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An Investigation: Women & Healthy Eating

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WOMEN'S HEALTH
GOULBURN NORTH EAST

Women's Health Goulburn North East (WHGNE) was established in July 2000. Previously known as NEWomen, Women's Health Goulburn North East is the government funded, specialist women's health service for the Goulburn Valley and North East Victoria.

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Context

In an environment where obesity has been defined as a 'greater threat than terrorism' stated by US Surgeon General Richard Carmona, and where cardiovascular disease kills an Australian every eleven minutes, what people are eating, has never been of higher concern. In Australia, obesity rates have more than doubled over the past twenty years, with an estimated four million Australians obese. Cardiovascular disease, despite a decrease in rates is still Australia's biggest killer and most expensive condition, costing approximately 5.9billion dollars in 2005. Consuming a well balanced and nutritious diet is not an easy task and certain population groups exhibit greater barriers in achieving this.

Whilst the feminine movement has come a long way in improving gender equality, and Australia prides itself on egalitarianism, gender and gender roles still have a significant impact on our health. Research literature consistently reveals a higher number of characteristics common to females, associated with poor dietary intake and food insecurity.

Gender roles have not evolved far in caring responsibilities and domestic chores. Women still hold primary responsibility of family food consumption, taking charge of selecting, purchasing and preparing food, and have thus been termed the "gatekeepers" of family food consumption. Women also predominately take responsibility for domestic duties, child rearing and care giving (Heart Foundation, Women's Health Victoria). All of these tasks significantly displace a women's ability to engage in paid work.

Women are often required to engage in part time work, rely on welfare payments or their partner's income. A lower income combined with the burden of caring and domestic duties results in a limited amount of time and resources to fulfil healthy eating requirements.

Having adequate nutritious food to eat is a basic human right that no individual should be deprived of. This document will highlight some of the determinants of healthy eating and expose why women are more vulnerable to this infringement of human rights.

Why Women?

- On average women earn 17% less than men
- Many women who are employed, and who perform work of equal value to men, receive less remuneration.
- Women living on a lower income are typically more likely to be unemployed, under educated and to have fewer social networks, which may in turn limit their ability to engage in healthy behaviours.
- For women of low socioeconomic status (SES), healthy eating options are often less available and sometimes less affordable.
- Low SES neighbourhoods are often obesity promoting environments; poor neighbourhoods generally have three times fewer supermarkets, a higher proportion of fast food restaurants and convenience stores, less green spaces and physical environments to engage in activity and less public transport options.
- 68% of primary carers for people with a disability or older people are women.
- This responsibility greatly hinders their ability to participate in full time work and engage in health promoting behaviours
- 87% of one-parent households with children under 15 years were headed by females
- Single-parent families face a higher risk of poverty and food insecurity than other groups
- Day-to-day living expenses generally consume half of the income for single mothers
- The role of women in feeding the family and purchasing and preparing food assigns women the responsibility of managing household food security.
- Mothers often forgo their own nutritional intake to ensure their children's diets are sufficient.
- Often family eating habits will change to support the needs of male partners and children, yet when women have specific dietary requirements, family eating habits do not change
- Women of lower socioeconomic status often feel that their need to eat well is not supported by their partner

(Women's Health Victoria – Submission to Australian Dietary Guidelines, 2010).
(National Women's Health Policy 2010)
(Women in the Hume Region – Women's Health Goulburn North East)
(Women's Health Victoria – Women & Financial Security 2008)

Women @ Greatest Risk of Poor Health

- Women with a disability
- Women in rural and remote areas
- Refugees/Migrants
- Women as Carers
- Older Women
- Lesbian/Bisexual women
- Indigenous Women

(National Women's Health Policy 2010)

What Women are eating?

