Te Whatu Ora
Health New Zealand

Enhancing Diabetes Clinic Attendance for High-Risk Patients in Community-Based Settings

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Te Whatu Ora
Health New Zealand
Te Toka Tumai Auckland

The Problem

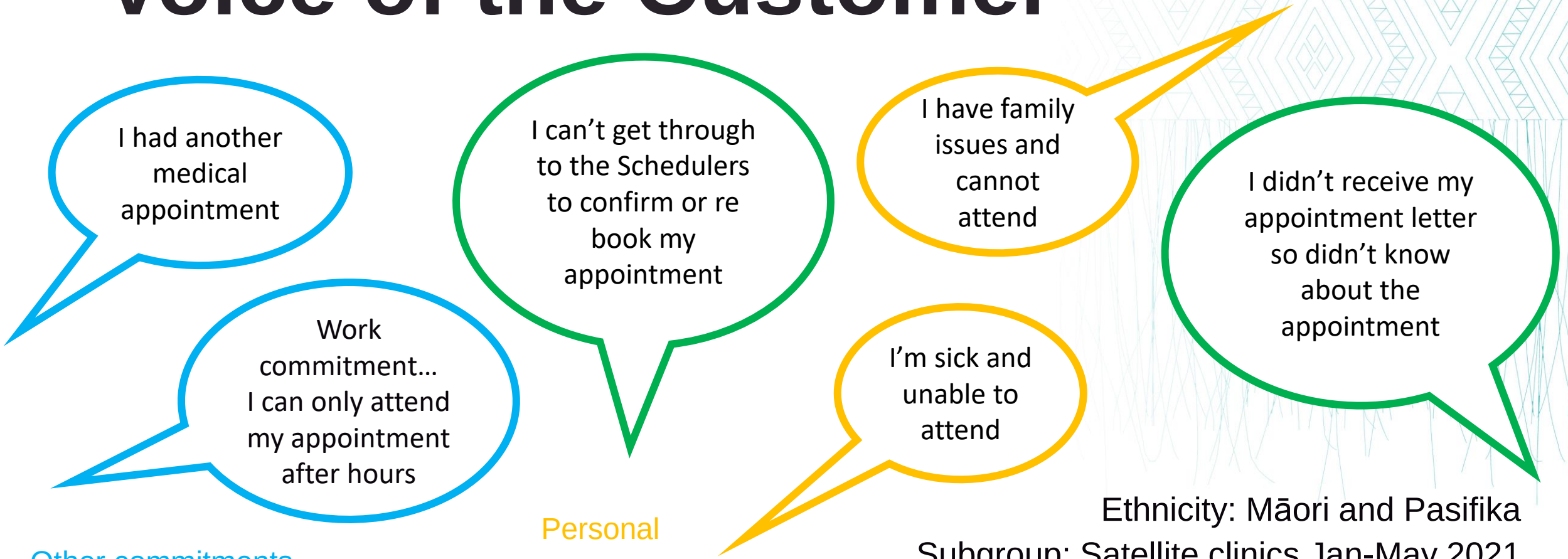
Problem statement

- The **missed appointment rate** or **'DNA'** for the diabetes satellite clinics is 30% *(Māori 39%, Pasifika 43%)*.

- This is having a significant impact on the health of our high needs patients and increase risk of developing diabetes complications, especially within the Māori and Pasifika population.

- Goal is 70% reduction = 9% DNA rate, same target for Te Toka Tumai.

Voice of the Customer



Ethnicity: Māori and Pasifika

Subgroup: Satellite clinics Jan-May 2021

N=120 attended clinic

N=41 Didn't attend clinic

Total DNA Rate – 41/120 = 34%

**Only 8 out of 41 of those who did not attend has an email address on the system*

Creating Urgency - Diabetes

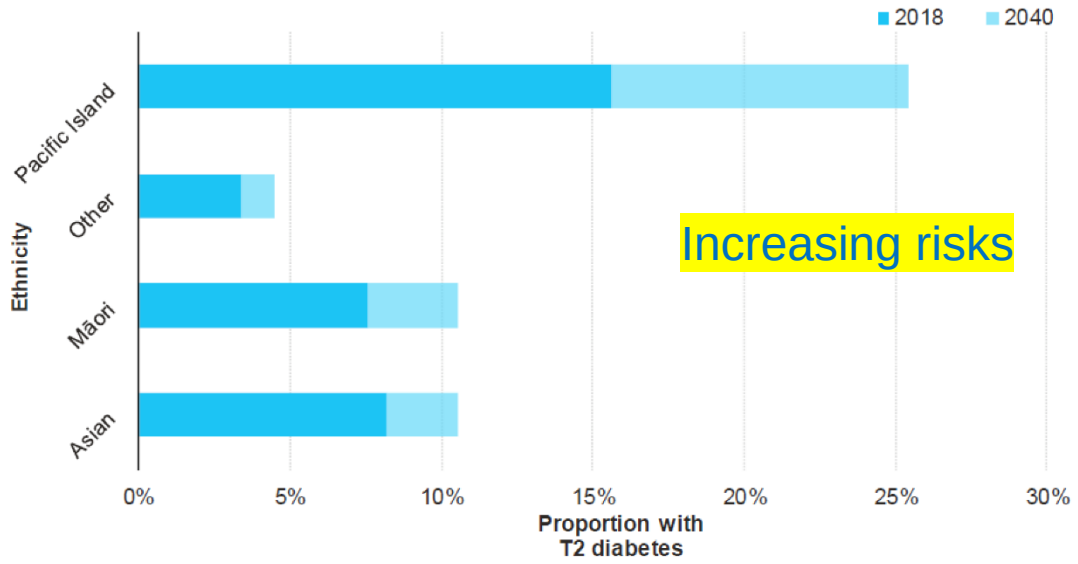
Number of Kiwis with diabetes doubled in past 10 years

