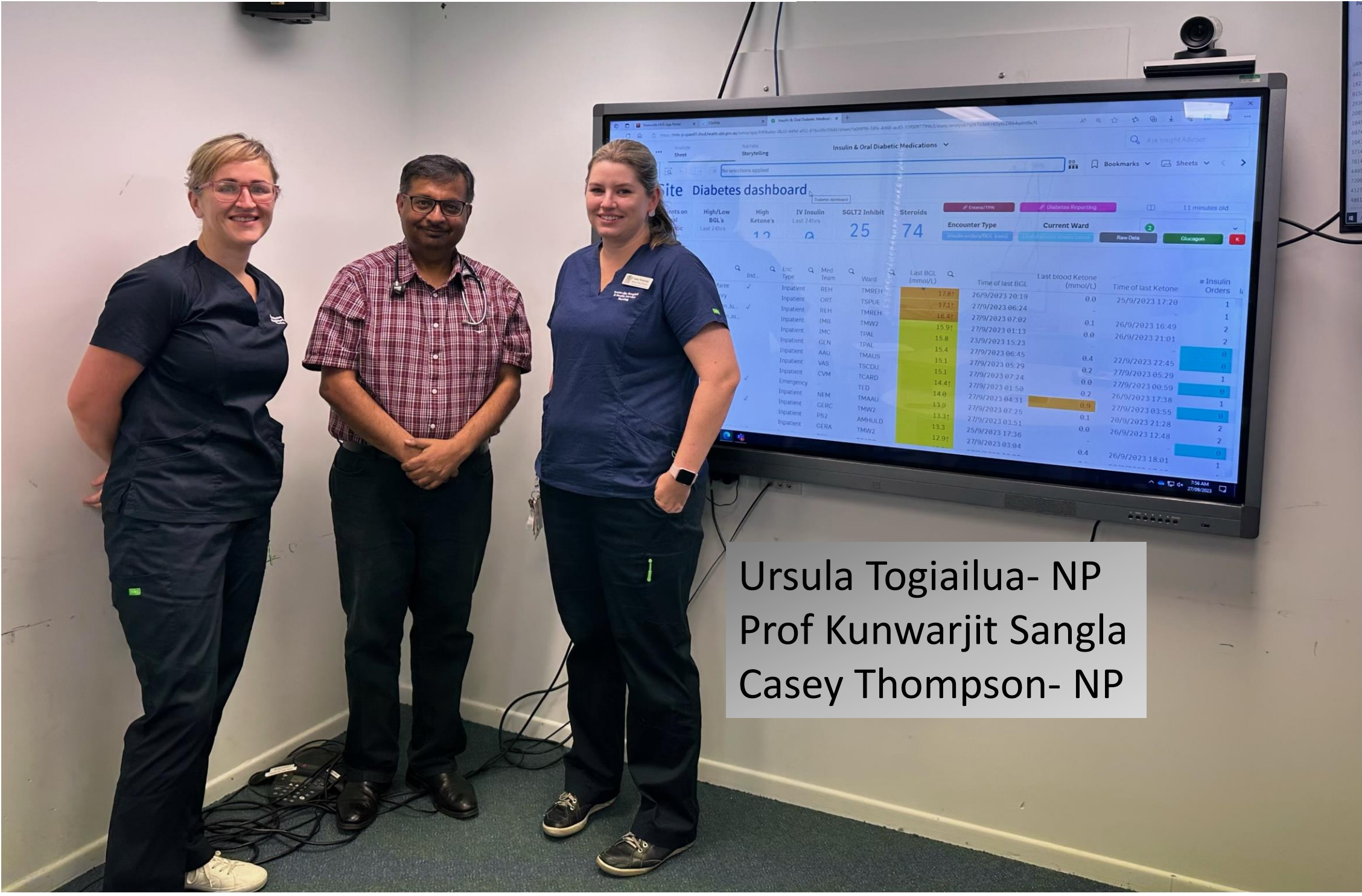
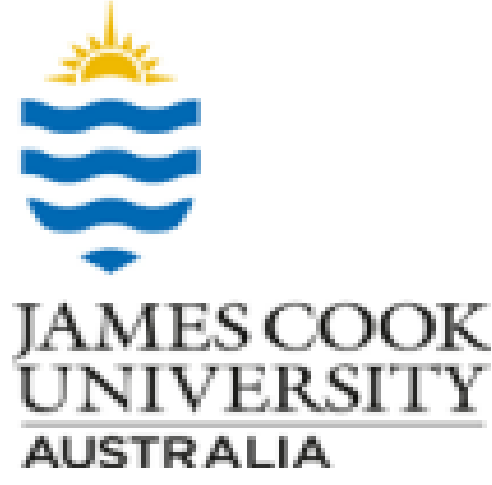


