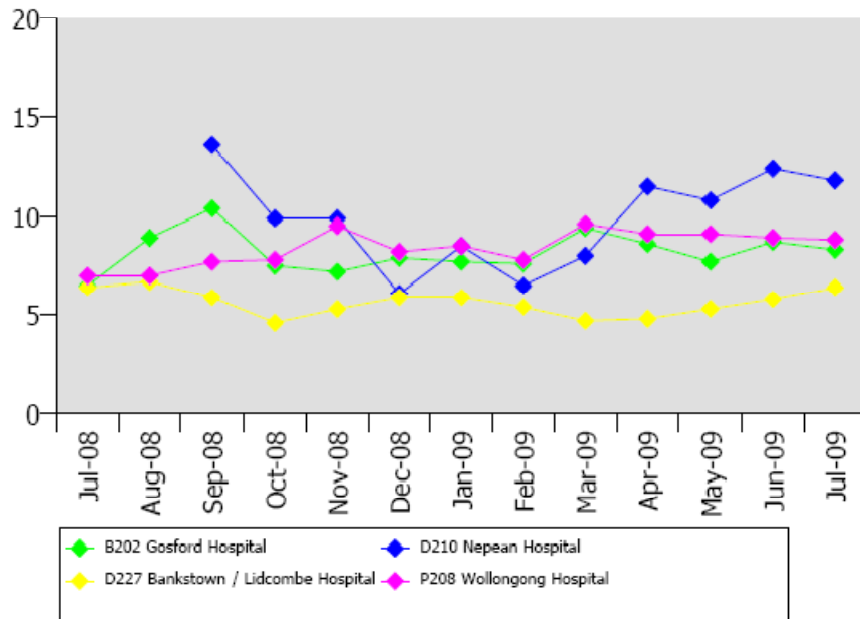
Average Total Hours in ED for all MAU Patients



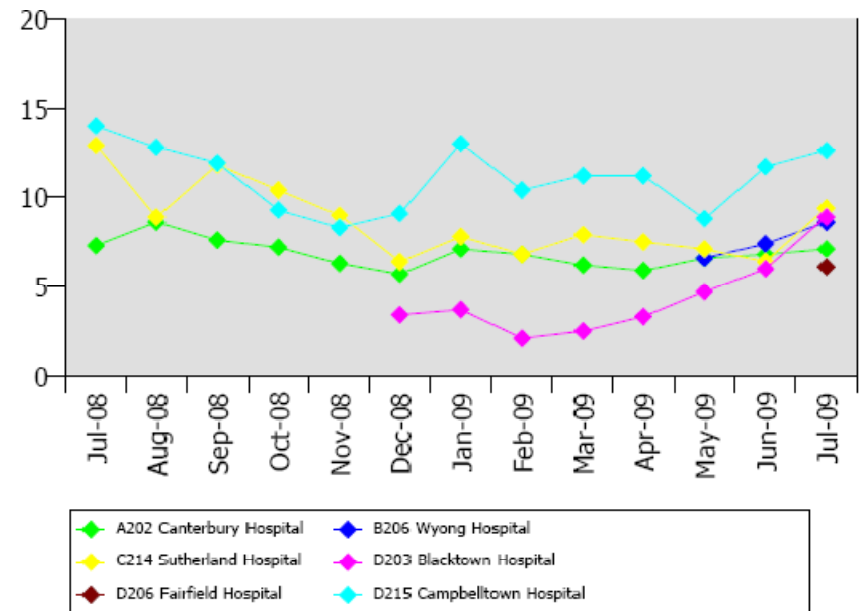
Peer group A1a - Average Total Hours in ED for all MAU patients



Peer group A1b - Average Total Hours in ED for all MAU patients



Peer group B1 - Average Total Hours in ED for all MAU patients

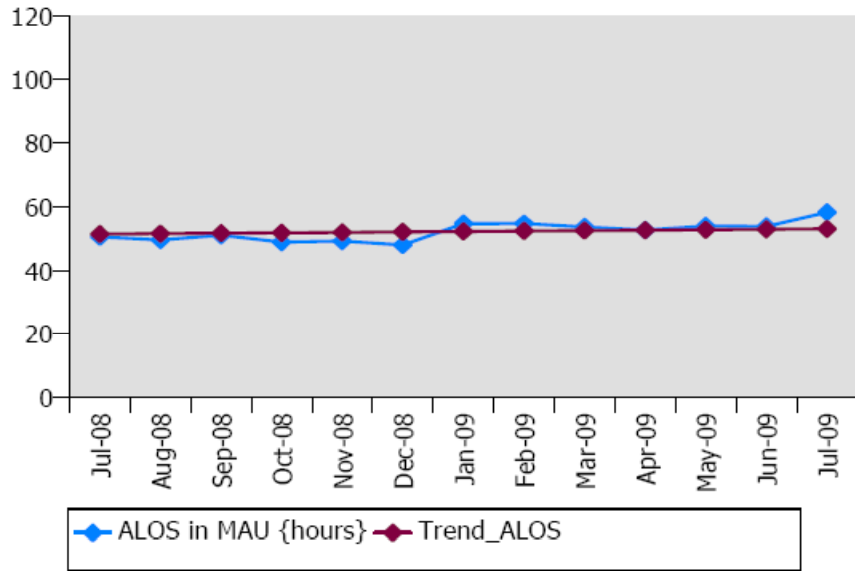


MAU: Length of stay

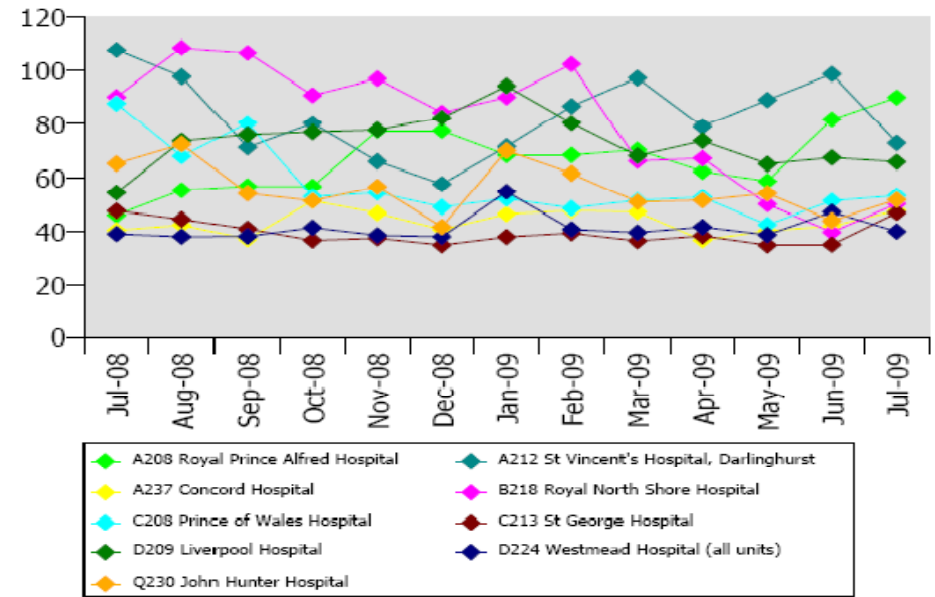


" Really?.. So when I said I'd found you a bed, you thought you'd have it all to yourself?! "