Increasing prevalence

'Urgent priority': Dire diabetes price tag expected to blow out to $3.5 billion a year by 2040

Increasing costs

Figure 3: Estimated prevalence of type 2 diabetes by ethnicity (2018 and 2040) – Age standardised



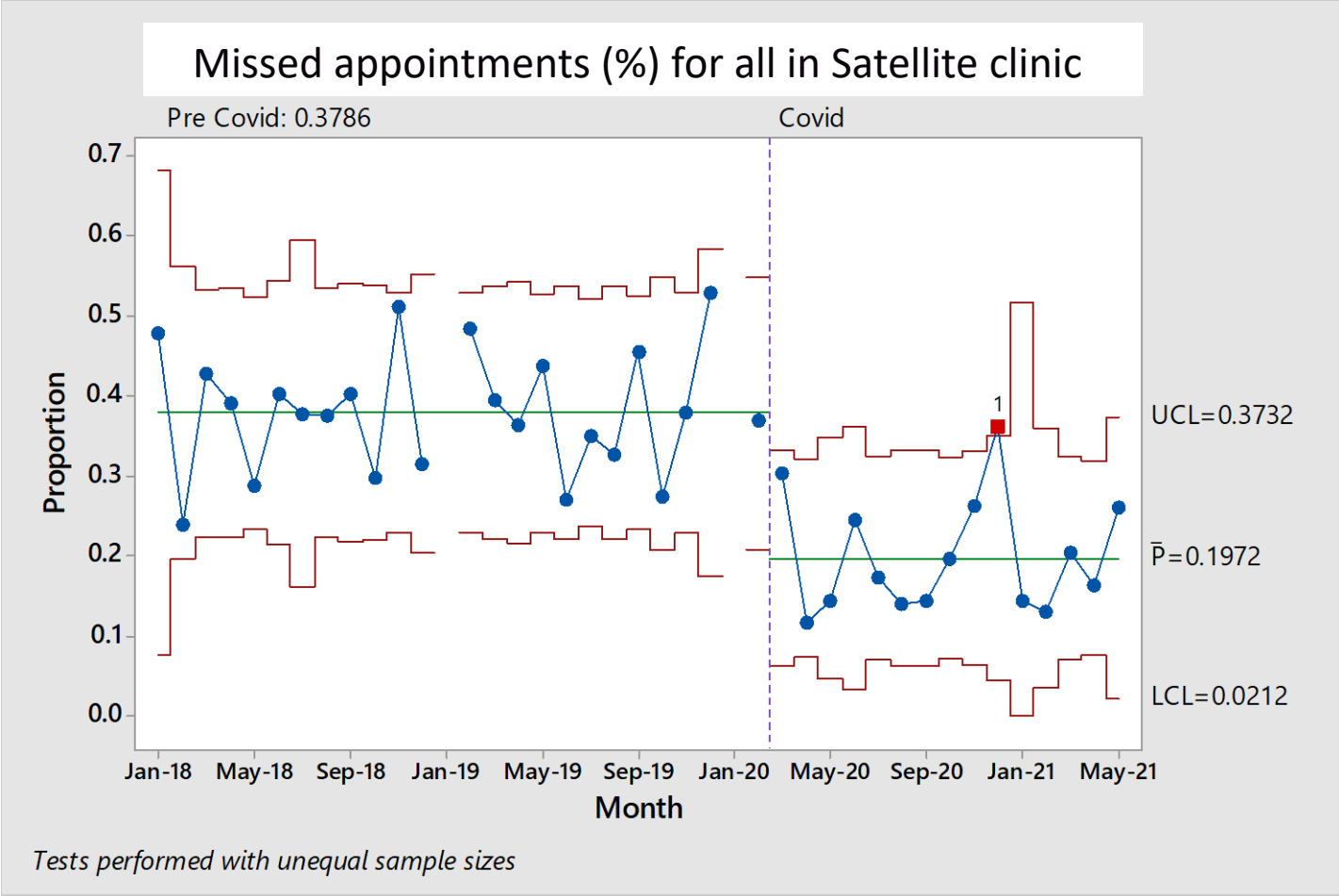
Increasing risks

Barriers

https://www.nzherald.co.nz/nz/urgent-priority-dire-diabetes-price-tag-expected-to-blow-out-to-35-billion-a-year-by-2040/UHKIZYODPXACGS7Q6IEQSKFQVM/