- 16% of females are meeting vegetable RDI's of 5 or more serves a day
- 60% of females met fruit requirements of 2 serves a day
- Less than 1 in 10 Victorian females meet fruit and vegetable daily requirements
- Cereal and cereal based products contributed the greatest amount of food intake for females (23%) aged 18+. This was followed by milk products (21%) and then vegetables and legumes (20%).
- 49.6% of Victorian female population 18+ consumed 1-2 serves of vegetable per day

Dietary Intake differs between geographic location, SES and age

- **Lower** intakes of vitamins and minerals in **rural** centres
- **Lowest** intake of nutrients in **disadvantaged** areas
- **Higher** intake of sugar in **rural** centres
- **Rural** areas have an **increased** consumption of fats & oils
- Energy intakes are lower in **females** located in **rural** centres
- 82-89% of female adolescents (16-18) did not meet EAR for calcium
- **Rural** residents were **less likely** to consume low fat or skim milk
- Young people consume less fruit and vegetable than adults
- 12.5% of Victorian females that consume 5+ serves of vegetables daily were aged 65 years and over, only 6% came from women aged 18-24
- **Low SES** have reported **lower** consumption of fruit and vegetables

(2004-05 National Health Survey)
(1995 National Nutrition Survey ABS)
(National Women's Health Policy 2010 – Chapter 3)
(2008 Victorian Population Health Survey – Health & Lifestyle)

Australian Dietary Guidelines

The National Health & Medical Research Council's Australian Dietary Guidelines are based on the best available scientific evidence and provide information about the types and amounts of foods, food groups and dietary patterns that aim to

- promote health and wellbeing;
- reduce the risk of diet-related conditions, such as high cholesterol, high blood pressure and obesity; and
- reduce the risk of chronic diseases such as type 2 diabetes, cardiovascular disease and some types of cancers

Five serves of vegetables and two serves of fruit are recommended daily to protect against such illnesses and promote wellbeing.

The state average of females meeting recommended dietary intake for vegetables was 10.5%, whilst the average for females of the Hume region was 12.1%

Meeting RDI guidelines for vegetables by LGA (females)

LGA	% meeting 5+ serves of veg
Alpine	9.1%
Benalla	10.8%
Greater Shepparton	12.2%
Indigo	12.3%
Mansfield	12.7%
Mitchell	9.2%
Moira	13.0%
Murrindindi	13.4%
Strathbogie	10.9%
Towong	11.5%
Wangaratta	17.8%
Wodonga	12.1%

(Victorian Population Health Survey 2008 – Health & Lifestyle)

Meeting RDI guidelines for fruit by LGA (females)

LGA	% meeting 2+ serves of fruit
Alpine	47.0%
Benalla	53.8%
Greater Shepparton	52.7%
Indigo	51.0%
Mansfield	47.8%
Mitchell	54.2%
Moira	48.4%
Murrindindi	56.5%
Strathbogie	54.0%
Towong	51.3%
Wangaratta	62.9%
Wodonga	54.3%
Hume	55.1%
Victoria	54.6%

Additional Nutrient Requirements for Women

Folate – B vitamin needed for healthy growth and development and integral for growth of an unborn baby. Folate supplementation is recommended one month prior conception and three months after birth for healthy foetal development. This can prevent 7 out of 10 cases of neural tube defects. However most women are unlikely to know they're pregnant in the early weeks of pregnancy, and thus may not consume folate supplements in the recommended time frame.
Those with low education and of low SES may not be aware of the additional requirements or be unable to afford such supplementation.

Iron – Forms a part of haemoglobin and carries oxygen in the blood. Women need increased iron due to menstruation. Iron deficiency is the most common nutrient deficiency in women. Insufficient iron can result in drop in blood pressure, breathlessness, tiredness and fatigue resulting in reduced work productivity, concentration difficulties and decreased likelihood to engage in health promoting behaviours, and anaemia. Iron absorption is highest in red meat and other animal products (men consume higher amount of red meat than women). Vitamin C can increase absorption of iron.

Calcium & Vitamin D – Needed for development and maintenance of skeleton. Bone mass peaks around mid twenties. Adolescence is a key period of rapid growth with calcium requirements increase during this period to meet the growing demand. Majority of female adolescents consume intakes lower than the Recommended Dietary Intake (82-89% fail to meet RDI). One reason for this inadequacy could be the belief that 'dairy products are high in fat and likely to result in weight gain if consumed'. Adolescence is a particularly vulnerable period for girls in terms of body image and self esteem. One in two post menopausal females are likely to develop osteoporosis; calcium has a key role in the development and progression of osteoporosis. Both men and women loose bone mass as they age, however women loose more calcium from their bones in the 5-10years around menopause due to the drop in oestrogen levels. It's estimated women loose 10% of their bone mass in the first five years post menopause. Calcium rich diets and regular exercise is recommended to prevent osteoporosis.

