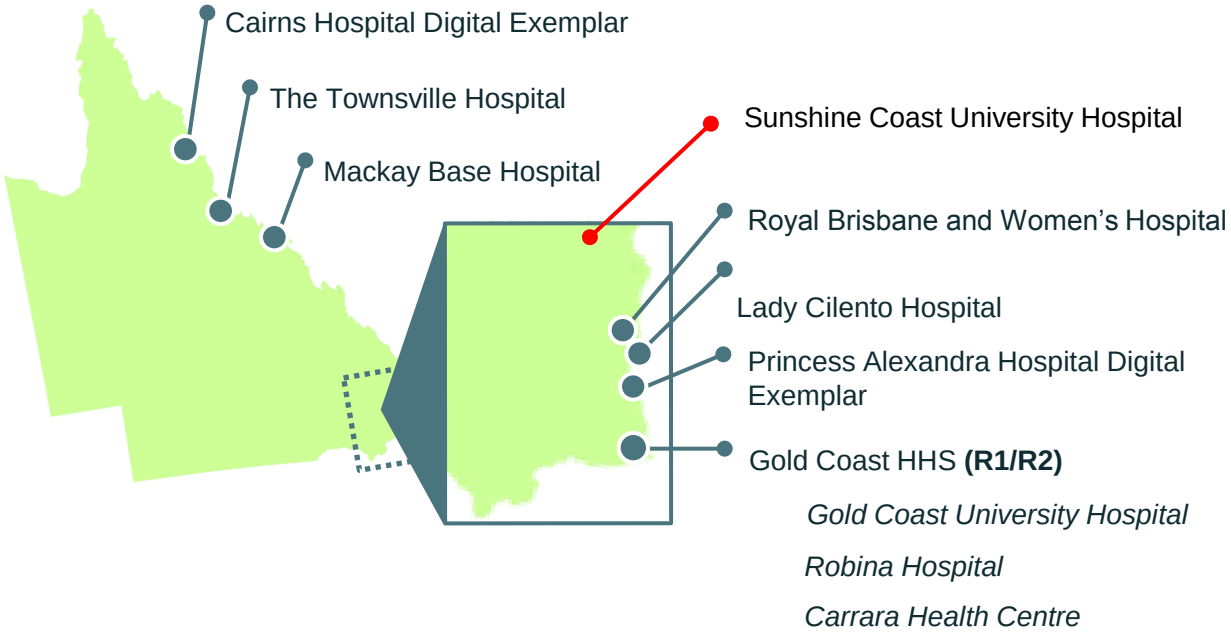
Mackay Base Hospital – Digital Hospital Implementation

Major change in a regional setting where resources are modest and occupancy is great

Mackay HHS
Digital Hospital Program

Digital Hospital Programme

- Mackay was one of the original pilot sites and has been on this journey since 2013.



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Who is Mackay Base Hospital

- Regional hospital
  - **196 Bed facility**
  - **46,678 Annual ED Presentations**
  - **121,908 Outpatient OOS**
  - **1,608 Annual Births**
  - **5 Operating Theatres**
  - **6 Birth Suites**
- Recently redeveloped Greenfield on Brownfield site

2014 Releases

Foundations

ieMR core build

- Scanning
- Order of filing
- Facility configuration

Document scanning

Scanning clinical documentation to the ieMR from a patient's paper-based file.

Paediatric growth charts

Record, review and track children's growth charts over time to assess and monitor trends in patient's growth data.

Point of care entry

Clinical data entry

- Progress notes
- Risk assessments
- Allergies and alerts
- Patient summary page
- Problems and diagnosis

Clinician's message centre

Clinical decision support and reporting

Renal specialty system (haemodialysis)

Orders entry and results reporting

- Create orders electronically
- Review, sign off or endorse results
- Queensland radiology information system (QRIS) interface

Emergency department information system (EDIS) interface

Digital Release **Phase 1 4/7/16**

Community Health

FirstNet
Replacing EDIS

Perinatal

Positive Patient ID

Care Delivery
Specialised discipline view

Device Integration
ECG and CTG

724 Downtime Viewer

Orders Entry Results Reporting
Bloods and Specimens

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One Model?

