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**PRECONCEPTION NUTRITION
KNOWLEDGE, DIETARY INTAKES AND
LIFESTYLE CHARACTERISTICS OF
AUCKLAND WOMEN**

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the degree of Master of Science in Nutritional Science at Massey
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ABSTRACT

Introduction

Adequate nutritional status prior to conception and during early pregnancy is important in achieving a healthy pregnancy outcome. This study examined preconception nutrition knowledge, and dietary and lifestyle habits in Auckland women of childbearing age.

Methods

Women aged 18-45 years (n=115) were recruited and data collected using a detailed questionnaire, anthropometric measurements and a diet history to evaluate dietary intakes.

Results

18 women were attempting to conceive and 97 women indicated they were not currently planning pregnancy. The reproductive history of the women identified that 53 women had previously been pregnant but only 47% of these pregnancies had been planned.

Nearly all of the women (93.7%) had heard of folic acid and 65% were aware that folic acid was required for pregnancy. Although 53.9% of the women knew that folic acid prevents birth defects, only 31.3% of women had specific knowledge that folic acid use a month before conception can prevent neural tube defects. All of the women in the study who were currently planning a pregnancy had heard of folic acid and 13 (72%) were taking a folic acid supplement ($\geq 400\mu\text{g}$).

Although 80% of the women thought that dietary habits in the preconception period could affect pregnancy outcome few women thought preconception diet could influence risk of miscarriage, preterm delivery or maternal deficiencies. 83% of women used alcohol, 13.0% had a caffeine intake >300 mg/day, 8% smoked and 26.0% were overweight or obese.

Conclusions

Women recruited to the study demonstrated a lack of awareness of the importance of preconception nutrition and were not in an optimal physical state for pregnancy. The high rate of unplanned pregnancies in New Zealand is a significant obstacle to preconception care and efforts to increase the awareness of the importance of preconception nutrition are needed.

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LIST OF ABBREVIATIONS

ARND	Alcohol-Related Neurodevelopmental Disorders
BAC	Blood Alcohol Concentration
BMI	Body Mass Index
CA	Congenital Anomalies
CDC	Centers for Disease Control and Prevention
CHO	Carbohydrate
CI	Confidence Intervals
CNS	Central Nervous System
DRV	Dietary Reference Values
EAR	Estimated Average Requirement
FAS	Foetal Alcohol Syndrome
FFQ	Food Frequency Questionnaire
GI	Glycaemic Index
Hb	Haemoglobin
hCG	β -Human Chorionic Gonadotropin
IQ	Intellectual Quotient
IU	International Unit
IUGR	Intrauterine Growth Restriction
LBW	Low Birth Weight
MOH	Ministry of Health
MRC	Medical Research Council
n-3	Omega-3
n-6	Omega-6
NHS	National Health Survey
NNS	National Nutrition Survey
NIP	Nutrition Information Panel
NS	Non-Significant
NZSEI	New Zealand Socio-Economic Index
NTD	Neural Tube Defect
OR	Odds Ratio
PUFA	Polyunsaturated Fatty Acids
SAB	Spontaneous Abortion
SES	Socio-Economic Status
SGA	Small-for-Gestational Age
SPSS	Statistical Package for the Social Sciences
RDI	Recommended Daily Intake
RNI	Reference Nutrient Intake
RR	Relative Risk
TTP	Time to Pregnancy
UL	Tolerable Upper Limit
US	United States
WHO	World Health Organisation
WHR	Waist-to-Hip Ratio