(Healthy Eating – Department of Health & Ageing, 2012)
(Better Health Channel – Calcium, 2012)
(Better Health Channel – Folate, 2012)
(Nutrient Reference Value's, 2012)

Poor Nutrition and its Links to Non Communicable Diseases

In 2003, 2.1 per cent of Australia's total burden of disease and injury was attributed to low fruit and vegetable consumption. Eating sufficient fruit and vegetables in conjunction with regular physical activity can help prevent cancer, heart disease, diabetes, obesity and—to a lesser extent—stroke.
(National Women's Health Policy 2010)

Cardiovascular Disease

Cardiovascular disease (CVD) is the largest cause of death among females, accounting for more than every 1 in 3 deaths (National Women's Health Policy 2010). More than 90% of women have one risk factor for heart disease and 50% have 2 or 3 risk factors, including

- 27% with High blood pressure (only 10% aware this is a risk factor for heart disease)
- 54% overweight/obese
- 48% with high cholesterol (12% aware its a risk factor)
- 76% performing insufficient activity
- 15% smoking daily

39% of women wrongly identify Breast Cancer as the leading cause of death for female Australians. Many still view this as "only a male problem" however women are 4 times more likely to die from heart disease than breast cancer and women have increased levels of mortality from heart attacks than men (account for 53% of deaths). Women are more likely to have atypical symptoms of coronary heart disease, differing from those experienced commonly by men, therefore can delay treatment, diagnosis and prompt less aggressive treatment from doctors, all worsening the outcomes. Cardiovascular disease is more commonly seen in women from low SES backgrounds, with women from disadvantaged areas having 29% higher death rates than those from non disadvantaged areas.
(National Women's Health Policy 2010 – Chapter 3)
(Heart Foundation – Women and Heart Disease)
(Women's Health Victoria – Cardiovascular Disease)

Diabetes

Type 2 Diabetes is now recognised as Australia's fastest growing chronic disease, although it can be avoided by engaging in a healthy lifestyle; completing regular physical activity and consuming a nutritious diet. Type 2 diabetes occurs when the body's cells fail to respond properly to insulin, where as type 1 is an autoimmune illness where pancreas cells no longer produce insulin. 88% of all female diabetic cases are diagnosed with type 2 diabetes. Being overweight is a strong risk factor; women who are overweight have a 14 times increased risk of developing diabetes, whilst overweight men have 4 times the risk. Type 2 diabetes is most common after the age of 40, and risk increases with age as the body gradually loses its sensitivity to insulin. The highest prevalence of diabetes in females aged 65 and over. Type 2 diabetes is typically brought about by an unhealthy diet, physical inactivity, excess weight and high blood pressure. It's not surprising that diabetes increase the risk of a heart attack, angina or a stroke. Diabetes can also result in kidney and eye damage, circulation problems and nerve damage to the feet resulting in ulcers, which potentially results in amputation. Geographic location appears to play a role in diabetes, with the mortality rate for those in rural areas 2-4 times higher than those living in major cities.

Gestational diabetes is a temporary form of diabetes that occurs during pregnancy. Once the baby is born the mother's blood glucose levels are likely to return to normal. It is increasingly prevalent with significant associated risks to both mother and baby. Infant risks include

excessive growth and fat, respiratory distress syndrome, low blood sugar and increased risk of type 2 diabetes. Gestational diabetes is diagnosed in between 5 and 12 per cent of pregnant women, who then have a 50 per cent risk of developing Type 2 diabetes within five years. Women at high risk of gestational diabetes include

- Women over 30
- Women with a family history of type 2 diabetes
- Women who are overweight/obese
- Indigenous
- Women who have previously had gestational diabetes
- Cultural groups – Polynesian and Melanesian

Females living in regional and remote areas were significantly more likely to report diabetes than those in major cities. Decreasing socioeconomic position is also associated with an increasing prevalence of gestational diabetes.
(National Women's Health Policy 2010)
(Women's Health Victoria – Women and Diabetes)

