

Delivering improved healthcare with telehealth



Dr Michael Williams

Director

Child & Adolescent Health Service

Mackay Base Hospital

Qld

16/10/14

Goals for telehealth in Qld



- safe care for patients in their community
- best support for rural & regional generalists
 - bring specialist to patient
- clinical & cost efficiency
- standard of care – acute & complex cases

Better Health for the Bush Qld H. June 2014

NSQHS standards

telehealth care to regional and rural Qld.



vision of telehealth care for reg/rural Qld

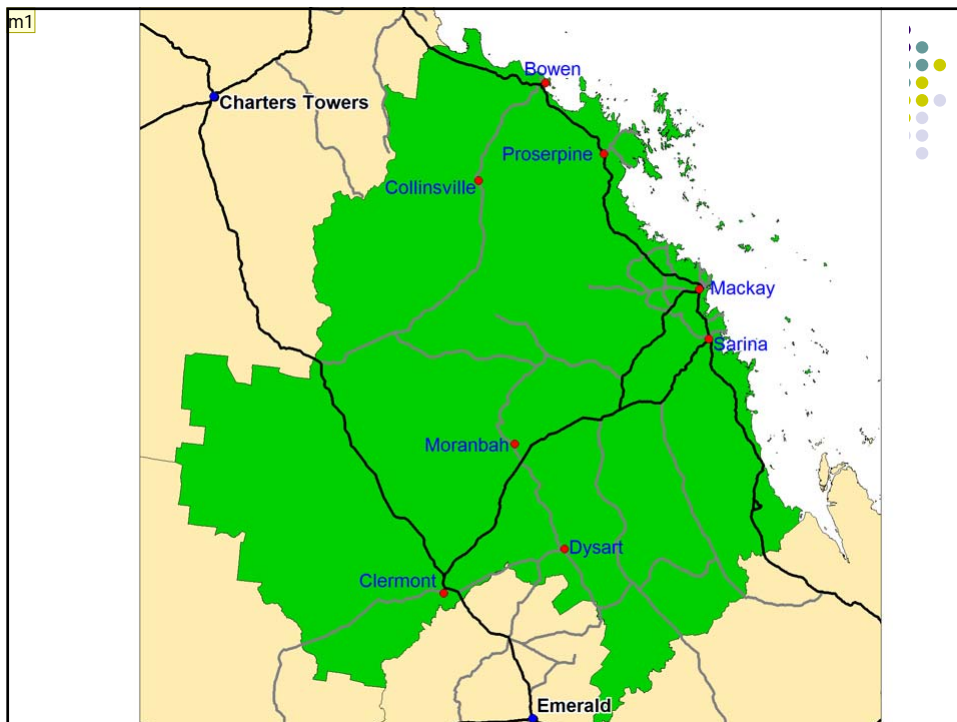
- opportunity – need to make it happen
- our experience from Mackay district
 - illustrate with cases
- importance of generalism in health care delivery
 - rural generalist /GP at rural sites
 - regional health team at regional sites
- collaboration
 - 1^o to 2^o and 2^o to 3^o
 - following usual referral catchments

Overview – making telehealth happen



- introductions
 - intros .. Telehealth experience/interest
 - myself & service
- scheduled telehealth
- acute telehealth paediatric care at rural sites
 - link into Dysart RSQ,
 - cases
 - opportunities, benefits, process
- sustainable telehealth
 - drivers & barriers
 - NSQHS standards





Slide 7

- m5** Queensland is large with specialist services in SE corner with difficulties for patients to access subspecialty services - hence telehealth offers the opportunity of access from home town - creates an equity for rural patients with metro patients
mlwilliams, 3/06/2010

Slide 8

- m1** MHSD - with videoconferencing available at all hospitals as well as Middlemount, Tieri, and Glenden - we will aim to provide consultant paediatric advice via telehealth to all centres especially for urgent problems
mlwilliams, 3/06/2010

Mackay Telehealth with outreach



Mackay - 17 years experience with:

