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PUBLICATION OF THE CHRONIC DISEASES NETWORK

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### The Chronic Diseases Network

The Chronic Diseases Network was set up in 1997 in response to the rising impact of chronic conditions in the NT. The Network is made up of organisations and individuals who have an interest in chronic conditions, with Steering Committee membership from:

- Aboriginal Medical Services of the NT
- Arthritis & Osteoporosis Foundation of the NT
- Asthma Foundation of the NT
- Cancer Council of the NT
- Healthy Living NT
- Heart Foundation NT Division
- Medicare Local NT
- Menzies School of Health Research
- NT DoH Allied Health/Environmental Health
- NT DoH Community Health
- NT DoH Health Promotion
- NT DoH Nutrition and Physical Activity
- NT DoH Preventable Chronic Conditions Program

### The early life origins of obesity Heather Ferguson, Child Health Nutritionist

Nutrition and Physical Activity Strategy Unit, NT Department of Health

We know that once established obesity is very difficult to reverse. Obese children are twice as likely to become obese adults as children who are not obese.<sup>1</sup> Treatment of obesity is rarely effective, with weight loss programs resulting in very modest success and a high rate of weight regain within 5 years.<sup>2</sup>

We also now know that the risk of becoming obese is largely determined during critical periods of development.<sup>3</sup> These critical periods are: prior to pregnancy, and during pregnancy and infancy, when obesity risk is increased or decreased by changes to genes.<sup>3</sup> Rather than inherited genes being "set in stone" as we once believed, they can be modified by positive or negative environments or experiences, to shape future health risks.<sup>3</sup> Once established, some of these changes can be permanent hence the consequences remain lifelong, and can also be passed on to affect the health of the next generation.<sup>3</sup>

Our aim therefore needs to be prevention of obesity and must specifically target the period before and during pregnancy and infancy to be effective.

### **Risk Factors**

The most significant predictor of a child becoming obese is the mother's Body Mass Index (BMI), with children of obese mothers three times more likely to be obese than those with mothers of healthy weight.<sup>4</sup> Exposure to pre-existing or gestational diabetes, or a high degree of weight gain during pregnancy, also increase the child's risk of obesity in later life.<sup>3</sup> High maternal blood sugar levels transferred to the developing baby during pregnancy, stimulates baby's growth. This results in not only larger birth weights, but faster rate of fat gain being seen by four years of age.<sup>5</sup> Other changes effected by maternal diabetes or obesity that increase the child's later risk of obesity include:

- how appetite is regulated
- the likelihood of gaining excess weight and
- the capacity to lose weight and keep it off in adulthood.<sup>5</sup>

Inadequate nutrition during pregnancy also affects the developing baby and influences how the baby responds to the environment after birth.<sup>5</sup>

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### THE CHRONICLE

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Contributions appearing in The Chronicle do not necessarily reflect the views of the editor or DoH. Contributions are consistent with the aims of the Chronic Diseases Network and are intended to:

- Inform and stimulate thought and action
- Encourage discussion and comment
- Promote communication, collaboration, coordination and collective memory

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If born into an 'obesogenic' environment, that is one where energy or calories are easily available, after experiencing undernutrition in pregnancy, baby's biological systems respond by optimising energy conservation. For example, by increasing body fat being stored when excess energy is available, increasing the likelihood of becoming obese.<sup>5</sup> Rapid weight gain in infancy is also associated with adult obesity.<sup>5</sup>

### Key points:

- Obesity risk is established before age two
- Influences before age two can shape not only individual health but health potential of the next generation
- Once obesity is established it is difficult to reverse
- Child obesity tracks to adulthood
- Obesity promoting behaviours are also established in infancy
- Parents play a primary role in shaping these behaviours
- Prevention is critical

### Behavioural influences on obesity risk

The risk of obesity can also be influenced positively or negatively by parenting behaviours.<sup>6</sup> Feeding practices in infancy, such as breastfeeding and a responsive parenting style are protective against development of obesity.<sup>6</sup> Responsive parenting means recognising and responding appropriately to cues from baby. Babies need encouragement to learn to eat and exposure to a wide variety of appropriate foods, but they are completely dependent on their caregivers to provide adequate and appropriate nutrition. Recognising and respecting when baby indicates that they are full, helps protect a baby's innate ability to match their food intake to their need for energy.<sup>7</sup>

Parents are more commonly anxious about their baby being underweight.<sup>7</sup> Hence, can unconsciously use feeding practices that increase their child's risk of obesity, by encouraging food intake beyond appetite need, and influencing the child's developing food preferences, such as:<sup>7</sup>

- feeding infants on schedule rather than on hunger cues
- introducing solids before four months
- using food to soothe a child, such as bottle feeding to settle a child to sleep (also

increasing their risk of dental caries) coercion or coaxing (who hasn't played "here comes the aeroplane?")

- bribery "if you eat all your beans you can have some ice-cream"
- using sweets to reward good behaviour.

Positive parent influences over infant and young children's developing food preferences and obesity are: modelling healthy eating and physical activity and eating meals together as a family.<sup>6,8</sup> Babies learn to like what they are exposed to frequently, so how the family eats will become their preferred eating pattern.<sup>6</sup> Families who eat five or more meals per week together are 16% less likely to have overweight children.<sup>6</sup> The strongest predictor of children's fruit and vegetable consumption has been shown to be parent's consumption!<sup>9</sup>

Adequate sleep is also protective, being important for optimal metabolic processes but may simply be due to reduced opportunities to eat, or in the child having adequate energy to be active daily.<sup>10</sup>

### Early intervention to prevent obesity

Supporting parents to nurture their infant and support appropriate infant feeding have been successful in preventing obesity in infancy.<sup>7,11</sup> Randomised controlled trials have shown reduced body fat in babies whose parents received advice on:

- appropriate feeding behaviours for introduction of solids
- recognition of hunger and satiety cues and
- alternative strategies to feeding for settling baby<sup>7,12</sup>

The internationally renowned Nurse Family Partnership Program (NFPP) is currently being trialled in Alice Springs. Incorporating skill development around infant feeding within this program has also resulted in babies with lower BMI at age 2 when compared to babies enrolled in routine childhood nursing services.<sup>12</sup>

### Conclusion

Obesity risk is strongly affected very early in life, not only by genetic changes resulting from the environment and experiences but also by the influence of parenting behaviours.<sup>6</sup> Recognition that the key determinants of obesity lie in maternal factors and infancy, logically requires

us to focus our efforts on optimising pregnancy outcomes and early life experiences as major strategies to prevent the development of obesity.