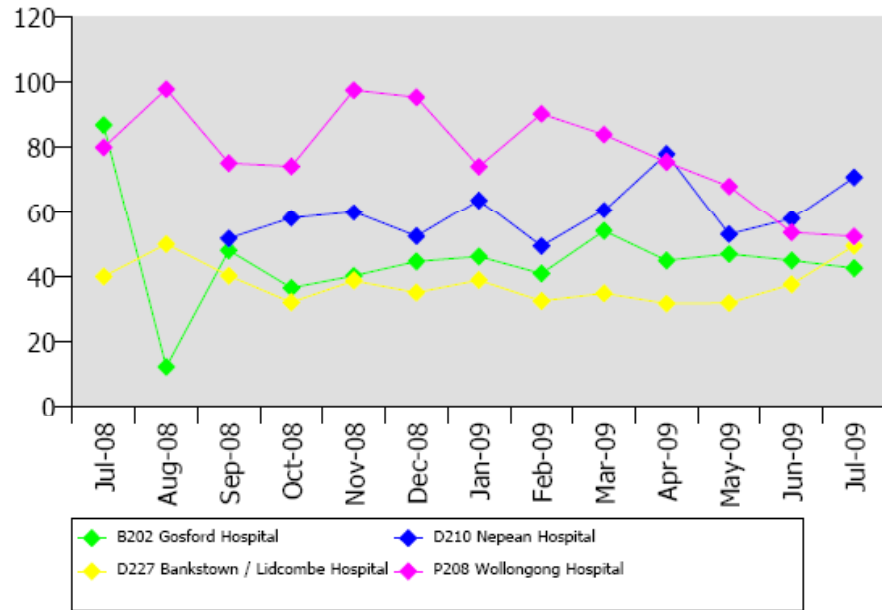
ALOS in MAU (hours)



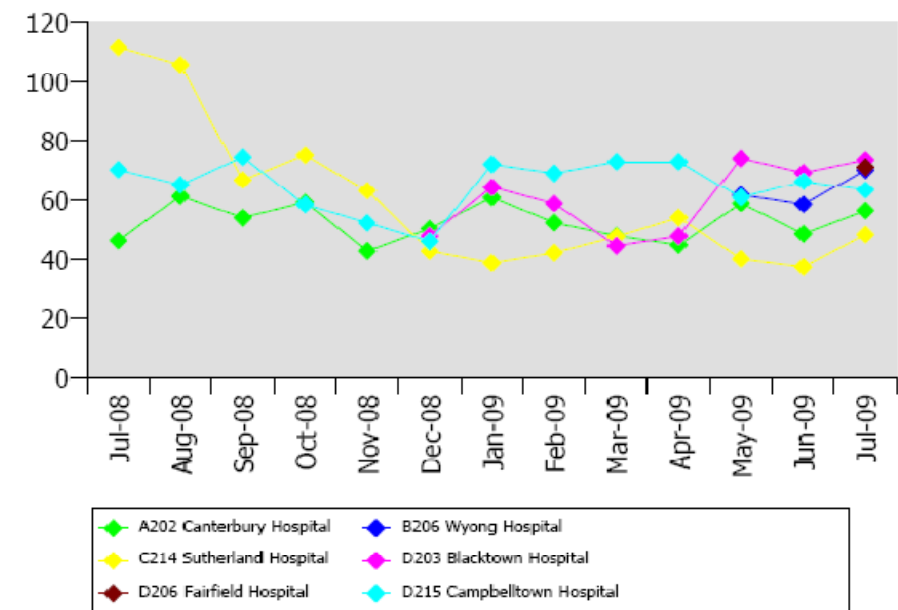
Peer group A1a - ALOS in MAU (hours)



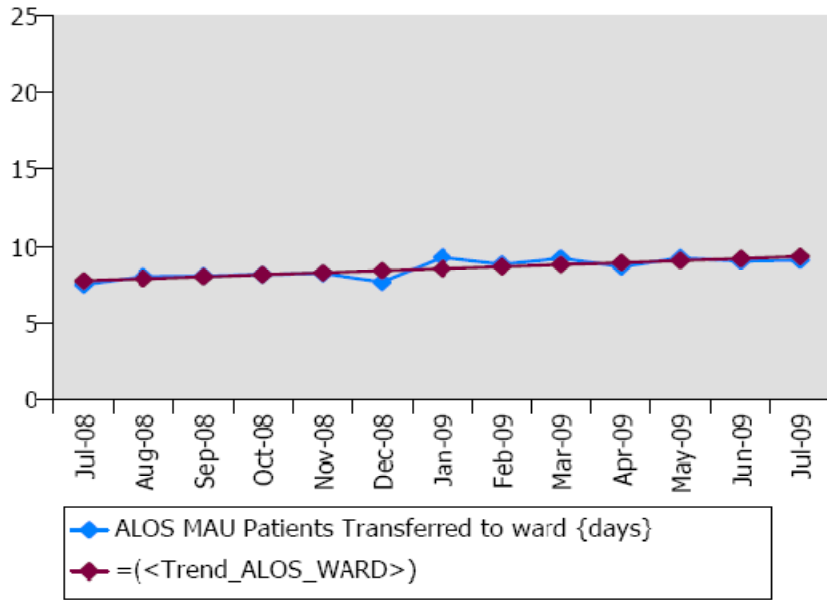
Peer group A1b - ALOS in MAU (hours)



Peer group B1 - ALOS in MAU (hours)

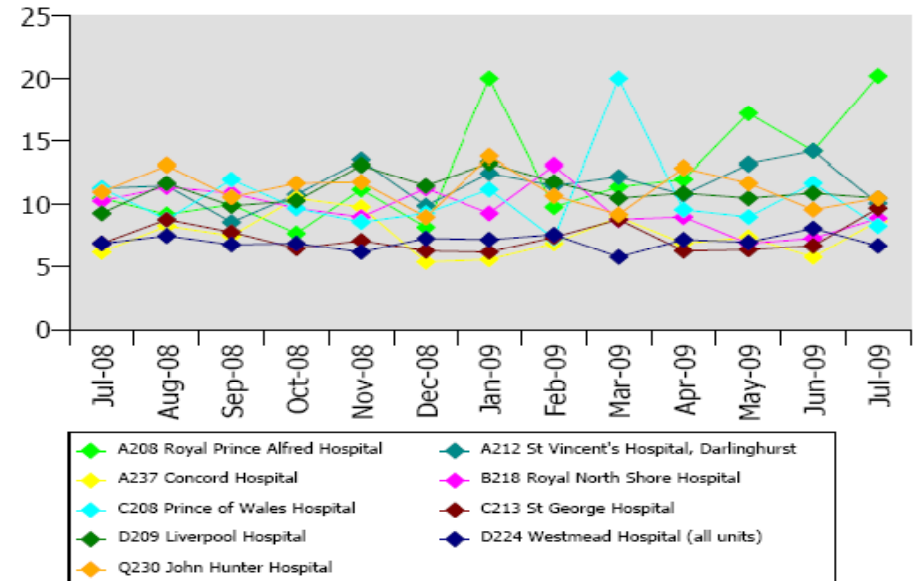


ALOS of MAU Patients Transferred to a Ward (days)



