

# Faster Cancer Treatment Routes to Diagnosis

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On behalf of Simon Pointer, Dr Janine Cochrane, Sara Morton, Therese Duncan, Trudy Galer, Rachel Miller, Kat Norton, Rachel Oxley, Mr Jon Potter, Helen Proctor, Di Riley, Judi Tapp, Dr Ursula Jewell and the FCT & CNCs teams across the South Island



# Background

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- **Routes to Diagnosis (RTD)** has been a MOH-funded FCT initiative to gain an understanding of the pathways taken to achieve a cancer diagnosis.
- There were two parts to this initiative
  - Part A** focused on patients (*only using FCT criteria*) diagnosed over a three month period whose cancer diagnosis was made following a presentation to an ED in Southern DHB
  - Part B** focused on *all* patients across the South Island diagnosed with cancer via all routes over a one year period
- Similar work on RTD has been done by the NHS (UK) in 2006<sup>1</sup> and this was used as a guide for our own research

<sup>1</sup> N Hawkes. Emergency cancer diagnoses in England fall from 24% to 20% in 10 years. British Medical Journal 360. 2018

# Routes to Diagnosis Stage A - Method

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- Patient cohort: all NZCR primary cancer diagnoses for SDHB from 1/1/2016 to 31/3/2016 that met FCT inclusion criteria and where the cancer was diagnosed as a result of an ED presentation
- Data gathered by a small, multidisciplinary clinical team
- Review of nine data sources:
  - New Zealand Cancer Registry (NZCR)
  - Southern DHB FCT database
  - Emergency department information system (EDIS)
  - Gynaecology Oncology database
  - MOSAIQ, Oncology management system
  - Case note reviews
  - Southern Community Laboratories
  - Dunedin patient management system (iPM)
  - Invercargill patient management system (iPM)
- Alignment with UK study