For further information on 'epigenetics' visit: (http://www.developingchild.net)

I would like to acknowledge the valuable assistance from, and extensive research by Beverley Scott-Visser, Child Youth Health Strategy Unit

References are available at: http://www. health.nt.gov.au/Chronic\_Conditions/ Chronic\_Disease\_Network/The\_Chronicle/ index.aspx

### **Definition of obesity**

**Carrie Turner, Program Development Officer** Nutrition and Physical Activity Strategy Unit NT Department of Health

The World Health Organisation (WHO) defines overweight and obesity as 'abnormal or excessive fat accumulation that may impair health'. Body mass index (BMI) is a simple measure of weight-for-height that is used to classify overweight and obesity in adults. BMI is calculated by dividing a person's weight in kilograms by the square of their height in meters (kg/m<sup>2</sup>). Adults are considered overweight when their BMI is greater than 25kg/m<sup>2</sup> and obese when their BMI is greater than 30 kg/m<sup>2</sup>.

BMI can also be used to determine overweight and obesity in children, however assessment is more complicated than for adults because an ideal BMI for a child changes as they grow older. Also growth patterns differ between boys and girls, therefore to work out if a child's BMI is too high or too low, both the age and sex of the child need to be taken into account.

For children aged 2 to 18 years, a BMI percentile chart can be used to assess a child's BMI. There are a number of different BMI percentile charts available for use; in the Northern Territory, BMI percentile charts developed by the WHO are recommended for use.



### Asthma and obesity

Jan Saunders, Executive Officer Asthma Foundation NT

Asthma and obesity are both common conditions in the Australian community.

The prevalence of current asthma in Australia is 10% and according to World Health Organisation criteria, more than 20% of Australian adults are obese with another 40% overweight. Over 25% of Australian children are also either overweight or obese. As our collective weight grows, the link between asthma and obesity is becoming increasingly evident.

Despite more than a decade of research into asthma and obesity the exact mechanisms that underlie the interaction of obesity with asthma remain unclear. However there is compelling evidence that excess weight increases the prevalence and incidence of asthma and hinders exercise activity. There is also evidence that obesity precedes the development of asthma raising the possibility of a causal association.

If an overweight or obese person is experiencing shortness of breath or wheezing it's important to see a doctor as it could be due to asthma and not just the result of carrying a heavier load.

Overweight and obese people are also more likely to have asthma that requires increased medication to achieve control. However with appropriate medication they should be able to start increasing their exercise levels without becoming short of breath.

Surgical and diet-induced weight loss studies have reported improvements in lung function and symptoms in patients with asthma therefore this provides evidence for national treatment guidelines recommending weight loss as a strategy to improve asthma control. Other studies have also found obesity to be associated with reduced lung volume which is linked with airway narrowing.

Asthma in obese people appears to be more difficult to control with more frequent symptoms, fewer symptom-free days, more activity restriction due to asthma and more reliever medication use than non-obese people with asthma. Obese people with asthma also have poorer quality of life and utilise more healthcare resources than non-obese people with asthma. However losing weight can improve

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lung function, exercise tolerance and associated conditions such as sleep apnoea.

More research into obesity and asthma is required to provide an understanding of the various physiological factors that might be contributing to symptoms in obese people with asthma that would allow a more targeted and rational treatment approach for these people.

### Reference:

Claude S Farah and Cheryl M Salome: Asthma and obesity: A known association but unknown mechanism *Respirology* (2012) 17, 412-421



### The meteoric rise of obesity: why the numbers are stacked against us and the need for realistic targets

Di Magliano, Associate Professor Baker IDI Heart & Diabetes Institute

In 2025, it is predicted that two thirds of the Australian population aged over 25 will be overweight or obese if current trends continue to rise. To paint the picture more crudely, it means that a person of normal weight will soon be the exception rather than the rule. These predictions, using data from the Baker IDI-led AusDiab surveys on more than 11,000 Australians who were tracked over five years, made national headlines late last year. But should the community be shocked? Perhaps more pointedly, shouldn't we, as epidemiologists, have predicted this a long time ago? Well, not necessarily. For the past few years we've heard about an obesity epidemic taking a stranglehold on our nation but just how it got to this dire situation, seemingly with little advance warning, warrants a brief examination of the epidemiology of obesity and provides an insight into why science is at a loss to explain it. Perhaps most importantly though, it highlights why we must come to terms with the numbers, and quickly, in order to start setting realistic targets, or face a vastly different looking community of the future.

For thousands of centuries, obesity was rarely seen. But that doesn't mean that genetic factors were not at play during pre-historic times,

with human physiology playing a leading role in obesity. In fact, humans have evolved to be highly inept at weight maintenance. The propensity to lose weight quickly would have been a characteristic which would not have been useful in times of famine. So part of the reason why we find weight loss so difficult is because it goes against our basic design. A popular theory which accommodates this view is the thrifty gene hypothesis. It proposes that thrifty genes which now predispose people to diabetes and, in turn, obesity were historically advantageous during times of food scarcity. However, in modern societies with an abundance of food, this genotype is preparing individuals for a famine that never comes. When you introduce overnutrition, increases in portion sizes, increases in fast food intake and lack of physical activity, the result is a recipe for disaster.