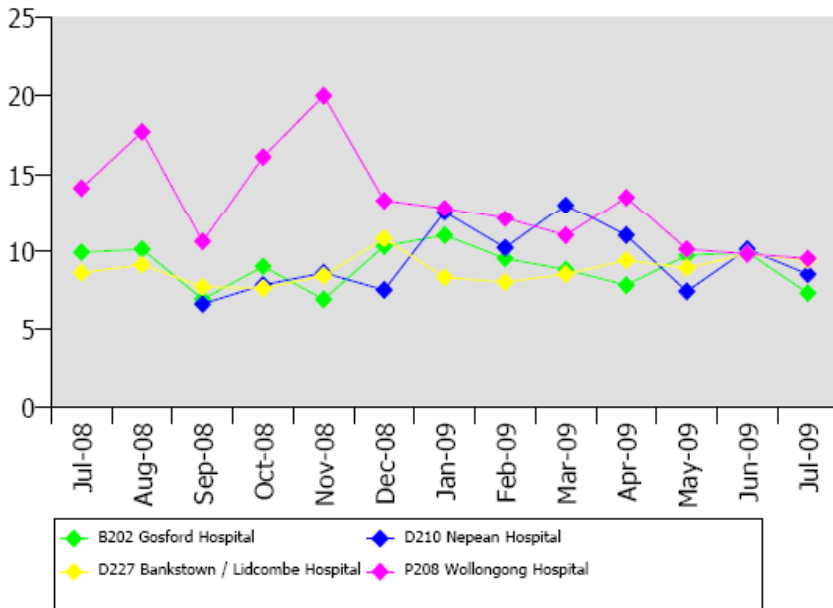
Peer group A1a -

ALOS of MAU Patients Transferred to a Ward (days)



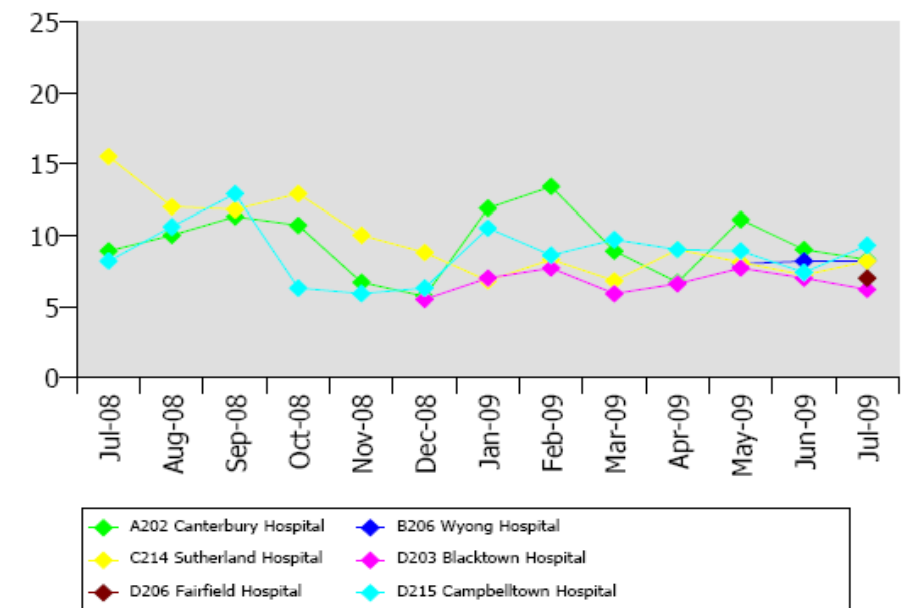
Peer group A1b -

ALOS of MAU Patients Transferred to a Ward (days)

