New Zealand faces wave of diabetes, research suggests
1 March 2013

Nearly one fifth of New Zealand's adult population face the very real spectre of living with diabetes, according to new University of Otago research published in the *New Zealand Medical Journal* today.

The results are based on an analysis of blood test results of the adult population that was undertaken by Dr Kirsten Coppell, Professor Jim Mann and colleagues from the University's Edgar National Centre for Diabetes and Obesity Research.

The blood samples came from the 2008/2009 NZ Adult Nutrition Survey, work that University of Otago researchers conducted on behalf of the Ministry of Health. Key findings from the survey were released in 2011.

A total of 3348 (71%) of the survey participants gave blood for the survey, and this showed that the rate of diagnosed diabetes was, as at 2008/2009, running at 7% of the population in adults 15 years and over, and this was "already high," the study says.

"These data, when compared with the first measurements taken in 1967, provide convincing evidence that the prevalence of diabetes in New Zealand has increased over time. This is consistent with observations world-wide," says Dr Coppell.

However, those with pre-diabetes (with a glucose metabolism disorder that typically leads to diabetes) numbered 18.6% of the adult population, meaning that prevalence of actual diabetes (type 2) was at that time set to rise significantly in subsequent years. Diabetes is a common chronic disease with significant morbidity, mortality and cost.

"We found an alarmingly high prevalence of a glucose metabolism disorder (diabetes or pre-diabetes) in working age groups," says lead researcher Dr Coppell.

"Almost 20% of those aged 35-44 years, more than 25% of those aged 45-54 years and almost 45% of those aged 55-64 years had a glucose metabolism disorder, or pre-diabetes.

She adds that the results, particularly the numbers with pre-diabetes, on top of an already-high national diabetes rate, should be of major concern to policy makers and health funders.

The Otago researchers also found that the blood sample data showed diabetes was more frequent in men (8.3%) than in women (5.8%). The prevalence of diabetes was higher among the obese group (14.2%), compared with the normal weight group (2.4%), and one-quarter of those who were obese had pre-diabetes.

The prevalence of diabetes differed markedly among the three ethnic groups - Pacific (15.4%), Maori (9.8%) and NZ European and Other (6.1%).

"The implications of increased diabetes-related morbidity, mortality and health care costs are considerable," she says.

"Implementation of effective evidence based diabetes prevention strategies is urgently required to reduce the increasing costs of the diabetes epidemic."

The 2008/2009 NZANS was a nationally representative survey of 4,721 New Zealanders aged 15 years and over. Other data collected included demographics, tobacco use, alcohol consumption and medical history, including a specific question about diabetes.

Dr Coppell and colleagues hope to attract funding for further research into the effectiveness of dietary intervention during primary care (at GP level) for those with pre-diabetes.