Baseline Performance

Data has been collected for the period January 2018 – May 2021

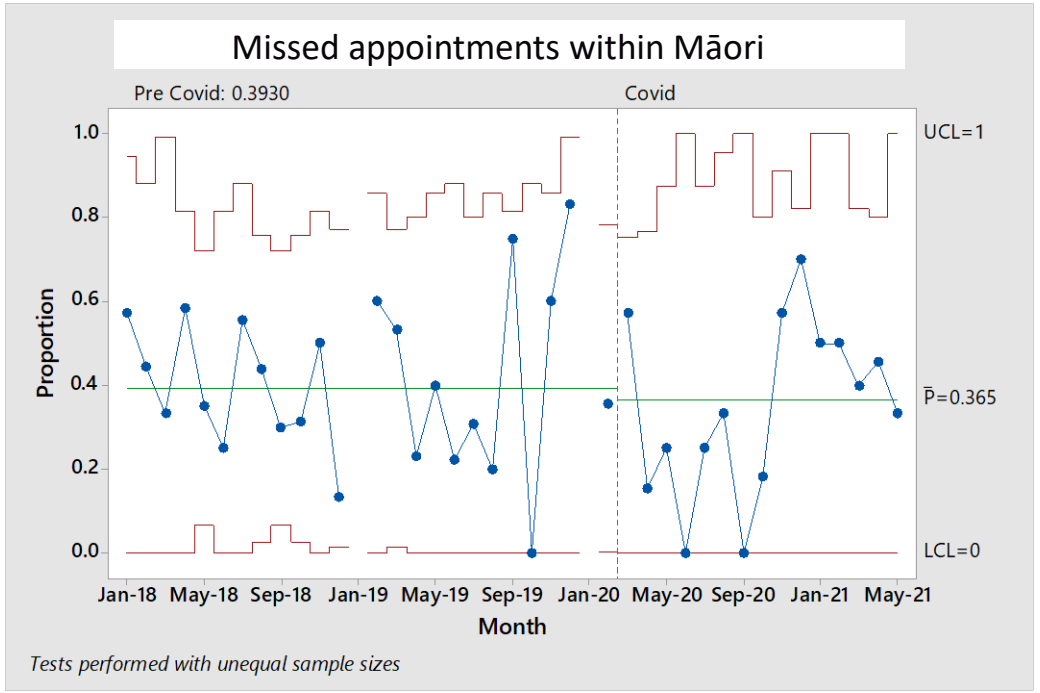


Missed appt = 30%

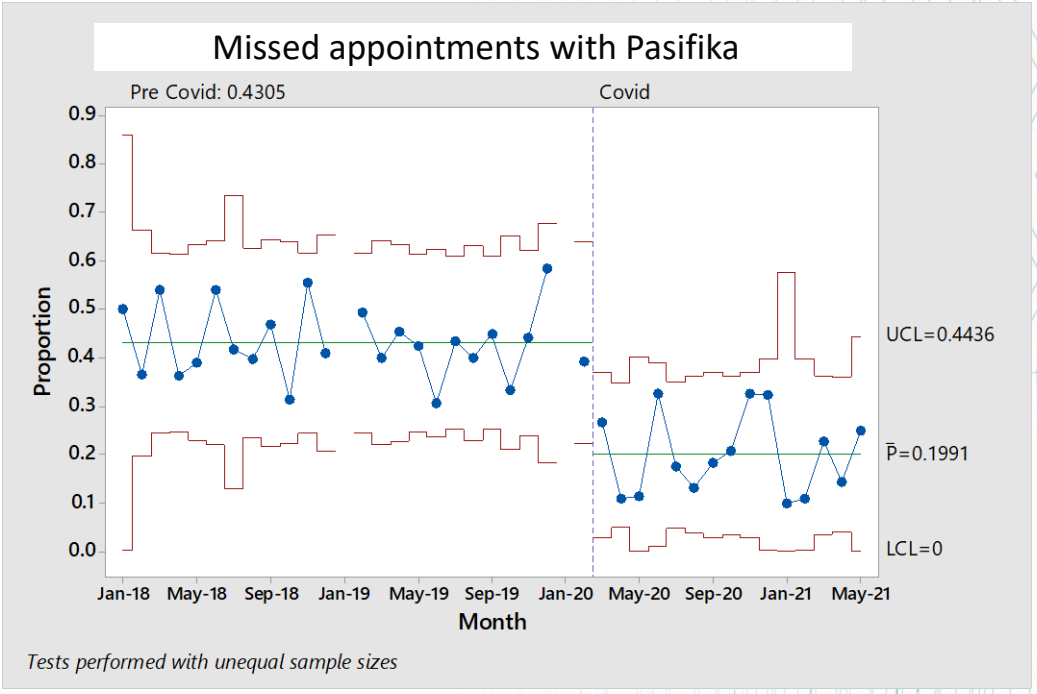
But when separated...