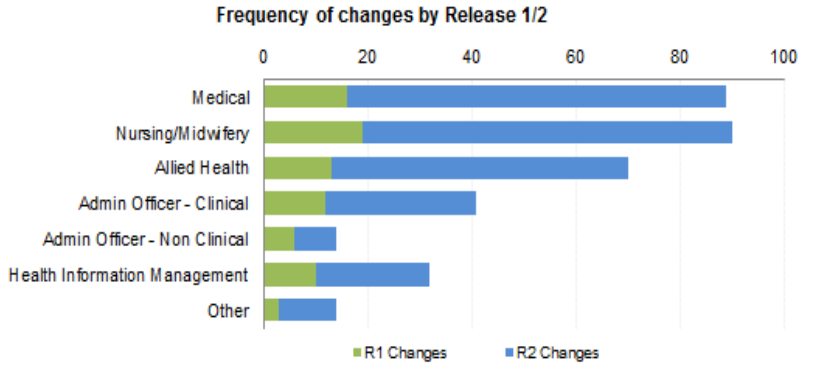
- Recommended, repeatable implementation approach was prescribed covering:
- Training approach
- Implementation model
- Go-live model
- The Mackay model

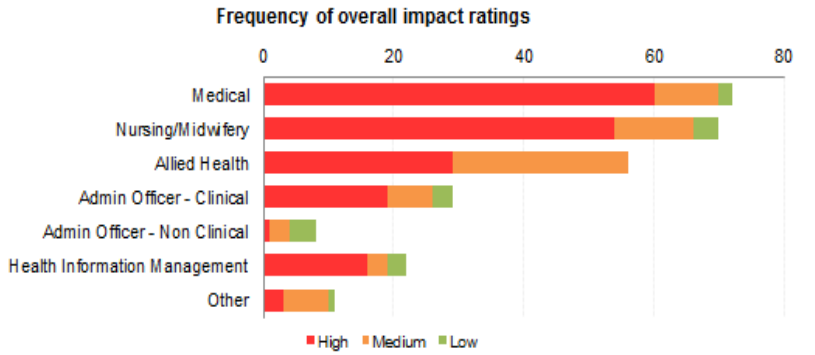
Business Process Mapping – “As is” to “To Be”

IMR Release Two Business Change Impact Assessment

Impact Assessment *Back to Dashboard*

To Be Process Heading	Change in Process		Settings Impacted					Organisation (formal & informal structures that exist)			Job Design / Responsibilities (roles, responsibilities & authorities assigned to		
	R1	R2	Inpatient	Outpatient	Emergency	Renal Haemodialysis	Medical Records	Department/ ward/ unit structures	Formal diagrams or charts that show reporting relationships	Headcount per dept./ ward	Levels of authority or responsibility, and/or power	Organisation of work groups	Responsibility for tasks
0 Pre-Arrive													
1.2 Manage Referral/Waitlist/Scheduling (RWLS)													
1.2.2 Manage Patient Referral	Y	Y	No	Yes	No	No	No	No	No	No	No	No	Yes
1.3 Manage Pre-Arrival Documentation													
1.4 Prepare Appointment/Elective Admission													
1.4.6 Pre-Prepare CEC	Y	Y	No	Yes	No	Yes	No	No	No	No	No	No	No
.0 Arrive													
2.1 Present Patient													
2.2 Admit Patient													
2.3 Confirm Attendance													
2.3.3 Process Patient No Appointment													
2.5 Failed to Attend Outpatient Appointment													
2.6 Failed to Attend/Cancel Elective Admission													
.0 Arrival Assessment													
3.1 Receive Patient	Y	Y	Yes	Yes	Yes	Yes	No	No	No	No	No	No	Yes
3.4.1.1 Renal Outpatient Assessment	N	Y	No	Yes	No	No	No	No	No	No	No	No	Yes
3.4.1.2 Monthly Blood Round	N	Y	No	No	No	Yes	No	No	No	No	No	No	Yes
.0 Triage													
4.2 Register and Assess Patient													
.0 Treatment													
5.1 Perform Treatment	Y	Y	Yes	Yes	Yes	Yes	No	No	No	No	No	No	Yes
5.4 Provide Haemodialysis Session													
5.4.01 Haemodialysis Assessment													
5.4.01.01 Dialysis Assessment	N	Y	No	No	No	Yes	No	No	No	No	No	No	Yes
5.4.02 Assess Complication													
5.4.02.02 Change Dialysis Careplan	N	Y	Yes	No	No	Yes	No	No	No	No	No	No	Yes
5.4.03 Haemodialysis Treatment													
5.4.03.01 Verify Dialysis Care Plan	N	Y	Yes	No	No	Yes	No	No	No	No	No	No	Yes
.0 Depart													
6.2 Discharge Encounter													
6.3 Complete Clinical Documentation													
6.3.2 Complete System Documentation	Y	Y	Yes	Yes	Yes	Yes	No	No	No	No	No	No	Yes
6.4 Prepare Transfer (QH Acute Facilities)													
6.4.1 Prepare for ieMR Site Transfer	Y	Y	Yes	No	Yes	Yes	No	No	No	No	No	No	Yes





