

Te Wai o Rona Resources



Peer reviewed papers

1. Optimal waist cutpoint for screening for dysglycaemia and metabolic risk: evidence from a Maori cohort. Rush EC, Crook N, Simmons D. Br J Nutr. 2009 Sep;102(5):786-91. Epub 2009 Mar 31.

[Click here](#) to read the abstract

Key words: Waist: Metabolic syndrome: Dysglycaemia: Dyslipidaemia: Maori

Key messages: Te Wai o Rona: Diabetes Prevention Strategy is the first study in a Maori, or any Polynesian, population showing detailed analysis of waist circumference cut-off points for the detection of dysglycaemia and two or more risk factors for the MS. The waist cut-off for women was 98 cm and 103 cm for men.

2. Prevalence of undiagnosed diabetes, impaired glucose tolerance and impaired fasting glucose among Maori- Te Wai o Rona: Diabetes Prevention Strategy. Simmons D, Rush E, Crook N. New Zealand Medical Journal. 2009; 122.

[Click here](#) to read the paper

Key words: Undiagnosed diabetes, impaired glucose tolerance (IGT), impaired fasting glucose (IFG), Maori.

Key messages: The cohort represented approximately 13% of Waikato and Southern Lakes District Maori adults. Undiagnosed diabetes, IGT, and IFG were common in this M?ori cohort (particularly in men and the very obese) and there was significant opportunity to reduce M?ori morbidity and premature mortality through case-finding an increased number of Maori with dysglycaemia requiring intervention Investment by district health boards in prevention strategies across the lifecycle is required.

3. Development and piloting of a community health worker-based intervention for the prevention of diabetes among New Zealand Maori in Te Wai o Rona: Diabetes Prevention Strategy Simmons D, Rush E, Crook N.. Public Health Nutr.2009 11(12):1318-25.

[Click here](#) to read the abstract

Key words: Prevention, Diabetes, Maori, community intervention.

Key messages: This study showed that community-wide prevention programmes are feasible among Maori and likely to result in significant reductions in the incidence of diabetes

The intervention included personal support delivered by Maori Community Health Workers (MCHWs) and focused on twelve key lifestyle messages. These messages were focused around practical ways of increasing physical activity and a targeted those at high risk of diabetes. This included those with impaired glucose tolerance (IGT) or impaired fasting glucose (IFG), precursors to type 2 diabetes, which can be prevented or delayed by intensive lifestyle changes.

4. The New Zealand experience in peer support interventions among people with diabetes. Simmons D, Voyle J, Rush E, Dear M. Fam Pract. 2009.

[Click here](#) to read the abstract

Key words: Diabetes, New Zealand initiatives, Peer support, Strategy evaluation.

Key messages: M?ori community health workers, trained to provide peer support for the Te Wai o Rona Diabetes Prevention Strategy took an active part in screening for diabetes risk, coaching and support of peers and groups and the use of the intervention materials developed. The pilot of the M?ori community health worker intervention was associated with meaningful weight loss particularly among those with impaired glucose

tolerance.

5. Point-of-care testing as a tool for screening for diabetes and prediabetes. Rush E, Crook N, Simmons D. *Diabetes Medicine*. 2008;25:1070-5.

[Click here](#) to read the abstract

Key words: Finger-prick point-of-care testing (POCT), Blood glucose measurement, Diabetes.

Key messages: This study has shown finger-prick point-of-care testing (POCT) is not a good way to determine the presence of diabetes or prediabetes.

6. Relationships between a walk test, body size and metabolic risk among a New Zealand Māori community. Rush EC, Crook N, Simmons D.. *Annals of Human Biology* 2010 Jan-Feb;37(1):117-27.

[Click here](#) to read the abstract

Key words: Walk test, diabetes, obesity, metabolic syndrome X, Maori

Key messages: Distance walked in 4 minutes was most strongly and negatively related to four factors – age, fat mass, lower socio-economic status and smoking, and also with increasing numbers of components of the metabolic syndrome. This test could be used in the clinical setting to assess response to lifestyle interventions in those who are sedentary.

7. Low prevalence of retinopathy, but high prevalence of nephropathy among Maori with newly diagnosed diabetes-Te Wai o Rona: Diabetes Prevention Strategy. Lim S, Chellumuthi C, Crook N, Rush E, Simmons D. *Diabetes Res Clin Pract*. 2008;80:271-4.