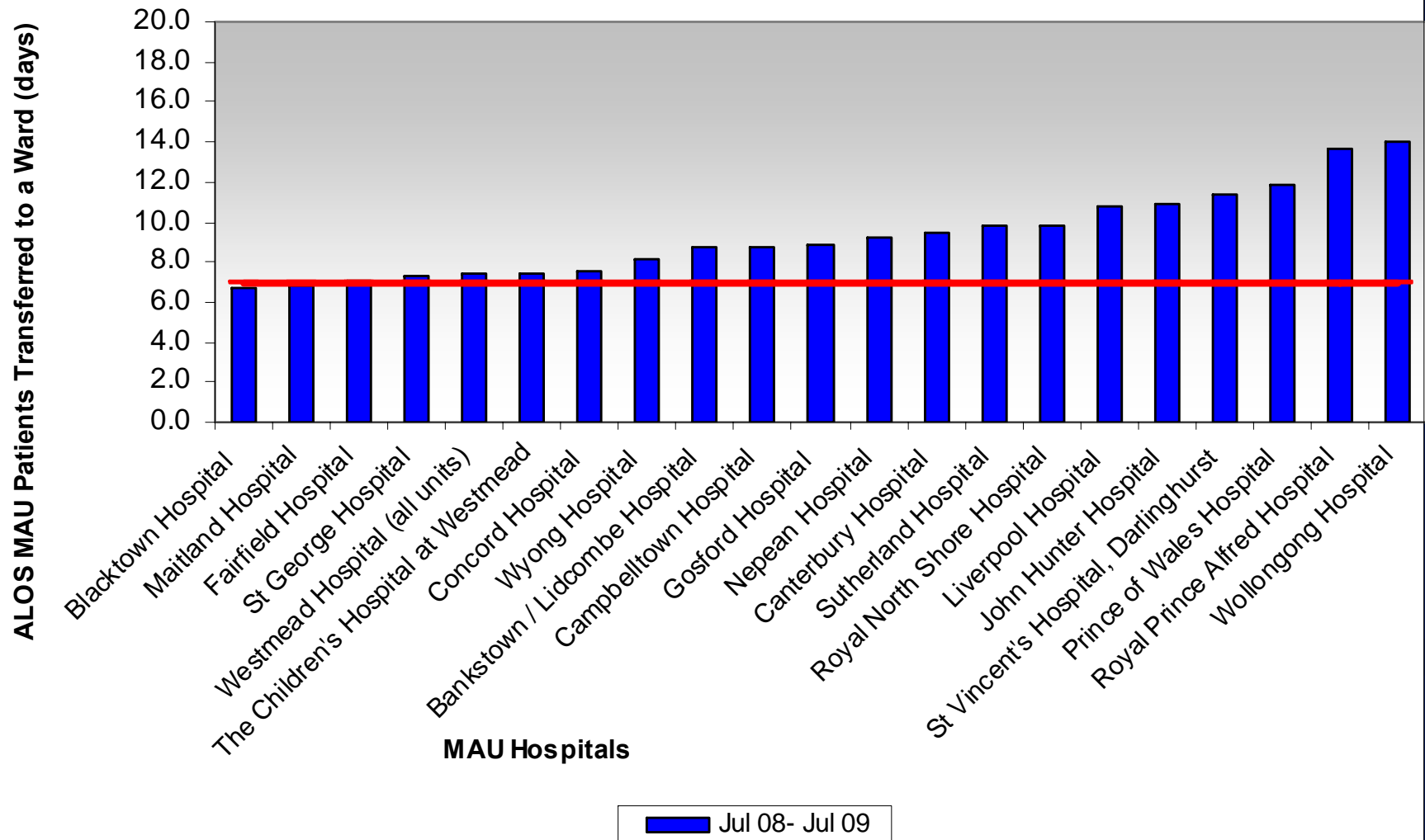


Peer group B1 -

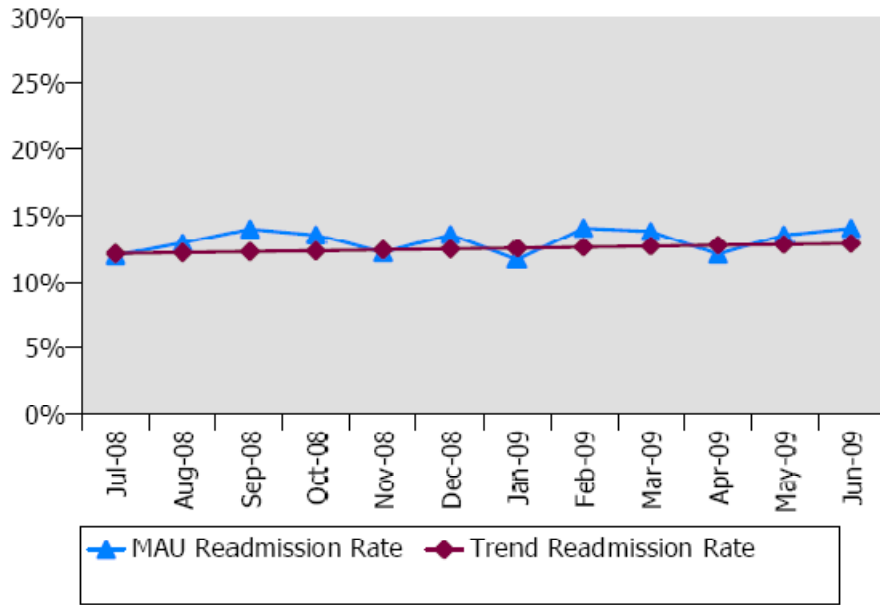
ALOS of MAU Patients Transferred to a Ward (days)



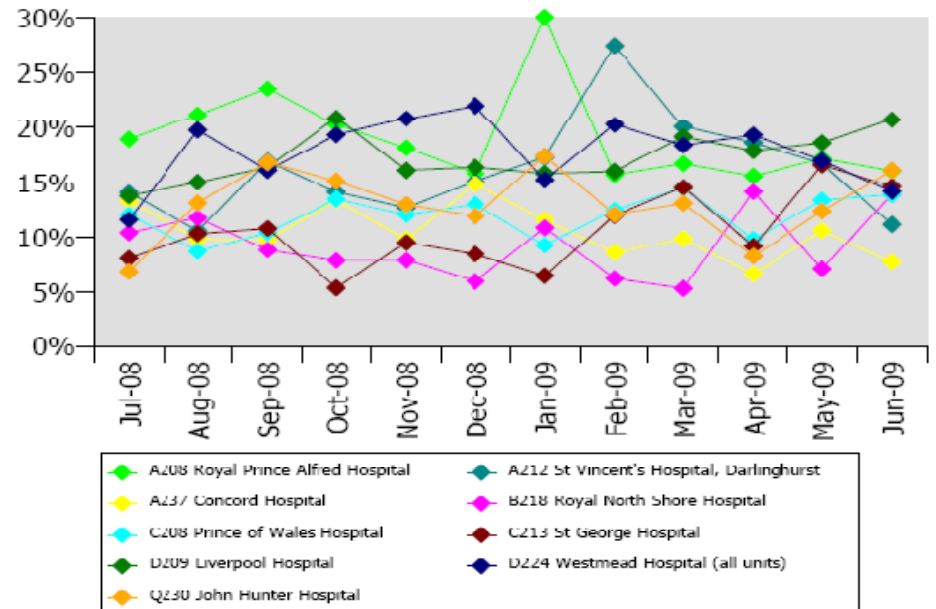
ALOS MAU Patients transferred to the Ward July 08- July 09



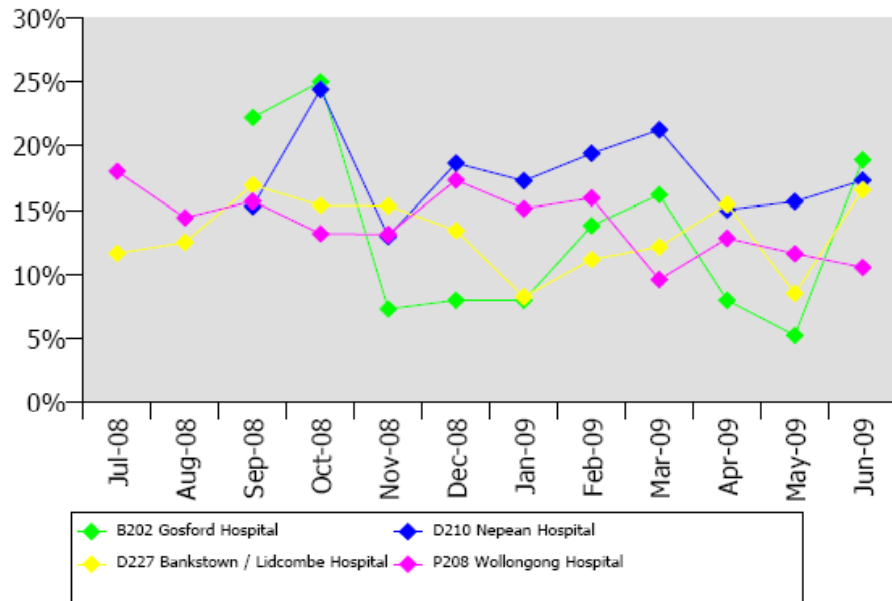
Readmission Rates of MAU Separations



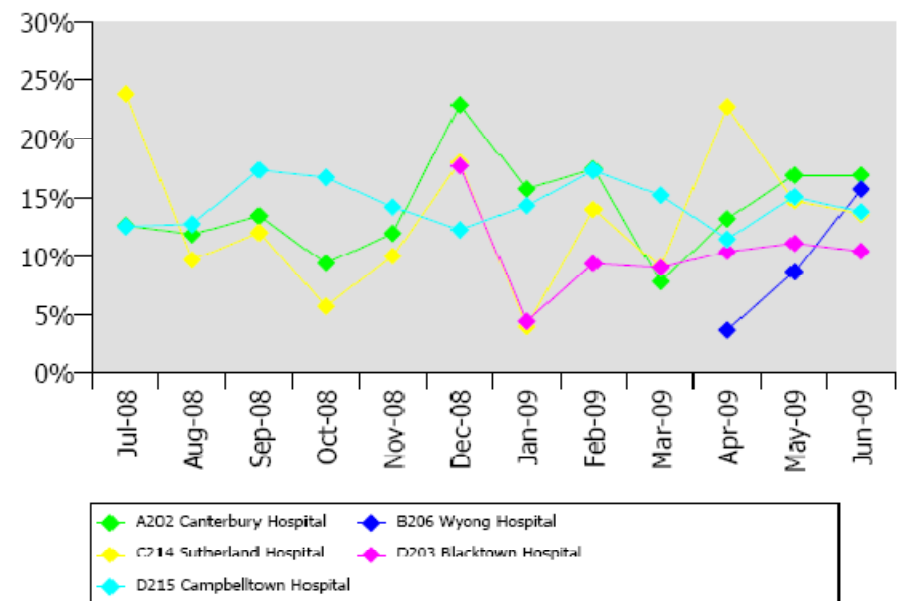
Peer group A1a - Readmission Rates of MAU Separations