So here we have this 20<sup>th</sup> century phenomenon where genetic and environmental factors have spectacularly collided and only in the past decade or two has obesity as a major burden of disease really started to rate a mention.

Even the World Health Organisation didn't formally recognise obesity as a global epidemic until 1997 while diabetes, intrinsically linked to obesity, was only recognised as chronic, debilitating and costly disease by the United Nations General Assembly in 2006.

The data on diabetes is equally formidable, with its prevalence increasing beyond what would have been expected due solely to our ageing population. In Australia alone, the prevalence of diabetes doubled between 1981 and 2000 and projections show as high as 17 per cent of our population – that's nearly one in five people could have diabetes in 2025 if trends continue to rise.

When people talk about the problems of diabetes and obesity, the biggest problem is that is has been really, really rapid which is what makes people think there has been some sort of environmental trigger other than eating too much and exercising too less. All our normal pathways of science can't explain how rapid the increases have been.

So while we're grappling with the numbers, the ability to reverse this trend is all but being lost.

In 2008, The Council of Australian Governments (COAG) set a target to increase by five per cent the proportion of Australian adults at a healthy body weight by 2017 from 2009. While target setting is a critical component of public health policy for obesity prevention, we recently analysed the changes in current weight gain that would be required to meet Australian targets and the news is grim. It has been well demonstrated that the prevalence of healthy weight is expected to plummet in the coming decade with a likely decrease among Australian adults from 35 per cent in 2010 to 30 per cent in 2020 if current trends persist. For diabetes, the target is to be back to levels seen in 2000 by the year 2025. To achieve those figures, we modelled how long it would take based on our current intervention practice. The numbers again tell a shocking story - we won't even get close.

As epidemiologists, we're used to working with figures but interestingly, the numbers continue to take most people by surprise and yet we are only beginning to come to grips with the rapid escalation of both obesity and diabetes. In coming to terms with this epidemic, we must also face the associated economic cost of obesity. Research published in the MJA in 2010 by the University of Sydney's Boden Institute of Obesity Nutrition and Exercise showed that the total direct cost of overweight and obesity in Australia is \$21 billion a year. In 2007-08, that represented close to one fifth of Australia's entire \$103.6 billion health expenditure budget. Perhaps most concerning of all is that just over \$3 billion that year was allocated for preventative services or health promotion. Even without passing judgement on who should be doing what and what form that might take, it is easy to see how the community and policy makers might become disillusioned and guestion our ability to halt, let alone, reverse the trends of overweight and obese people in Australia. We need to set realistic and practical targets because we know that any road to major change will take decades - even with major investment, commitment and goodwill. In this context then, even maintenance of current levels of healthy weight might be considered a marker of success.



#### What is arthritis?

Arthritis is the general name for diseases of joints. Arthritis can affect anyone at any time and sixty percent (60% !) of people with arthritis are under 65. The most common forms include osteoarthritis, rheumatoid arthritis and gout. Management of arthritis includes appropriate exercise, weight loss and activity to maintain joint mobility and function. Obesity, over use of joints from work or exercise, heredity or injury may lead to osteoarthritis.

#### What is osteoporosis?

Osteoporosis is a condition where the bones become fragile and brittle and can fracture more easily than normal bones. If bones have the proper amount of calcium and other minerals inside, there will be high bone density to maintain healthy bones. One in two women and one in three men over 60 will have a fracture due to osteoporosis.

# Obesity, arthritis and osteoporosis

Janet Durling, Volunteer Arthritis & Osteoporosis Northern Territory

"But I can't exercise because it hurts too much!" Arthritis and Osteoporosis Northern Territory (AONT) hears this all too often when talking to groups and individuals about arthritis and osteoporosis. And yet, to reduce the pain of arthritis, particularly osteoarthritis, exercise is one of the best methods to get the joints more flexible and to work towards losing weight. Every extra kilo adds tremendous pressure on the knees, hips and feet. Obese adults with arthritis are 44% more likely to be physically inactive than obese people who don't suffer from the painful disease, according to a MedsMD Health News report.<sup>1</sup>

Obesity rates in adults are continuing to grow and 63 per cent of Australians are now classed as overweight or obese, according to health survey results released recently by the Australian Bureau of Statistics. The report also said that 67% of Australians perform little or no exercise and arthritis is the most common long-term health condition affecting more than 3 million Australians.<sup>2</sup> Putting all this together,

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people with arthritis need to escape the trap of obesity because the extra weight puts undue stress on weight-bearing joints like hips and knees. When walking, a force three to six times one's body weight is exerted across the knee. A fourfold reduction in knee joint load can be achieved just by losing half a kilo, according to a study in Arthritis & Rheumatism.<sup>3</sup>

AONT tries to encourage people to start very 'small' when implementing an exercise regime. For instance if a client decides to start walking for exercise, even though it hurts a little, we recommend trying to walk for ten minutes the first few days, stopping when there is pain even if the client has only walked for five minutes. They should then walk five minutes and a couple of minutes more the next few days, setting a goal like walking to the corner of their street or walking to the shops three times a week. Clients should always listen to their body and be aware of when pain starts. Pain is not gain!



Mornings are often the most painful time for people with arthritis because the synovial fluid may not be lubricating the joints and stiffness as well as pain may be experienced. Clients should time their exercises for that part of the day when they feel at their best.

Mobility exercises are important for stiff joints and muscles. Yoga, Tai chi, warm water exercises (the body floats and there is no stress on the joints) and walking are recommended. Walking on grass is a softer surface when just starting out. Strengthening exercises such as using weights, dumbbells and resistance bands are great for strengthening bones and improving balance. Fitness exercises benefit the lungs, heart and general wellbeing. These exercises focus on the large muscle groups and activities that make you 'puff' a little such as brisk walking, swimming and cycling.<sup>4</sup>

Clients are encouraged to talk about their joint pain with their doctor. Sometimes those joint pains are at the bottom of their list of things to discuss with the doctor but rather than live with pain unnecessarily, they should be encouraged to make sure they include the joint pain.

