



Metro North Hospital and Health Service *Putting people first*

The Kilcoy Connect Project

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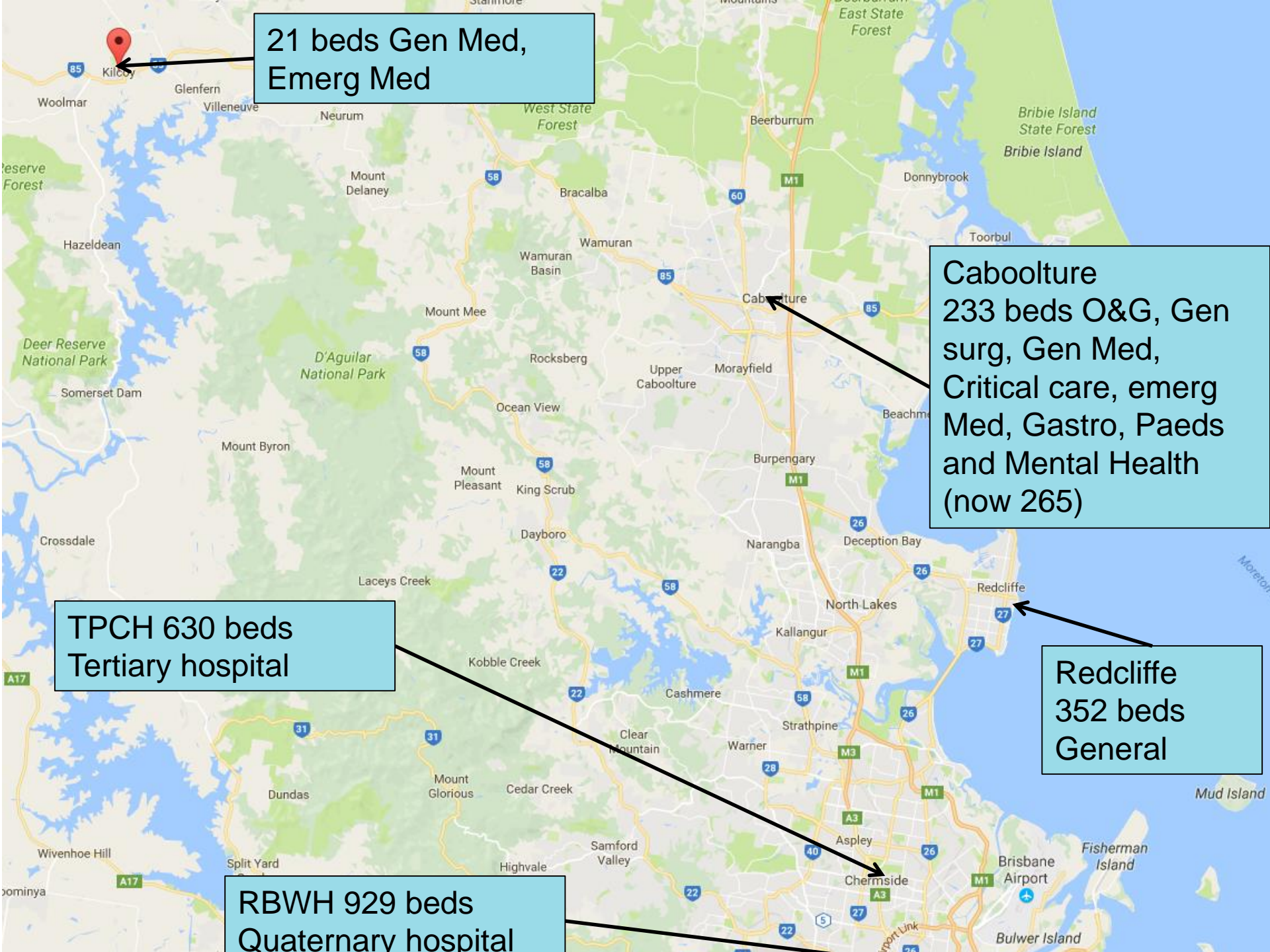
21 beds Gen Med,
Emerg Med