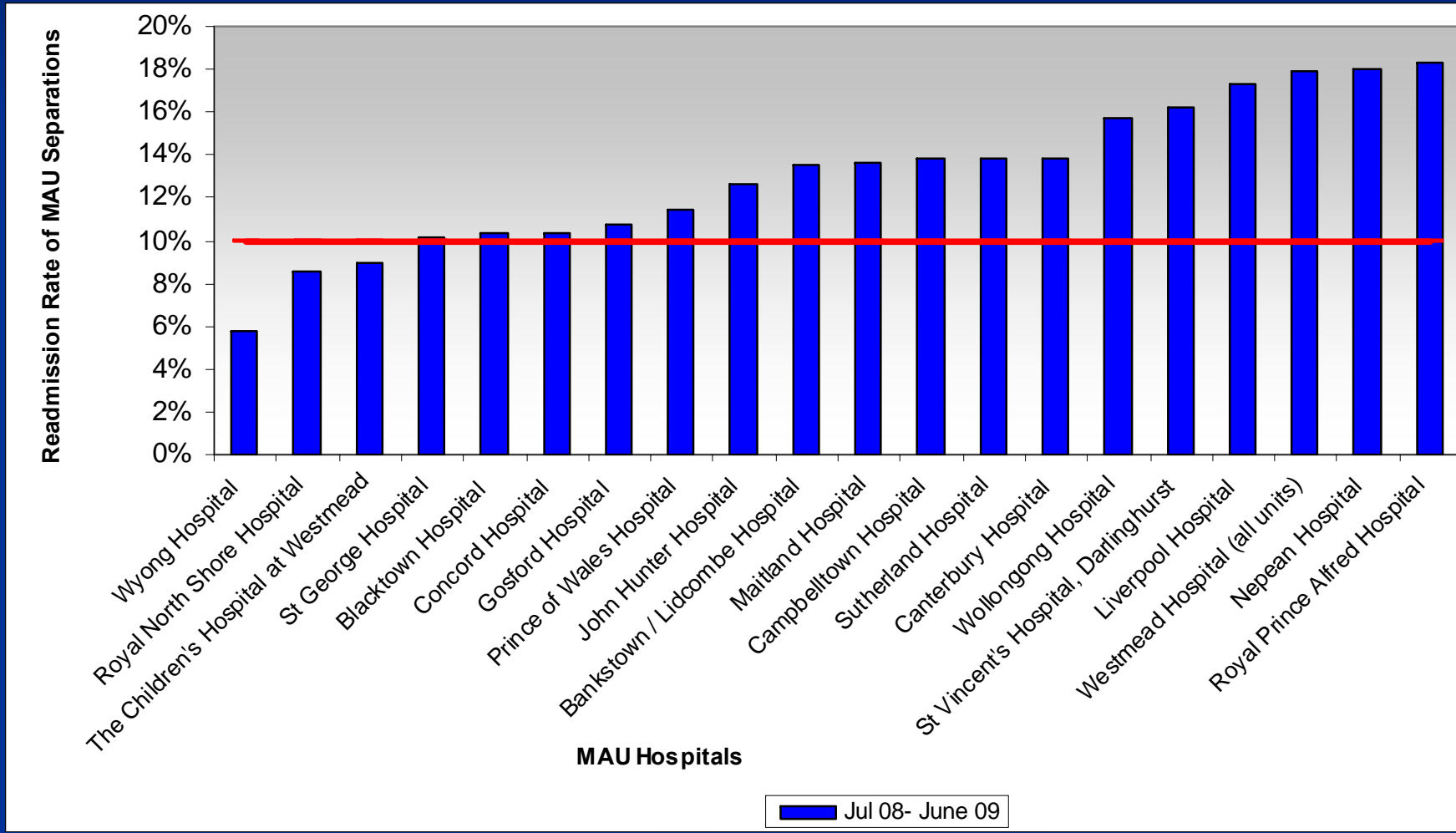
Peer group A1b - Readmission Rates of MAU Separations



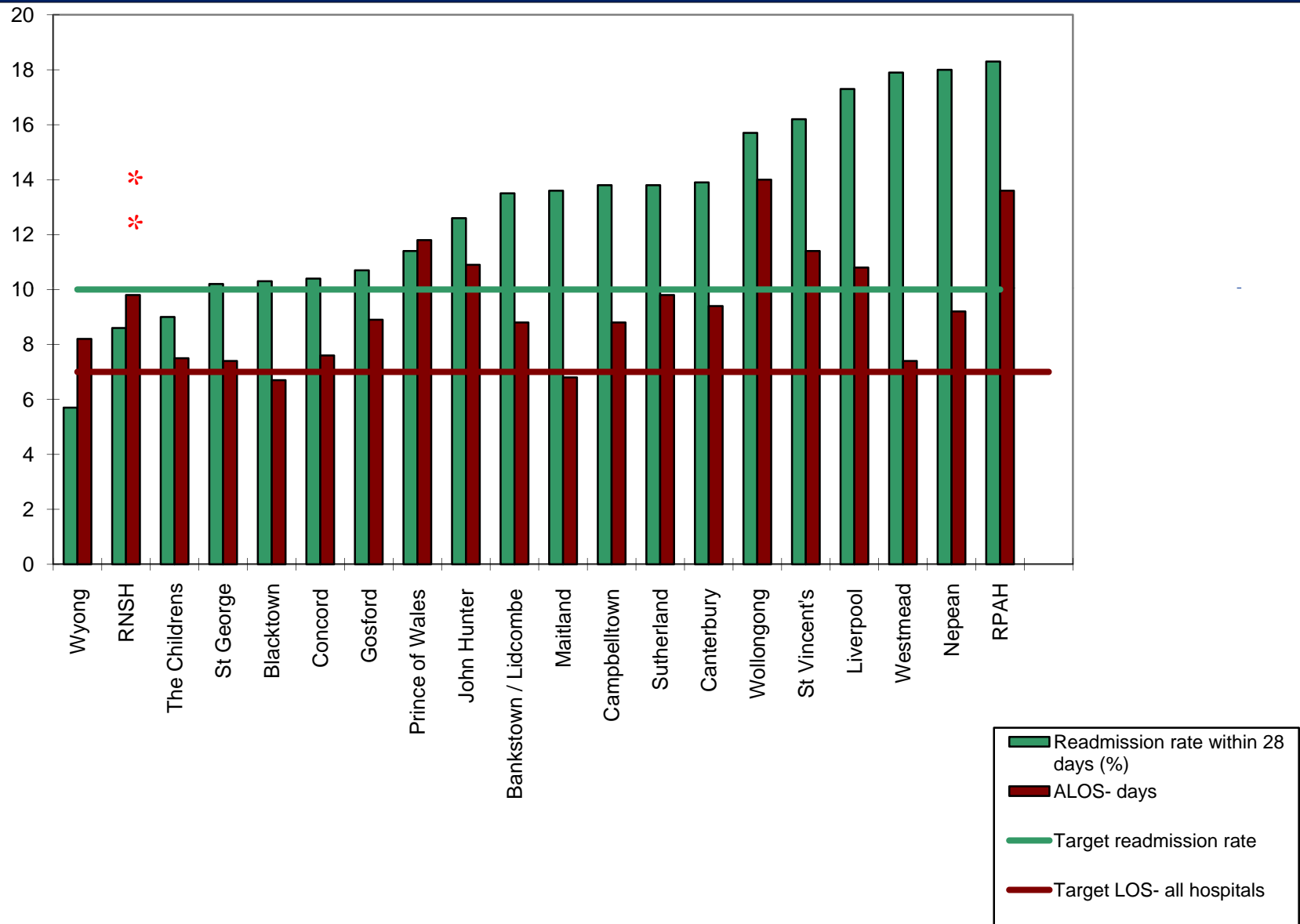
Peer group B1 - Readmission Rates of MAU Separations



