

Project CODA - Care Of Diabetics who are Admitted

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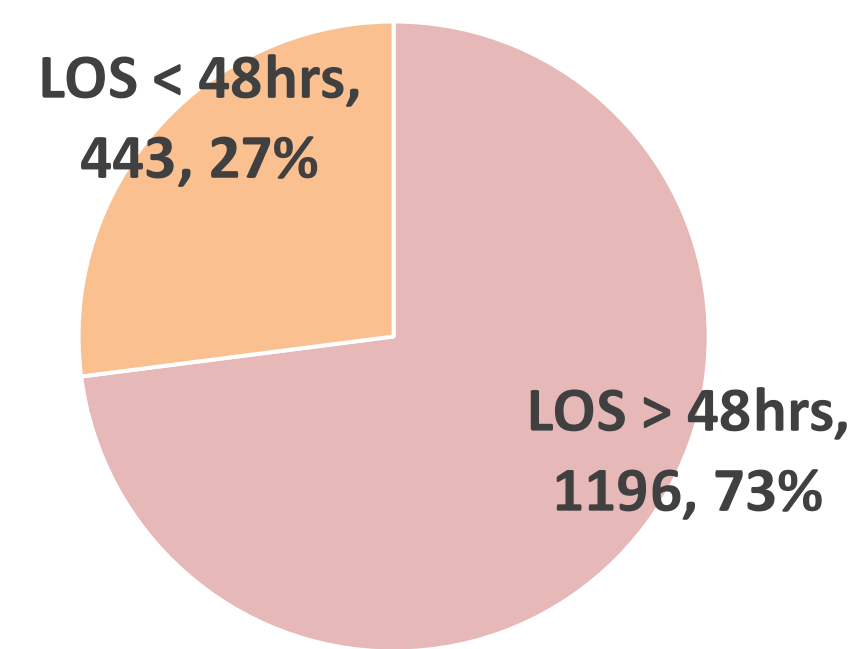
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Background

Patients with *diabetes-related conditions account for a significant proportion of patients admitted to our hospital. Some of these patients end up staying less than 48 hours in hospital.

If they had been discharged or were admitted to the Emergency Department observation unit (EDTU) instead, a precious inpatient bed could have been freed up, resulting in cost savings for the hospital.

DM Patients admitted in FY22



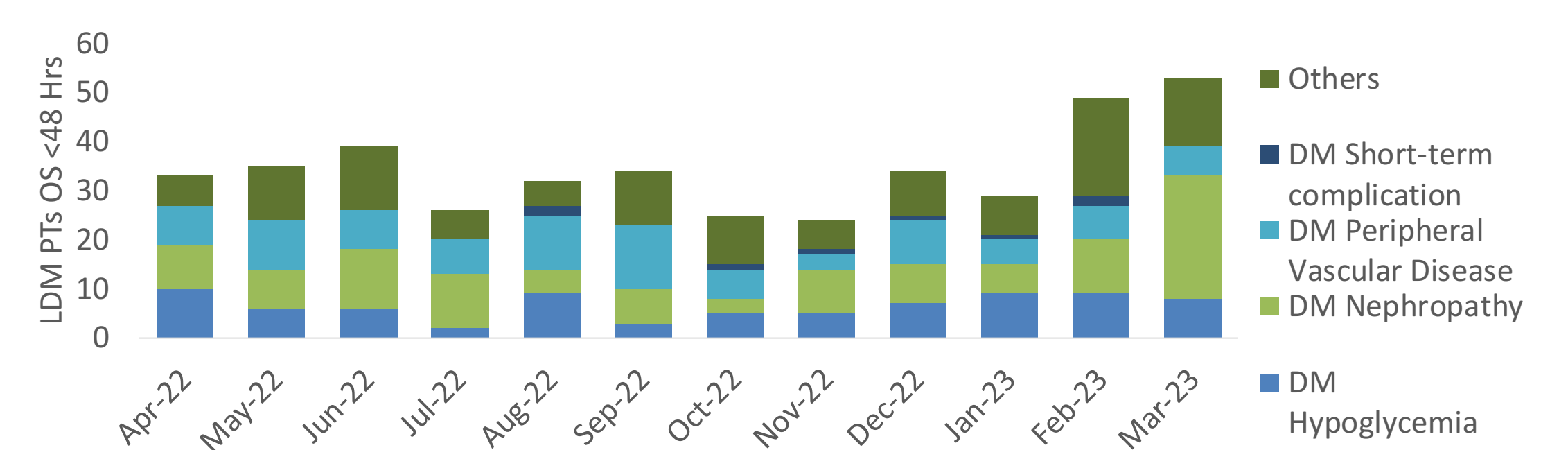
Aim

1. To decrease the number of patients with *diabetes related conditions admitted inpatient and staying for less than 48 hours from 1st February 2023 to 30th September 2023.
2. To increase the utilisation of EDTU Hyperglycaemia and Hypoglycaemia protocols during the same period.

