



Prince Sultan Military Hospital Taif - Saudi Arabia



Implication of Lean Kanban Pull Methodology for Improving Patient Experience, Quality of Care and Reducing Waste of Appointment in Diabetes Clinics

Fahad Omari, Maram Aljouidi, Mahmoud Osama, Bassam Alzaidi, Ahmed G. Newera, Marvi Macavinta, Latifa Al Gethami, Aisha Al Thubaiti, Hania Al Thubaiti, Alfaida Atiullah, Jhosabeath delo virges, Oryza Penuliar, Hussein R. Barnawi, Nawaf Almutairi, Mashoor Al Nemari, Othman Alhassani.

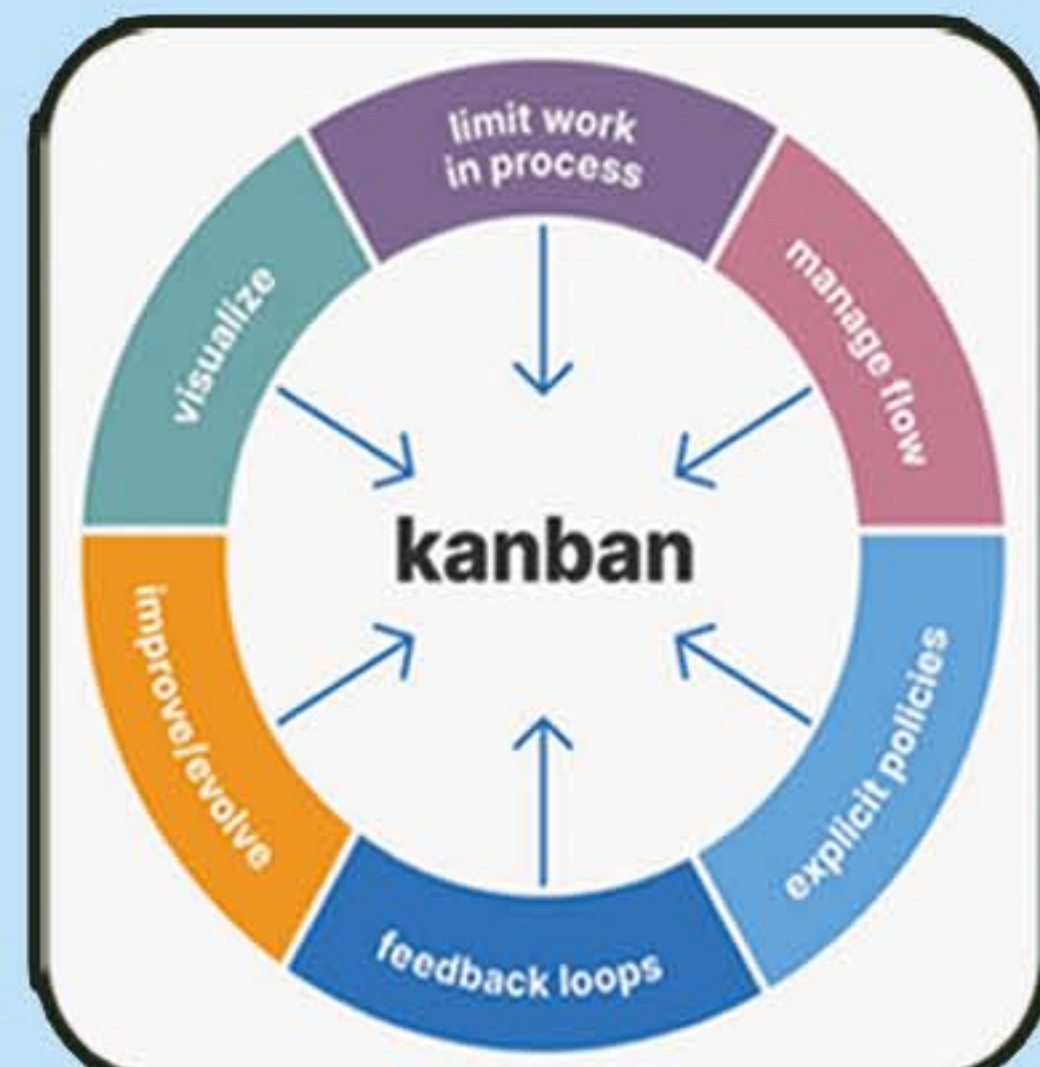
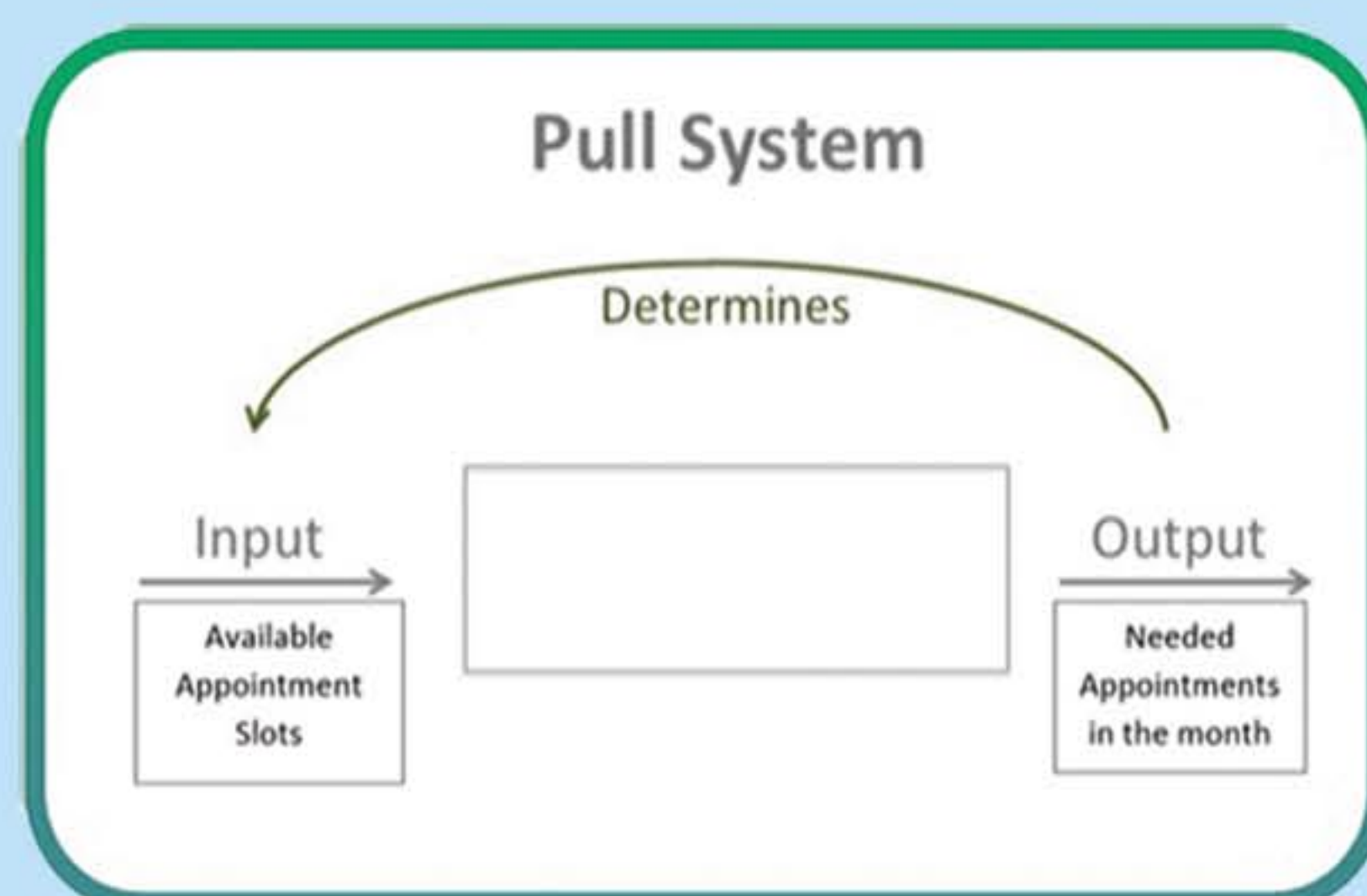
Background