Pre Covid: 38%

Covid: 20%
(Patients were at home AND changed way of working to telehealth)

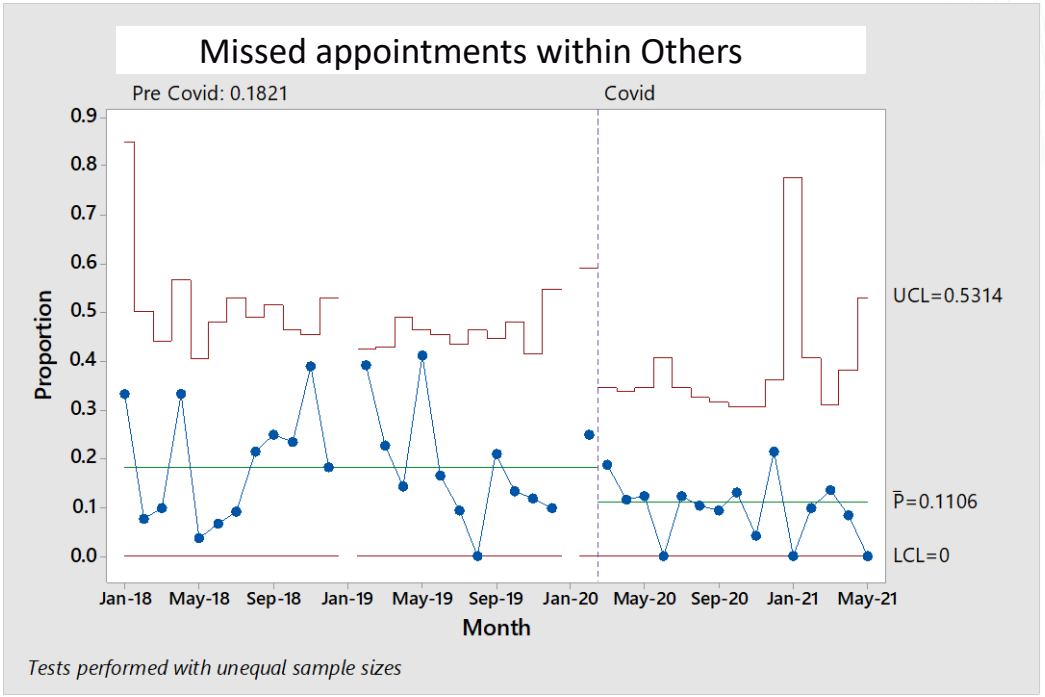


Māori 39% to 37% - *moved out of Akl and went home (rural)*



Pasifika 43% to 20% - *not working/WFH*

Comparing ethnicities



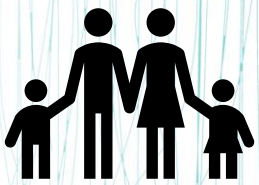
Others 18% to 11% - *not working/WFH*

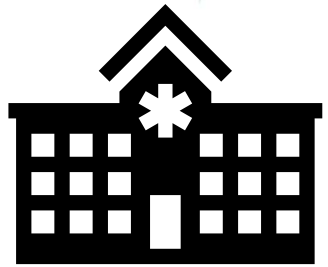
Confirmed Root Causes

- **Physical Causes**
  - Car mechanical problems – transport

- **Human Causes**
  - Other priorities (self determined)
  - Lack of finances to attend (e.g. fuel, parking, daycare)
  - Forgot about the appointment
  - Lack of knowledge of the importance of diabetes control
  - Reduced trust and lack of rapport

- **Organisational Causes**
  - Day and time not suitable
  - No drop-in service
  - Changes of location regularly causing confusion
  - Location not suitable
  - Lack of support from patient’s work to attend the appointment





Selected Solutions

Consider showing the following tools:

- PICK matrix - Implement

	Low Payoff	High Payoff
Easy	POSSIBLE	IMPLEMENT
Hard	KILL	CHALLENGE

Solutions Considered

Include outcomes of brainstorming sessions : combined response, responses in bold came from both staff and patients via the (PICK matrix)

Call or text appointment details Letter or email Ask patient on preference of appointment	**Review communication preference and details : phone, text, email, letter**	More frequent reminders as forget on the day
Clinicians do not need to be Maori/Pasifika – just approachable and understanding	**Joint clinics with MDT (offer scripts and materials)**	Differences in priority i.e. family needs over personal needs, no car, no money for petrol
Scheduler to call patient to book (time/date/location agreed)	**Offer Telehealth option as an option for new/fu appointments (patient preference)**	DNA demoralising, be more understanding

<u>Team's responsibility</u>

- New appointment – ask patient on **preferred** day, location and time. **Schedule with patient** over the phone, **send text reminder**
- **Check contact** details – address, phone, email, emergency contact. **Preferred communication** preference
- **Text day before** the appointment (patient is **able to reply to text message**)
- Offer **telehealth** as an option
- **Joint clinic** preferred e.g. Nurse and Dietitian together
- On the day – staff should be **flexible, understanding and approachable**
- **Think twice** before clicking DNA. Time is allocated for patient. Convert appt to **telehealth or virtual review.**