There are over 120 types of arthritis but exercise and weight loss are crucial for management of whatever type a person has. Clients should check with their doctor about exercising and losing weight. The doctor may refer them to a dietician who will identify foods that will help them lose weight and foods they need to avoid. The doctor may also refer them to a rheumatologist. A rheumatologist is a specialist physician who has expertise in diagnosing and treating diseases of the joint, muscles and bones.

#### **Obesity and osteoporosis**

Weight control and exercise can improve fitness and bone density, decreasing the risk of falls and fractures. It used to be thought that the body's fat protected the bones but now research shows that visceral fat found inside the abdominal wall in the spaces around the liver and other abdominal organs is harmful. It differs from the subcutaneous fat in the belly, which sits outside the abdominal wall. Visceral fat increases the body's production of certain proteins, including adiponectin, leptin and a class of substances called cytokines that promote chronic, low-level inflammation in tissues. In addition to increasing the risks of heart disease and other serious conditions, chronic inflammation harms the health of bones.5

AONT gives information and support to those who have been diagnosed with these diseases. AONT has a website on **www.aont.org.au** and also runs client support groups. If clients don't have access to a computer and/or live in a rural or remote area, they can ring AONT for information to be sent by mail. AONT has a library of helpful specialized books and exercise DVDs that are loaned to AONT members but Fact Sheets and some other written material can be sent to anyone. AONT can support clients wherever they are!

Clients are urged to drop into AONT, Shop 18, Rapid Creek Business Village on Trower Road,

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Millner. Phone: 1800 011 041 for a friendly chat or further information.

#### STOP PRESS

Arthritis Australia and the health insurance company BUPA have just launched a website (www.MyJointPain.org.au) to help people manage their arthritis. People can create their own Osteoarthritis Action Plan and every week they will be invited to do a one-minute check on-line to track their pain and weight. Try it!

#### **References:**

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### Nurses in Primary Health Care: the front line for obesity prevention

**Dr Elizabeth Denney-Wilson, Senior Lecturer** Faculty of Health, University of Technology, Sydney

Overweight and obesity affects approximately 20% of Australian preschool children<sup>1</sup> and is a condition with serious health, social and psychological consequences. Overweight children are very likely to carry excess weight into adulthood<sup>2</sup> and to develop some chronic disease risk factors early in life.<sup>3</sup>

And the behaviours that contribute to excess weight in childhood are also likely to persist into adulthood. Hence the prevention of overweight and obesity is critical, especially in the early years. Primary health care (PHC), is an important setting for addressing obesity prevention given the near universal coverage and frequent contact between professionals and families with young children.

Building skills and providing support for PHC professionals are important strategies in the prevention and management of obesity across the life span.<sup>4</sup> PHC providers have shown interest in delivering care for child obesity and engaging in further training to improve skills in assessing and monitoring weight as well as behavioural counselling techniques such as motivational interviewing.<sup>5</sup>

Despite this, PHC providers, especially general practitioners (GPs), have limited time with patients and the routine incorporation of weight assessment is considered by some GPs as impractical.<sup>6, 7</sup> Even with recent growth in the Australian dietetic workforce,<sup>8</sup> mirrored increases in nutrition-related diseases such as obesity and diabetes<sup>9</sup> render dietetic services unlikely to have the capacity to provide universal preventive care for child obesity.

The Australian general practice nurse (PN) workforce has more than doubled over the past decade, with most general practices in Australia now employing one or more PN.<sup>10, 11</sup> This strong nurse presence in general practice may increase the capacity for routine healthy lifestyle advice for the prevention of child obesity to be provided in this setting. PNs have the opportunity to assess a child's health through Medicare Benefits Schedule-rebated Healthy Kids Check (HKC), initially introduced by the Federal Government in 2008, and recently updated.

Our team developed a training program for PNs to support them to provide obesity prevention within routine consultations. Our initial scoping work suggested that over 85% of PNs who responded to our questionnaire expressed an interest in further child obesity prevention training, with workshops the most favourable formats for training. PNs stated they would like broad information on healthy lifestyle assessment and advice, as well as additional resources to improve their services.

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The PN intervention consisted of an interactive workshop and the provision of printed resource material. The three hour workshop aimed to address key issues and concerns raised during the needs assessment and provided the opportunity to role play scenarios with actors. The workshop content was based on the 5As model of Assess, Advise, Agree, Assist and Arrange, and included topics such as:

- calculating and plotting Body Mass Index
- assessing diet, physical activity and screen time
- recommendations for healthy eating and activity
- setting goals with parents, providing support and encouragement
- offering tips and suggestions and finally,
- arranging follow-up

PNs were provided with a folder of resources that they could use to reinforce key messages. The resources were all freely available from government and non-government organisations. In this age group, obesity prevention strategies are more successful if aimed at parents12 and are most effective if based on a "whole of family" approach to healthy eating and activity, including restriction of TV viewing.<sup>13</sup> Previous systematic reviews have highlighted the key role parents play in developing and maintaining healthy weight among children, mediated by behaviours that can be adopted by the whole family.<sup>14</sup> Other studies suggest that primary care practitioners can assist parents by providing information on healthy eating, behaviour modification, physical activity and parenting skills.15

The PNs were interviewed after they had incorporated the workshop content into their next 10 HKCs. One of the key findings was the increased awareness of overweight within their practice; one PN said "*Children that didn't particularly look overweight were slightly above the BMI and I was a little bit surprised and I didn't really expect that...*". Importantly, the PNs all thought that the workshop content was readily able to be incorporated into their routine practice, although some expressed concern that on *particularly busy days, or with a fussy child, the* additional items might be problematic.