Lifestyle Risk factors

Obesity

Obesity has been identified as the primary cause of chronic illness in Australian women. Its estimated obesity causes 23.8% of diabetes and 21.3% of Cardiovascular Disease. Obesity is more common in those experiencing greater social disadvantage, with the rates nearly doubled in disadvantaged women. Evidence suggests those living on lower incomes are more likely to live in environments that do not support health behaviours. Low SES neighbourhoods generally have more fast food venues, less supermarkets and less green spaces, are conducive for a sedentary lifestyle and low availability of fruits and vegetables. Obesity also increases with remoteness; Australians living in remote areas have the highest rates of obesity and are likely to experience similar circumstances to those seen in disadvantaged neighbourhoods.

Being overweight increases your risk of a number of health problems, including:

- Coronary heart disease
- Diabetes
- High blood pressure
- High blood cholesterol
- Gall bladder disease
- Joint problems, such as gout, arthritis and joint pain
- Sleep problems, such as sleep apnoea
- Certain types of cancer

(National Women's Health Policy 2010 – Chapter 3)
(Better Health Channel – Heart Disease – Risk Factors, 2012)

Physical Inactivity

Australian Physical Activity Guidelines recommend adults should engage in 30 minutes of moderate physical activity on most, if not all days of the week. Females engage in less physical activity than men. This can be assigned to the different barriers women face in participating in physical activity including

- Caring responsibilities
- Body Image concerns

- Personal safety fears
- Lower Socioeconomic Status (SES)
- Lower income
- Time poor – Predominately women engage in many unpaid work demands such as care giving, meal preparation and house work, displacing time themselves and physical activity

The Australian Longitudinal Study found physical activity levels decrease in conjunction with marriage and childbirth. This association reveals women's needs come second to that of their family, and family duties displace time to engage in physical activity. Women's occupations also prohibit physical activity. Female dominated workforces associated with higher incidence of sedentary behaviour e.g. a higher proportion of women are receptionists and health care workers, predominately confined to a desk, where as a trades person such as a builder has a physically demanding job resulting in higher energy expenditure . Women who report low levels of physical activity are at greatest risk of non compliance with dietary guidelines, causing greater risk of ill health.

(National Women's Health Policy 2010 – Chapter 3)
(Women's Health Victoria – Women and Diabetes)
(Victorian Population Health Survey 2008)

Food Insecurity

> Food security exists when all people, at all times, have physical, social and economic access to sufficient, safe and nutritious food to meet their dietary needs and food preferences for an active and healthy life (VicHealth)

Alternatively **Food Insecurity** is defined as "limited or uncertain availability of nutritionally adequate and safe foods or the limited or uncertain ability to acquire such foods in socially acceptable ways". Food insecurity is dictated by the food supply in a country, community or household, and by people having the resources and skills to access and use that food. Food security is characterised by three pillars; Access, Availability and Use.

- **Access:** The capacity to acquire and consume a nutritious diet, including; ability to buy and transport food, home storage, preparation and cooking facilities and time and mobility to shop and prepare for food.
- **Availability:** The supply of food within a community affecting food security of individuals, households or an entire population, such as; location of food outlets, availability of food within the stores, price, quality and variety of available food.
- **Use:** The appropriate use of food based on knowledge of basic nutrition and care, and the skills to utilise and prepare food, and make suitable choices.

Those placed at higher risk of food insecurity

- are unemployed
- single parent house holds
- low income earners
- Young people
- Rental households
- Indigenous
- CALD groups
- Socially isolated

Women are over represented in a number of these groups. Women earn a substantially lower income, often engaging in part time work with close to three quarters of part time workers being women (ABS, 2011). Occupations predominately occupied by women are associated with a lower income such as administration, retail, health care and child care. Due to caring responsibilities women are more likely to work on a part time basis, be unemployed and head single parent households, requiring them to rely on welfare payments. Women are more vulnerable social isolation due to a number of characteristics previously mentioned and including; childbearing and being single parents. Violence against women can reduce their social interaction by either perpetrator prohibiting their contact with society or due to the woman's fear. Women generally live longer spending more years in social isolation, lack of employment minimises opportunities to network and engage with like minded people. Rural women often express lack of confidentiality as a barrier to socialisation, minimising their support networks.