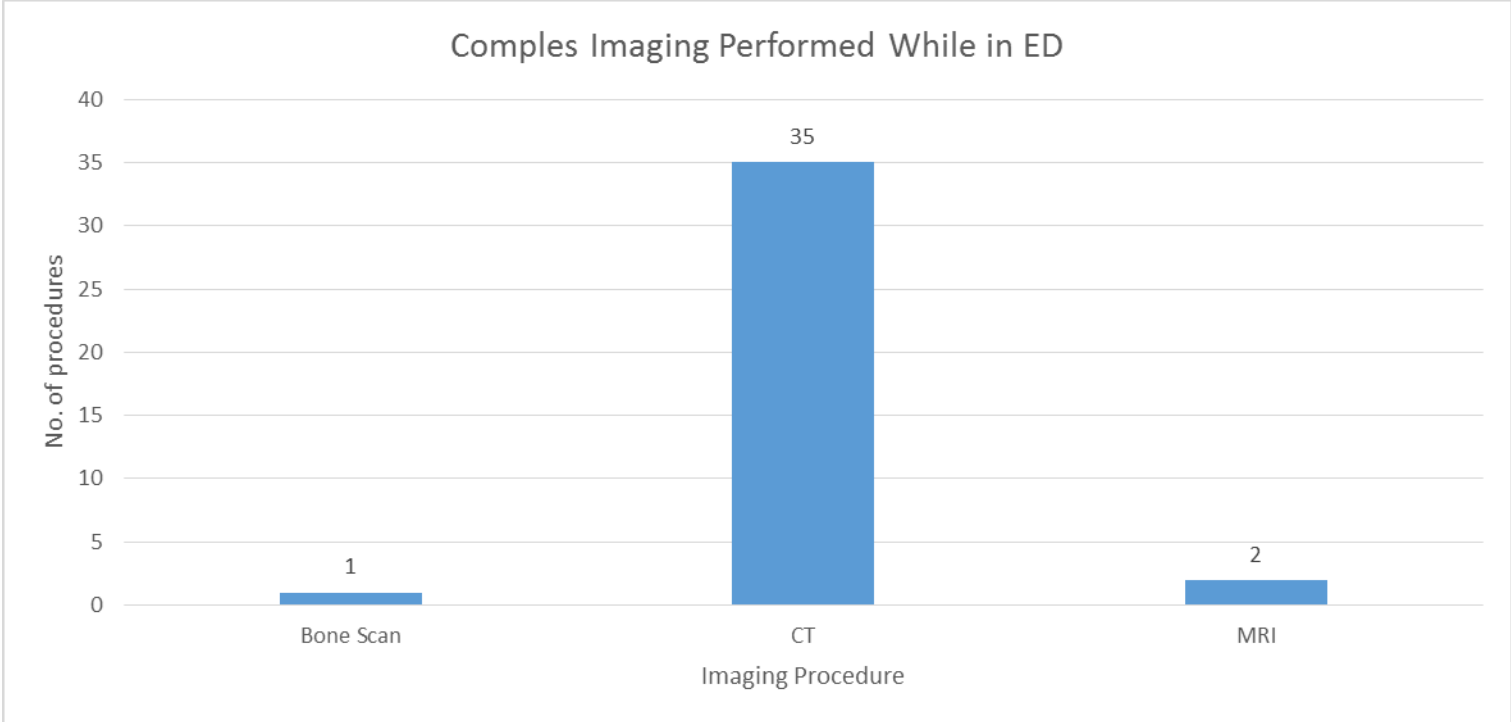
# Part A Results

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- 19% of all cancers were diagnosed via ED, n=74
- There was no difference in the proportion of patients either self-referred or GP-referred to ED
- Most patients were between 60 and 90 years of age
- Approximately 50% of patients required CT imaging while in ED
- The most common tumour streams were Lower GI, followed by Lung and then Haematology
- Over 33% of patients presented with late stage disease (stage III or IV), but a significant proportion were not staged
- One year survival for patients diagnosed with a cancer via ED was 55%, versus 87% for patients with all other routes to diagnosis