PNs are at the coal face of PHC, and with a relatively small investment in further training can provide support and suggestions to parents to help them make decisions that can help their children maintain healthy weight.

References are available at: http://www.health. nt.gov.au/Chronic\_Conditions/Chronic\_ Disease\_Network/The\_Chronicle/index.aspx

### Swap soft drinks for water Annie Villesèche, Senior Policy Officer Nutrition and Physical Activity Strategy Unit NT Department of Health

It is no secret that sugar sweetened soft drinks contain a lot of sugar. As a rule of thumb, there are about 9-10 spoons of sugar in a 375ml can.

Yet soft drinks don't taste sweet, as they also contain phosphoric acid. Nor do they make us feel full or 'satiated' (as an energy-equivalent solid food might), which means that we do not compensate for this excess energy at the next meal. This results in excess kilojoules in our daily diet, without any nutritional benefits. If not counteracted by increased physical activity, this energy imbalance may lead to overweight and obesity.

Research indeed shows that high consumption<sup>a</sup> of soft drinks is associated with weight gain,<sup>1</sup> which in turn is associated with diabetes and some cancers.<sup>3</sup> Soft drinks have other impacts

on health, such as displacement of healthier foods, osteoporosis, dental caries and more. In fact, there is now sufficient evidence to recommend public health strategies that discourage regular consumption of sugary drinks both



to ensure a healthy diet and prevent and reduce obesity.<sup>1;4</sup>

In response to this evidence, the Department of Health (Health Development) is aiming to reduce soft drinks consumption in remote communities through the 'Swap soft drinks for water' project. The project targets both supply and demand, and seeks to develop supportive environments for healthier drinks choices.

 <sup>&</sup>lt;sup>a</sup> High or excessive consumption varies according to studies, with many defining it as more than one drink (340ml-357ml) a day<sup>1;2</sup>

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Targeting soft drinks requires acting on a range of different factors that influence consumption. At the highest level, it is about influencing marketing and regulation. For the Health Development teams operating in remote communities, it means working with store staff on pricing strategies and product placement, as well as engaging with community members and groups to develop a culture of choosing water over soft-drinks, and the conditions that make this choice the easy choice. It is also about advocating for the provision of refrigerated drinking water options, where there aren't any.

Naturally this project involves collaboration or partnerships with other stakeholders, equally concerned about the health consequences of sugar sweetened drinks consumption. These include Outback Stores, Arnhem Lands Progress Aboriginal Corporation, other NGOs (such as the Jimmy Little Foundation) as well as the Australian Government (Families, Housing Community Services and Indigenous Affairs), PowerWater Corporation and the Menzies School of Health Research.

Did you know there are 10 spoons of sugar in a can of soft drink? Shifting behaviour is however difficult and does not happen overnight. While progress on the 'Swap soft drinks for water' project may be slow and, at times, hard to measure, it is important to

You would not eat this much sugar, so why drink it?'

remember that there have been encouraging examples of communities taking direct action on soft drink, with positive results. In Amata for instance (Anangu Pitjantjatjara Yankunytjatjara Lands), the community decided to remove the top three highest selling soft drinks and energy drinks with high sugar levels from their store in 2008. Whilst the total volume of beverages sale was not affected, this intervention resulted in a 50% decline in the sale of all sugar sweetened soft drinks and a shift in purchases of beverages with lower or zero sugar content.<sup>5</sup>

In another positive development, the Cancer Council, Diabetes Australia and the Heart Foundation have recently joined forces to ask Australians to 'rethink sugary drinks'.<sup>6</sup> As the chorus of voices speaking out against consumption of sugar drinks gets louder, there is hope that more and more people will heed the call and 'swap soft drinks for water'. For more information on the 'Swap soft drinks for water' project, please contact the Nutrition and Physical Activity Strategy Unit on 89858025.

References are available at: http://www. health.nt.gov.au/Chronic\_Conditions/ Chronic\_Disease\_Network/The\_Chronicle/ index.aspx

Obesity and cancer prevention Chelsey Dunne, Cancer Support Nurse Cancer Council Northern Territory

Obesity is defined by the World Health Organisation (WHO) as abnormal or excessive fat accumulation that may have an adverse effect on health, leading to reduced life expectancy and/or increased health problems.<sup>1</sup> Body Mass Index (BMI) is a measure of body size indicating disease risk and mortality.<sup>2</sup> It is calculated using a persons body mass in kilograms divided by their height in metres squared. People with a BMI of 25 and over are classified as overweight and those with a BMI of 30 or over are classified as obese.<sup>3</sup>

Overweight and obesity occur when energy from food and drink exceeds energy expenditure from metabolic processes. This excess energy is stored as fat in the body.<sup>3</sup> Factors that lead to weight gain and obesity include unhealthy food choices including foods high in energy, low in nutrients and those high in sugar; large food portions, decreased physical activity, sedentary lifestyle, alcohol consumption and a family history.<sup>3</sup>

In Australia, obesity prevalence has more than doubled in the past 20 years. Over 60% of Australian adults and almost a quarter of children are either overweight or obese.<sup>4</sup> Obesity rates are higher for those living in remote areas and is more common among people with a low socioeconomic status, low income, of Southern European and Middle Eastern backgrounds and Indigenous Australians.<sup>3</sup> Australian expenditure on fast food and eating has increased by 50% in the past six years, with Australian's spending almost a third of their weekly household food budget on fast food.<sup>5</sup>

Obesity is associated with an increased risk of developing many chronic diseases, including cancers. There is evidence that obesity is a risk factor for breast, bowel, endometrium, OBESITY

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oesophagus, kidney, pancreas, thyroid, gallbladder and quite possibly all cancers.<sup>6</sup> Obesity is one of the leading preventable risk factors for death and disease in Australia.<sup>3</sup> The WHO says that being overweight or obese are the most important known avoidable causes of cancer after tobacco.<sup>7</sup> In 2008, economic costs of obesity related cancers in Australia was estimated to be approximately \$190million.<sup>3</sup>