Booking in the Chronic Illness Clinic for Diabetic patients was based on the nearest available appointment for new patients. The follow-up patient was scheduled after 3-6 months, according to the hba1c control. The time for the visit was 20 minutes for all patients. Patients who miss their appointments and come to reschedule another which is usually given as the nearest available appointment overwhelm the appointment system, affecting the availability of appointments for all patients. The result was poor control of patients' diabetes $HbA1c > 9$ to 21% in (January, 2021), bad patient experience and waste of resources.

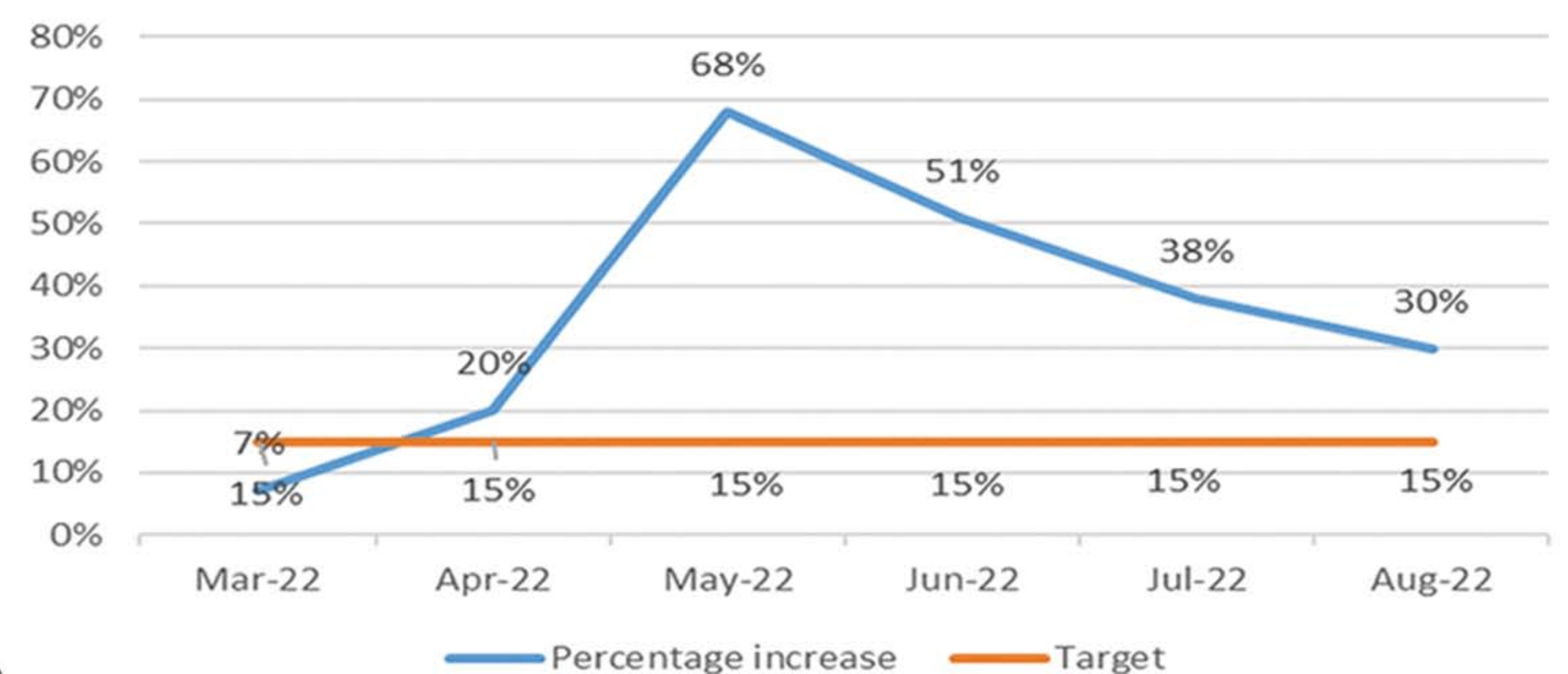
Aim

To improve the attendance of diabetic clinic appointments, improve the quality of visits, reduce the overall waste of appointments.