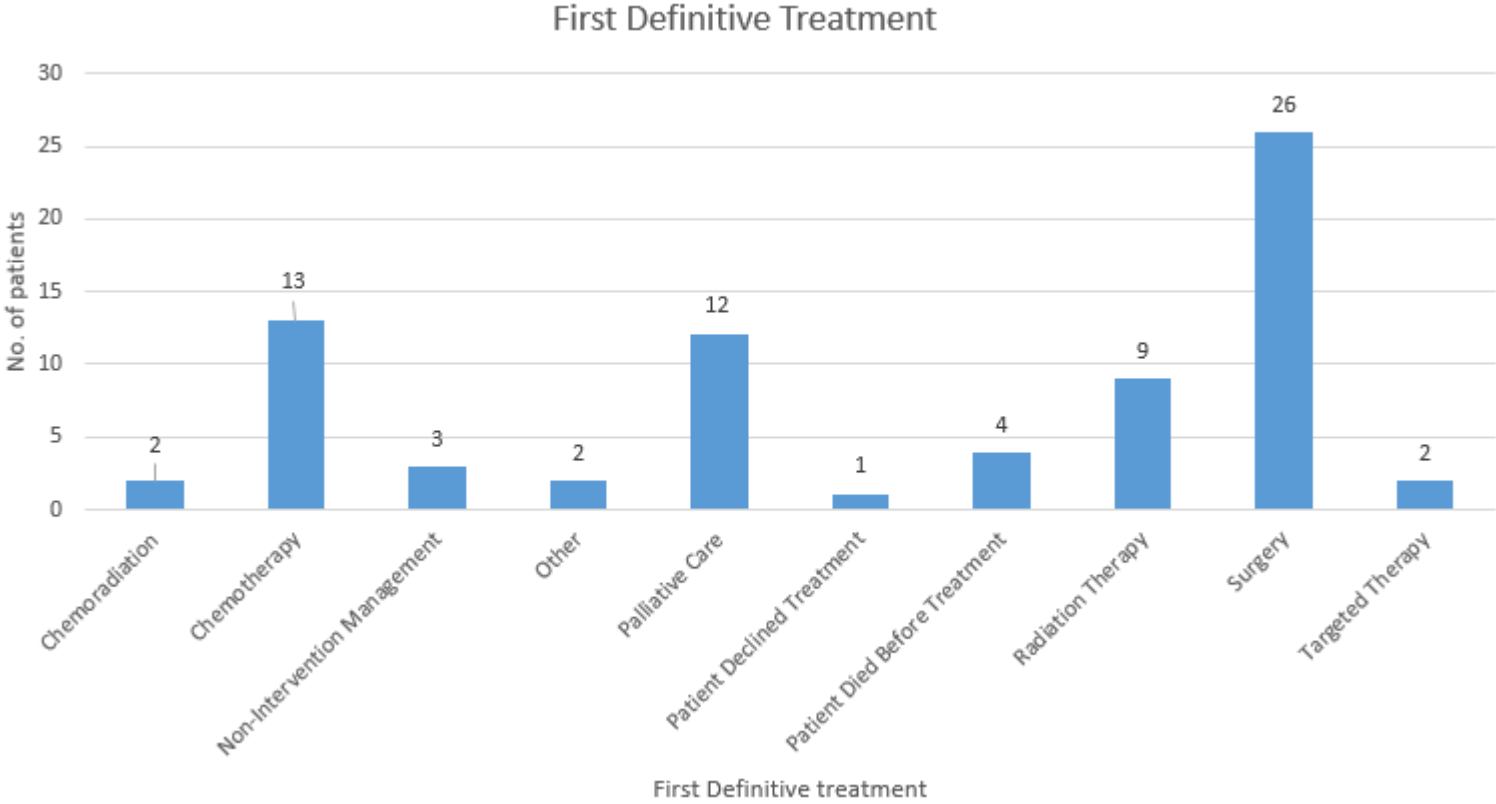
# Results - Imaging