Readmission Rates - July 08- June 09



Readmission rates & LOS: 08-09



The sites that are meeting targets (July 08 – July 09)

↓ in ALOS of MAU patients in ED

- Westmead
- Concord
- Blacktown
- Bankstown
- Fairfield
- St George

≤ 6.5hrs

ALOS in MAU around 48hrs – front loaded care

- Bankstown
- St George
- Westmead
- Concord
- Gosford
- CHW

≤ 48hrs

↓ in ALOS MAU patients transferred to a ward

- Maitland
- Blacktown
- St George
- Westmead

≤ 7 days

Readmissions rates <10%

- Wyong
- RNSH
- CHW
- St George
- Blacktown
- Concord

≤10%

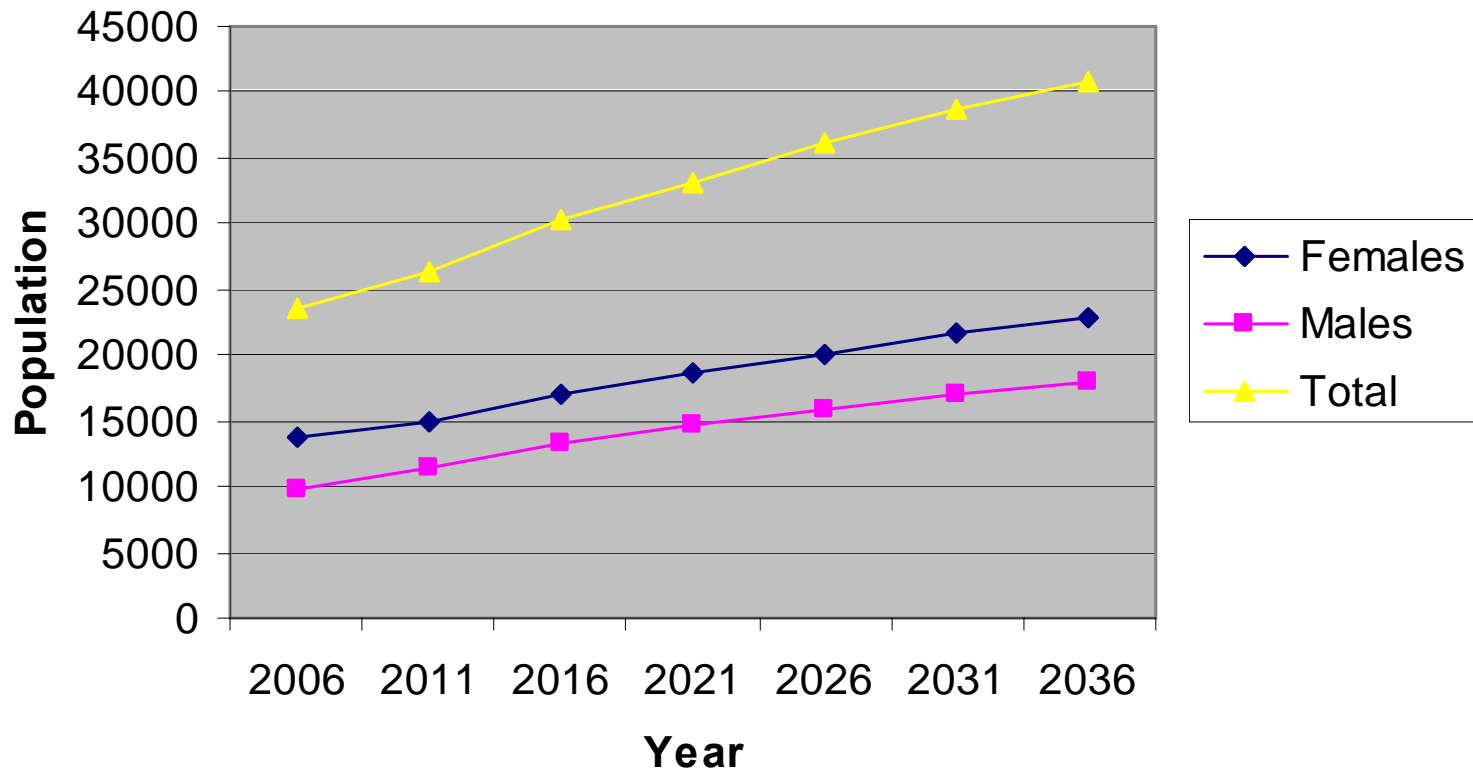


RNSH



Demographics: RNSH referral base

>65 yrs: Population Predictions, Lower North Shore



MAU- RNSH

- General physicians (10), two MAU staff specialists
- 3 Gen Med teams: Registrar and Intern/RMO
- Open 7 days a week, 8.00 am-10.00 pm
- Dedicated MAU CNC and registrar
- Accept patients from triage
- Clinic: GMAC- General Medicine Assessment Clinic 5 days a week

- All patients seen by allied health same day or next
- Bi-daily meetings- 30 minutes
- Ensure one member of each medical team present at meeting
- Patient usually transferred to ward under same physician in 2-3 days, once discharge plan made with allied health review

Inclusion criteria- Broad

- Any medical patient who does not require admission to a subspecialty service should be thought of as eligible for admission to the MAU under General Medicine.

(RNSH)

Criteria modification

- Multi system complex disease, where the patient is not suitable for subspecialty or aged care admission.
- Complex pathology where a definitive single system diagnosis cannot be determined following appropriate investigation in the ED.
- Sepsis of unidentified origin
- Cellulitis where there is medical co-morbidity requiring admission (rather than APAC Rx)
- Known or suspected sexually transmitted infection (excluding patients more suitable to O&G or urological admission)
- Anaphylaxis (haemodynamically stable), acute urticaria or angioedema requiring admission
- Envenomation requiring inpatient care
- Falls in patients without other significant aged care issues
- Uncomplicated pyelonephritis
- DVT with reversible cause not requiring admission to Haematology
- Abdo pain for further investigation where operative management not required after surgical review
- Orthopaedic injuries not requiring operative management after orthopaedic review (e.g. vertebral crush fractures, stable pelvic fractures, undisplaced humeral neck fractures etc.)
- Diabetes Mellitus requiring admission where there is a significant acute co-morbidity (excluding patients whose primary pathology is DKA or HONKC).
- Drug and alcohol related admissions (excluding hepatic failure) where there is an acute medical issues (patients presenting for detox should be medically cleared in ED and referred to Herbert Street Clinic)
- Psychiatric co-morbidity where the predominant reason for admission is for a general medical illness (eg. toxicology admission).



CHALLENGES

I EXPECTED TIMES LIKE THIS - BUT I NEVER THOUGHT
THEY'D BE SO BAD, SO LONG, AND SO FREQUENT.

