



The Impact of Healthline on Emergency Departments in Te Manawa Taki

Research Methodology:

ED Presentations that were avoided through Healthline

Healthline call data was analysed for patients who were successfully self-managed at home. Their presenting symptoms were categorised by clinical risk (low, medium, high). For example, cough was classified as low risk, while chest pain was high risk.

For each risk category, clinical experts from Te Manawa Taki (Midlands Region) Emergency Departments proposed the probability that these patients would have attended ED without Healthline advice, analysed separately for in-hours and after-hours periods. This allowed the researchers to estimate the total number of ED presentations likely prevented by the Healthline service.

ED Presentations that could have been managed by Healthline

Using Te Manawa Taki ED data, we identified visits potentially suitable for Healthline management. We considered aspects such as presenting complaints, diagnostic coding, lower complexity and multiple exclusions. Cases were identified where patients:

- Used private transport to ED
- Were discharged home routinely or self-discharged
- Had triage codes 4 or 5 (less urgent/non-urgent).

We then considered aspects such as presenting complaints, diagnostic coding, lower complexity and multiple exclusion to calculate total avoidable ED presentations for each area.

Initial Findings:

When people call Healthline instead of going to ED

The research shows that in Te Manawa Taki (Midlands Regions), over 14.6% of ED visits were avoided through Healthline phone advice. This represents approximately 83 people per day, or more than 151,000 people in Te Manawa Taki who got the help they needed from Healthline instead of going to ED over the five-year period.

Looking at the numbers estimated by region:

- Waikato Region: 46.5 people per day (+14.1%)
- Bay of Plenty: 21.5 people per day (+29.6%)
- Lakes: 7.3 people per day (+23.5%)
- Taranaki: 7.9 people per day (+5.8%)

When people go to ED but could have called Healthline

- About 6% of people who went to ED could have got help from Healthline and then non-ED services instead. This represents approximately 34 people per day.
- This looks different across the regions:
 - In Bay of Plenty, it's about 9.5 people per day (-13.1%)
 - In Lakes, it's about 3.6 people per day (-11.4%)
 - In Taranaki, it's about 9.4 people per day (-6.9%)
 - In the Waikato region, it's about 11.7 people per day (-3.6%)

Clear patterns show who's most likely to use ED when Healthline could help

- Age groups: Under-30s and over-70s are over-represented by 2.15%
- Gender: Men are over-represented by 2.68%
- Ethnicity: Pākehā and Māori are over-represented by 14%
- Deprivation: People from high-deprivation areas (deciles 7-10) are over-represented by 5.64%.

Persona

James: *I wasn't sure if it was serious enough for ED, but I didn't know where else to go.*

Who is James?

- 24-year-old Pākehā male
- Warehouse operator in Hamilton
- Lives with flatmates in a decile 8 area
- Generally healthy, plays weekend football
- Registered with a GP but rarely visits.

Current Situation:

Injured his knee at Sunday football. He can walk, but it's worryingly sore. He's concerned about work tomorrow, and knows if he takes time off, he'll need a work certificate. Unsure about after-hours options, he heads to Waikato ED.

Key Behaviours:

- "Waits and see" with health issues
- Googles symptoms
- Cost-conscious about healthcare
- Unsure what makes a "real" emergency
- Finds GP hours hard with shift work.

Why Healthline Could Help:

- Needs 24/7 access to clinical health advice
- Wants help deciding if ED is necessary
- Would benefit from knowing local care options
- Free service removes cost barrier.