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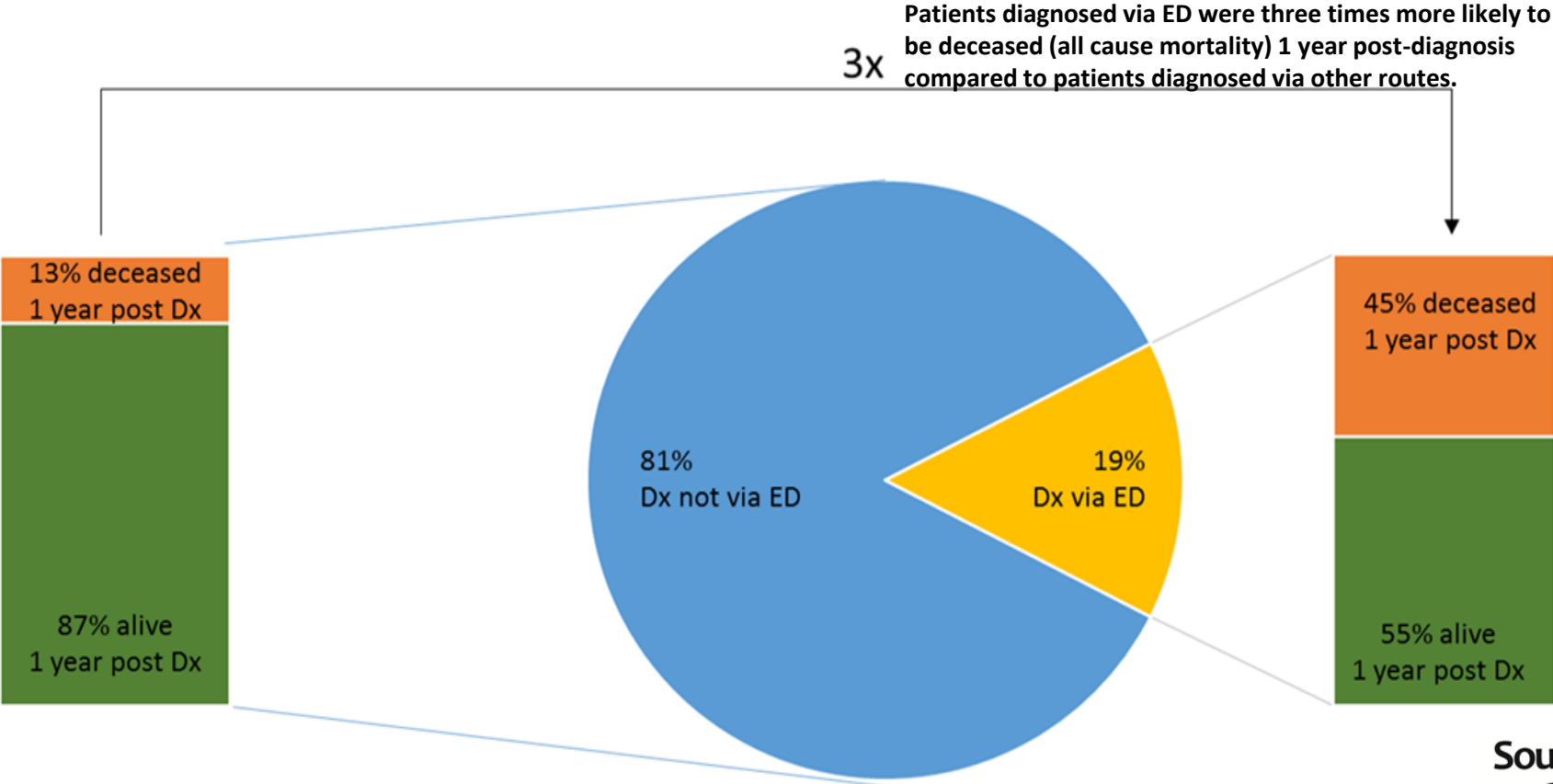