Pilot Results

Control charts –

Post Improvement from

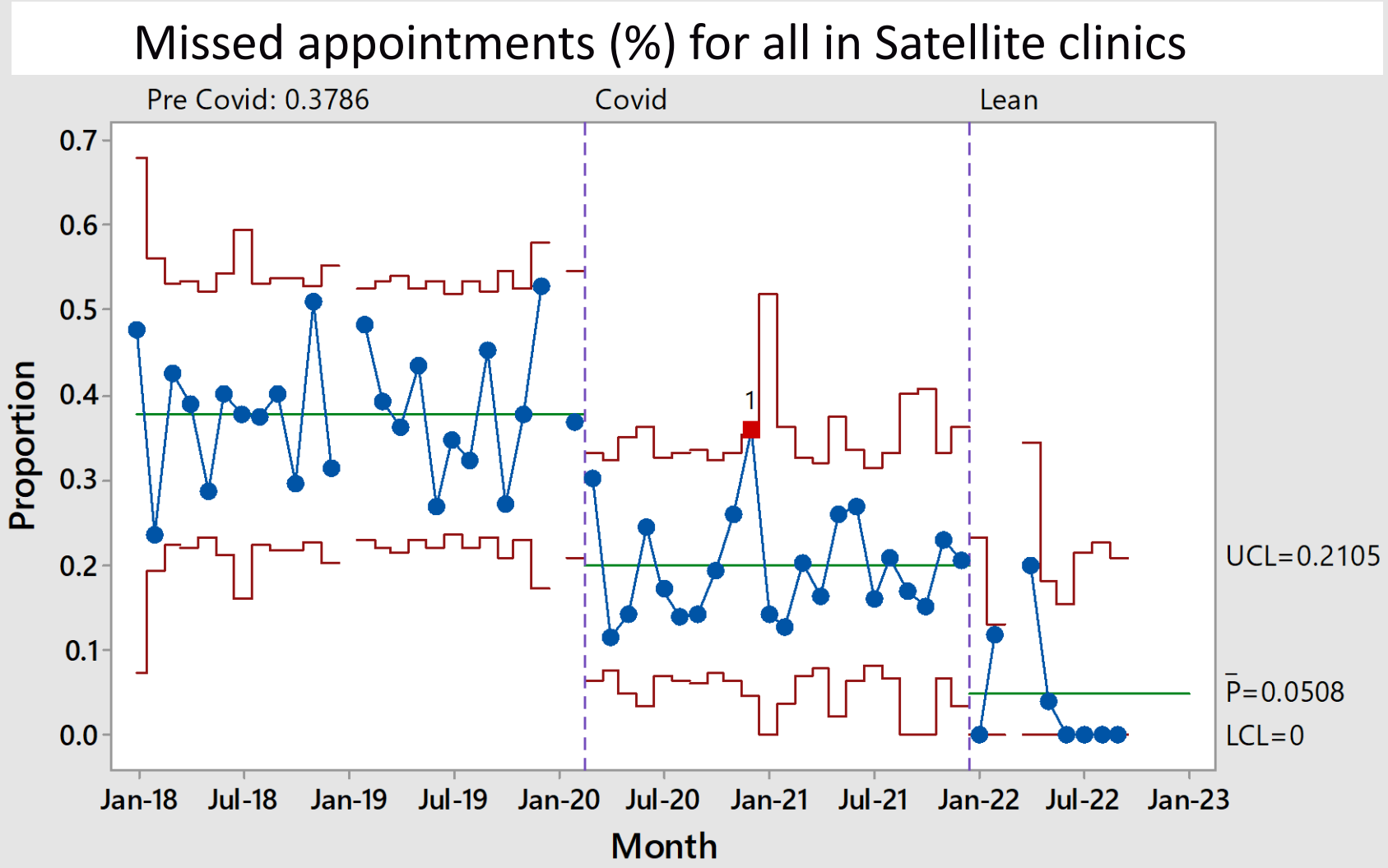
Jan-Sept 2022

Comparing Pre-COVID vs COVID vs Post Improvement

Pre Covid: 38%

Covid: 20%

Post Improvement: 5%

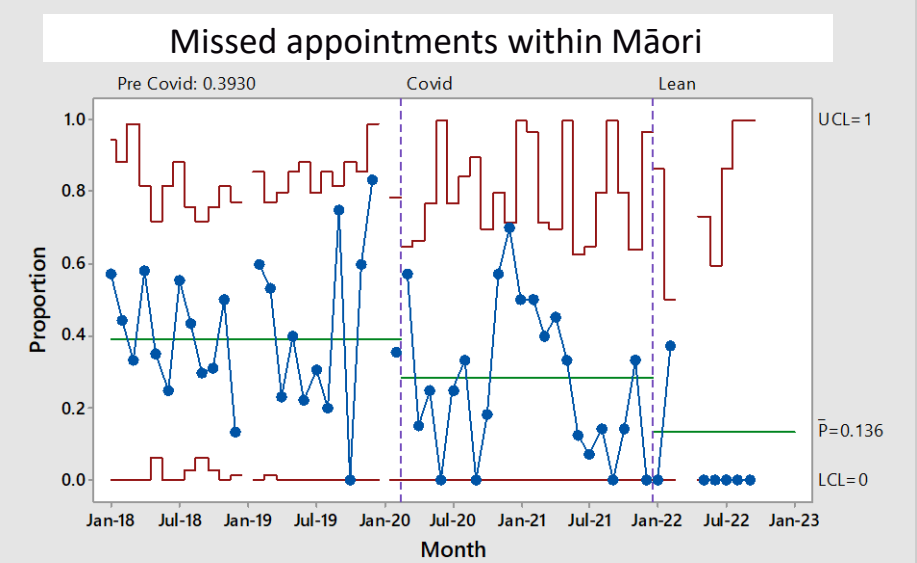