Excess body fat can lead to increased production of some hormones and growth factors, including insulin and oestrogen which can promote the growth of cancer cells.<sup>8</sup> Being overweight or obese also raises the body's inflammatory response which in turn can promote cancer development. Not only is obesity a risk factor for developing cancer, mortality rates rise for cancer diagnosed people with obesity, as studies have shown that they have a poorer prognosis.<sup>3</sup>

As discussed, having a healthy body weight decreases the risk of being diagnosed with cancer. It also influences the prevention of cancer recurrence and improved survival for people that have had a cancer diagnosis.<sup>3</sup> Increased physical activity, decreased food portion sizes, better food choices and eating according to energy requirements are all associated with achieving and maintaining a healthy body weight.<sup>3</sup> Cancer Council recommends people maintain a healthy body weight within a BMI range of 18.5 to 25, and to have a waist measurement less than 80cm for women and less than 94cm for men.<sup>3</sup>

### References are available at: http://www.health. nt.gov.au/Chronic\_Conditions/Chronic\_ Disease\_Network/The\_Chronicle/index.aspx



# Australia's Healthy Weight Week 2013

Kate Robertson, Urban Public Health Nutritionist/Dietitian Katherine Community Health, NT Department of Health

### Background

Australia's Healthy Weight Week (AHWW) is coordinated annually by the Dietitians Association of Australia (DAA) with the aim of raising awareness of the importance of achieving and maintaining a healthy weight and lifestyle.

Events are held across the country in the last week of January each year to help promote this message, and to promote the use of an Accredited Practising Dietitian to assist with weight loss, weight maintenance and lifestyle management.

### **Community Health AHWW Activities**

During AHWW, the Urban Public Health Nutritionist/Dietitians and Community Health colleagues worked hard to increase awareness amongst community members of the importance of achieving and maintaining a healthy weight. Manned and static health promotion stalls were set up in Casuarina, Palmerston, Katherine and Alice Springs to promote AHWW resources, links to recipes and further information, and to recruit participants into the '10 Week Challenge' program. The Nutritionist's promoted their healthy messages in local shopping centres, community health centres and government buildings, and also used newspaper articles and radio interviews to further engage the public. A visit by Vegie Man and the use of COPAL smoothie bike were a huge success, being such engaging tools to promote physical activity and consumption of healthy fruit smoothies. The smoothie bike is a stationary bike with a blender attachment and is powered by the act of peddling.



AHWW Mayor and Arylie COPAL Bike Blender

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#### '10 Week Challenge'

The 10 Week Challenge is a healthy lifestyle behaviour change program developed by the DAA. Each week of the challenge, a new healthy lifestyle behaviour is introduced:

- Week 1: Start a food diary
- Week 2: Eat breakfast everyday
- Week 3: Choose lower fat, especially saturated and trans fat
- Week 4: Be active for at least 30 to 60 minutes each day
- Week 5: Switch to healthier drinks
- Week 6: Add one more serve of fruit and vegetables to your day
- Week 7: Shrink the size and frequency of your 'treats'
- Week 8: Shrink your portion
- Week 9: If you drink alcohol, reduce your intake, and have at least 2 alcohol free days each week
- Week 10: Get the right support

Practising each of these behaviours lifelong will assist individuals to achieve and maintain a healthy weight. The Community Health Nutrition Team utilised AHWW to kick off a unique NT wide challenge. In just one week, the Nutritionists were able to recruit over 60 members of the public, all registered via SurveyMonkey. Each week participants receive an email newsletter introducing a new healthy lifestyle 'challenge'. It includes details and tips on how to practice each healthy lifestyle behaviour and links to further information and recipes to motivate and support participants.



### **Pre evaluation**

The online SurveyMonkey registration collected data on age, sex, self reported BMI, motivations for participation and current practices which related to each of the 'challenges'.

#### Outcomes

At the end of the challenge, another online SurveyMonkey will evaluate BMI change, and participant practice rates of the healthy lifestyle behaviour challenges.

### More information

For more information on AHWW, the 10 Week Challenge and resources visit **www.** healthyweightweek.com.au or contact Kate Robertson on 08 8973 8946 or email Kate.robertson@nt.gov.au

# Obesity and kidney disease – staying healthy

Dr Marie Ludlow, National Medical Director Kidney Health Australia

It is estimated that 1.7 million Australian adults have one clinical sign of chronic kidney disease (CKD). As CKD is largely asymptomatic, up to 90 per cent of kidney function can be lost before it is detected, and by then it is usually too late. However, with timely identification and appropriate management the otherwise inevitable deterioration in kidney function can be reduced by as much as 50 per cent and may even be reversible.<sup>1</sup>

Population studies estimate that 1 in 3 Australians is at increased risk of developing CKD. Early detection of CKD relies heavily on regular assessment of kidney function in individuals at increased risk of developing CKD. While some risk factors such as age, family history, and racial background are not modifiable, lifestyle risk factors such as obesity are amenable to change. Obesity is also a risk factor for developing diabetes and for high blood pressure which are the two most common causes of end-stage kidney disease in Australia. Effective population-based obesity prevention strategies therefore have great potential to reduce the burden not only of CKD, but of other comorbid conditions as well.

Expanding waistlines are becoming increasingly common in Australia, with the latest data showing around 66 per cent of Australian men and 54 per cent Australian women are overweight or obese.<sup>2</sup> Obesity is a wellestablished risk factor for CKD. A recent metaanalysis and systematic review demonstrated

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that in comparison with normal weight individuals, overweight people have a 40 per cent greater risk of developing CKD, with obese people displaying an even higher risk.<sup>3</sup> The authors went on to estimate that up to one-third of CKD could be related to overweight or obesity.