# Results - First Definitive Treatment

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# Results



# Routes to Diagnosis Stage B – Methodology Overview

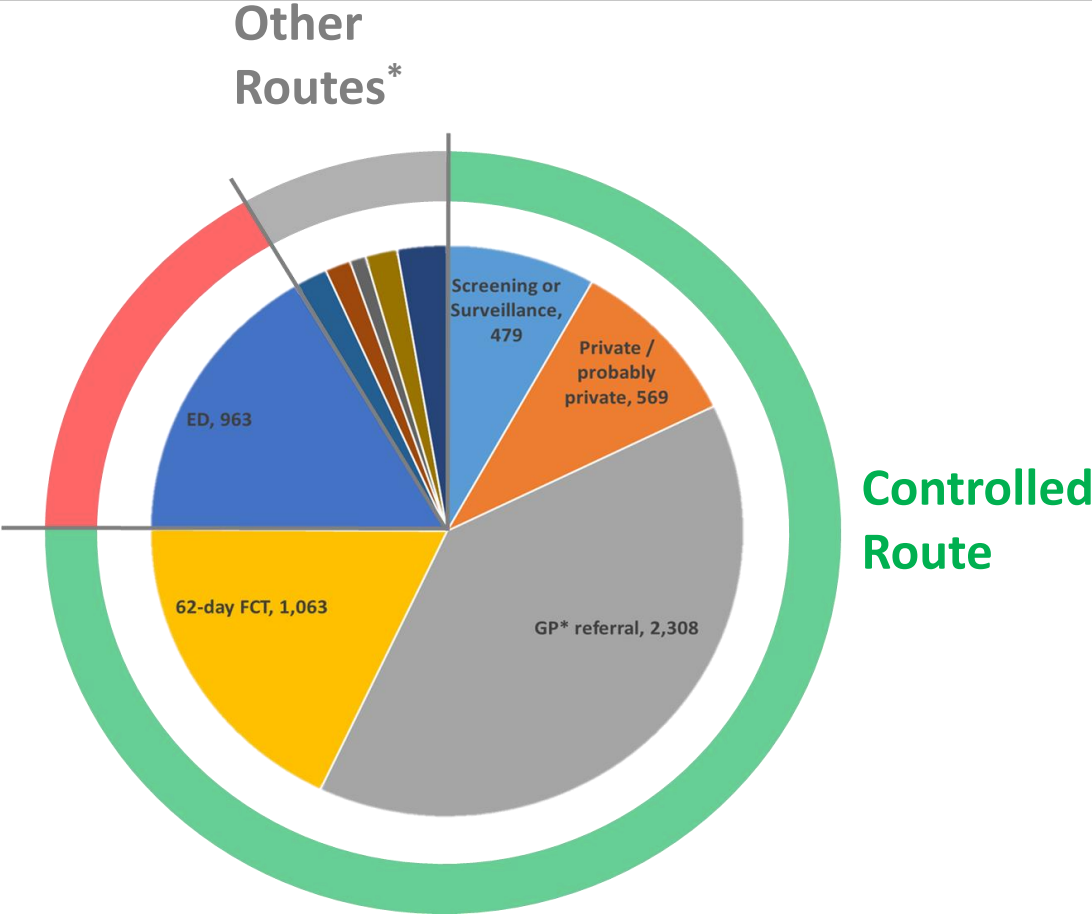
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- Establish the core cohort (All South Island cancer registrations from NZCR with a date of diagnosis between 01/07/2015 and 30/06/2016 – n=5885)
- Establish the Routes to Diagnosis core dataset
- Quality assessment and quality control (QAQC)
- Results and statistical analysis
- Conclusion and Recommendations



# Results Part B

Emergency Route



\*OTHER INCLUDES: OUPATIENT APPOINTMENT, INPATIENT DIAGNOSIS, DEATH CERTIFICATE ONLY, INCIDENTAL FINDING, OTHER AND UNKNOWN