Females experience a higher incidence of food insecurity in comparison to male counterparts. This is evident in the Victorian population health survey (2008) as the number of males experiencing food insecurity in the past 12 months had remained stable, yet the proportion of females was consistently higher and continuing to rise.
(Victorian Population Health Survey 2008 – Social Inequalities)

% Males & Females experiencing food insecurity in Vic

	2005	2006	2007	2008
%Males	4.3	4.4	4.8	4.5
%Females	4.8	5.4	5.4	6.5

Low Financial Resources

Price has been determined as the most significant factor when deciding what foods to purchase. Low income combined with high food prices result in households spending a large percentage of their income on food. Those receiving an income support payments are unlikely to have the sufficient funds to meet households need to provide an adequate standard of living. It's estimated welfare dependent families need to spend a minimum of 33% of their weekly income to provide a sufficient supply of healthy food meeting nutritional requirements. However a key finding from the NSW Cancer Council Food Basket Survey revealed low income families in NSW would have to spend 56% of their household budget to maintain a healthy diet, compared to 22% of average income families. 63% of welfare support recipients are females of working age, highlighting their limited budget.

Food expenditure is flexible. As opposed to rent or the mortgage which are fixed payments, the amount spent on food can be cut back during tighter financial periods e.g. unexpected illness or, one-off payments such as car repairs or expensive purchases such as household appliances. Fruit and vegetables are often the first thing to disappear during times of hardship and food insecurity. For many women on a low budget the perceived high cost of a healthy diet is a large deterrent and contributing factor towards food insecurity. Healthy food choices are believed to be unrealistic when living on a modest income. For some women with limited experience of healthy food purchasing and preparation, the perception of expensive healthy foods contributes to their lack of control over their family's food choices. The quantity of food over quality is deemed more important to avoid hunger and receive value for money. Mothers often feel unable to introduce a variety of foods into the family diet due to fear of wasting food and money if children do not like the item. Lack of variety can also be attributed to lack of culturally appropriate food choices, as 6% of Victorians consumed a reduced variety of foods due to limited availability. Affordable, safe and appropriate housing can be scarce on a low income. Living in poor quality housing, including shared or shelter housing can impact on access to clean and useable cooking facilities as well as preparation and storage. This can result in more frequent purchases of packaged non perishable items often high salt, fat and sugar and at a higher price.
(Heart Foundation- Food Security Discussion paper 2010)

Geographic Location

Location can have a vast impact on the price, variety, quality and availability of food. In rural settings, healthy food options are often reduced, and generally marked at a higher price. The high cost of limited nutritious food can place a strain on family budgets, particularly those on income support or single parents. International research has consistently found higher densities of fast food outlets in lower socioeconomic areas. These venues predominately sell food that is high in salt, sugar and saturated fat, highly processed and low in essential nutrients. Yet due to their low cost and high availability and accessibility, are often a convenient and financially viable option. Transport to and from shops or markets to acquire food has a strong correlation with food insecurity. Poor access, particularly to private transport can substantially hinder a person's ability to purchase food and result in food insecurity. Those without private transport and limited access to public transport face increased barriers to consuming a healthy diet. Public

transport is often less available and less frequent in rural regions, exacerbating social isolation and food insecurity. In Victoria 7.3% of the population face difficulties getting to shops because of inadequate and unreliable public transport.
(Women's Health Victoria – Food Insecurity)
(Women's Health Victoria – Submission to Australian Dietary Guidelines)

Proportion of females who experienced food insecurity in the past 12 months (2008).

