

Illawarra Shoalhaven Local Health District

Pre Hospital Assessment for Primary Angioplasty (PAPA)

Department of Cardiology
Category 2: Integrated Health Care
Tony Tiberio CNC



Health

Illawarra Shoalhaven
Local Health District

AIM

- to decrease door to balloon time for primary angioplasty at Wollongong Hospital, from 100 minutes, to within the national benchmark of <90 minutes within six months.



Health

Illawarra Shoalhaven
Local Health District

NATURE OF THE PROBLEM

- Since the introduction of 24 hour primary PCI at Wollongong Hospital in 2009, we have only been able to achieve a door to balloon time of 100 minutes
- The Cardiac Society of Australia and New Zealand, as well as the European and American guidelines, recommend a <90 minute door to balloon time, for primary angioplasty
- Outline how the problem came to light.

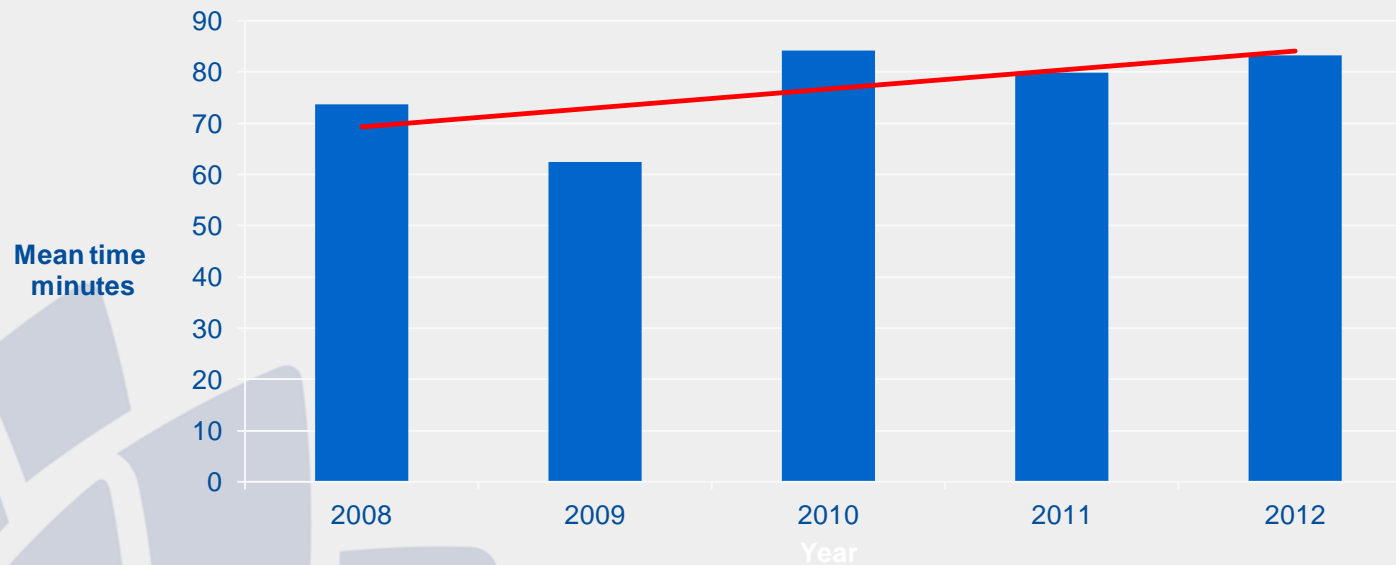


Health

Illawarra Shoalhaven
Local Health District

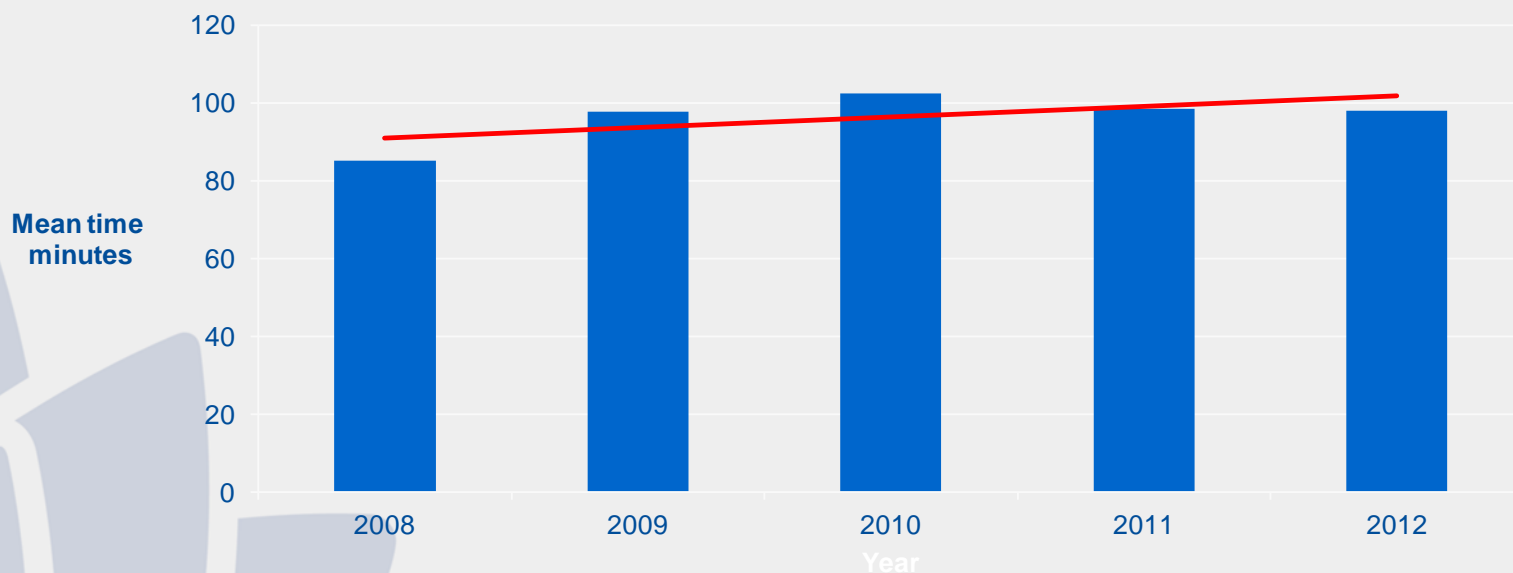
NATURE OF THE PROBLEM

Cath Lab arrival time from Presentation



NATURE OF THE PROBLEM

Door to Balloon Time 2008-2012



Health
Illawarra Shoalhaven
Local Health District

EXTENT OF THE PROBLEM

- Delays in the Emergency Department
- Inadequate communication between Emergency Department and the on call Cardiologist
- Bed delays for post primary PCI patients after hours.



Health

Illawarra Shoalhaven
Local Health District

PLANNING & IMPLEMENTING SOLUTIONS

- The Director of Cardiology approached the Agency for Clinical Innovation (ACI) with a view to introducing the Ambulance Triage in Acute Myocardial Infarction (ATAMI) project
- The ACI suggested that we look at the Pre hospital Assessment for Primary Angioplasty (PAPA) model of care as this was more suitable for our hospital
- PAPA is part of the State Cardiac Reperfusion Strategy which is being rolled out across New South Wales



