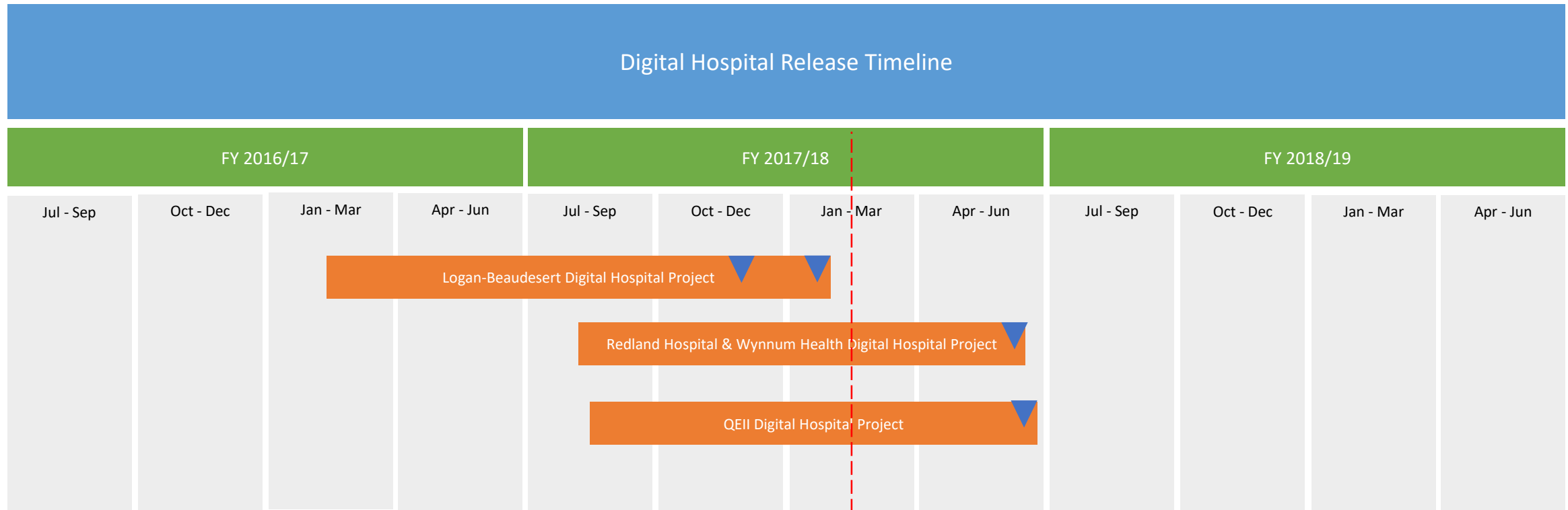


# Metro South Health (MSH) Digital Hospital

DICOM – Education Workshop, September 2018



# MSH Digital Hospital Road Map



- PAH - November 2015 Core & March 2017 Medications, Anaesthetics and Research (1033 Beds) - Live
- Logan & Beautesert Hospitals - December 2017 & January 2018 (459 + 40 Beds) – Live
- Redland Hospital and Wynnum Health - May 2018 (222 Beds) – Live
- QEII Hospital - June 2018 (218 Beds) – Live

# What have we Implemented

## Features of a digital hospital



**Accurate patient identification**  
through wristbands with  
unique barcodes



**Bedside monitoring devices**  
that automatically upload vital  
signs into the digital system



**Integrated digital patient records**  
across all areas—medicine, surgery, emergency,  
maternity, pathology, radiology and outpatients



**Medical grade wi-fi**  
throughout all areas of the hospital



**Secure systems**  
through multi-factor authentication



**Rich data and analytics**  
available for research and quality improvement

# Digital Hospital Benefits 2017

A benefit is a measurable improvement resulting from a change that is perceived to be an advantage by a stakeholder.

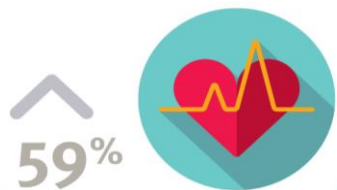
The benefits associated with the digital hospital system at PAH have been achieved because the hospital's clinical and non-clinical staff have embraced innovation in healthcare.



