# Knowledge of Risk Factors for Type 2 Diabetes by Primary Health Care Nurses in Auckland, New Zealand

Dr Barbara Daly, Assoc Prof Nicolette Sheridan<sup>1</sup>, Prof Bruce Arroll, Assoc Prof Tim Kenealy<sup>2</sup>, Prof Robert Scragg<sup>3</sup>

<sup>1</sup>School of Nursing, <sup>2</sup>General Practice and Primary Health Care, <sup>3</sup>Epidemiology & Biostatistics Faculty of Medical and Health Sciences, The University of Auckland

## **Background**

Large increase in overweight and obese adults, an aging population increased incidence of metabolic syndrome and type 2 diabetes<sup>1</sup>, a shortage of health professionals to detect and manage the condition<sup>2</sup> leading to expanded roles for primary health care (PHC) nurses.<sup>3</sup>

### Aim

Describe the knowledge of major risk factors for type 2 diabetes held by primary health care (PHC) nurses involved in the community management of diabetes.

### **Methods**

- Cross-sectional survey.
- 287 PHC nurses randomly sampled.
- 86% response rate / 26% of total PHC nurses.
- 210 Practice, 49 District (home), 28 Specialist nurses.
- Completed postal and telephone questionnaires.
- Education, experience, knowledge and management.
- Information also collected on 265 diabetes patients consulted on a randomly selected day.

### Results

Knowledge of risk factors for type 2 diabetes

- 96% of nurses identified excess body weight.
- 34% lack of physical activity.
- 26% hypertension.
- 17% elevated total- or-LDL cholesterol (LDL-C).
- 5% elevated triglycerides.
- 2% reduced HDL cholesterol (HDL-C).

Knowledge of risk factors for complications

- 86% elevated HbA1c / blood glucose.
- 62% lack of physical activity.
- 57% elevated total- or-LDL-cholesterol.
- 31% hypertension.
- 17% smoking.
- 8-9% elevated triglycerides and reduced HDL-C.

Lack of associations between knowledge of, and assessment of cardiovascular(CV) risk factors.

# Practice District Specialist P values: \* <0.05; \* \* \* <0.005 \*\* Overweight Hypertension High LDL-C Triglycerides Low HDL-C Lack of exercise

Auckland

Figure 1

Proportion of nurses who could identify major risk factors for type 2 diabetes

# Implications

- Increase knowledge of CV risk factors for metabolic syndrome / type 2 diabetes.
- More effective management to reduce diabetes-related complications .

### References:

- 1. Ministry of Health. Diabetes surveillance. Wellington (New Zealand): Ministry of Health, 2007.
- 2. PricewaterhouseCoopers. Type 2 diabetes: managing for better health outcomes. Wellington (New Zealand): Diabetes NZ Inc, 2001.
- 3. Ministry of Health, Investing in health: Whakatohutia te oranga tangata: a framework for activating primary health care nursing in New Zealand. Wellington (New Zealand), Ministry of Health, 2003.

### Acknowledgements

- Novo Nordisk
- The Charitable Trust of the Auckland Faculty of the Royal New Zealand College of GPs
- The New Zealand Ministry of Health.

Contact Barbara Daly (b.daly@auckland.ac.nz)

