



Cancer Control and Screening
Research Group
Wellington

Indigenous Inequities and Stomach Cancer in New Zealand

Virginia Signal, PhD Candidate

Diana Sarfati, Kevin Dew, Jason Gurney, Jonathan Koea

Why Study Indigenous Inequities in Stomach Cancer?

Compared to non-Māori, Māori have

- Higher incidence & mortality
- Worse survival
- Different patterns of care for *other* cancers

YET no population-level stomach cancer studies based on good data & little known about the NZ treatment pathway



About this Study

- Part of a wider study – C3: Cancer, Care & Comorbidity
- Māori-centred
- Two sequential phases
 - Identify the issues (Quantitative)
 - Review of 335 individual patient notes
 - Identify solutions (Qualitative)
 - 15 Key informant interviews



Quantitative Results: Similarities

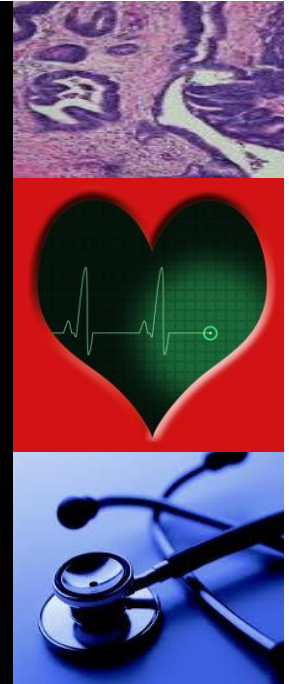
- Stage & grade
- Waiting times through the pathway
- Proportions of patients with curative surgery and chemotherapy (Stage I – III)
- Proportions of patients with radiotherapy and palliative care (Stage IV)

Ref: Indigenous inequities in the presentation and management of stomach cancer in New Zealand: a country with universal health care coverage (2014) Signal et al. in Gastric Cancer



Quantitative Results: Differences

- Age, SES, Rurality, Comorbidity & Gender
- Tumour site & surgery type
- Māori less likely to:
 - Have specialist upper GI surgeon
 - Have surgery in a main centre
 - This remained when stratified by surgery type and centre type
- Non-significant 30% poorer survival, adjusted



Qualitative Results: Key Informants

- Mono-cultural focus of health care services
- Inconsistent delivery of cancer services
- Comorbidity increases complexity of an already complex disease



Solutions: Health System Level

- Address mono-cultural focus
 - Strengthen equity focus
 - Whānau involvement & holistic approach to health
 - Resource community-based Māori providers in cancer
- Address inconsistent service delivery
 - Cancer Service Provision Standards
 - Clinical audit tools such as the ANZGOSA surgical audit
 - Shared care across DHBs & Generalist/Specialist support
- Better manage patient comorbidity
 - Primary and secondary care



Acknowledgements

- Indigenous peoples who carry a greater burden of stomach cancer, especially the people whose data make up this study
- Supervisors
 - Diana Sarfati
 - Jason Gurney
 - Jonathan Koea
 - Kevin Dew
- The wider C3 study team and advisors
- The Jagara and Turrbal nations
- And the WICC organisers