Caboolture
233 beds O&G, Gen
surg, Gen Med,
Critical care, emerg
Med, Gastro, Paeds
and Mental Health
(now 265)

TPCH 630 beds
Tertiary hospital

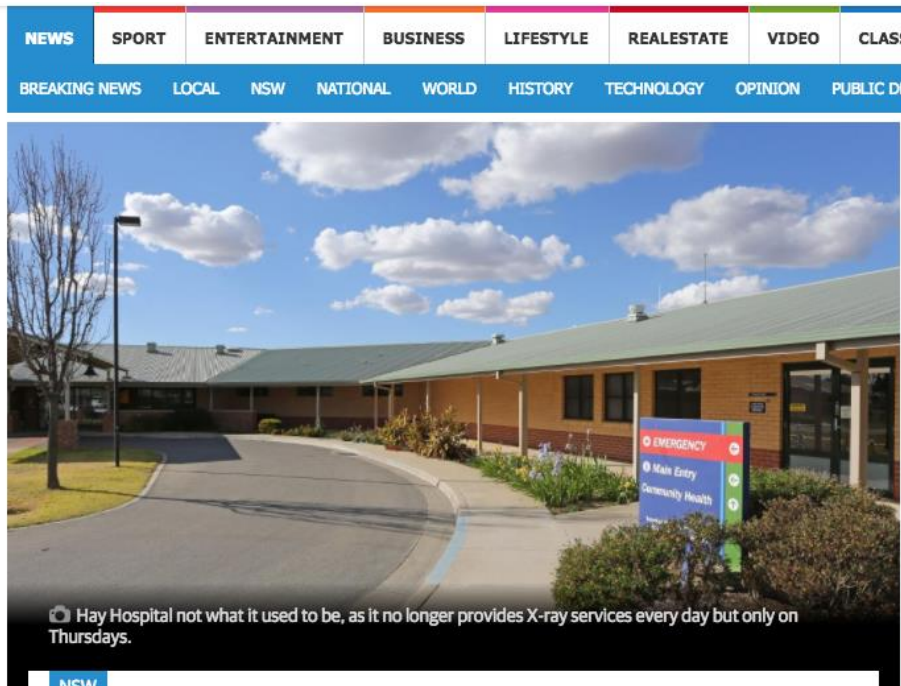
Redcliffe
352 beds
General

RBWH 929 beds
Quaternary hospital



Beds per population

- Total beds = 2,165 to service population of >900,000
- = approx. 2.4 beds per 1,000 population (slightly less than Australian average of 2.5)
- For Caboolture / Kilcoy area – population ~153,000 with 254 beds
- = approx 1.7 beds per 1,000 population
- However fewer conditions can be managed at Kilcoy – therefore many people are transferred to Caboolture or further
- This results in a mismatch and underutilisation of beds in the rural area of the health service
- The Kilcoy hospital was usually at less than 50% capacity



Versus

- Extreme bed pressure
- Early discharges

Comprehensive Geriatric Assessment and Management

What we know is that:

- Older people (>65) represent 41% of hospital admissions in Australia and 49% of patient days ¹
- They are higher risk of deterioration in functional abilities, cognitive impairment, and admission to residential care
- GEMUs ²
 - Reduce mortality
 - Reduce institutionalisation (number needed to treat of 17 to prevent one death or institutionalisation)
 - However no clear benefit on length of stay or re-admission rate
- Short length of stay (<72 hours) increases likelihood of readmission ³
- Specialisation within the ward team (for example, medical, physiotherapy and occupational therapy) is critical to the successful multidisciplinary team outcome

Trial at Kilcoy: February – June 2015

- Kilcoy is a 50 minute drive from Caboolture.
- Provides medical services to Kilcoy & surrounding rural community
- GP's medically manage patients
- Allied Health outreach model
- The SEED Innovation Program funded the trial of a different Allied Health Model of care for Kilcoy, called Kilcoy Connect, with a grant of \$79000.