Health

Illawarra Shoalhaven
Local Health District

PLANNING & IMPLEMENTING SOLUTIONS

- Collaborative committee:

NSW Ambulance Service

Cardiac Diagnostic Centre TWH

Coronary Care Unit TWH

Emergency Departments ISLHD

Information Technology Department

Bed management and patient flow

Executive



Health

Illawarra Shoalhaven
Local Health District

PLANNING & IMPLEMENTING SOLUTIONS

- Site visits to St George Hospital and Liverpool Hospital

Experience

Physical layout

IT solutions

Failsafe



Health

Illawarra Shoalhaven
Local Health District

PLANNING & IMPLEMENTING SOLUTIONS

MODEL OF CARE

- Ambulances transmit ECG from scene
- Cardiologist contacts ambulance directly
- 40 minutes travelling time
- Transport to cath lab in Cardiac Diagnostic Centre



Health

Illawarra Shoalhaven
Local Health District

PLANNING & IMPLEMENTING SOLUTIONS

- Ambulances in Illawarra Shoalhaven Local Health District catchment area were fitted with ECG machines that can transmit
- Ambulance officers were trained in use of equipment
- Analysis
- When to transmit



Health

Illawarra Shoalhaven
Local Health District

PLANNING & IMPLEMENTING SOLUTIONS

- Wollongong Hospital has desktop PCs located in:
 - Emergency Department as back up for unstable patients
 - Cardiac Diagnostic Centre for procedures in hours
 - Coronary Care Unit for bed management
- On call cardiologists carry an iphone capable of high resolution images
- Direct discussion with ambulance officers at the scene



Health

Illawarra Shoalhaven
Local Health District

PLANNING & IMPLEMENTING SOLUTIONS

- Cardiologist calls in cath lab staff after hours
- Emergency Department are notified that transmission has been successful within 10 minutes.
- Coronary Care Unit prepare for patient post procedure.