Challenges

- Defining clear admission criteria : overlap with other subspecialties
- Transfer of care:
 - Cultural change
 - Long wait for beds in other ward and units
 - Long wait for rehab and respite beds
 - Presence of outliers and surge patients in MAU beds (particularly after hours)
- Lack of MAU beds in the ED

Challenges

- What to do with the patient who has no rehabilitation goals, is not eligible for respite and is yet unable to return home- e.g the non-displaced fractured humerus in an elderly patient
- Bed block: Dealing with delays in patients who need rehabilitation and placement (especially peri-weekend)

MAU's Survey: Problems raised

- Staff hard to find
- Culture in Hospital and ED
- Distance MAU from ED, lack of MAU beds in ED
- Lack of General Medicine in hospitals
- Staff freezes, particularly allied health
- Reluctance of speciality units to “give up” low acuity patients to MAU
- Access block in and out
- After hours MAU access
- Reluctance of consultants to take over care

The Future...



The Future

- MAU's have potential to become front-line care units for low-acuity elderly medical patients.
- Ability to interface between GP's and hospital a great advantage
- Excellent opportunity to teach acute medicine to a new generation of doctors.
- Front loaded allied health is an integral part of MAU's and essential to delivering high quality patient care



Acknowledgements



- Sally Howard, Senior Project Manager, DoHA
- Paul Collett, Director, MAU, RNSH
- David Miles, Manager, Health Services Planning , RNSH
- IMSANZ Position statement : Standards for Medical Assessment and Planning Units in Public and Private Hospitals (May 2006)
- Garling Inquiry: Final Report of the Special Commission of Inquiry into Acute Care Services in NSW Public Hospitals (27 November 2008)

The End





Summary

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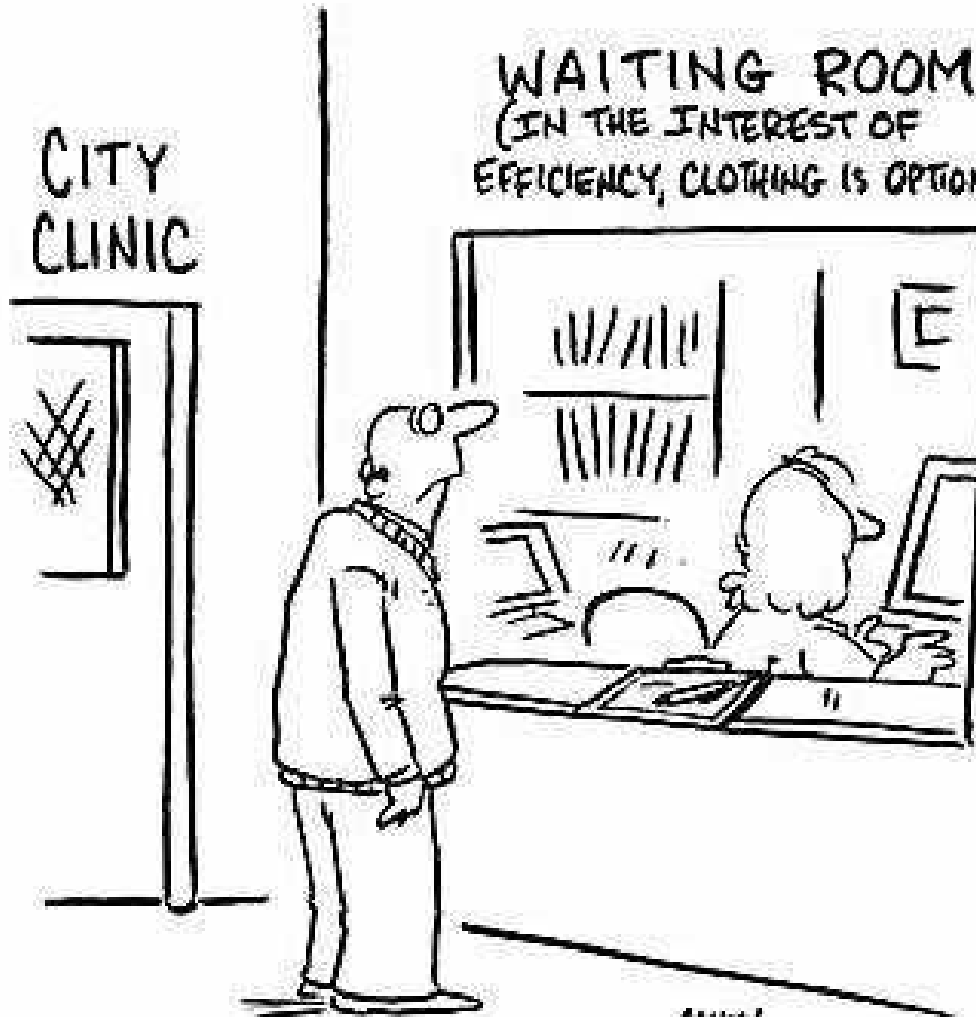


"WELL, WELL, LOOK WHAT WE HAVE HERE—C.R. PILLOBEE
M.D. LET'S LEAVE HIM COOLING HIS HEELS FOR AN
UNREASONABLE LENGTH OF TIME."

- MAU's slowly taking root
- ? Tradeoff off between ALOS and readmission rates
- Challenges remain with decreasing LOS
- Model works well when run by generalists.

CITY
CLINIC

WAITING ROOM
(IN THE INTEREST OF
EFFICIENCY, CLOTHING IS OPTIONAL)



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Garling report: Conclusions

In my view, Medical Assessment Units are an important part of the solution to the increasing pressures being placed on Emergency Departments. It seems that patients with chronic and complex conditions are those most likely to require admission to Medical Assessment Units.

- **Recommendation 95:** *Within 18 months, each hospital within a peer group own to and including B2 – Major Non-Metropolitan Hospital and which operates an Emergency Department, ought also to establish a Medical Assessment Unit where enrolled chronic and complex patients will be assessed prior to admission.*

RNSH: Mar 08-March 09

- Medicine: 14863 admissions, 73100 bed days
- Surgery: 10990 admissions, 69859 bed days
- Medicine: ALOS: 4.9 days
- Surgery: ALOS: 6.4 days
- Triage category 3-5, > 65 yrs: 8998 presentations to ED

Challenges





MAU's Survey: Problems raised

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Overlap with other subspecialties- guidelines for admission to MAU