Criteria for entry

- Frail older patient that required the assistance of at least 1 person, but not 2 people due to limited staffing at night.
- Multiple presentations to hospital
- Complex social situation affecting discharge
- Patient will benefit from rehabilitation and has recommendation from AH team
- Cognition – Patient needs to be able to participate in rehabilitation and/ or benefit from further cognitive assessment.
- Patient needs to be relatively medically stable
- No behavioural management problems

New AH staffing in Kilcoy Connect Trial

Role	Previous FTE	Kilcoy Connect FTE	Total
Advanced Allied Health Practitioner	Nil	0.2 HP5	0.2 HP5
Occupational Therapy	0.2 HP3	0.2 HP4	0.4 HP4
Social Worker	0.2 HP3	0.2 HP4	0.4 HP3/4
Physiotherapy	0.6 HP4	Nil	0.6 HP4
Psychology	Nil	0.2 HP3	0.2 HP3
Clinical Dietitian Food Service Dietitian	0.1 HP3 0.05 HP5	AHA time for meal rounds & MUST screening & interventions via pathways	0.15 HP
Speech Therapy	As required	Dysphasia screening trial as research to be done by AHA shortly	
Allied Health Assistant	Nil	1 FTE 004 AHA	1 FTE
TOTAL	1.15 FTE	1.6 FTE	2.95 FTE

Telehealth

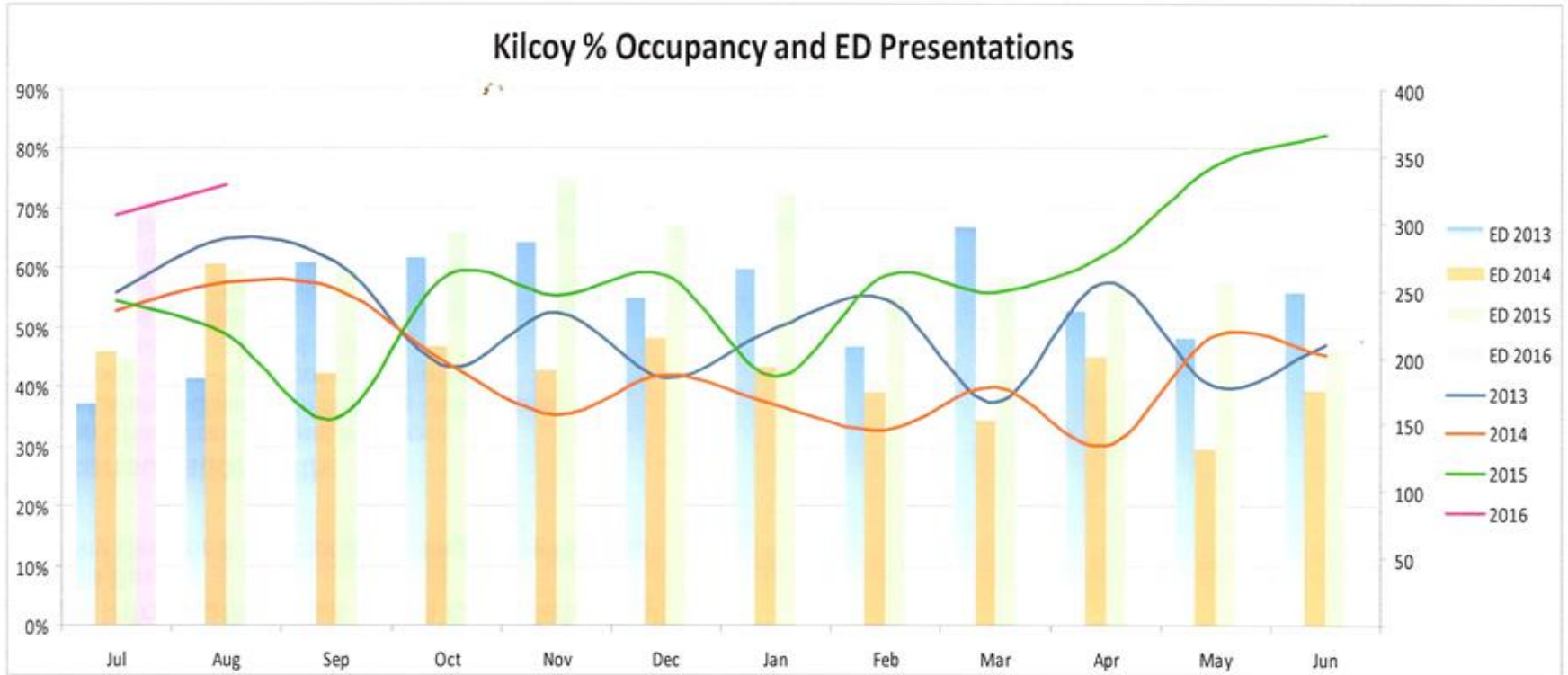
- Geriatrician support was only feasible with telehealth.
- Telehealth Case conferences occurred each week for the GEM patients, with the Geriatrician at Caboolture Hospital (Provider) and the patient/ MDT at Kilcoy Hospital (Receiver).
- The payment received for a medical consult using telehealth was \$350 per patient.
- This was essential to the business case that there was a potential income to support some level of sustainability