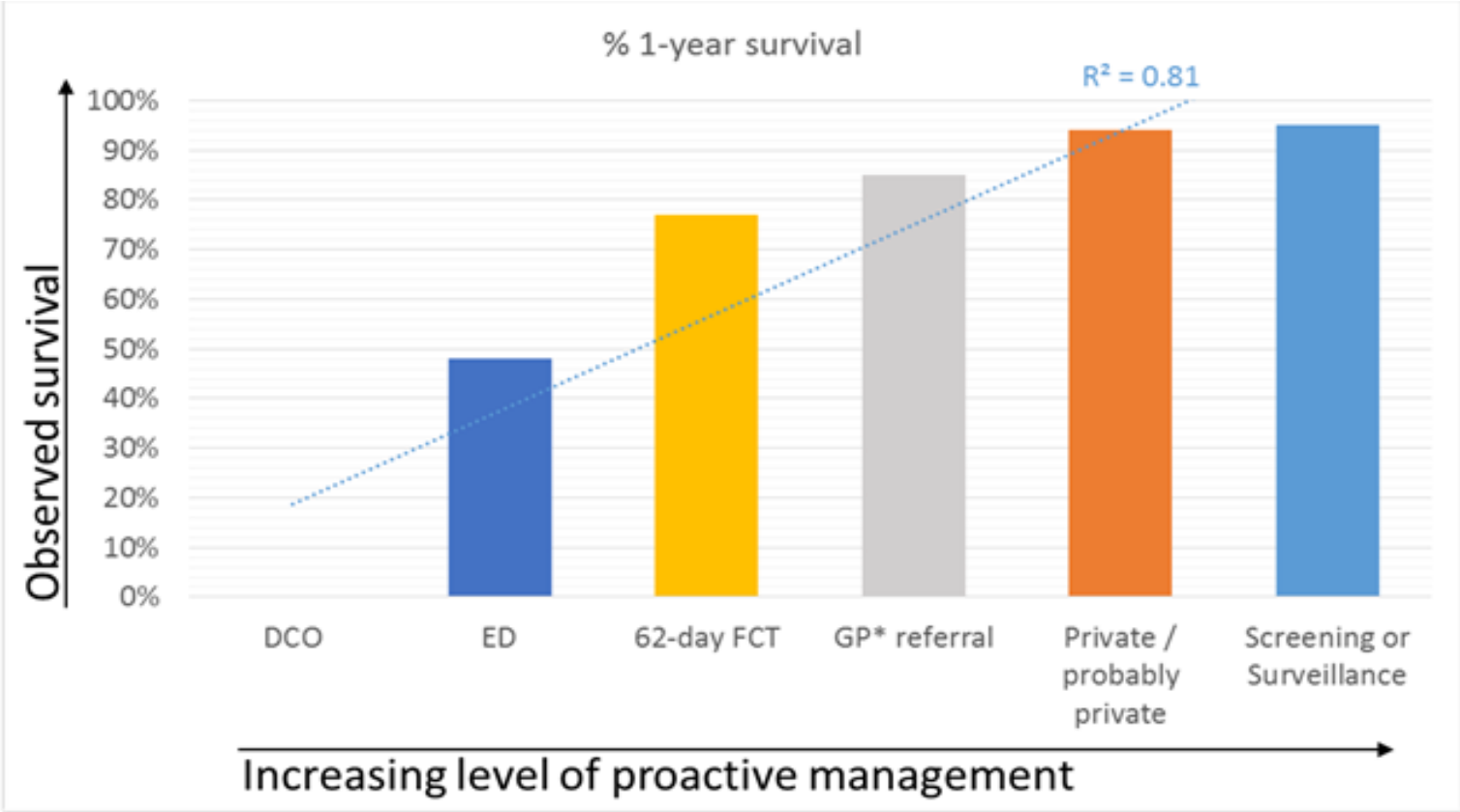
# Results Part B – One Year Survival

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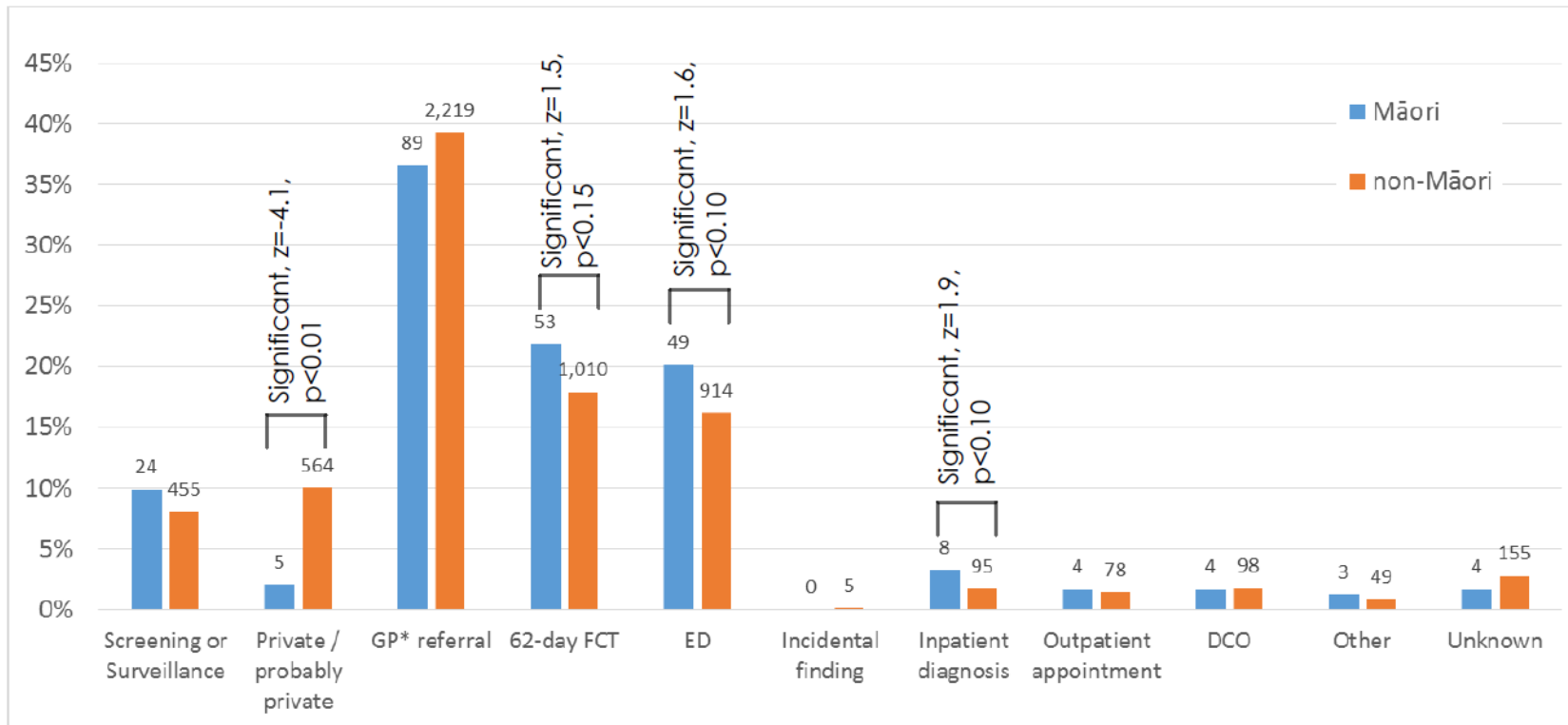
The findings identify a strong correlation between the level of urgency and patient outcome:

- The RTDs with the best outcomes, with 3 out of every 4 patients still being alive one year after diagnosis, are via screening / surveillance, private, or unknown routes to diagnosis
- In contrast, over half the patients first presenting to ED died within the first year of their cancer diagnosis