## Early identification of deteriorating patients

Rapid Response Team calls

AUG 2015 vs AUG 2017



## Drug administration and monitoring

Incidents linked to drug administration and monitoring

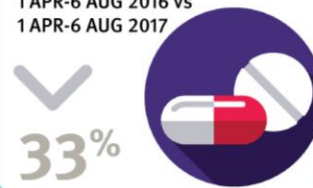
1 APR-6 AUG 2016 vs  
1 APR-6 AUG 2017



## Drug Dispensing and Supply

Incidents linked to drug dispensing and supply

1 APR-6 AUG 2016 vs  
1 APR-6 AUG 2017



## Radiology results

Formal endorsement of ED Radiology results

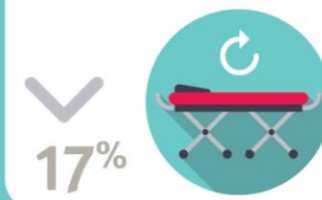
DEC 2014-MAY 2015 vs  
DEC 2016-MAY 2017



## Readmissions

Emergency readmissions within 28 days of discharge

JAN-JUN 2014 vs JAN-JUN 2017



## Inpatient length of stay

Average for all admissions

JUL-DEC 2014 vs JUL-DEC 2017



**i** This has been analysed over a longer period of time between 01/07/2014 and 31/12/2017 and the reduction in inpatient length of stay has been found to be statistically significant

## Drug costs per WAU

Drug costs per weighted activity unit

JUL-DEC 2016 vs JUL-DEC 2017



## Reported Hospital Acquired Stage 3 and 4 pressure injuries

No. of patients with stage 3 and 4 pressure injuries per 1000 bed days

JUL-DEC 2014 vs  
JUL-DEC 2017

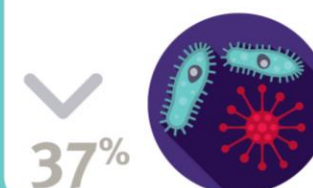


**i** This has been analysed over a longer period of time between 01/01/2014 and 31/12/2017 and the

## Infections

Healthcare associated SAB per 10,000 bed days

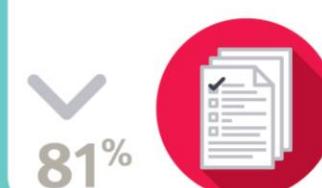
JUL-DEC 2014 vs JUL-DEC 2017



## Clinical form costs

Including printing costs

MAR-MAY 2014 vs  
MAR-MAY 2017



**OUR** Digital Hospital

PRINCESS ALEXANDRA

Other benefits expected from the Digital Hospital will be tracked over time.



## Our Critical Success Factors

- Absolute commitment by Board, Executive & Clinical Leaders
- Outcome focus – Patient safety – no harm, shared vision
- Clinical engagement & governance
- Critical mass of change champions through all areas
- Clinicians embedded in the project teams
- Medical grade Wi-Fi - “No holes”
- Adequate number of user-centric workstations
- Project and Site relationship – ‘working together’
- Contemporary, tailored training
- Communicate, Communicate, Communicate

# Lessons Learnt

- Scope & Governance
- It is a clinical transformation project
  - Change process - focus on complex (high risk/ high impact) workflows
  - Embedded superusers for go live
  - Clinically lead change process
  - Local Workflow practices
- Device integration
- Infrastructure – electrical and IT
- Difference between releases and rollouts

# Training Lessons Learnt



- Logistics – early planning
- Fund training attendees (be upfront)
- Acknowledge and accept business impact
- Reduction of non essential activities, workforce planning
- Build capability in workforce
- Consider computer literacy and different learning needs
- Governance and tracking
- Timely access to a practice domain
- Proficiencies managed by local education teams
- “Train early, Practice hard”

# Supporting the Change



Digital Hospital Updates | Expand Knowledge | Prepare for Go Live

The Device Lab is an opportunity for all clinical staff to ask questions and utilise the digital devices with the new ieMR integration.

Boardroom / Conference Room Level 3

Monday 21 to Friday 25 May, 2-3pm

Monday 28 May to Friday 1 June, 2-3pm

For additional information, please contact the Digital Hospital Project Team

[metrosouthdigital.health.qld.gov.au](http://metrosouthdigital.health.qld.gov.au)



- Focus on high impact/ high risk workflow change
- Key Activities & Engagement:
- Change champion sessions with available practice materials
  - Device Labs,
  - Downtime Business Continuity sessions
  - Ongoing staff forums
- Defined workflow practice and delivery of key training prior to go live.