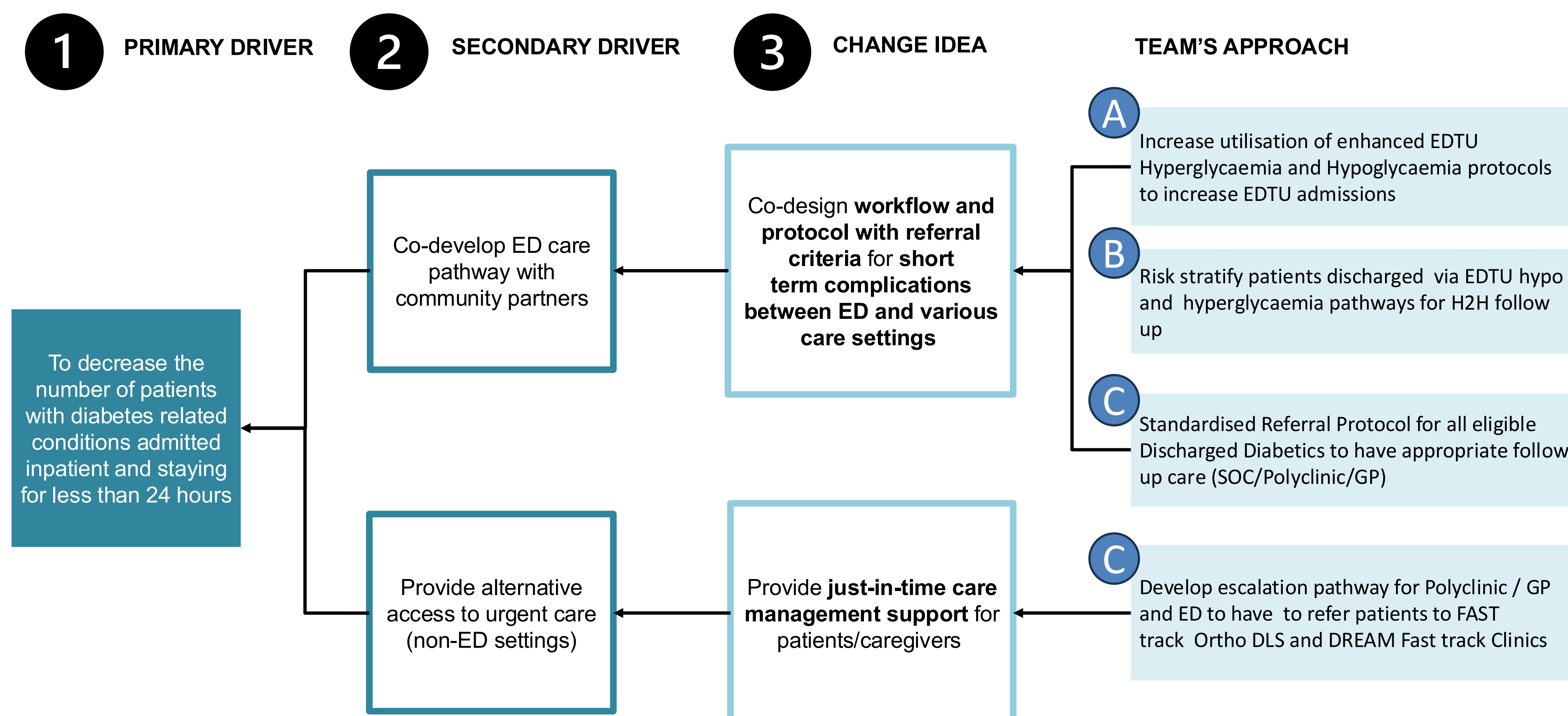
***Diabetes related conditions** - fluid overload, hypoglycaemia, hyperglycaemia, diabetic foot and vascular complications

Methodology

Monitoring of the number of diabetic patients admitted inpatient and who stayed for less than 48 hours was retrospectively performed on a monthly basis. Monitoring of the diabetic patients admitted to EDTU and their outcomes (Turned inpatient, Discharged from EDTU) was performed as well. All of these admissions were audited for reasons leading to their inpatient admissions instead of being discharged or admitted to EDTU.



A survey was also carried out amongst departmental doctors to elicit and address the underlying reasons for inpatient admissions and under-utilisation of EDTU hyperglycaemia and hypoglycaemia protocols. There was low awareness amongst ED Senior and Junior staff about hyperglycaemia and hypoglycaemia protocols, perceived need for patients to be managed with inpatient interventions (i.e. DNE counselling, Endocrinologist review) not available in EDTU, knowledge gaps pertaining to management of hyperglycaemic and hypoglycaemic patients on multiple hypoglycaemic agents, and lack of knowledge about other alternatives to inpatient admissions such as outpatient fast track clinics.