OBESITY

Three studies published late last year have contributed to the contentious debate on the role of soft drinks in the obesity epidemic. A randomised trial reported less weight gain in children who consumed sugar-free beverages compared with sugar-sweetened beverages on a daily basis.<sup>4</sup> Another study was able to show significant weight loss in overweight and obese adolescents who received calorie-free drinks home-delivered drinks for one year.<sup>5</sup> Finally, a third study showed that people genetically predisposed to obesity were more likely to gain weight from drinking sugary beverages.<sup>6</sup>

In Australia, the consumption of sugar-sweetened soft drinks has increased by 30 per cent in the past decade.<sup>7</sup> Importantly, the standard serving size for soft drink has also increased from 375mL to 600mL. For an average 14 year old girl, a 600mL bottle of soft drink will provide more than 12% of her daily energy needs. This means exceeding the recommended energy intake from refined sugar with just one drink. While sugar-free or 'diet' soft drinks may be free of calories, there is also evidence that long-term consumption may also contribute to weight gain. Consuming an excess of cola beverages in particular has been shown to potentially increase the risk of kidney disease.

There is little doubt that unhealthy lifestyle practices such as excessive consumption of soft drinks is contributing to the obesity epidemic. Education of health professionals and the general community plays a critical role in reversing this trend.

References are available at: http://www.health. nt.gov.au/Chronic\_Conditions/Chronic\_ Disease\_Network/The\_Chronicle/index.aspx

# Overweight and obesity in the NT: Recent data telling the same story

#### **Fintan Thompson, Research Assistant Steven Guthridge, Director** Health Gains Planning, NT Department of Health

In the Northern Territory (NT), changes in the proportion of overweight and obesity in the population has matched Australian trends, increasing substantially in recent decades and now occurring in over half the adult population.

Unlike Australia, estimating and monitoring overweight and obesity in the NT remains a challenge. The population is diverse and spread far and wide. There is no regular program for monitoring the population and estimates, including those in this report, are taken from a variety of sources with varying methodologies. This report presents the most recent available information for NT adults and children.

The report draws heavily on the 2011-12 Australian Health Survey (AHS), which examined a largely urban dwelling and non-Indigenous sample. The under-representation of the NT Indigenous population means that the survey is more representative as a non-Indigenous estimate and caution is required when making inferences to the entire NT population.

### Overweight and obesity in NT adults

The 2011-12 AHS estimated well over half (62%) of adult Territorians were overweight or obese.<sup>1</sup> This rate is comparable to the national rate  $(63\%)^2$  for the same period (Table 1), and marked the highpoint in a series of increasing non-Indigenous focused NT estimates, from 44% in 1995,<sup>3</sup> to 47% in 2000<sup>4</sup> and 50% in 2004.<sup>5</sup>

The NT rate of overweight and obesity in 2011-12 was higher in males compared to females (67% and 58% respectively).<sup>1</sup> Nationally, the rates disaggregated by gender were similar to the NT, with males having a greater likelihood of being overweight or obese than females (70% and 56% respectively)<sup>2</sup> (Table 1).

Table 1Proportion (%) of adults assessed as<br/>underweight/normal, overweight and<br/>obese, Northern Territory and Australia,<br/>2011-12

Pady Mass Index (PMI)	Northern Territory <sup>1</sup> (%)			Australia <sup>2</sup> (%)		
Body Mass Index (BIVII)	Males	Females	Total	Males	Females	Total
Underweight/Normal	33.4	42.0	37.6	29.7	43.7	36.6
Overweight	39.3	31.0	35.2	41.9	28.0	35.0
Obese	27.3	26.9	27.1	28.4	28.2	28.3
Total	100.0	100.0	100.0	100.0	100.0	100.0

Note:

Normal, overweight and obese categories are defined by Body Mass Index calculated from an individual's height and weight. Underweight/Normal BMI (less than 24.99), overweight (25.00-29.99), obese (30.00 or more)

The most recent estimate of overweight and obesity among Indigenous Territorians was collected in the 2004-05 National Aboriginal and Torres Strait Islander Health Survey (NATSIHS). According to this survey, 50% of NT Indigenous adults were overweight or obese,<sup>6</sup> which was lower than the national Indigenous rate (57%) and comparable to the national non-Indigenous rate (51%)<sup>7</sup> and the rate for non-Indigenous Territorians (50%)<sup>5</sup> for the same time period.

Nationally, adults living in regional or remote areas are more likely to be overweight or obese.<sup>8</sup> In 2011-12, Australians living in inner regional and outer regional/remote Australia had a much higher likelihood of being overweight or obese compared to those living in major cities (68%, 70% and 61%).<sup>9</sup> However, among Indigenous adult Australians, there is little regional variation in overweight and obesity.<sup>8,10</sup> The NT is no exception to this trend. According to the 2004-05 NATSIHS, the rate of obesity among Indigenous Territorians in remote areas was slightly lower, although not statistically significant, compared to the rate in non-remote areas (49% and 54% respectively).<sup>6</sup>

### Overweight and obesity in NT children

The 2011–12 Australian Health Survey estimated a quarter (26%)<sup>1</sup> of NT children aged 2 to 17 years were overweight or obese, a rate similar to that of Australian children during the same time period (25%).<sup>11</sup>

Unlike NT Indigenous adults, the rate of obesity among Indigenous children vary considerably by geographic location. According to the 2004 Healthy School Aged Kids program, NT Indigenous children aged 4-6 years from remote areas had a substantially lower rate of overweight and obesity than Indigenous children from urban locations (4% and 19% respectively).<sup>12</sup> Recent data from NT Community Care and Primary Care facilities support this difference and also indicate the proportion in both these groups has been steadily increasing over time (Figure 1).