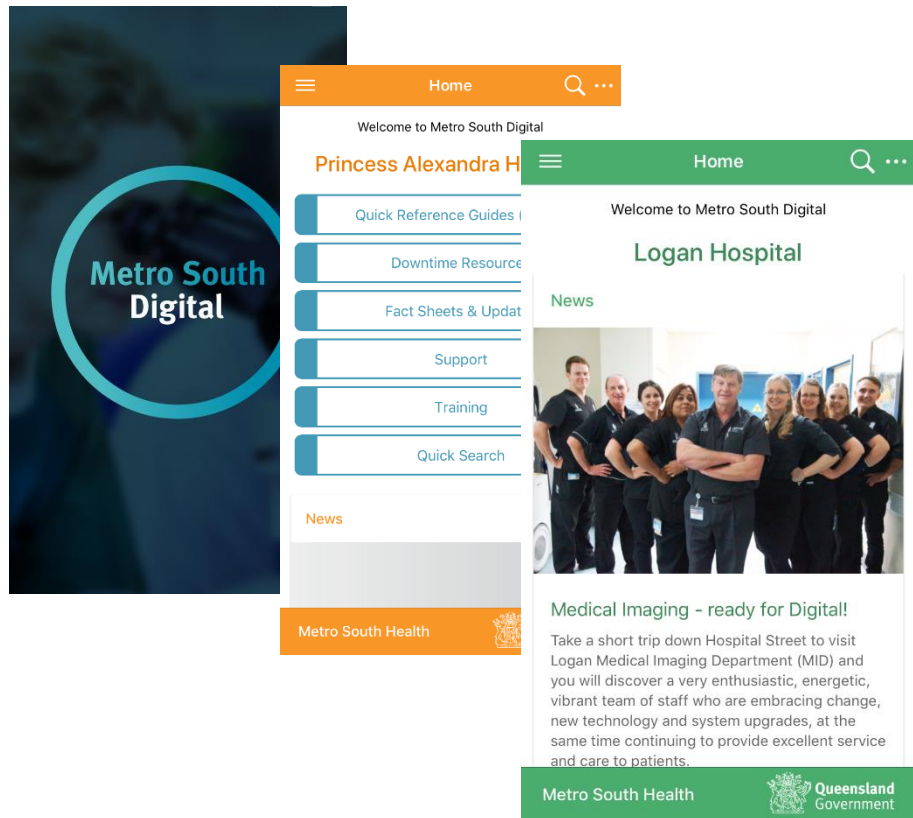


# Go live Lessons



- Tailored readiness activities
- Patient Safety Watch (Site Assurance)
  - input in to the Go live governance
- Clinical Governance – daily bronze, silver, gold
- Tracking command center issues
- Close monitoring of conversion activities
- No patient harm or quality impacts were evidenced during the digital implementation in MSH

# Digital Online Resources: Metro South Health Website



Mobile App



Intranet Site

# “Business As Usual”



Every weekday in Metro South Health...

6,500  
patients' medical  
records are viewed

150,000  
charts are opened

25,000  
drug alerts occur

60,000  
medications are  
administered

8,000  
lab tests are ordered

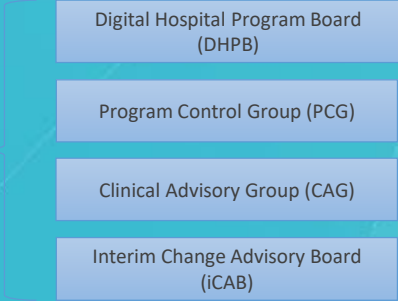
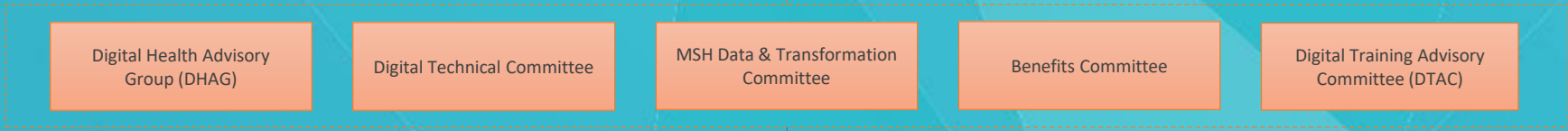
1,000  
care plans ordered

(Data for July 2018)

**MSH GOVERNANCE**

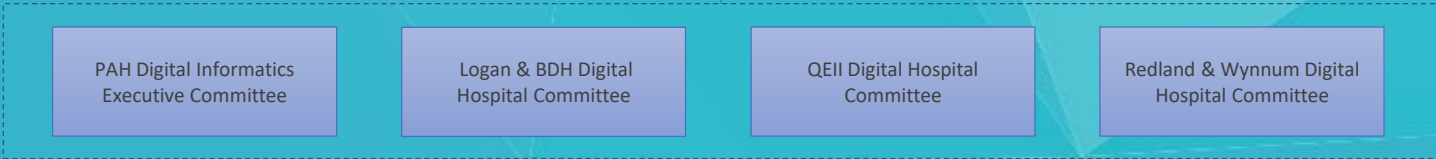
**MSH Executive Committee**

**MSH Digital Executive Committee (DEC)**



**STATE-WIDE GOVERNANCE (EHEALTH)**

**LOCAL SITE GOVERNANCE**



**WORKING GROUPS & COMMITTEES**

Adoption Services

Change Network



- Maternity
- Radiology
- Pathology
- Core
- Paediatric
- Care Delivery
- Emergency
- ESM
- Surgery
- Medications Management
- Anaesthetics
- Power Trials

**STATE-WIDE SUBSPECIALTY WORKING GROUPS**

Thank you!



**Questions?**