Brainstorming with the driver diagram was done to elicit the following interventions which were implemented:

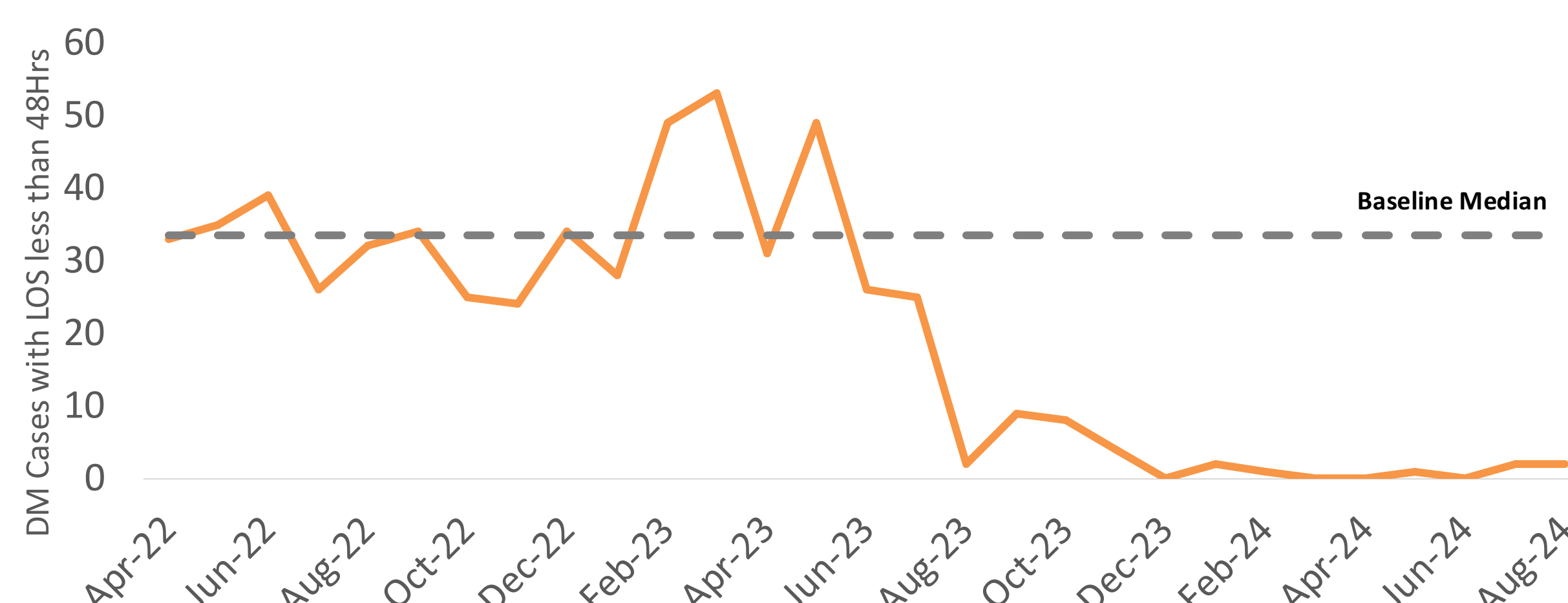
- A. Departmental teaching to improve the awareness and confidence amongst senior and junior doctors in managing hypoglycaemia and hyperglycaemia in EDTU**
- B. Collaborating with Diabetic Nurse Educator, Hospital to Home Nurse and endocrinology APN to further refine EDTU Hypoglycaemia and Hyperglycaemia protocols.**
- C. Developing and highlighting alternatives to inpatient admissions for diabetic patients (i.e. f/u with LINK GP, OPS, fast-track Diabetic APN clinic, DREAM Clinic).**

Results

The number of patients with diabetes-related conditions admitted inpatient and who stayed for less than 48 hours was significantly reduced at post September 2023 compared to the baseline median of 34 cases.

There was also increased utilisation of EDTU hypoglycaemia and hyperglycaemia protocols (5 in September 2023 compared to 2 in February 2023) during and following the study period following the change interventions.

1425 inpatient admissions were avoided from Apr'22 to Sep'24. Based on a median ALOS per case type of 3.2 days and cost per bed day of 470\$, it is estimated that this project helped saved a total of \$ 2,147,475.



Conclusion

Right Siting Admitted diabetics requires a multi-pronged approach and continual reminders to junior and senior staff are needed for change.

Strong support by the Diabetic Nurse Educator (DNE), Endocrinologists and H2H nurse will help increase buy-in by ED clinicians to discharge or admit appropriate patients to EDTU rather than the inpatient wards.