Association between reduced overcrowding and decreased mortality for emergency patients following introduction of the 4 hour rule in WA
State of Perth’s Public Hospital Emergency Services

• Why do we have access block and overcrowding
• demonstrate it is bad but………..
• getting worse and not sustainable
• comparisons
• solutions

*Presentation to WA Health Minister 2007*
Why do we have access block?

“Upstream” Increased demand on EDs

- 2% per year population growth in WA
- 3% cumulative per year due to ageing population
- increased difficulty to access a GP in an “emergency”
Population growth WA vs Australia

1984-2003
Why do we have access block?

“Downstream” Increased demand on EDs

- Reduction in number of inpatient beds
- Relative lack of “community” beds
1999 to 2005

- WA’s public beds have reduced 18%
- Australian public beds have reduced 10%

The state of our public hospitals, June 2006 report
Why do we have access block?

- Not enough beds!
- “Command economy quotas” on wards.
  Free enterprise in ED!
- 100% over in ED but 0% over on wards
- Why not 10% over in ED and wards?
Access Block 3 tertiary and 3 secondary WA Hospitals 2000-2008
Emergency departments are designed to deliver episodic acute care. Staff in some emergency departments spend 50% of their time delivering inpatient care. ED staff not trained and their departments are not designed to treat inpatients.
overcrowding

• Increased adverse incidents
  – Service availability and performance degrades
  – Increased length of inpatient stay.

• Staff issues: some consequences for staff are measurable such as increased sick leave and overtime claims.

• Training: the College's concerns about a relationship between training dropout rate and emergency department overcrowding. Emergency medicine trainees report high stress levels associated with working conditions.
Many studies, including from WA, show increased risk of patient harm, including death, associated with emergency department overcrowding.

Estimated 120 extra deaths per year in WA. Double that in 2007 given Access Block is so much worse.

Risk of around 30% for hospitals operating near or above 100% in comparison to the risk at optimal occupancy of 85%.

Reducing emergency department overcrowding will substantially improve patients' safety.
4 hr rule

- New government
- Canadian experience
- UK / England experience
- Targets 98% within 4 hrs
- Planning phase April 2009
- Started Oct 2009
- Each hospital to find their own solutions
- Process was well resourced
- Resources not recurrent generally
Solutions

• Hospital
  – Early rounds, early discharge
  – Discharge lounges
  – Pharmacy on time
  – Early planning for discharge
  – “breach” meetings
  – Reduced time to clean rooms
Access block 3 tertiary hospitals WA
Mortality is number of deaths of patients admitted through ED during that admission as a percentage of presentations.
tertiary hospitals

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<th>Mortality</th>
<th>Admissions</th>
<th>Presentations</th>
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<td>1.3</td>
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Deaths:

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</table>
Mortality tertiary hospitals 9-10 vs 10-11

- 1896 died in 9-10
- 1816 in 10-11
- Ie 80 fewer deaths

- If same % mortality in 10-11 as in 3 previous years would have expected 2077 deaths
- Ie could argue 261 lives saved
R2 (coefficient of correlation) between mortality and measures of overcrowding.
Is everybody happy?

- Yes
  - Patients
  - ED staff
  - Minister for Health… after setting new target of 85%
  - AMA
Is everybody happy?

• No!
  – Surgeons….
    • public campaign,
    • anecdotes
  – Emergency Physicians!
  – AMA
  – Doctors in Training
Consequences

- Doing everything in ED well entrenched
- Wards are unskilled
- Junior staff feel unsupported
- Only a temporary fix ie demand continues to grow
- Increase in presentations and admissions
- Going Australia wide