[Click here](#) to read the abstract

Key words: Retinopathy, Nephropathy, Maori, Diabetes.

Key messages: This study has shown that strategies among those at risk of diabetes, including the promotion of smoking cessation, are needed to reduce the risk of renal disease among Māori with diabetes.

8. Mapping the availability and accessibility of healthy food in rural and urban New Zealand - Te Wai o Rona: Diabetes Prevention Strategy.. Wang J, Williams M, Rush E, Crook N, Forouhi NG, Simmons D.. *Public Health Nutr*. 2009 Sep 28:1-7. [Epub ahead of print]

[Click here](#) to read the abstract

Key words: Food environment, availability, accessibility.

Key messages: Healthy' foods were more expensive than 'regular' choices in both urban and rural areas. Although 'healthy' foods were more available in urban areas, the cost of changing to a healthy diet in urban areas was also greater. Improvement in the food environment is needed to support people in adopting healthy food choices.

In Press

Traditional foods reported by a Māori community in 2004. *Mai Review*. Rush, E., Hsi, E., Ferguson, L., Williams, M., & Simmons, D. (2010 In press).

Abstract

This paper aimed to identify frequently consumed traditional foods at hui amongst Māori people living in the Waikato and Southern Lakes Districts, at the start of the Te Wai o Rona Diabetes Prevention Strategy. Responses from 2669 self-identified Māori (90.5%) and members of the same household aged ≥28 years were analysed. "Boil-ups" were consumed at least annually by four out of five respondents and salad was the food most frequently consumed at hui (25.5%); followed by kaimoana (seafood, 19.6%) and meat (17.8%). When the marae was located within five km of the coast, kaimoana was

more frequently eaten at hui and more often listed as a traditional food. Diverse tribal affiliations were also evident.

Education in relation to the need to cut fat off meat, to skim fat off a boil-up and increase fruit consumption should be encouraged in any new community and environmental programmes designed to reduce the burden of chronic disease in Māori people.

And just published in the New Zealand Medical Journal
Cultural issues in research, a reflection
Rawiri Blundell, Veronique Gibbons, Steven Lillis
[Click here](#) to view the abstract

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Below are useful links and resources generic to the Te Wai o Rona Diabetes Prevention Strategy project.

You can also find resources which are relevant to each specific message of Te Wai o Rona here.

Useful links

VegFed brochures <http://www.vegetables.co.nz/resources-index.php>

Why the fuss - Northland DHB, facts about

bread http://www.ana.org.nz/resources/WTF_A4_Pg14_FastFcts_Bread.pdf

What was learned?

Low prevalence of retinopathy, but high prevalence of nephropathy among Maori with newly diagnosed diabetes-Te Wai o Rona: Diabetes Prevention Strategy:

http://www.ncbi.nlm.nih.gov/pubmed/18242758?ordinalpos=1&itool=EntrezSystem2.PEntrez.Pubmed.Pubmed_ResultsPanel.Pubmed_RVDocSum

References and links to abstracts of published papers

Simmons D, Voyle J, Rush E, Dear M. The New Zealand experience in peer support interventions among people with diabetes. Fam Pract. 2009.

<http://www.ncbi.nlm.nih.gov/pubmed/19254967>

Simmons D, Rush E, Crook N. Prevalence of undiagnosed diabetes, impaired glucose tolerance and impaired fasting glucose among Maori- Te Wai o Rona: Diabetes Prevention Strategy. New Zealand Medical Journal. 2009;122.

<http://www.ncbi.nlm.nih.gov/pubmed/19182840>

Simmons D, Rush E, Crook N. Development and piloting of a community health worker-based intervention for the prevention of diabetes among New Zealand Maori in Te Wai o Rona: Diabetes Prevention Strategy. Public Health Nutr. 2008;1-8.

<http://www.ncbi.nlm.nih.gov/pubmed/18547452>

Rush E, Crook N, Simmons D. Point-of-care testing as a tool for screening for diabetes and prediabetes. Diabetes Medicine. 2008;25:1070-5.