- RCH - UQ Centre for on line health
 - PICU – acute consults
 - Townsville Hospital
 - NICUacute & weekly review of our babies
 - private specialist
- rural sites
 - QH sites
 - GP surgeries
 - good feedback

m6

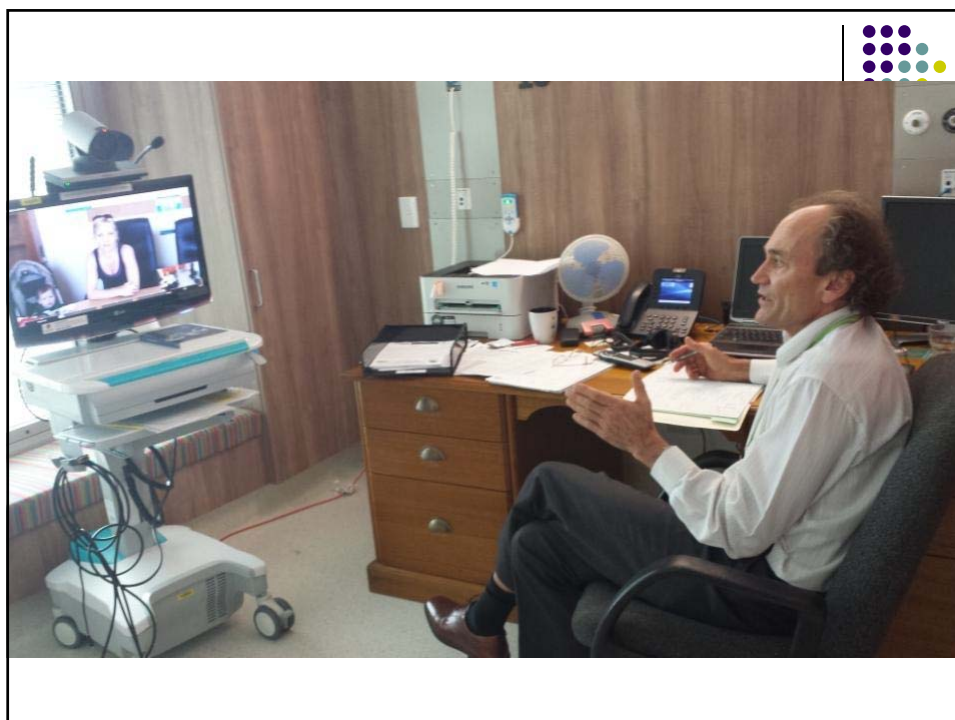
Telehealth



- inclusive decisions
 - patient centric
 - do 3 way links ...handover
- cost & time-effective – savings
 - school, work, drs time, travel, reduced carbon
- builds local case management
- arrange at short notice
- useful for few patients cf outreach
- well accepted incl indigenous

Slide 10

m6 inclusiveness - can bring 2 teams together eg burns management
mlwilliams, 3/06/2010



Regional telehealth strategy

- planned outpatient telehealth clinics
 - annual telehealth calendar – in OPD
 - subspecialty
 - paediatric for rural sites
 - diabetic - Proserpine, Moranbah

Complex case - Karlia severe congenital myopathy



Karlia – connected care



frequent admissions to hospital (MBH)

- recurrent chest infections
- on Bipap
- severe scoliosis
 - & orthopaedic deformities
- feeding issues
 - Fundoplication, PEG
- sleep

Karlia – connected care



- chronic illness nurse ..care plan
- telehealth
 - minimise trips to B'ne
 - build our ability to manage her
 - parental inclusion
 - builds collaboration 'tween 3⁰ & regional teams
 - esp re management
 - neuromuscular clinic
 - CHQ hub