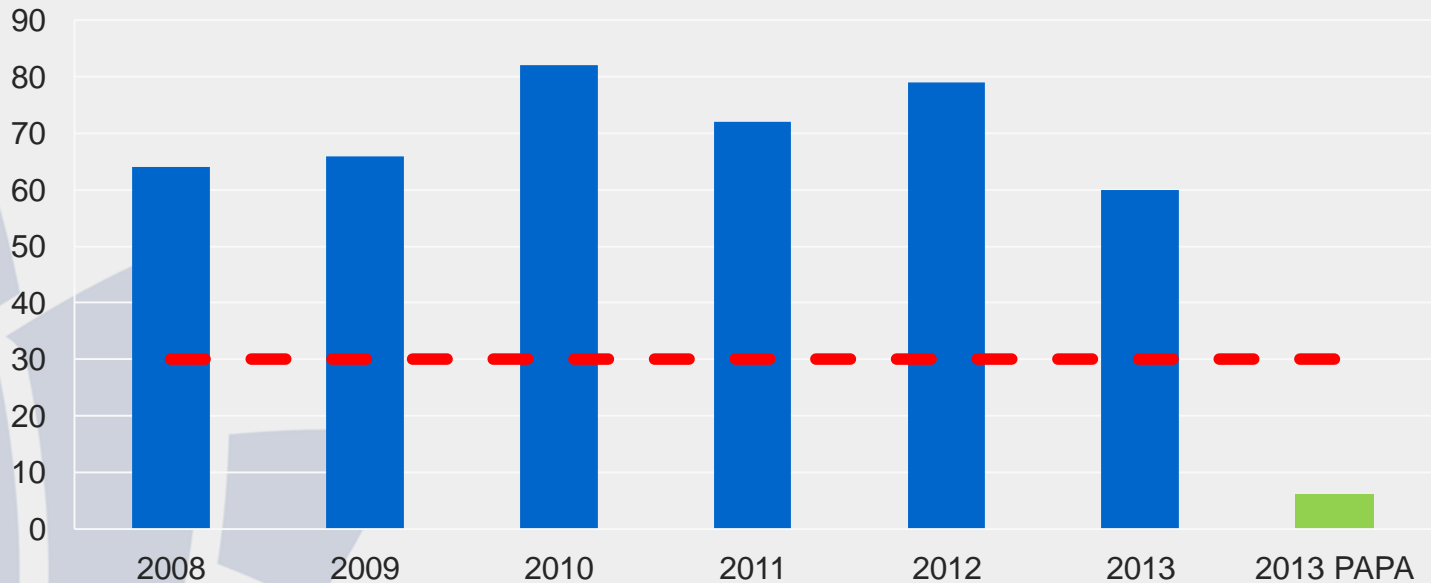


Health

Illawarra Shoalhaven
Local Health District

OUTCOMES AND EVALUATION

Cath Lab Arrival time from Presentation to TWH 2008-2013



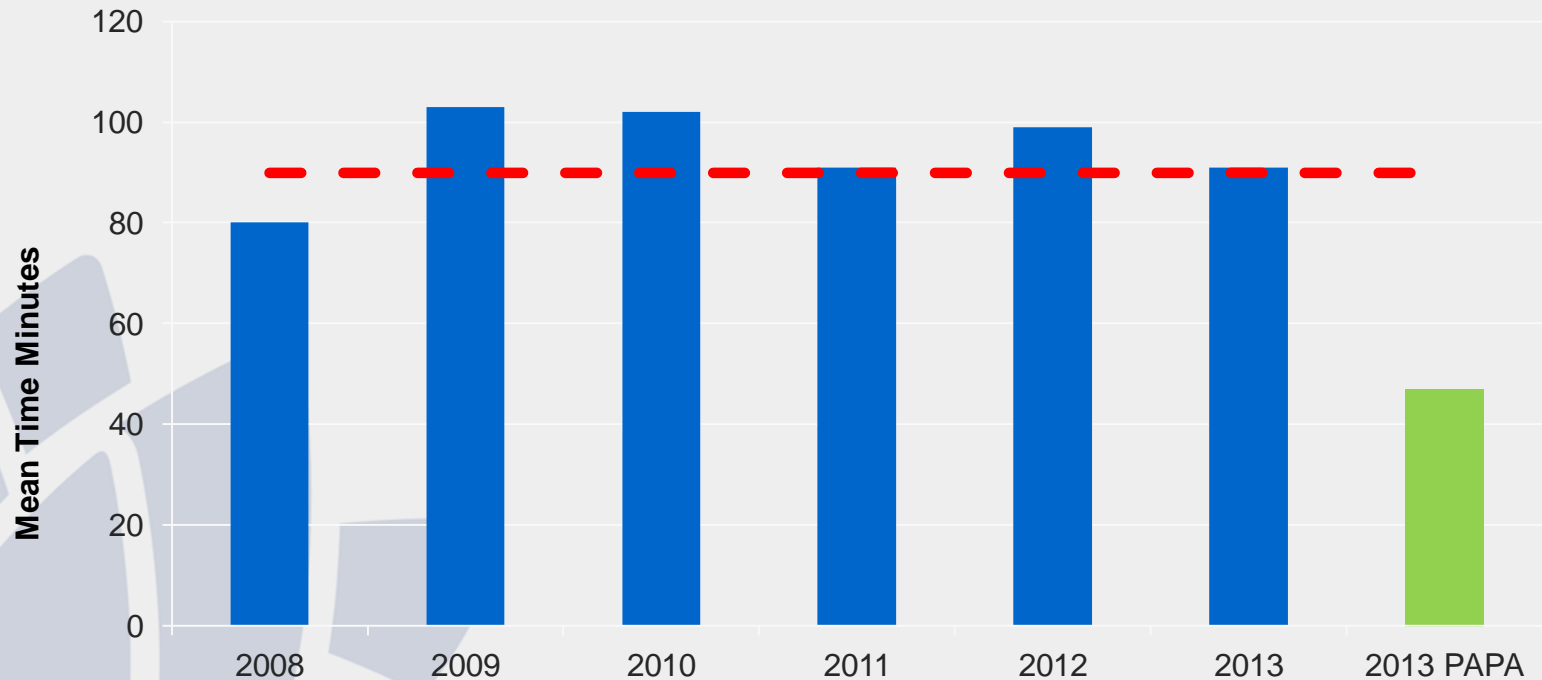
OUTCOMES AND EVALUATION

- Prior to the introduction of PAPA cath lab arrival time was consistently over 60 minutes making it difficult to achieve the 90 minute door to balloon time
- Since the introduction of PAPA cath lab arrival time has been reduced by 48%



OUTCOMES AND EVALUATION

Door to Balloon time TWH 2008-2013



Health
Illawarra Shoalhaven
Local Health District

OUTCOMES AND EVALUATION

- Door to balloon times were consistently over guideline at a mean of 99 minutes
- Since PAPA our times have reduced significantly to a mean time of 44 minutes
- Bypass of busy Emergency Department
- Quick off load of patients from ambulance
- Early diagnosis to call back staff after hours



Health

Illawarra Shoalhaven
Local Health District

SUSTAINING CHANGE

- Open communication has been established between the ambulance educators and the cardiology staff at Wollongong Hospital
- Regular discussions take place to review any issues identified by either party
- The implementation committee meets regularly to monitor the progress of the project



TRANSFERABILITY & FUTURE SCOPE

- Pre hospital assessment for Thrombolysis (PHT) for patients living further than 40 minutes away
- Not enough data for inclusion



Health

Illawarra Shoalhaven
Local Health District

RELEVANCE TO ENTRY CATEGORY

- 2 Integrated Health Care
 - Care is provided in the most appropriate setting to deliver the best possible health outcome
 - Wider access to primary PCI service
- 3 Local Solutions
 - Boards, health administrators and clinicians identify and put local solutions into action to meet the health needs of their patients and local communities
 - Multidisciplinary committee



Health

Illawarra Shoalhaven
Local Health District

RELEVANCE TO ENTRY CATEGORY

- 6 Collaborative Team
 - Enhancing skills for collaboration and effective team work and supporting teams to operate as a unit and encouraging mutual respect across disciplines
 - NSW ambulance service, cardiologists and cardiology staff



Health

Illawarra Shoalhaven
Local Health District