Evaluation

- Prospective data collection for people in the Kilcoy trial
- Compared to retrospective matched sample from Caboolture hospital
- Outcomes:
 - Kilcoy occupancy
 - Patient outcomes
 - Discharge destination
 - Services
 - Safety
 - Cost

Bed Occupancy



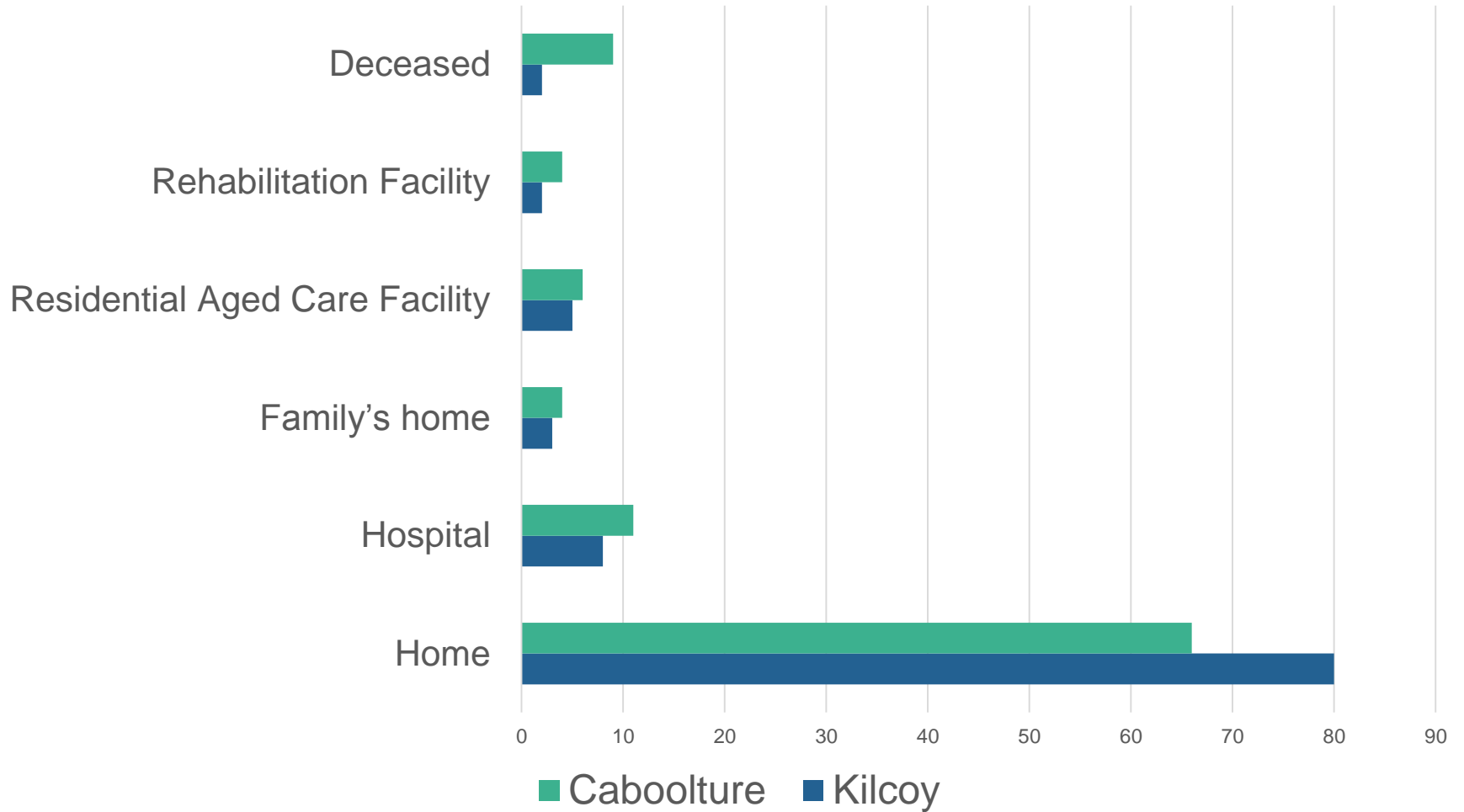
Results

Characteristic (N(%) or Mean (SD))	Kilcoy=93	Caboolture n=48
Female	54 (58%)	23 (48%)
Age	78 (11.8)	79 (12.2)
MMSE score	26.15 (3.3) ^a	25.8 (2.3) ^b
FIM score admission	84.1 (19.5)	70.4 (24.4)
Primary Diagnosis		
Medical NOS	14 (15%)	13 (27%)
Fracture	18 (19%)	7 (15%)
Falls and Deconditioning	20 (22%)	6 (13%)
Respiratory	16 (17%)	5 (10%)
Orthopaedic NOS	16 (17%)	4 (8%)
Neurological	2 (2%)	8 (17%)
Cognition	5 (5%)	3 (6%)
Cardiac	2 (2%)	2 (4%)