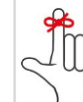
# Results Part B - One year survival



# Results Part B - Ethnicity

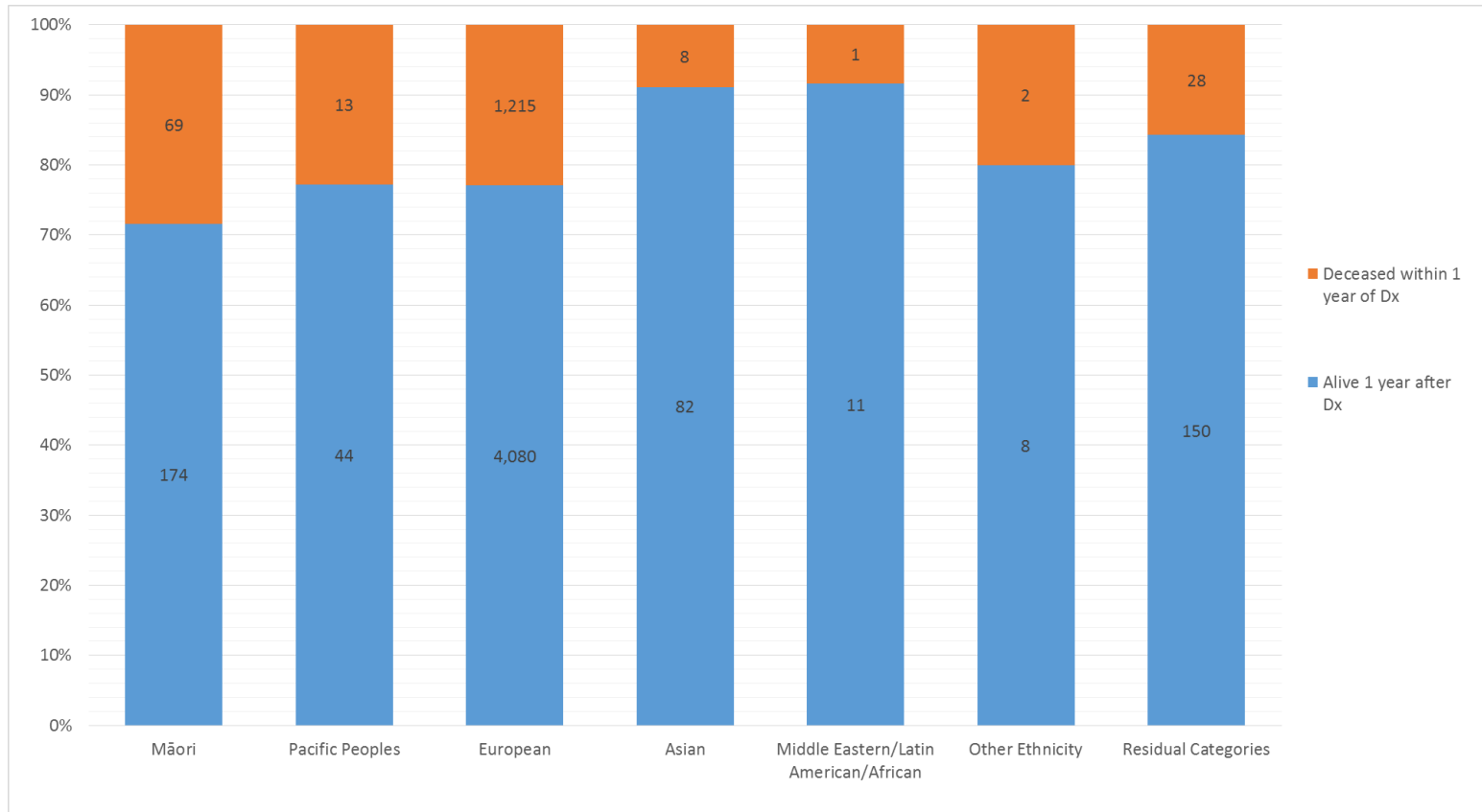


**Māori cancer patients are more likely than non-Māori to first access cancer services via ED presentation, 62-day FCT and Inpatient diagnosis routes. They are also less likely to first access cancer services via a private route.**

