



Every Second Counts – Pre Hospital Assessment for Primary Angioplasty Integrated Health Care

Introduction

Delays in primary Percutaneous Coronary Intervention (PCI) after a patient arrives at hospital are associated with higher in-hospital mortality in those admitted with ST elevation myocardial infarction.



CDC Nurse receives ECGs from ambulances on route to Wollongong Hospital.

Aim

To decrease from 100 minutes Door to Balloon times for patients with Primary Angioplasty admitted to Wollongong Hospital (WH) to within the national benchmark of <90 minutes, within six months.



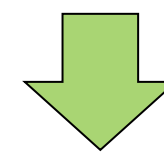
Cardiac Reperfusion Team – Cardiac Diagnostic Centre Wollongong Hospital



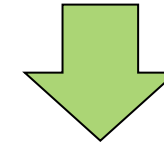
Technology used in Ambulances which enable transmission of electrocardiographs

Method

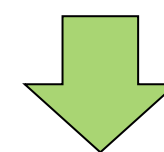
Strong collaboration established between NSW Ambulance and Wollongong Hospital.



Installation of technology into NSW Ambulances enables transmission of electrocardiograph.



Purchase of PCs for ED, Cardiac Diagnostic Centre and the CCU, act as primary notification for the transmission of ECGs from the ambulances.



On call cardiologists provided with iPhones capable of receiving ECG images.

Results

Since the introduction of the Pre Hospital Assessment for Primary Angioplasty (APA) model of care, door to balloon time for primary PCI at WH has reduced to **47 minutes** (53% improvement). See Figure 1.

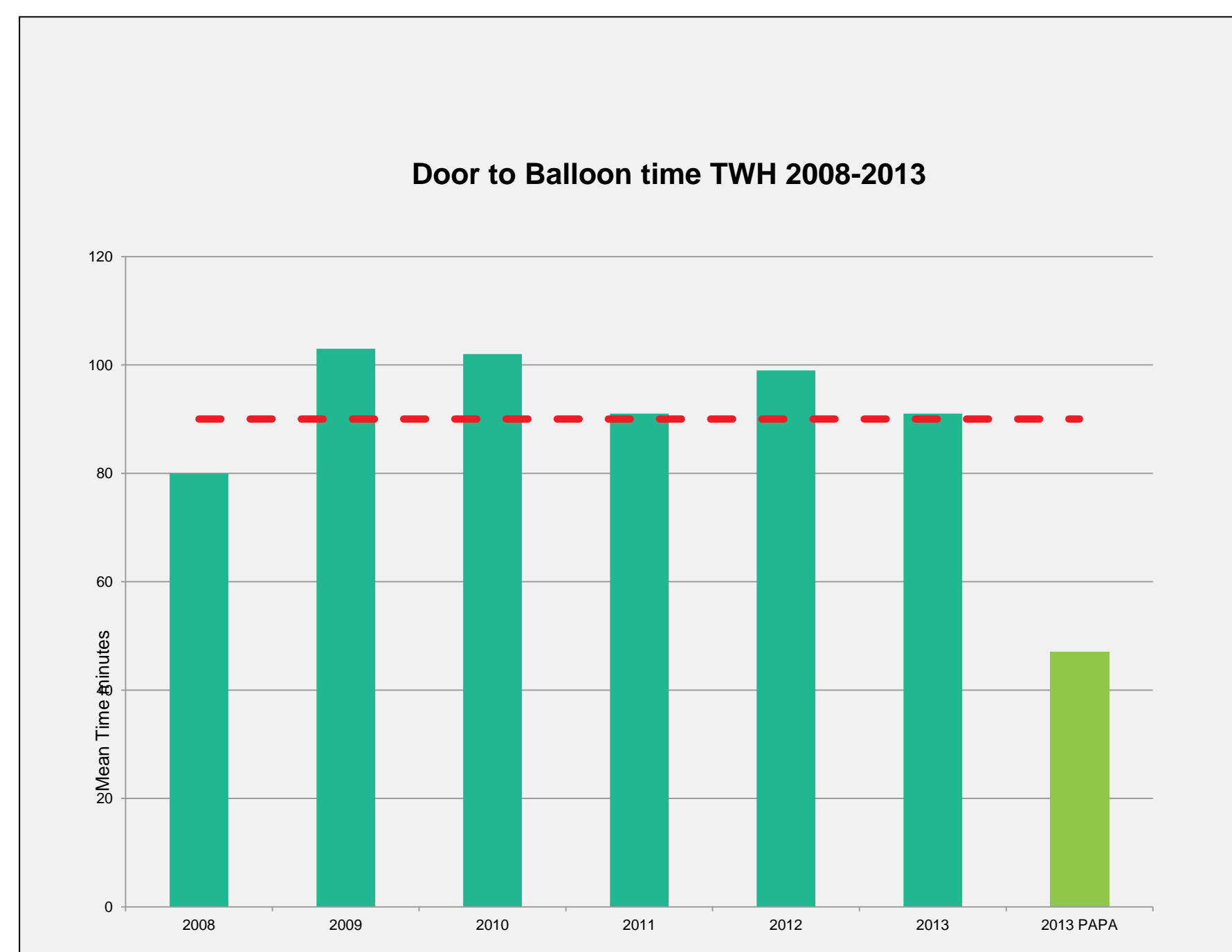


Figure 1 – Wollongong Hospital door to balloon times between 2008 and 2013

In addition to the significant improvements in Door to Balloon times, the Arrival to the Cath Lab from presentation to Wollongong Hospital times has also **significantly reduced**. See Figure 2.