Regional telehealth strategy

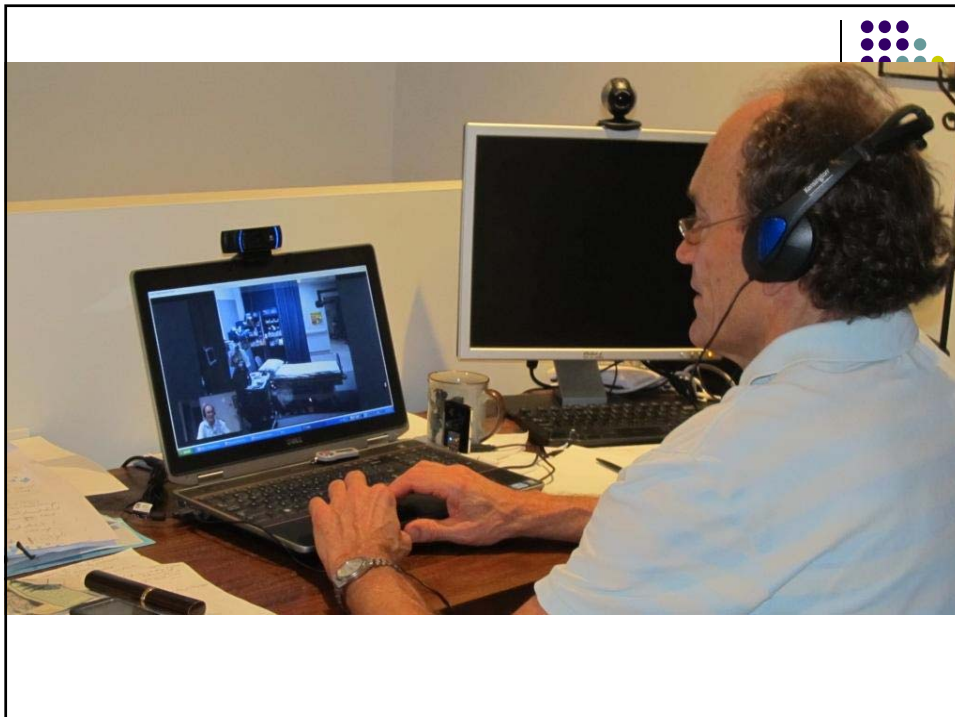


- planned outpatient telehealth clinics
 - annual telehealth calendar – in OPD
 - subspecialty
 - paediatric for rural sites
- acute consultation ..rural / tertiary
 - before transfer decision
 - emergency cases at rural sites
 - for IP rural /MBH – mobile unit at bedside

Acute patient



- call from dr at Proserpine – 9pm
7 y o child with neck stiffness
- rural generalist concerned - ? meningitis
 - IV ceftriazone
 - laptop with Movi software (= jabber)
 - telehealth cameras in all emergency rooms
 - all Mackay district ED numbers in address book



Acute patient Proserpine



Neck stiffness

- rural generalist concerned - ? Meningitis
- abs
- rang me – 9pm
 - Link in on laptop
- able to determine not meningitis
 - documentation
- stay at Proserpine ..monitor with CEWT
- review at 9 am – all well – home

Acute T/H rural consult



- support family in own town
 - save time off work
 - avoid 300 km car travel
 - address anxiety & concern
- avoid retrieval eg night helicopter (? \$3k)
 - ? 50% reduction
- supports staff at rural hospital
 - professional development
 - better skills in recognition, management of paediatric problems
 - reduces pressure on our beds
- builds relationship

connectivity



- Dysart – rural hospital ..Ros
 - 280 km

Hamilton Is. febrile fit ur 254367



- 2.5 y o - brief fit with fever on Hamilton Is. ? 5pm
- Saturday 8pm Jan
 - full recovery within 45 mins
 - GP seeking advice
 - RSQ phone line
 - put through to adult intensivist - phone
 - “send to Mackay”
....night time helicopter retrieval ..
- discharged 9 hrs after arrival
Hamilton Med centre has telehealth capability

Acute rural enquiries



telehealth consult with regl paed on-call ...

- more considered consult of phone
- address anxiety & concern
- help initial management
- arrange best transfer
 - meet & discuss expected admission
- avoid unnecessary retrieval – up to 50% reduction
 - on-going support to rural site

Referring sites & number of patients 2012



	Distance from Mackay (km)	Number of teleconsultations	No. patients transferred
Proserpine	126	14	7
Bowen	192	6	3
Dysart	250	2	1
Collinsville	273	2	0
Clermont	274	4	0
Moranbah	200	6	3 (incl twins)
<i>Total</i>		34	14

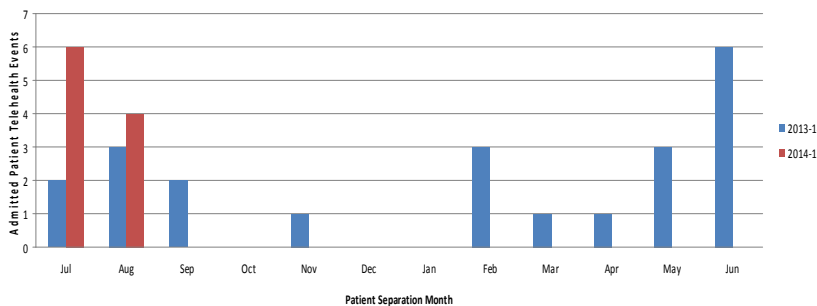
Primary diagnosis and cases transferred



	No. cases telehealth	No. cases transferred	% cases transferred
Bronchiolitis	7	5	37
Respiratory distress incl asthma, croup	7	1	7
Fever & infections	5	1	7
Prolonged seizure	3	3	21
Rash/urticaria/ other skin	3	1	7
Neonatal respiratory /jaundice(twins)	4	3	21
Head injury, ITP, faecal retention, other	6	0	0
Total	35	14	100