<http://www.ncbi.nlm.nih.gov/pubmed/19183312>

Lim S, Chellumuthi C, Crook N, Rush E, Simmons D. Low prevalence of retinopathy, but high prevalence of nephropathy among Maori with newly diagnosed diabetes-Te Wai o Rona: Diabetes Prevention Strategy. Diabetes Res Clin Pract. 2008;80:271-4.

<http://www.ncbi.nlm.nih.gov/pubmed/18242758>

Abstracts from presentations given

1. Rush E, Simmons D, Obolonkin V, Crook N. Baseline data for the development of a multipartner community based programme for the prevention of diabetes - Te Wai O Rona Diabetes Prevention Strategy. Presented at Agencies for Nutrition Action Call to Action Conference, Christchurch, New Zealand, May 2005.

2. Rush EC, Simmons D, Crook N, Obolonkin V. Starting point for prevention and identification of cut-offs for risk for Type 2 Diabetes in New Zealand Maori [Abstract]. South African Journal of Clinical Nutrition. 2005;18:197.

3. Simmons D, Rush E, Crook N. Weight reduction among Maori in Te wai o Rona: diabetes prevention strategy: Vanguard study findings. Presented at New Zealand Society for the Study of Diabetes Annual Meeting, Palmerston North, May, 2006

4. Rush E, Simmons D, Crook N. Fatness and fitness are associated with metabolic syndrome risk factors in Maori. 7th International Diabetes Federation Western Pacific Region Congress. Wellington, New Zealand, 2008.

5. Rush E, Simmons D, Crook N. Starting point for prevention and identification of cut-offs for risk for type 2 diabetes in New Zealand Maori. Presented at New Zealand Society for the Study of Diabetes Annual Meeting, Palmerston North, May 2006

6. Chandrasekar C, Simmons D, Rush E, Crook N. Characteristics of Maori participants with undiagnosed diabetes in Te Wai o Rona: diabetes prevention strategy. Presented at New Zealand Society for the Study of Diabetes Annual Meeting, Palmerston North, May 2006

7. Williams MH, Oehley M, Rush E, Simmons D. Mapping the availability and accessibility of healthy food within the Waikato and Lakes district health regions: the Te Wai o Rona diabetes prevention strategy. Presented at New Zealand Society for the Study of Diabetes Annual Meeting, May 2006

8. Clark P, Simmons D, Rush E, Crook N. Risk of diabetes and abnormal glucose tolerance among women with self-reported past gestational diabetes mellitus in the Te Wai O Rona diabetes prevention strategy. Presented at New Zealand Society for the Study of Diabetes Annual Meeting Palmerston North, 2006
9. Rush E, Simmons D. Cut-offs and Obesity Labels - What is the Point?. Presented at From Genes to Community: What is obesity?, Auckland, New Zealand, 9, 10 September 2006
10. Simmons D, Rush E. Te Wai O Rona: Diabetes Prevention Strategy. Presented at From Genes to Community: What is obesity?, Auckland, New Zealand, 9, 10 September 2006
11. Rush E, Simmons D, Crook N. Dysglycaemia is associated with reduced aerobic fitness and increased central obesity. 15th European Congress on Obesity (ECO). Budapest, Hungary: Nature publishing group, 2007.
12. Rush E, Crook N, Simmons D. Fruit and vegetable intake, body mass index and risk for diabetes in Maori. 7th International Diabetes Federation Western Pacific Region Congress. Wellington, New Zealand, 2008.
13. Rush E, Crook N, Simmons D. Te Wai o Rona: Diabetes Prevention Strategy-evidence for success. 5th Asia-Oceania Conference on Obesity. Mumbai, India: Invited speaker, 5- 8th February 2009.
14. Simmons D, Rush E, Crook N. Diabetes among women with self reported past gestational diabetes mellitus in Te Wai O Rona: Diabetes Prevention Strategy. Diabetic Pregnancy Study Group 2-5th October. Cavtat, Croatia: European Association for the study of Diabetes, 2008.

Acknowledgements

Te wai o Rona Diabetes Prevention Strategy Partnership

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Elaine Rush (Co chair)	AUT University, Investigator
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Hori Awa	Iwi Maori Council
Harry Mikaere	Iwi Maori Council
Steph McLennan	Sport Waikato
Murray Dear	Diabetes New Zealand
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Keith Wright	Lakes DHB
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Eru George	Kaumatua/Kaitiaki
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HRC Partnership

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