Age	% Females
18-24	9.7%
25-34	7.5%
35-44	8.5%
45-54	7.0%
55-64	3.6%
65+	2.7%

(Victorian Population Health Survey 2008- Social Inequalities Chapter 9)

Implications of Food Insecurity

- Food insecurity has shown to have negative effect on children's learning ability and alertness
- Food insecurity is associated with general poor health, and may worsen other health inequalities
- Associated with low birth weight and ill health during infancy
- In Australia, obesity is most commonly seen in individuals who are at the highest risk of food insecurity
- A number of studies report a higher prevalence of overweight and obesity among women who report food insecurity
- The risk of obesity is 20-40% higher in food insecure women (regardless of income and education)
- This trend may be due to convenience of take away food, low cooking skills, binge eating, or consumption of energy dense, nutrient poor foods.
- These populations are also more likely to lead sedentary lifestyles
- Women in food insecure households are half as likely to consume recommended serves of fruit and vegetables
- Inadequate fruit and vegetable intakes contribute to the development of chronic diseases such as type 2 diabetes, heart disease and some cancers.
- Women often suffer from anxiety about insufficiency of the household food budget or food supply
- Food Insecurity can aggravate social exclusion and social deprivation
- Social exclusion has strong links with poor mental health, including higher rates of depression
- Social exclusion is also linked with low physical activity and well being, associated with lowered immune system and increased likelihood of heart disease.
- Studies have shown women are at greater risk of social exclusion than men.

(Women's Health Victoria – Food Insecurity)
(Women's Health Victoria – Australian Dietary Guidelines Submission)
(CAFCA – Food Insecurity in Australia 2011)

Food Insecurity in the Hume Region

Food Security was measured in the Victorian 2007 Community Indicators Survey. Respondents were asked if there had been a time in the past 12 months when they had run out of food and could not afford to buy more. The state average for food insecurity was 6%, and the average for the Hume region was 7.3%. Members of vulnerable groups responded 'yes' more frequently, with over 11% of unemployed people and 16% who were paying board or rent answered 'yes'. Given these vulnerable groups are often underrepresented in such survey's the results are potentially much higher.

Food Insecurity by LGA

LGA	% Food Insecurity
Alpine	6%
Benalla	7.6%
Greater Shepparton	6.9%
Indigo	4.7%
Mansfield	7.1%
Mitchell	8.7%
Moira	6.8%
Murrindindi	11.5%
Strathbogie	7%
Towong	4.%
Wangaratta	6%
Wodonga	8.3%

(Community Indicators Victoria, 2007)

In the Victorian Population Health Survey 2008 32.0% of respondents from the Hume region reported not being able to purchase the foods they wished due to foods being to expensive, this was higher than the state average of 28.3%. A further 28.5% said they couldn't always purchase foods at the right or sufficient quality, again higher than the state average of 25.5%. Being unable to purchase foods due to high price and insufficient quality is a component of food insecurity and further exacerbates the hardship.
(Victorian Population Health Survey 2008 – Chapter 9)

Women in the Hume Region

- 11.7% of the Hume region population is between 10-17 years of age, 2nd highest adolescent population in the state. *(Young girls at risk of inadequate calcium intake)*
- 2.4% of the population over 75 live alone; 74% of these are women *(Likely to live on restricted budget, experience health infirmities, social exclusion and increased risk of food insecurity)*
- Women earn significantly less than men. The poverty line for a single person was $440.47 per week. 61.6% of women earned less than $400 a week, compared to 38.4% of men *(Increased risk of food insecurity and nutrient poor diet*)
- 68% of primary carers for those with a disability or older people were women (*Increased risk of poor health and food insecurity)*
- 60% of sole parent families are headed by women *(Highest risk of food insecurity and increased poor health risk)*
- Hume region has third highest unemployment rate across the state (*Increased risk of food insecurity and poor health)*
- Top 3 causes of mortality in Hume region are
    1. Ischaemic heart disease
    2. Stroke
    3. Dementia & Alzheimers
- Women in Hume have 2nd have second highest overweight/obesity rates in the state *(Increased risk chronic illness)*
- 41% of women do not meet fruit and vegetable requirements (*Increased risk chronic illness and overweight/obesity)*
- 25% do not met physical activity guidelines *(Increased risk chronic illness and overweight/obesity)*
- In 2001, Non-Communicable diseases were responsible for 92.6% of all deaths in females in the Hume region *(Attributable to poor dietary intake physical inactivity, and overweight/obesity).*
- Cardiovascular disease was responsible for 39.6% of deaths *(Attributable to poor dietary intake, physical inactivity and overweight/obesity).*