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Progression to diabetes: 5 year
follow-up of the Northland Diabetes
Screening and Cardiovascular risk
assessment pilot

A thesis presented to fulfil requirements for
the degree of
Master
of
Public Health

at Massey University, Wellington, New
Zealand.

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2013

Abstract

Aim: The primary aim was to determine the effect the *Northland Diabetes Screening and Cardiovascular risk assessment pilot* had on the progression from a normal glucose test (NGT) at baseline to diabetes.

Method: Patients from a single practice (Maori = 1509, Non-Maori = 619) who were invited onto the pilot with NGT at baseline were retrospectively followed up for 7 years. Results for Pilot (PG) (Maori = 336, Non-Maori 255) and Non-Pilot (NPG) groups (Maori = 537, Non-Maori = 204) were compared on progression to diabetes, impaired glucose tolerance (IGT), all-cause mortality.

Results for Maori: There were 10 incidence cases of diabetes, 20 IGT and 18 deaths from any-cause during a median duration of follow-up of 6.4 years in the PG compared with 22 incidence cases of diabetes, 23 IGT and 30 deaths from any-cause in the NPG followed for a median duration of 4.3 years. Participation in the pilot was associated with a statistically significant protective effect on progression to diabetes (Age-adjusted rate ratio 0.44(95% CI 0.2156, 0.912) and all-cause mortality (Age-adjusted rate ratio 0.49 (95% CI 0.2771, 0.8626).

Results for Non-Maori: There were 12 incidence cases of diabetes, 13 IGT diagnoses and 19 deaths from any-cause during a median duration of follow-up of 6.2 years in the PG compared with 9/204 diabetes incidence cases, 11 IGT and 13 deaths from any-cause in the NPG followed for a median duration of 4.7 years. There was no statistically significant association with participation in the pilot on progression to diabetes, IGT or all-cause mortality.

Conclusion: The protective effect for Maori patients in the pilot on progression to diabetes was either because they had inherently lower risk than the non-pilot group or potentially because their baseline results were interpreted in the context of their CVD risk. The effectiveness of CVDRA programmes on reducing incidence diabetes should be formally assessed. Research focusing on risk reduction for Maori aged 35-49 years is recommended.

Acknowledgements

Setting the aims and objectives for this project involved discussions with the pilot's stakeholders and health officials in particular Dr Shane Cross, Chris Farelly, Kim Tito, Dr Nick Chamberlain, and Dr Sandy Dawson; as well as the researcher's two supervisors Dr Christine Van Dalen and Associate Professor Barry Borman, both of the Centre for Public Health Research, Massey University. From these discussions along with guidance from the researcher's two supervisors, the study design and the aims and objectives were set.

Staff at the general practice provided advice and support during data extraction. The data management, analyses, interpretation, and selection of topics have all been done by the researcher.

Dr Christine Van Dalen and Associate Professor Barry Borman have provided advice and constructive feedback and edits through earlier versions and this report, particularly aimed at improving communication of ideas and information as well as the overall flow of the report.

This research is a follow-up study on the *Northland Diabetes Screening and Cardiovascular Risk Assessment Pilot* (2004-2007). Acknowledgement of previous work related to the pilot design and implementation goes to a team of Northland authorities led by Dr Nick Chamberlain.

Research presented from the pilot evaluation based on the work of the researcher, Bronwyn White, has been previously credited to meet research requirements for a Post-Graduate Diploma in Public Health at Massey University in 2008.

There was no formal funding for this follow-up study however the former Tihewa Mauriora PHO assisted by funding two return flights for the researcher (based in Nelson) to visit Northland and practice staff provided much appreciated hospitality and transport for the researcher within Northland during the visits.

Ethical approval was granted for this study by the Northern Y Regional Ethics Committee on August 2011 Reference NTY/11EXP/006 for this study.

I'd like thank all the people who have contributed to this follow-up study. A very special thank-you goes to Shane and Alyson Cross, Nick Chamberlain, Christine Van Dalen and Barry Borman.

I'd also like to thank all my family and friends for your ongoing support and tireless patience with me. I especially wish to thank Anna and Mary Hansen for always believing in me.

Bronwyn White

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