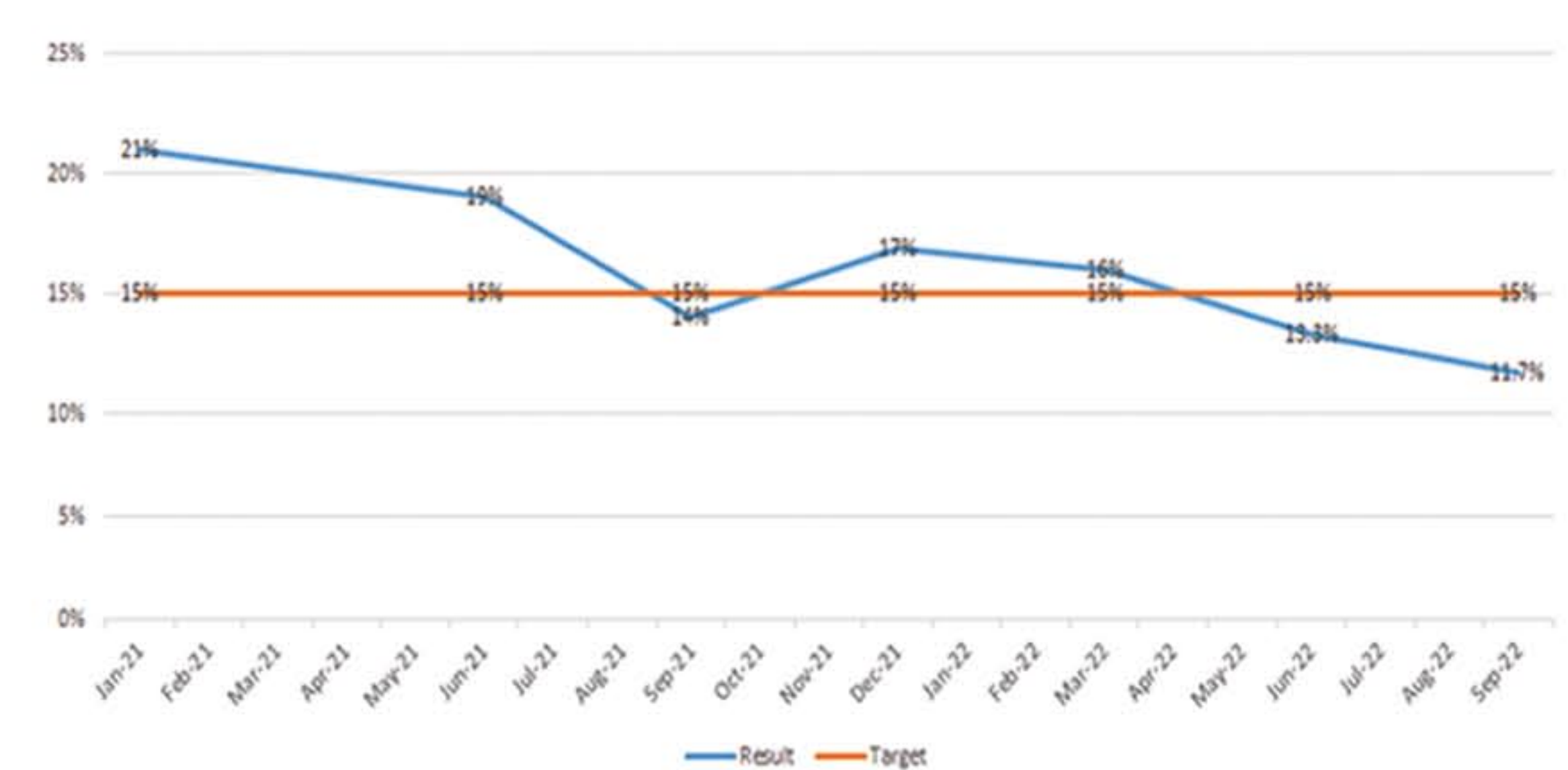
Methodology: Lean Kanban Pull



Percentage of Increase in Appointments post Intervention in comparison to Standard method