Nurse Practitioners lead the way!

The Diabetes Dashboard Townsville University Hospital

Ursula Togiallua NP (presenter), Casey Thompson NP, Jody Gallagher ieMR., David Hunter Clinical Informatics, Prof Kunwarjit Sangla



Ursula Togiallua- NP
Prof Kunwarjit Sangla
Casey Thompson- NP

Key Problem

Glycaemic excursions and diabetes medications especially insulin in an inpatient environment is a challenge. Inaccuracies in high-risk medication use increases morbidity and mortality lengthening hospital stay (Umpierrez et al., 2002).

On implementation of the electronic record medication prescribing system (2018/19), it was noted that there was a 200% increase in reported insulin related clinical incidences In the Townsville University Hospital, however the ieMR system also gave opportunity for innovation in this space, using real-time data to intervene and reduce these incidents.

Aim of this Innovation

- Improve safety in prescribing & administering of Diabetes medications,
- Use real time data to actively treat glycemic excursion
- Reduce diabetes related Hospital Acquired Complications (HACs)
- Provide ongoing teaching & training about Diabetes management.

Baseline Data/Current Situation

- 200% increase in insulin related ‘risk man’ reports, after the implementation of ieMR
- Queensland inpatient Diabetes Survey 2019 showed average stay of 26.6 night for patients with Diabetes, Average 2.3 “good” glycemic days, specific insulin errors and missed insulin management opportunities

Key Changes Implemented

- Development of the Diabetes Dashboard ‘DD’- with revisions as clinical need dictated- implementation 2019. Daily MDT meeting reviewing the data
- Nurse Practitioner led MDT and model of care with real time clinical intervention and diabetes advice, diagnosis, prescribing and discharge advice- advice pre-emptively offered to treating team
- Developing contemporary education modules, evaluation of our population has shown a distinct lack of education in acute to primary diabetes care
- Changes made to Statewide Hyperkalaemia treatment protocol as escalated and raised by the DD as a high risk for hypoglycaemia event ending in potential harm

