Mackay Base Hospital – Digital Hospital Implementation

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

- Mackay was one of the original pilot sites and has been on this journey since 2013.
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 Care Delivery
- Positive Patient ID
- Care Delivery Specialised discipline view
- Device Integration ECG and CTG
- 724 Downtime Viewer
- Orders Entry Results Reporting Bloods and Specimens
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”

| Process | Change in Process | Services Impacted | T1 | T2 | T3 | T4 | T5 | T6 | T7 | T8 | T9 | T10 | T11 | T12 | T13 | T14 | T15 | T16 | T17 | T18 | T19 | T20 | T21 | T22 | T23 | T24 | T25 | T26 | T27 | T28 | T29 | T30 | T31 | T32 | T33 | T34 | T35 | T36 | T37 | T38 | T39 | T40 | T41 | T42 | T43 | T44 | T45 | T46 | T47 | T48 | T49 | T50 | T51 | T52 | T53 | T54 | T55 | T56 | T57 | T58 | T59 | T60 | T61 | T62 | T63 | T64 | T65 | T66 | T67 | T68 | T69 | T70 | T71 | T72 | T73 | T74 | T75 | T76 | T77 | T78 | T79 | T80 | T81 | T82 | T83 | T84 | T85 | T86 | T87 | T88 | T89 | T90 | T91 | T92 | T93 | T94 | T95 | T96 | T97 | T98 | T99 | T100 |
|---------|------------------|------------------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|---
<table>
<thead>
<tr>
<th>Role</th>
<th>Task</th>
<th>Change Y/N</th>
<th>What changes / impacts</th>
<th>Assumption</th>
<th>Managing Impacts</th>
</tr>
</thead>
<tbody>
<tr>
<td>AO Clinic — Gyne/ANC visits</td>
<td>Receiving ANC/Gyn referral from GP mostly at central admissions/Fax Sometimes Self-referral for birth centre – Barb/Wendy</td>
<td>N</td>
<td>Process continues the same</td>
<td>This process won't change</td>
<td>No impacts</td>
</tr>
<tr>
<td></td>
<td>Action referral on HBCIS &amp; print referral</td>
<td>N</td>
<td>Process continues the same</td>
<td>This process won't change</td>
<td>No impacts</td>
</tr>
<tr>
<td></td>
<td>Referral placed in relevant folder for Dr or MW (coordinator) to R/V and categorise for appointment</td>
<td>N</td>
<td>Process continues the same</td>
<td>This process won't change</td>
<td>No impacts</td>
</tr>
<tr>
<td></td>
<td>Patients are categorised, appointment schedule made by DR or MW (coordinator) given back to AO</td>
<td>N</td>
<td>Process continues the same</td>
<td>This process won't change</td>
<td>No impacts</td>
</tr>
<tr>
<td></td>
<td>Appointment made by AO, letter generated from HBCIS and sent.</td>
<td>N</td>
<td>Process continues the same</td>
<td>This process won't change</td>
<td>No impacts</td>
</tr>
<tr>
<td></td>
<td>Referral sent for scanning</td>
<td>N</td>
<td>Process continues the same</td>
<td>This process won't change</td>
<td>No impacts</td>
</tr>
<tr>
<td></td>
<td>Patient calls and confirms appointment</td>
<td>N</td>
<td>Process continues the same</td>
<td>This process won't change</td>
<td>No impacts</td>
</tr>
<tr>
<td></td>
<td>Patient arrives for appointment and is arrived/registered on HBCIS</td>
<td>N</td>
<td>Process continues the same</td>
<td>This process won't change</td>
<td>No impacts</td>
</tr>
</tbody>
</table>
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 today’s 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