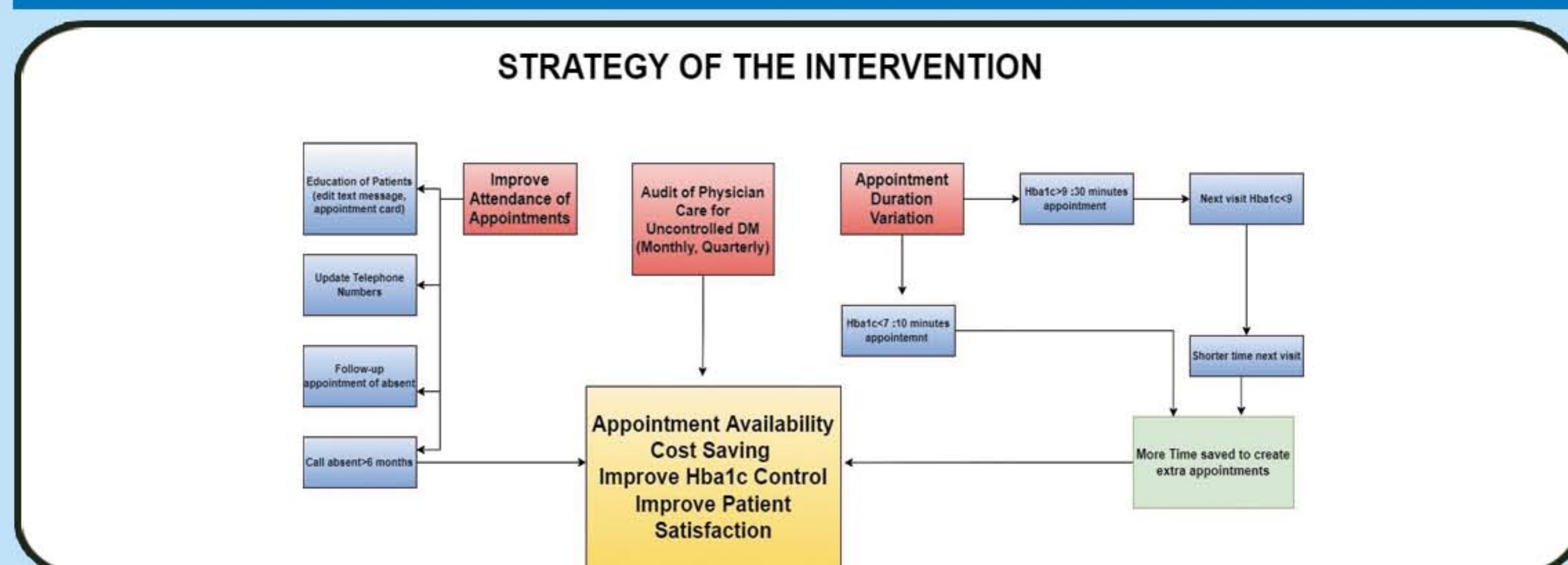


Percentage of Patients with uncontrolled Hba1c > 9



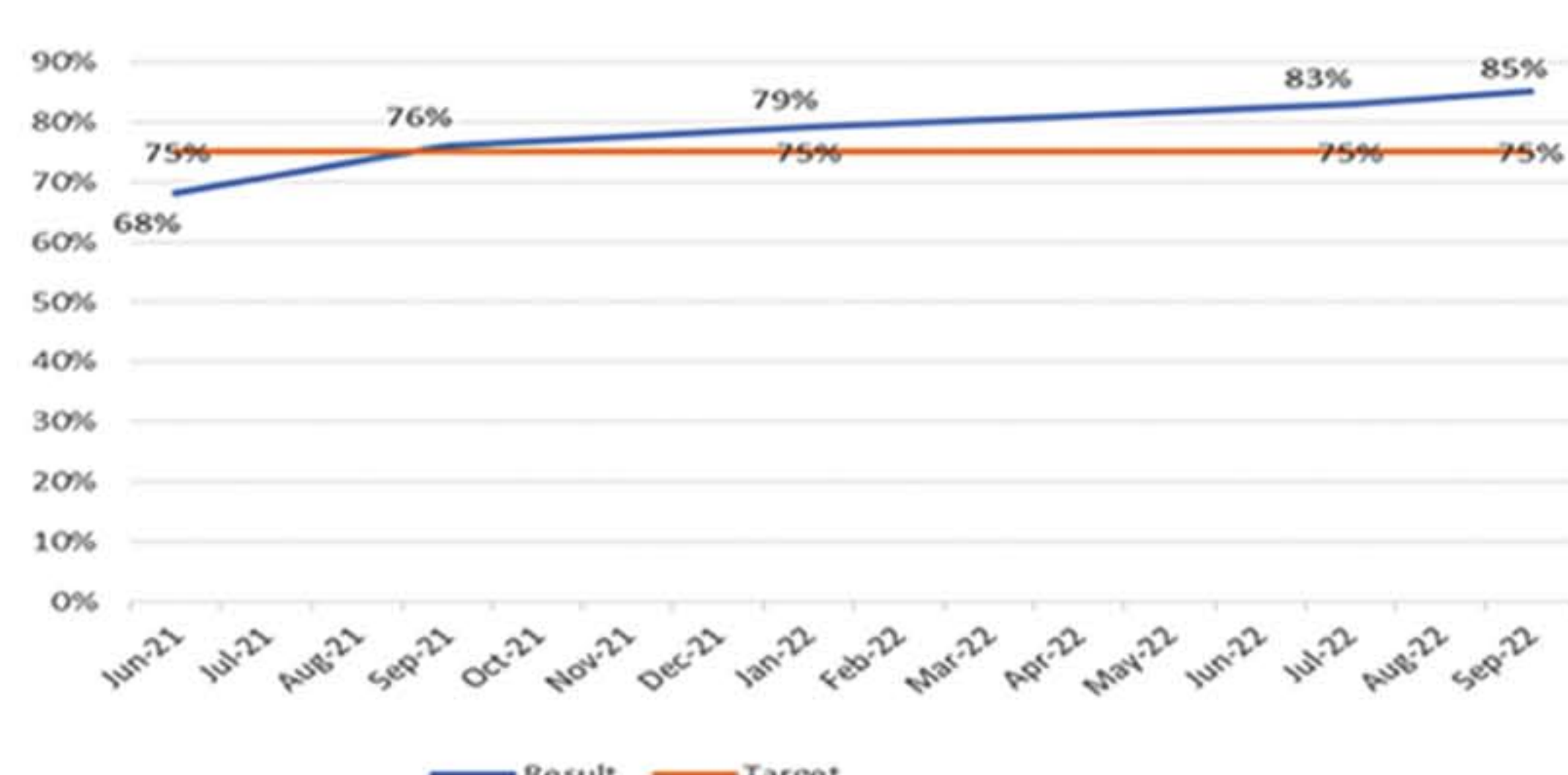
45% of patients who have hba1c above 9 and given 30 minutes appointment, had their Hba1c reduced to below 9 with average reduction of hba1c 3% over the last year. Patients with $HbA1c < 7$ has not been affected by reduction of their clinic time to 10 minutes, instead there was reduction of average Hba1c from 6.6% to 6.2% (6% improvement) over the past year.

Action taken



Results

Percentage % of patients who have been seen once over the past 12 month



Next step:

- 1- Implement this project on a broader scale of patients
- 2- Study the implementation of different chronic illnesses managed as OPD basis, like Hypertension and Hypothyroidism.
- 3- Introduce more variables in the Registry with different applications to improve further the quality of care.
- 4- Study the possibility of Implementing this methodology to be built into an Automated IT system of appointments that uses artificial intelligence to direct it to more advanced data analysis applications.

Summary:

Improving the appointment system through the Lean Kanban pull methodology has markedly improved the overall quality of care and patient satisfaction and reduced appointment waste in diabetes clinics, recommending implementing it on a broader scale and different chronic illnesses managed on an OPD basis.