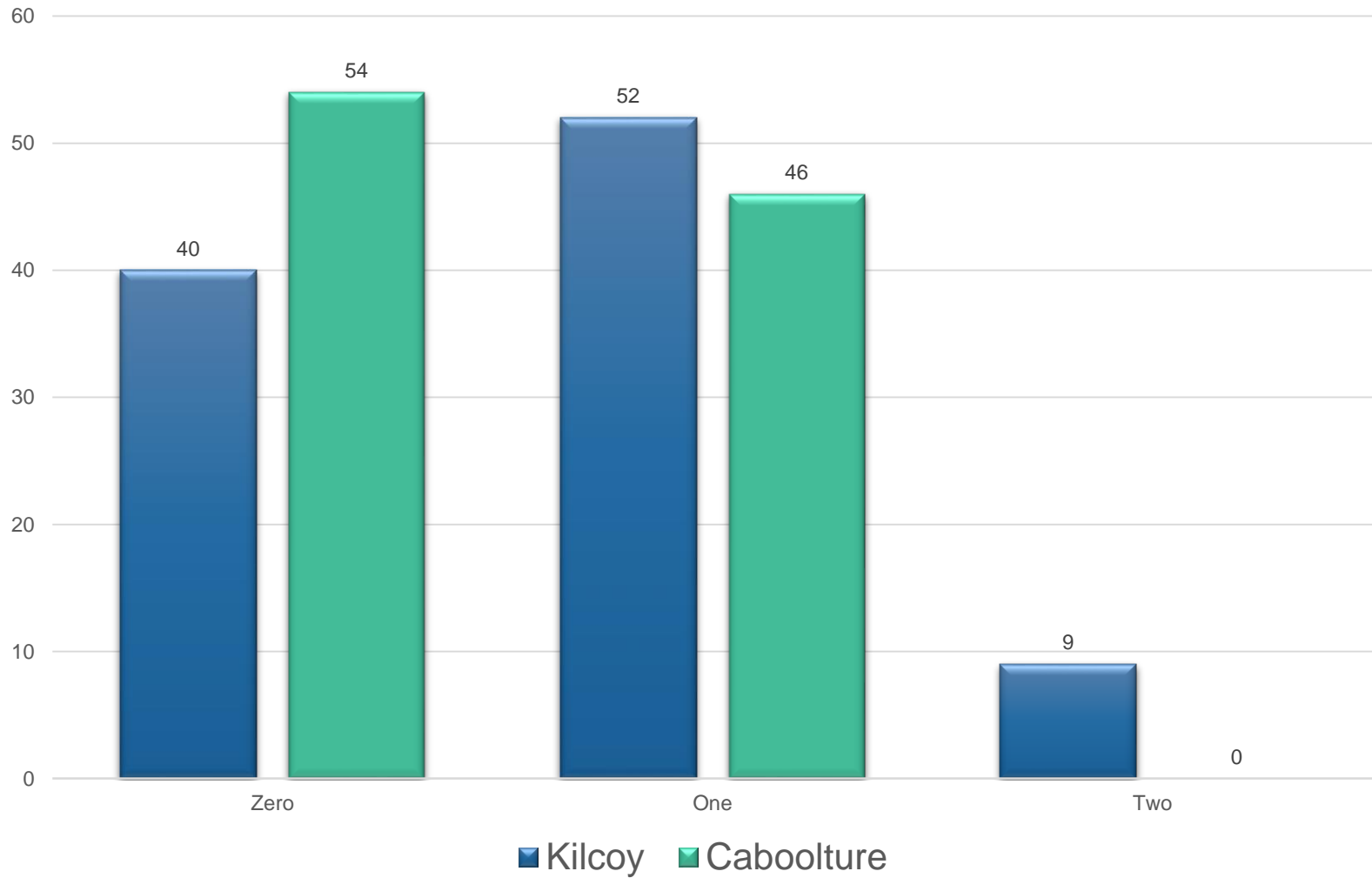
Outcomes

Outcomes	Kilcoy	Caboolture
Length of stay	14.39 (10.20)	15.29 (8.86)
FIM Difference*	17.85 (13.98)	16.5 (16.14)
Category of improvement		
Decline/ no improvement (≤ 0)	5 (5.43%)	5 (10.42%)
Improvement ($1 \leq 21$)	58 (63.04%)	26 (54.17%)
Clinically significant improvement (≥ 22)	29 (31.52%)	17 (35.42%)
Patient goals achieved (yes)	77 (91.67%)	34 (80.95%)