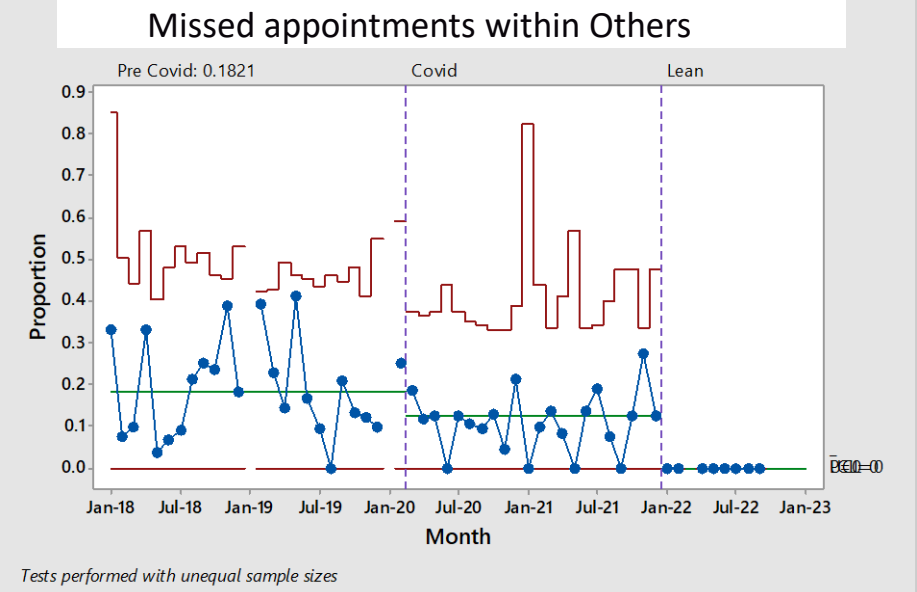
Pilot Results

Control charts –

Ethnic differences :
Pre-Covid vs Covid vs Post Improvement

Post Improvement from Jan-Sept 2022



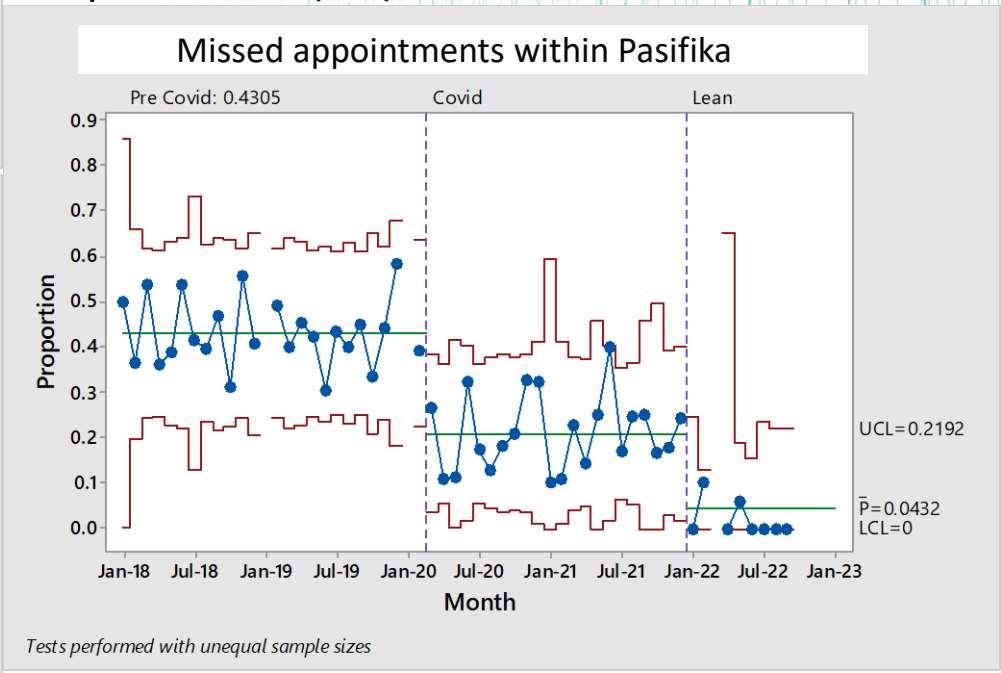


Overall : Pre-COVID (38%), Covid (20%), Post Improvement (5%)