virginia.signal@otago.ac.nz

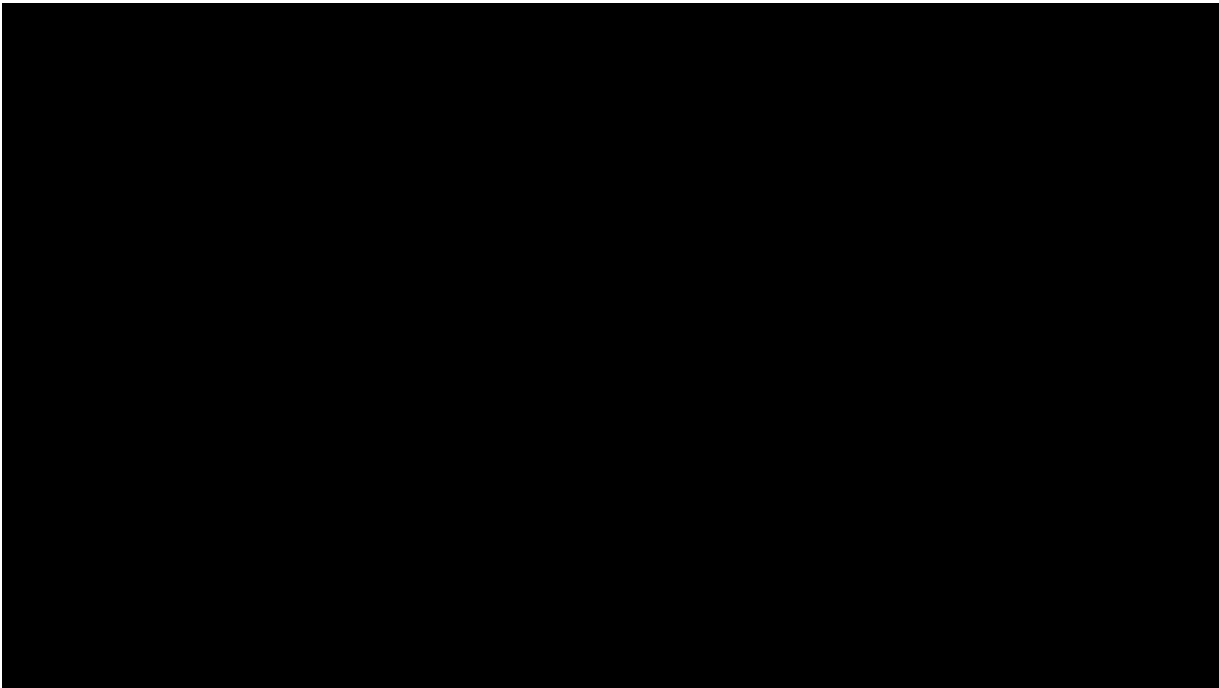
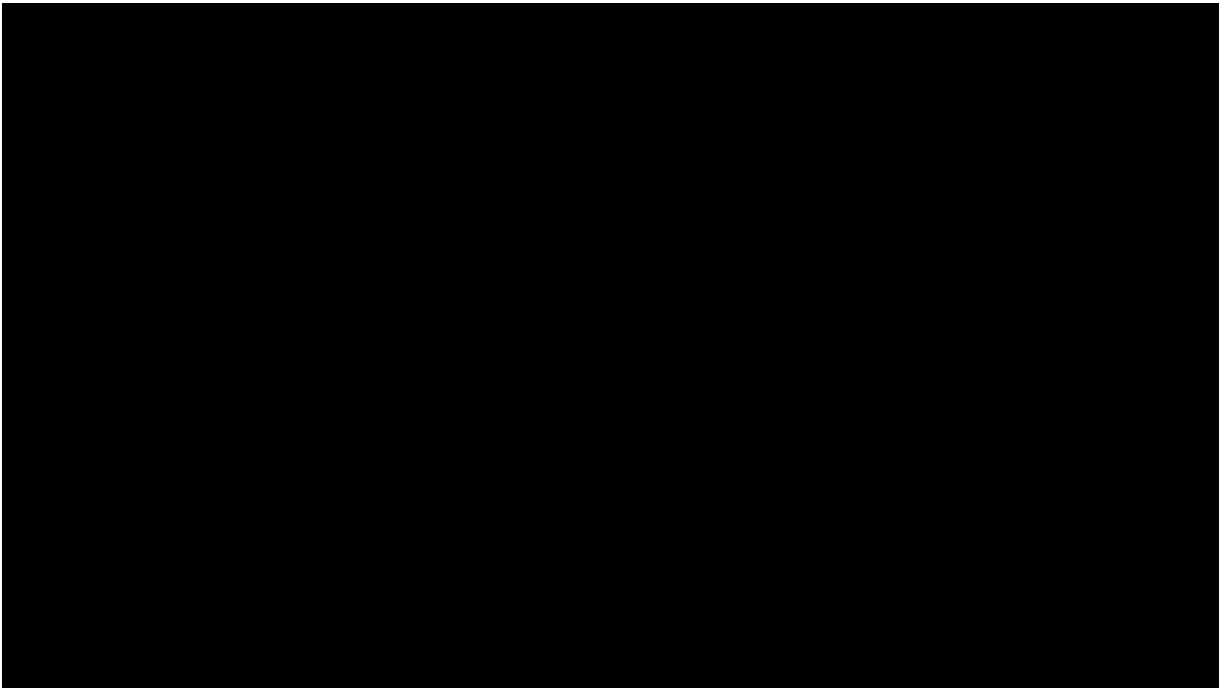
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Summary

- Differences between Māori and non-Māori
- Equitable care needs a range of interventions encompassing both Māori-centred and improvements to the treatment pathway
- These findings may provide insights into indigenous stomach cancer inequity in other countries



Qualitative Results

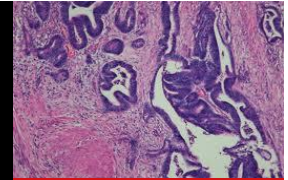
- Similar interventions to improve cancer services for Māori
- Multilevel and comprehensive approach needed
- Literature supports the key informant results
- Qualitative supports the quantitative



Survival also looked different

Stomach Cancer Specific : Total Cohort (Stage I – IV)

Adjusted for:	HR	95% CI
Unadjusted	1.02	0.79 to 1.31
Demographic Factors		
Age & Sex	1.08	0.82 to 1.41
Disease Factors		
Stage & Tumour site	1.28	0.96 to 1.69
Comorbidity		
Patient Comorbidity	1.25	0.94 to 1.66
Health Care Access		
NZDep & Rurality	1.30	0.96 to 1.76



Study strengths

- Clinical note review allowed detailed comparison
- 5 unstaged patients vs 101 unstaged in NZCR data
- Equal numbers Māori and non-Māori
- Qualitative findings supported the quantitative

and weaknesses

- Small sample size – 46% (Stage IV) excluded from some analyses



Quantitative Methods

- Examine & compare Māori/non-Māori stomach cancer presentation, treatment and survival
- Review of individual patient notes
 - Equal number Māori and non-Māori
 - Diagnosed 2006-2008
 - Final cohort = 335
 - Data on patient, disease and treatment factors
- Cancer registry & mortality dataset



Solutions: Health Care Process Level

- Communication between services
 - Pt navigation/care coordination
- Patient – provider communication
 - Clinical audit tools i.e. ANZGOSA surgical audit
- Cancer workforce
 - Develop knowledge of equity and determinants of health
 - Employ more Māori within cancer care & governance
- Health literacy
 - Implement recently released NZ framework & guide





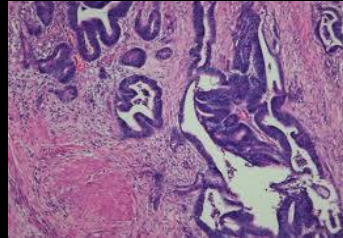
■ Recommendations

- Primary **prevention** – Housing & H. Pylori eradication?
- Early **detection** or **screening** of high risk populations?
- Equitable **access** to specialised surgical treatment?



Why are there ethnic inequities in cancer survival?

More aggressive/ advanced
tumours?



Patient comorbidity?

Health care quality and/or access?



Qualitative Methods

- Further examine the stomach cancer treatment pathway and consider interventions
- 15 Key Informant interviews
- Thematic analysis
- Review of intervention literature