- Multi system complex disease, where the patient is not suitable for subspecialty or aged care admission.
- Complex pathology where a definitive single system diagnosis cannot be determined following appropriate investigation in the ED.
- Sepsis of unidentified origin
- Cellulitis where there is medical co-morbidity requiring admission (rather than APAC Rx)
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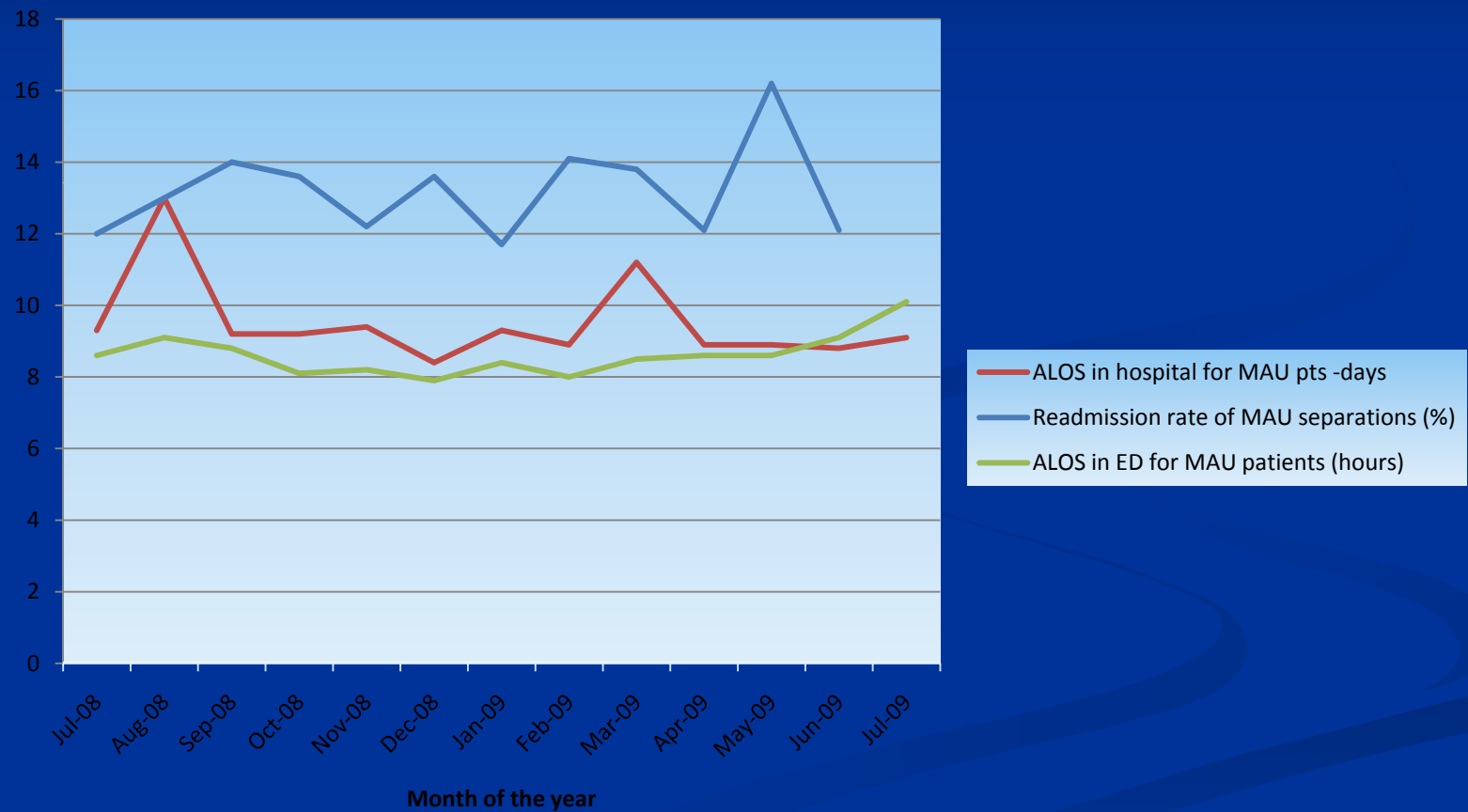
Summary



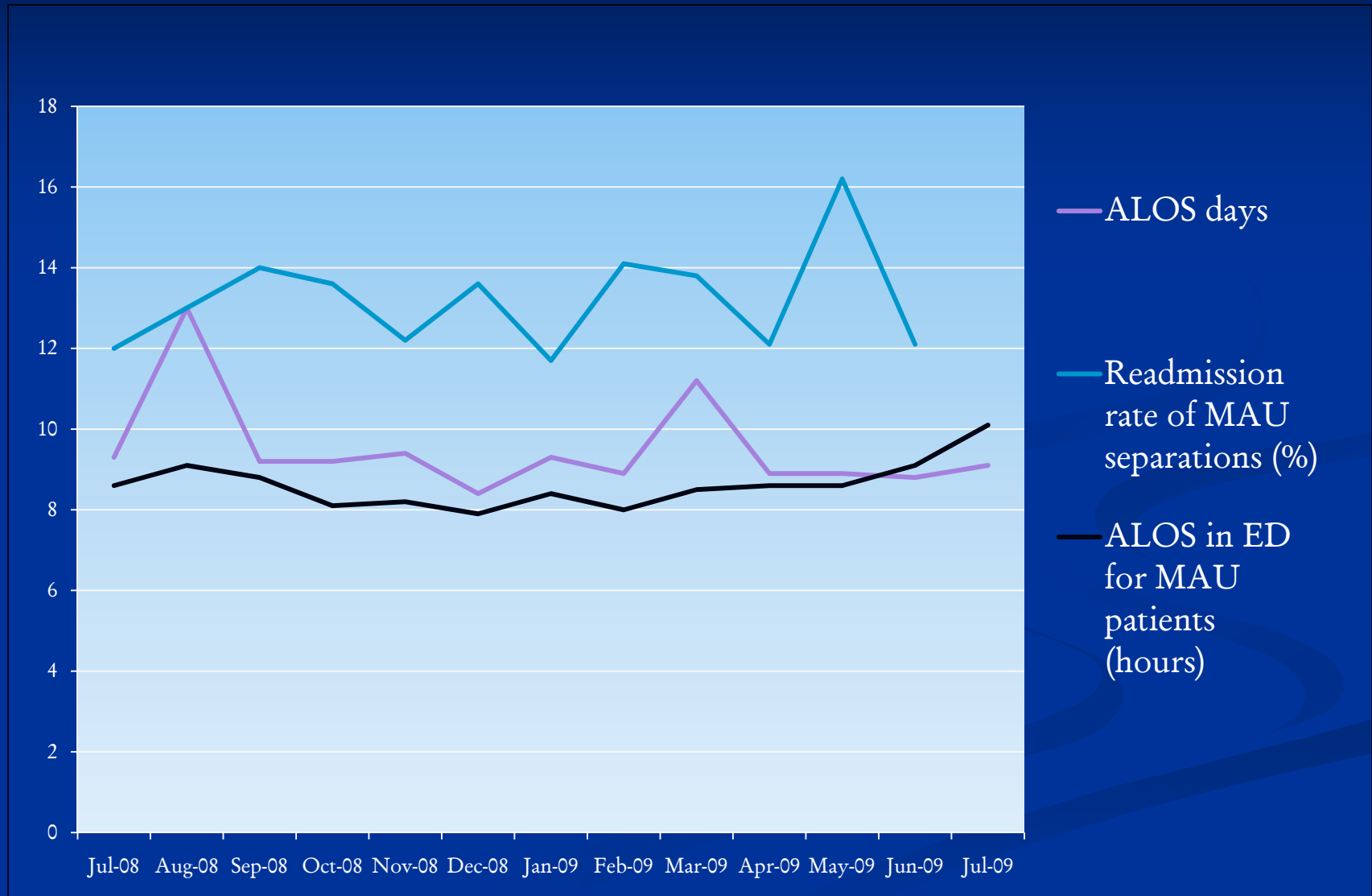


MAU Survey: Other problems raised

All MAU's: Jul 08-Jul 09



All MAU's: Jul 08-Jul 09



All MAU's: Jul 08-Jul 09