Māori : Pre-COVID (39%), Covid (37%), Post improvement *(14%)*

Pasifika : Pre-COVID (43%), Covid (19%), Post Improvement *(4%)*

Others : Pre-COVID (18%), Covid (11%), Post Improvement *(0%)*



Next steps

Schedulers - **revised SOP** to include the below and is **now BAU**

- Preferred day, location and time. Schedule with patient or over the phone, send text reminder
- Check contact details
- Identify preferred communication
- Reminder text day before
- Booking : Joint clinic preferred

Clinical Team - **now BAU**

- On the day – be flexible, understanding and approachable
- In a clinic – clinicians to phone patient and convert to telehealth or virtual review

Future opportunities

- **Email** system to allow patients to be emailed appointment
- More **schedulers**
- **Automatic** text message at time of booking
- IT system that **allow booking** follow up at time of appointment
- **More than one line** (on hold) for the 0800 phone system
- Support for clinicians to be flexible for **home visit/satellite clinic** as needed

Acknowledgements

- Project Team
- Diabetes Satellite clinic site staff and local communities
- Diabetes Team
- Patient participants
- Adult Community LTC Management Team
- Greenbelt team and Performance Improvement team

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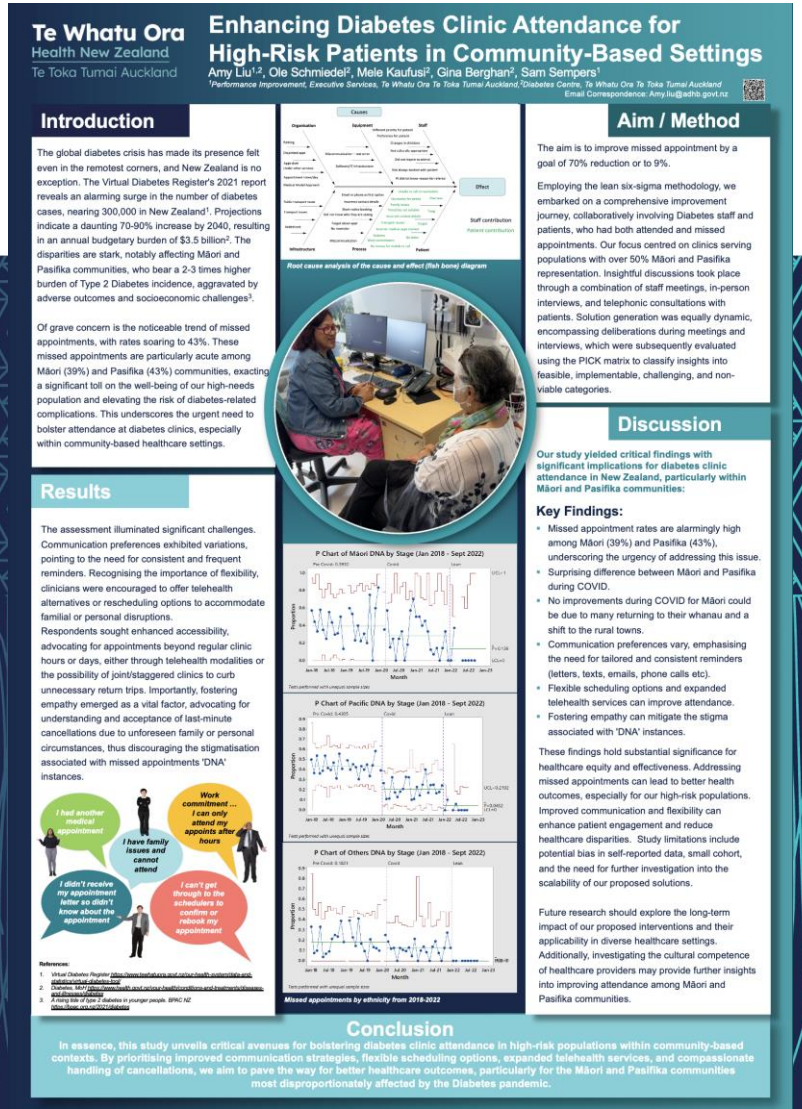
Any Questions?



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Enhancing Diabetes Clinic Attendance for High-Risk Patients in Community-Based Settings

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Introduction

The global diabetes crisis has made its presence felt even in the remotest corners, and New Zealand is no exception. The Virtual Diabetes Register's 2021 report reveals an alarming surge in the number of diabetes cases, nearing 300,000 in New Zealand[1]. Projections indicate a daunting 70-90% increase by 2040, resulting in an annual budgetary burden of $3.5 billion[2]. The disparities are stark, notably affecting Māori and Pasifika communities, who bear a 2-3 times higher burden of Type 2 Diabetes incidence, aggravated by adverse outcomes and socioeconomic challenges[3].

Of grave concern is the noticeable trend of missed appointments, with rates soaring to 43%. These missed appointments are particularly acute among Māori (39%) and Pasifika (43%) communities, exacting a significant toll on the well-being of our high-needs population and elevating the risk of diabetes-related complications. This underscores the urgent need to bolster attendance at diabetes clinics, especially within community-based healthcare settings.