Admitted patient telehealth events reported by patient separation month where Mackay HHS was identified as the Provider and Recipient-end 2013-14p. And 2014-15 (Jul - Aug)p.

p.Preliminary data subject to change
Source:Telehealth Inpatient Details scr



HK_{ur 276747} - post cardiac surgery



6m – 2 wks post VSD repairSat 4pm

- 40 deg, PR 180- 210, RR 60+, cap refl 4 sec
- CEWT 8+,
- ? post pericardiotomy syndrome
 - Echo
 - technician
 - Cardiologist



HK - collaboration



- cardiologist – on call at home
 - download Jabber video
 - show echo - nad ...relief for paed and parents
 - Covered abs
- ? parechovirus (HPeV)– from Mater ICU / cardiac wd
 - marked tachycardia, high fever, rapid onset

Telehealth dos



- establish process ...annual calendar
 - referrals > 50 km ... PTSS requirement
 - acute rural concerns
- coordination – both ends ..bookings etc
 - lead AO - accountability
- good connectivity – test esp GP sites
- clinicians on- side KPIs, revenue flow
 - go for those showing most interest
- common problems, busier sites

Telehealth dos



- most conditions telehealth 1st
 - enables assessment and planning
 - better planned visits if occur
- do it often – find an excuse
- checks before consult ...minimise failures
- availability on-site of videoconferencing
- review and improve eg fta,

Telehealth dos



- follow usual referral pathways
 - occas. outreach
- most experienced clinician eg regional paediatrician
 - esp acute cases
- follow up acute cases eg that evening, next am ? reg
- on time & supported ... coordinator
 - best to have health care worker with patient

patients at rural sites



- clinical crises occur in rural sites
 - same oversighting as at regional centre
- geography is no barrier
 - death of “Little Girl”, Doomadgee, 2009
 - escalation of cases RCA with telehealth

Patients at rural sites



- any patient where anxiety /concern
- CEWT 4 + or > 18hrs ad at rural site
 - paediatric telehealth review - “rounds”
- no retrieval without telehealth consult
 - regional paediatrician ...direct contact
 - TEMSU/ RSQ ..can support
 - if not local – other experienced regl paed

challenges



- relieving staff
 - not aware
- inexperienced specialist staff
 - adult ED/ICU ... for paediatrics
 - Junior not consultant
 - unfamiliar with telehealth
- non-regional staff contacted
- Telehealth not seen as required
- connection outside QH

data



- capturing acute consults
 - ED – recording in EDIS ... only few rural sites
 - IPs – relies on far end to put into HBCIS
...result – unreliable at present
- documentation
 - ... OP sheets scan to ieMR

Sustainability



acceptance of guidelines:

- standard of care
- referrals > 50km telehealth
- default for urgent rural enquiries
 - On-call Consultant
- Telehealth before transfer
- rural IP ..>18hrs, sick, IV ...telehealth review
- outreach – funded only if telehealth
- Telehealth targets built into clinician KPIs

Sustainability



- set up vc accessibility at home
 - Movi / jabber video
- junior staff telehealth training
 - Dr for scheduled clinics
 - sit in / fu for acute consults
- audit PTSS – for opportunities
- clinicians & others seen benefit of telehealth
- team based incl chronic illness nurse
 - in with all tertiary consults
 - advocate telehealth

Telehealth & NSQHS standards



1. Governance
2. Partnering with consumers
3. Health care infections
4. Medication safety
6. Clinical handover
9. Recognising /responding to clinical deterioration
11. Service delivery
12. Provision of care
13. Workforce
14. Information management

Summary care for rural children & adolescents



- clinical support
 - timely
 - Telehealth – best means of assessment/ support
- most efficient use of Qld beds
 - minimising unnecessary transfers
- Statewide delivery of subspecialty care
 - Telehealth /outreach clinics
 - through regional general paediatric services

Conclusion

care for rural children & adolescents



- collaboration ... rural drs & regional paed
 - GPs – gen paed - subspecialists
 - CHQ model & projects will advance
- to achieve best & most efficient service delivery
– need to build further innovation

- Telehealth provides connectivity to allow this