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“As is” and “To Be” MBH Way

Role	Task	Change Y/N	What changes / impacts	Assumption	Managing Impacts
AO Clinic – Gyne/ ANC visits	Receiving ANC/Gyn referral from GP mostly at central admissions/Fax Sometimes Self-referral for birth centre – Barb/Wendy	N	Process continues the same	This process won't change	No impacts
	Action referral on HBCIS & print referral	N	Process continues the same	This process won't change	No Impacts
	Referral placed in relevant folder for Dr or MW (coordinator) to R/V and categorise for appointment	N	Process continues the same	This process won't change	No Impacts
	Patients are categorised, appointment schedule made by DR or MW (coordinator) given back to AO	N	Process continues the same	This process won't change	No Impacts
	Appointment made by AO, letter generated from HBCIS and sent.	N	Process continues the same	This process won't change	No Impacts
	Referral sent for scanning	N	Process continues the same	This process won't change	No Impacts
	Patient calls and confirms appointment	N	Process continues the same	This process won't change	No Impacts
	Patient arrives for appointment and is arrived/registered on HBCIS	N	Process continues the same	This process won't change	No Impacts

Modified Go-lives

- Release one – Big Bang whole of hospital on a memorable date. Really well supported by Health Information Unit and utilised the “Dress Rehearsal” approach to teaching new processes.
- Release two – Incremental Approach starting with Alerts and Allergies, then adding direct entry and risk assessments a short time later.
- Orders Entry Results Reporting – no train no do, at the elbow in production real scenarios.
- Digital release – Rolling start eg Elective admissions in Care Compass day 1, followed by Firstnet, Emergency admissions and Perinatal day 3.
- Go-Live Approach
  - +/- Command Centre
  - +/- Additional Resources
  - Go-Live Duration

This is Agile

- Roving trainer – 3 staff available in recovery area of Cardiac Cath Lab, next minute – 3 WOWs with staff sitting on a bed and that's todays training room.
- Night Shift Trainer – but they said it wouldn't work
- Remote access to computers allows team to teach or coach real time.

Tips in the Change and Training Space

- Dedicated change agent off line and in the project team from specific areas
- Centralised development of General Business Rules, Unit Task Analysis and training resources - in a small facility you need to do the change not just facilitate the change
- Change agent and trainer team – depends on the extent of the change, some releases the change agent became the trainer
- Agency staff to back fill staff release
- Know your workforce demographic – measure of the training model is how many times you have to re-touch staff

What to improve:

- Baseline the pain points eg Chart turn around times, filing of pin-on times, ROI process times, radiology turn around times
- Invest time in identifying benefits and realising benefits
- Dedicated communications resource – limited access to app developers or to enormous lift door stickers.
- Governance – ask forgiveness not permission may not be the best approach

What works

- Pick the right project team
- Size matters
- Local staff who aren't going anywhere – can be career limiting if it doesn't go well
- Executive support and visible leadership
- Finding the crazy leadership dancer

  https://www.youtube.com/watch?v=fW8amMCVAJQ