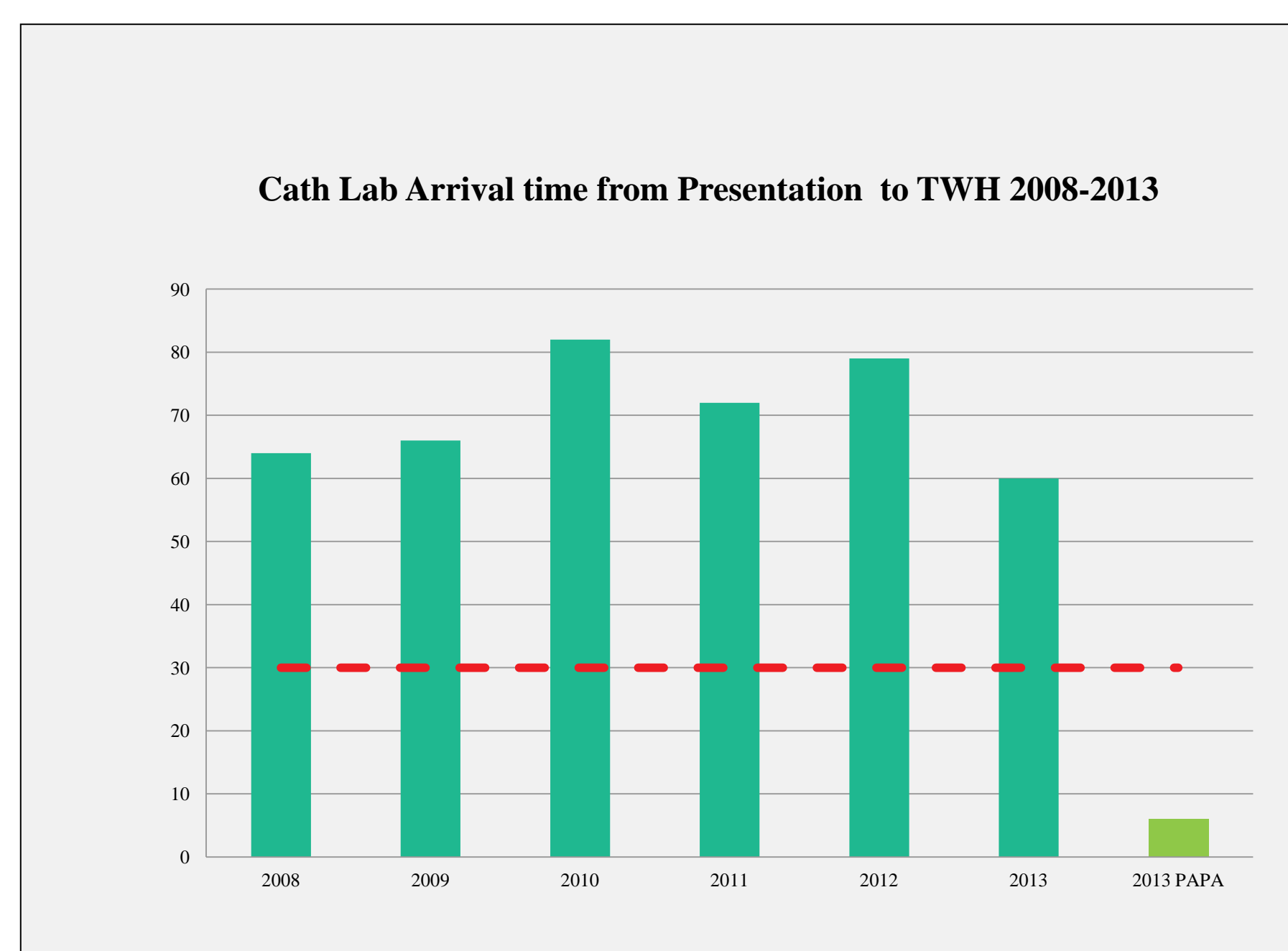


Figure 2 – Arrival to the Cath Lab from Presentation to Wollongong Hospital

Conclusion

Wollongong Hospital now provides world class access to services for patients requiring reperfusion therapy. This is demonstrated by achieving consistent Door to Balloon times well below the world benchmark of 90 minutes.

Open communication between Ambulance Services and Hospital staff remains a key factor in this project's success.



Wollongong Hospital Cardiology, Emergency Department .

Acknowledgements

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ISLHD Cardiac Reperfusion Implementation Committee

Wollongong Hospital Cardiology Unit
Wollongong Hospital Cardiac Diagnostic Centre
Wollongong Hospital Emergency Department



Ambulance Service of New South Wales



Health
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Local Health District