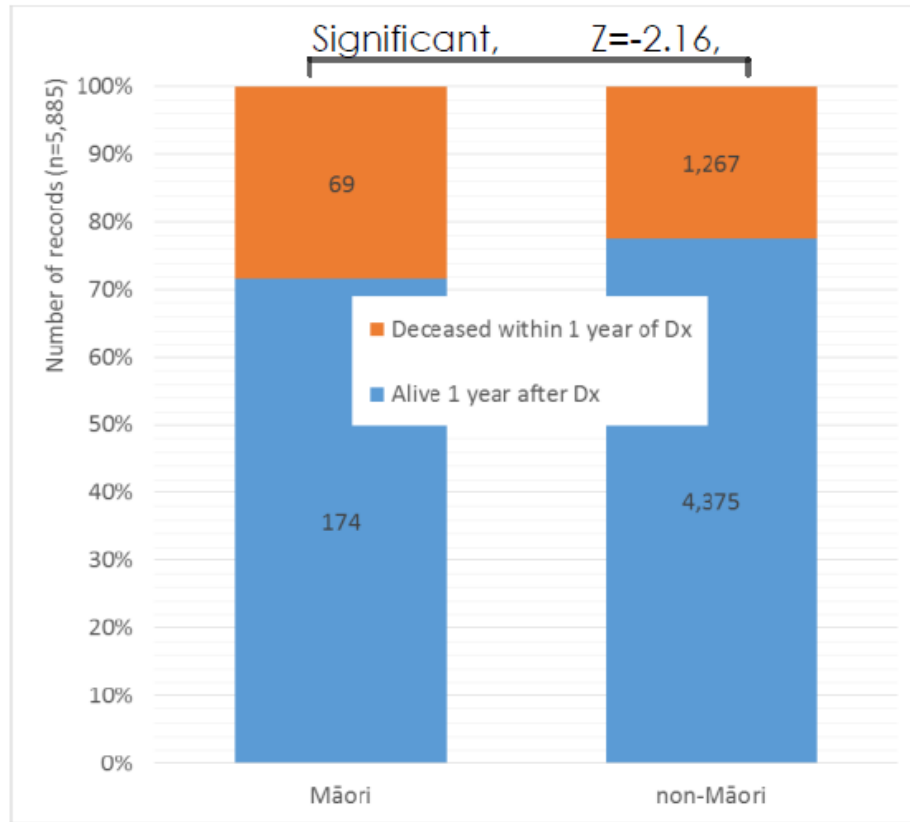


**ED presentation, 62-day FCT and Inpatient diagnosis were the routes to diagnosis with the worst one year survival.**

# Results Part B - Ethnicity



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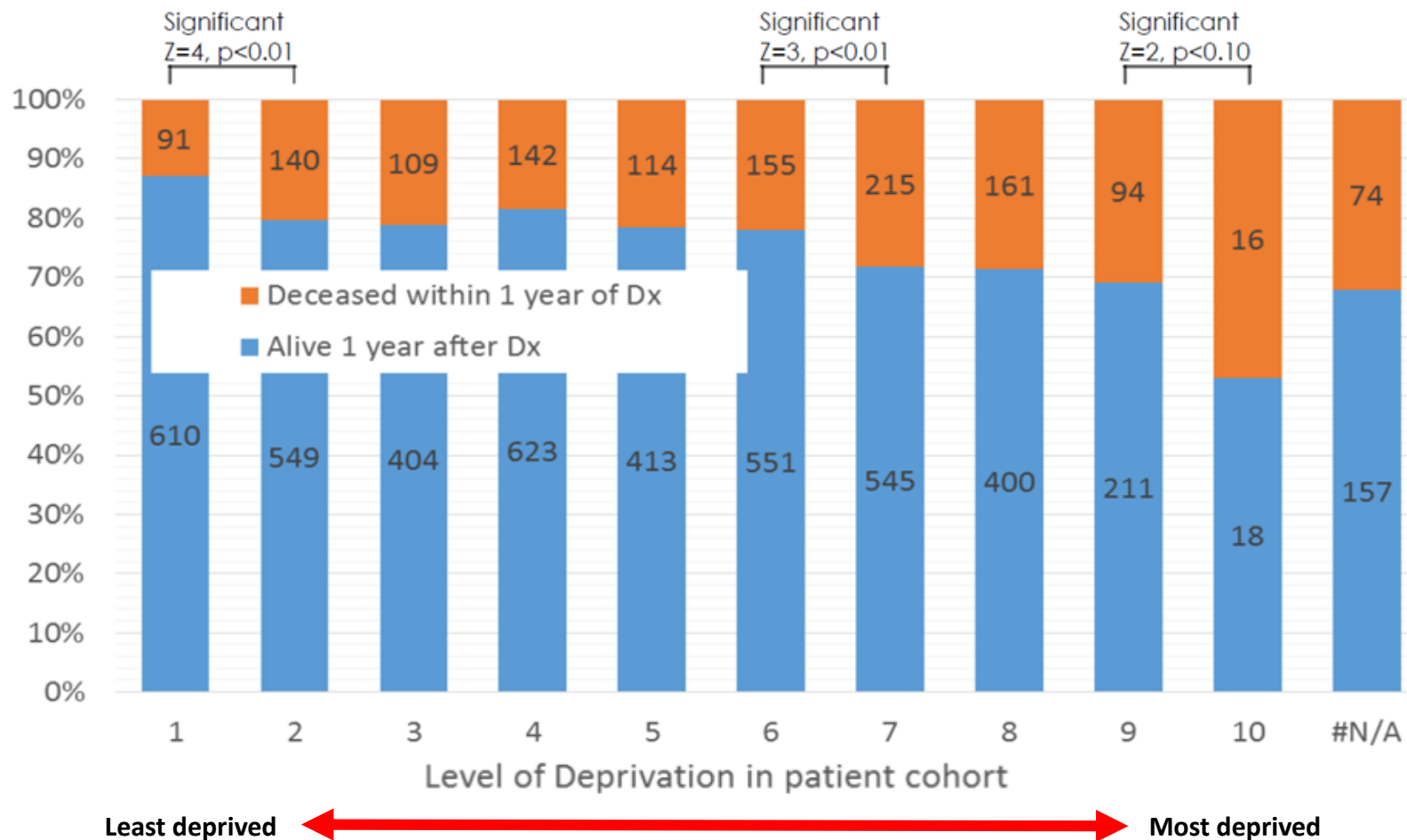
**Māori cancer patients are less likely to be alive one year after a cancer diagnosis, than non-Māori.**

# Results Part B - Deprivation

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- The higher the deprivation index, the more likely patients were to have entered via an urgent or emergency route
- The higher the deprivation index, the less likely patients were to enter the pathway via screening, surveillance, or private services
- One-year survival is reduced in more deprived populations

# Results Part B - 1 year survival





# Results Part B - Alignment with UK study

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In the UK, a much higher proportion of patients enter the cancer pathway via an urgent or emergency route compared to SI NZ:

- 1 in 2 cancer patients in the UK first access cancer services via an urgent referral or a presentation to ED
- compared to 1 in 3 in the South Island

# ConnectED – South Island Alliance

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# Five District Health Boards

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# Acknowledgements

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- Ministry of Health
- Southern Cancer Network
- New Zealand Cancer Registry
- Southern DHB Project Team
- Southern DHB Faster Cancer Treatment Steering Group
- CNCs & FCT teams from across the South Island



# Thanks for the Support

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