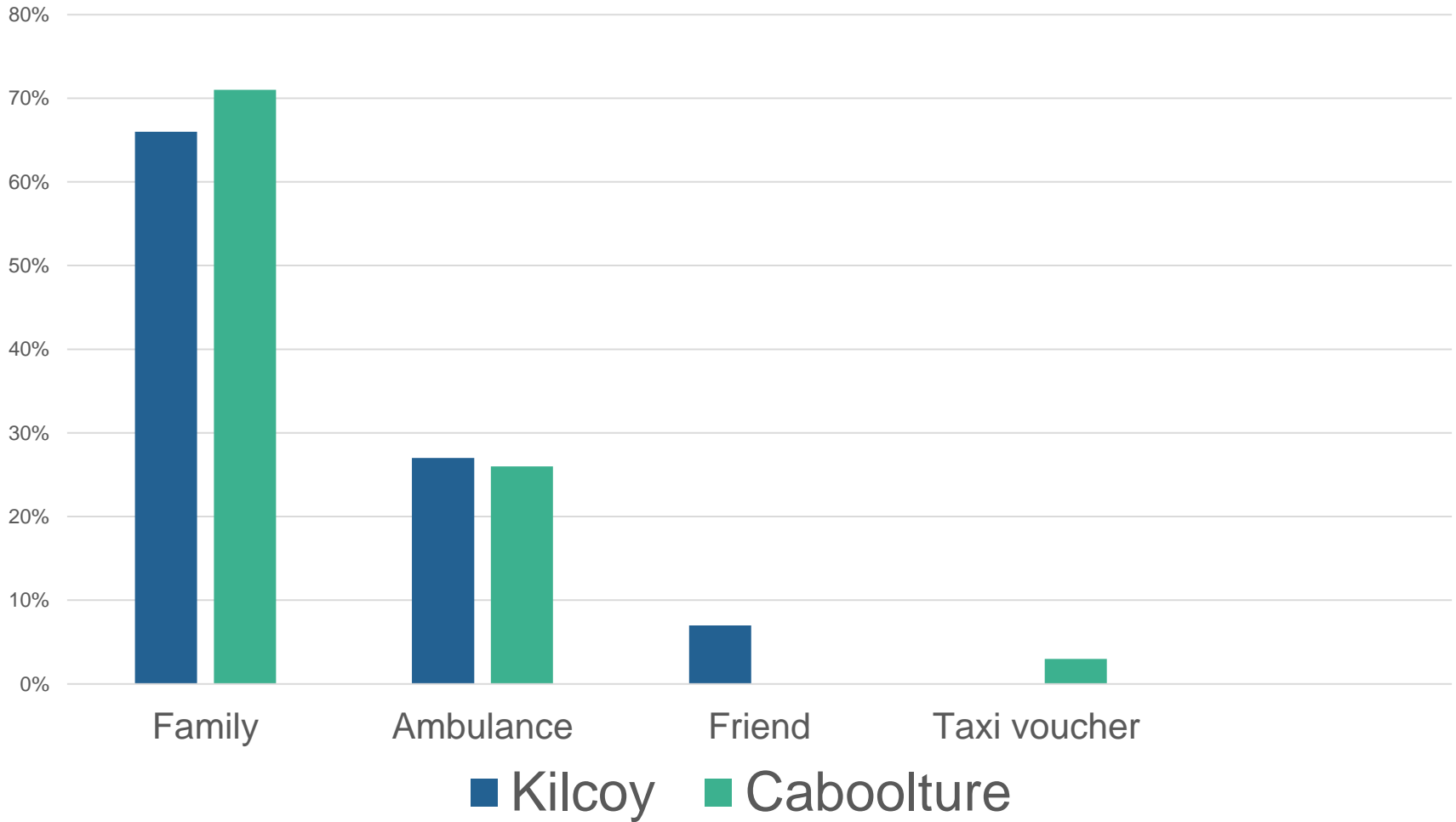
Discharge destination



Services on discharge



Mode of transport



Resource Use

Allied Health Interventions	Caboolture	Kilcoy
Social worker	2.45 (1.30)	2.46 (1.47)
Speech pathologist	3.44 (3.67)	1 (0.00)
Dietician	2.23 (1.49)	1.64 (1.17)
Psychologist	1(0.0)	1.68 (1.28)
Occupational therapist	3.69 (1.83)	2.99 (1.63)
Physiotherapist	4.59 (3.22)	3.08 (2.11)
Allied health assistant	5.75 (3.55)	7.98 (6.94)
Medical Consultations by Telehealth		
Mean (SD)	n/a	2.22 (1.40)
Number of consults	2	198
Number of patients	1	89

Costing

- Costings were obtained from the costing unit of the health service to compare costs per bed day for GEMS patients in Caboolture and Kilcoy. All patients classified as GEMS were included for a one year period (2016).
- The average cost per bed day was
 - \$1,116 for Caboolture
 - \$1,136 for Kilcoy.
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Breaking down the barriers: Solution Focused

- Able to maintain the rural workforce and hospital
- Medical service now established
- Education videos created
- Staff training delivered



Questions?