Outcomes thus far

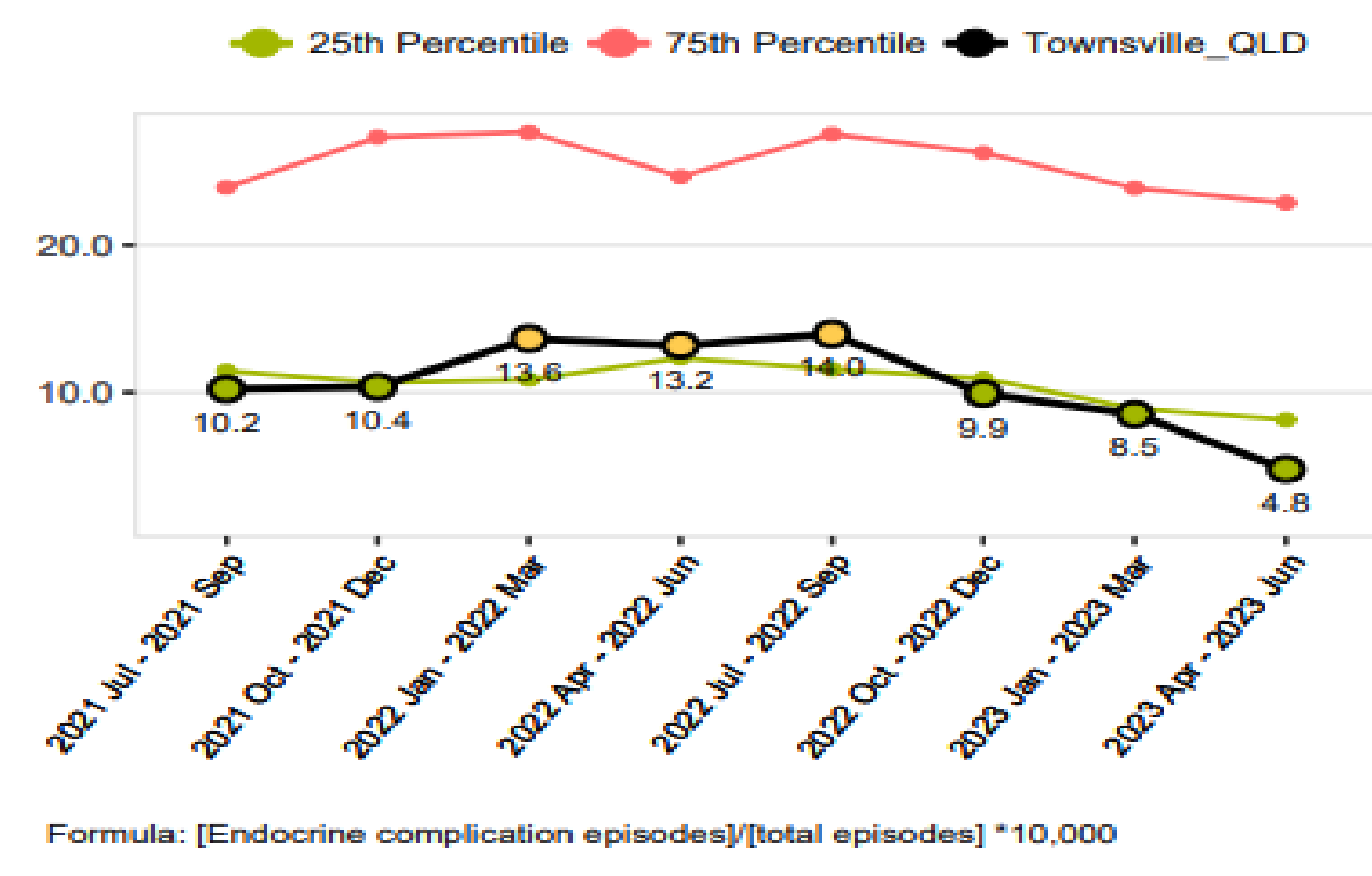
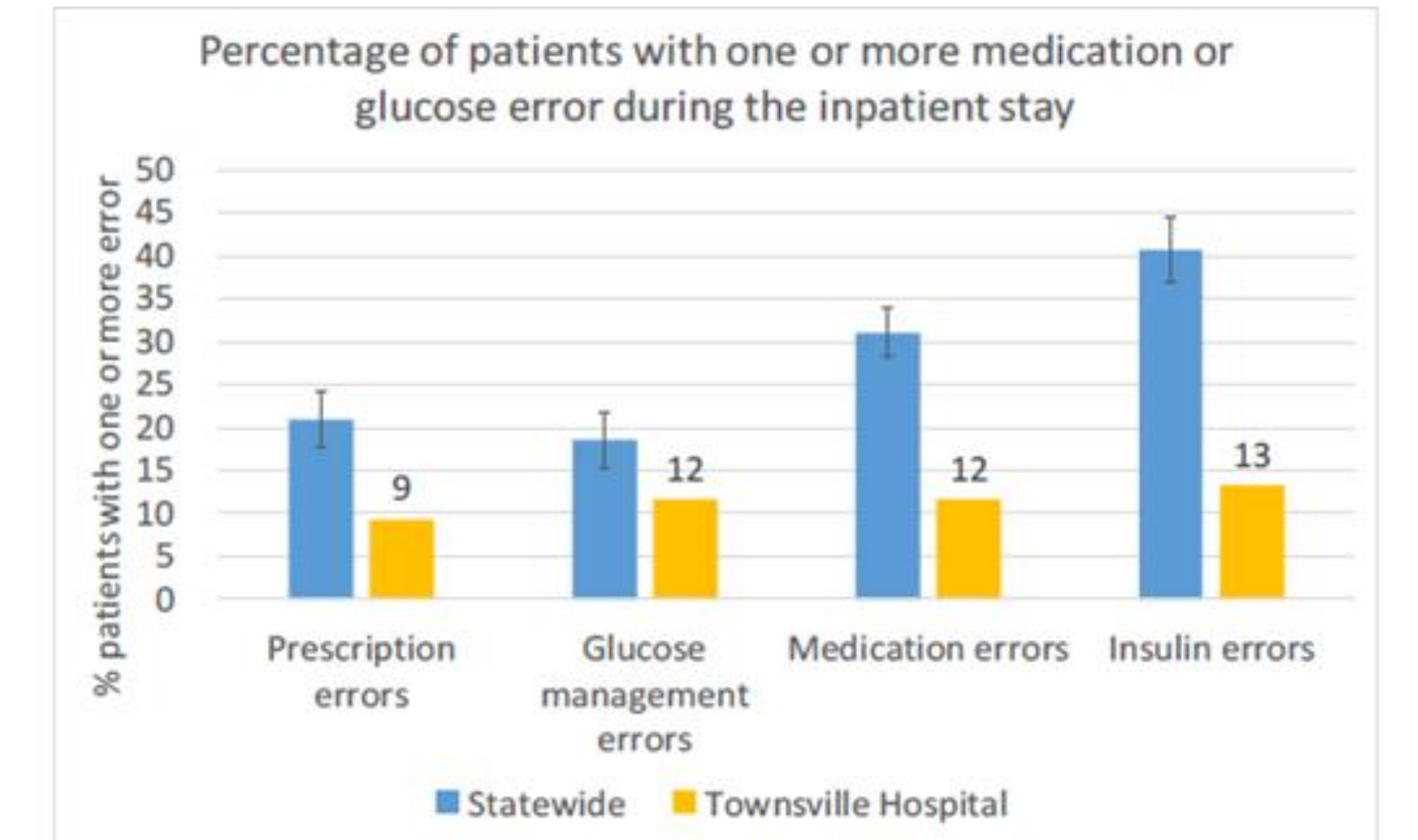
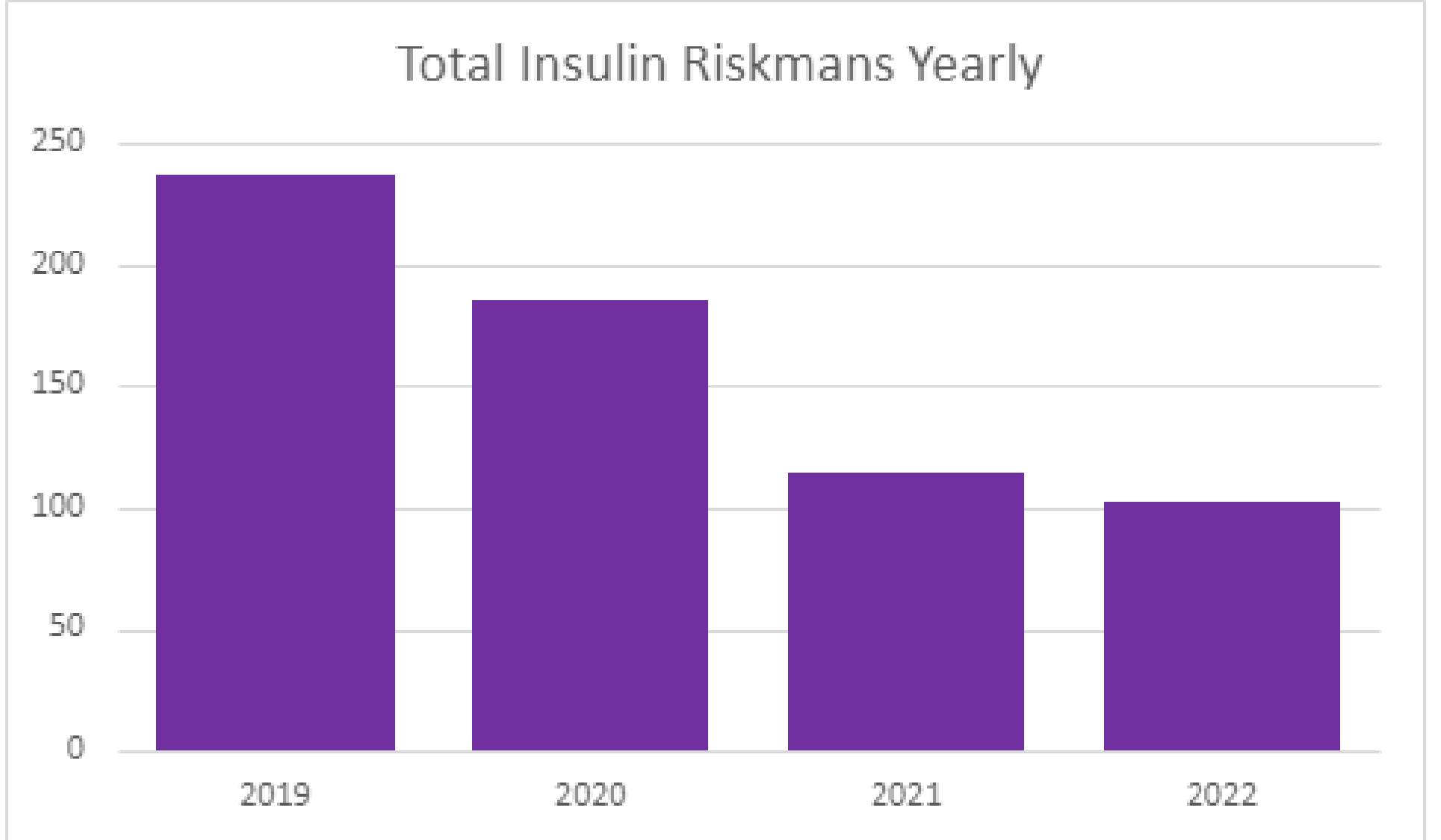
- Increased oversight of Diabetes management at TUH,
- Identification of hypoglycaemia in non diabetes and diabetes pts after treatment of hyperkalaemia with insulin
- Sustained reduction in hypoglycaemia related Hospital Acquired Complications (HAC’s),
- Sustained reduction in insulin related clinical incidence- risk man reports,
- Improved “good diabetes days/100 patient days”,
- THHS has consistently performed in close alignment with the 25th percentile for endocrine complications over the past 2 years. (see Health Round table 2023)
- Access by acute care teams to the dashboard team for advice in acute clinical care

Lessons Learned

- Recurrent severe hyperglycemia and hypoglycemia can be preventable
- Direct expert supervision, education and mentoring in the diabetes space is invaluable to all cohorts of clinical staff- diabetes in the acute space is complex But needs consistent input.
- Change requires consistent application of same intervention- involving the clinicians affected by the change, feedback allows for acceptance of the change.
- A seven-day service is essential for the support of staff in acute clinical areas, and will reduce acute bed day stay

Diabetes Dashboard

Nurse Practitioner



Health Round table data- THHS is the solid data line