Results

The assessment illuminated significant challenges. Communication preferences exhibited variations, pointing to the need for consistent and frequent reminders. Recognising the importance of flexibility, clinicians were encouraged to offer telehealth alternatives or rescheduling options to accommodate familial or personal disruptions.
Respondents sought enhanced accessibility, advocating for appointments beyond regular clinic hours or days, either through telehealth modalities or the possibility of joint/staggered clinics to curb unnecessary return trips. Importantly, fostering empathy emerged as a vital factor, advocating for understanding and acceptance of last-minute cancellations due to unforeseen family or personal circumstances, thus discouraging the stigmatisation associated with missed appointments 'DNA' instances.

References:
1. Virtual Diabetes Register https://www.tewhatuora.govt.nz/our-health-system/data-and-statistics/virtual-diabetes-tool
2. Diabetes, MoH https://www.health.govt.nz/our-work/preventative-health-wellness-and-screening/diabetes
3. A rising tide of type 2 diabetes in younger people. BPAC NZ. https://bpac.org.nz/2019/diabetes

Root cause analysis of the cause and effect (fish bone) diagram

Missed appointments by ethnicity from 2019-2022

Aim / Method

The aim is to improve missed appointment by a goal of 70% reduction or to 9%.

Employing the lean six-sigma methodology, we embarked on a comprehensive improvement journey, collaboratively involving Diabetes staff and patients, who had both attended and missed appointments. Our focus centred on clinics serving populations with over 50% Māori and Pasifika representation. Insightful discussions took place through a combination of staff meetings, in-person interviews, and telephonic consultations with patients. Solution generation was equally dynamic, encompassing deliberations during meetings and interviews, which were subsequently evaluated using the PICK matrix to classify insights into feasible, implementable, challenging, and non-viable categories.

Discussion

Our study yielded critical findings with significant implications for diabetes clinic attendance in New Zealand, particularly within Māori and Pasifika communities:

Key Findings:

- Missed appointment rates are alarmingly high among Māori (39%) and Pasifika (43%), underscoring the urgency of addressing this issue.
- Surprising difference between Māori and Pasifika during COVID.
- No improvements during COVID for Māori could be due to many returning to their whanau and a shift to the rural towns.
- Communication preferences vary, emphasising the need for tailored and consistent reminders (letters, texts, emails, phone calls etc).
- Flexible scheduling options and expanded telehealth services can improve attendance.
- Fostering empathy can mitigate the stigma associated with 'DNA' instances.

These findings hold substantial significance for healthcare equity and effectiveness. Addressing missed appointments can lead to better health outcomes, especially for our high-risk populations. Improved communication and flexibility can enhance patient engagement and reduce healthcare disparities. Study limitations include potential bias in self-reported data, small cohort, and the need for further investigation into the scalability of our proposed solutions.

Future research should explore the long-term impact of our proposed interventions and their applicability in diverse healthcare settings. Additionally, investigating the cultural competence of healthcare providers may provide further insights into improving attendance among Māori and Pasifika communities.

Conclusion

In essence, this study unveils critical avenues for bolstering diabetes clinic attendance in high-risk populations within community-based contexts. By prioritising improved communication strategies, flexible scheduling options, expanded telehealth services, and compassionate handling of cancellations, we aim to pave the way for better healthcare outcomes, particularly for the Māori and Pasifika communities most disproportionately affected by the Diabetes pandemic.

Include outcomes of brainstorming sessions : **Team's response** (PICK matrix)

Improve IT system for automatic update for contact details	Review communication preference and details : phone, text, email, letter	Offer more time and day options
Allow protected time to establish relationships	Ask patient on preference of appointment	Book followup at the last appointment
Scheduler to call patient to book (time/date/location agreed)	Offer Telehealth option as an option for new/fu appointments (pt preference)	Book patients 5 days prior to appointment
Clinics in weekends and out of hours	Free transport / provide taxis	Run in GP clinics (book via GPs)
Joint clinics with MDT (offer scripts and materials)	Joint GP clinics	Home whanau visits
Set up clinic in office block/factories/shopping centres	Have a regular drop in centre (dependable location and time)	Offer afternoon satellite clinics or telehealth option
Vary days as per patient preference e.g. survey on preference	Saturday / Evening Telehealth option	Community support worker to check or accompany patients

Include outcomes of brainstorming sessions : **Patient's response** (PICK matrix)

Call or text appointment details Letter or email	Link system with GP for most up to date contact details	Satellite location and clinician should be dependable (not change often)
Clinicians do not need to be Maori/Pacific – just approachable and understanding	Ask patient on preference of appointment	Differences in priority i.e. family needs over personal needs, no car, no money for petrol
Scheduler to call patient to book (time/date/location agreed)	Offer Telehealth option as an option for new/fu appointments (pt preference)	DNA demoralising, be more understanding
Clinics in weekends and out of hours – more options to select	Free transport / provide taxis	Saturday / Evening Telehealth option
Joint clinics with MDT (offer scripts and materials)	Joint GP clinics	Home whanau visits
Set up clinic in office block/factories/shopping centres	Have a regular drop in centre (dependable location and time)	More frequent reminders as forget on the day