Figure 1 Trends in overweight and obesity among children aged 4–6 years from urban and remote areas



Sources

- (a) Data for NT urban Indigenous and urban non-Indigenous children: Northern Territory Government, Department of Health, Community Care Information System, 2007 to 2011 (unpublished data)
- (b) Data for NT remote Indigenous children: Northern Territory Government, Department of Health, Primary Care Information System database, 2007 to 2011 (unpublished data)

### Conclusion

Within the NT the proportion of the population who is overweight or obese varies by age, gender, Indigenous status and location. Despite the variations, recent data tell the same story, overweight and obesity continue to rise and together remain a significant public health issue.

References are available at: http://www. health.nt.gov.au/Chronic\_Conditions/ Chronic\_Disease\_Network/The\_Chronicle/ index.aspx

### Is the obesity epidemic reflected in our Aboriginal population?

Belinda Davison,<sup>1</sup> Project Manager - Life course studies

Sue Sayers,<sup>1</sup> Associate Professor <sup>1</sup>Menzies School of Health Research Dr Gurmeet Singh,<sup>1,2</sup> Chief Investigator <sup>1</sup>Menzies School of Health Research, <sup>2</sup>NT Medical Program, Flinders University

Australia is today ranked as one of the fattest nations in the developed world. The prevalence of obesity in Australia has more than doubled in the past 20 years,<sup>1</sup> with a large increase in children and young adults.<sup>2</sup> During the last decade, this pattern of increased obesity was reflected in Aboriginal Australians.<sup>3</sup> Obesity has been shown to be a risk factor for chronic diseases such as cardiovascular,<sup>4</sup> renal<sup>5</sup> and diabetes.<sup>6</sup>

### Aboriginal Birth Cohort (ABC) Study

Researchers at Menzies School of Health Research have been following the health of 686 Aboriginal babies for the past 25 years, making it the longest and largest prospective cohort study of Aboriginal people in the world. From 1987 to 1990, Dr Sue Sayers recruited babies born to Aboriginal mothers at the Royal Darwin Hospital.<sup>8</sup> The cohort has since been followed up at their place of residence, in Darwin and at over 40 communities and outstations across the Top End. The participants have been seen at two separate periods: Wave-2 occurred between 1998-2001 (mean age of 11 years)<sup>9</sup> and Wave-3 between 2006-2008 (mean age of 18 years).<sup>10</sup>

The main aim of the study is to provide evidence about early antecedents of chronic disease across the life course, in particular, how patterns of early growth and subsequent levels of overweight and obesity influence the development of chronic disease risk factors in later life.

The cohort were last seen when they were aged 16-20 years, when they participated in a comprehensive health check. This involved a range of examinations including body measurements, height, weight and Body Mass Index (BMI) as well as biomedical markers of chronic diseases such as cardiac, renal and diabetes. BMI was classified as per WHO guidelines; underweight <18.5kg/m<sup>2</sup>, mid range 18.5-24.9 kg/m<sup>2</sup>, overweight 25-30 kg/m<sup>2</sup>, obese >30 kg/m<sup>2</sup>.<sup>11</sup>

Graph 1: Rates of obesity in female ABC participants at age 16-20 years by region



normal weight (49%).
were overweight/obese (33%)
few were underweight (18%)

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#### Graph 2: Rates of obesity in Male ABC participants at age 16-20 years by region

In remote communities	In Darwin & urban communities
underweight (49%)	normal weight (51%)
or normal weight (29%)	were overweight/obese (43%)
few were overweight/obese (12%)	few were underweight (6%)

These results show low levels of obesity at age 16-20 years, especially in those who live in remote communities. This is in stark contrast to high levels of obesity present nationwide. Corresponding to this, low levels of chronic diseases markers were seen in the cohort at this age.

Prevalence data, however, in Australian Aboriginal people show that levels of obesity are high in people in their mid to late 20's.<sup>7</sup> The ABC study is currently embarking on their next wave of data collection (Wave-4: age 24-28). This wave will coincide with the increase in obesity suggested by population trends and is therefore well placed to ascertain obesity levels in this Northern Territory Aboriginal cohort.

This study aims to assess the period when trends in this population show the early markers of chronic diseases, such as cardiovascular,



renal and diabetes. This will allow identification of the age at which these markers manifest and therefore will help target intervention strategies to the age when they would be most effective. Thus assisting in improving health and preventing premature mortality, and so contributing to decreasing the current gap in life expectancy between Aboriginal and non-Aboriginal Australians.

For further information on the upcoming fourth wave, or previous waves, of the ABC study please contact: Belinda Davison, Project Manager on 08 89228701 or email Belinda. davison@menzies.edu.au

References are available at: http://www. health.nt.gov.au/Chronic\_Conditions/ Chronic\_Disease\_Network/The\_Chronicle/ index.aspx



OBESITY

### An overview of overweight and obesity among Indigenous people

Kathy Ride, Research Officer Andrea MacRae, Research Officer Miranda Poynton, Research Officer Australian Indigenous Health InfoNet

Overweight and obesity are issues for all Australians, including Indigenous Australians. This article provides a summary of the prevalence of overweight and obesity among Indigenous Australians; this information is taken from the Overview of Australian Indigenous health status 2012 (http://www.healthinfonet. ecu.edu.au/health-facts/overviews).

The standard measure for classifying a person's weight for height is body mass index (BMI weight in kilograms divided by height in metres squared) [1]. Being overweight (BMI 25.0 to 29.9) or obese (BMI of 30.0 or more) increases a person's risk for CVD, type 2 diabetes, certain cancers, and some musculoskeletal conditions. A high BMI can be a result of many factors, either alone or in combination, such as poor nutrition, physical inactivity, socioeconomic disadvantage, genetic predisposition, increased age, and alcohol and tobacco use [2]. Being underweight (BMI less than 18.5) can also have adverse health consequences, including decreased immunity (leading to increased susceptibility to some infectious diseases) and osteoporosis (bone loss). The 2013 NHMRC dietary guidelines for adults recommend that adults prevent weight gain by being physically active and eating according to their energy needs.

Currently, the most recent national statistics on overweight and obesity among Indigenous people are from the 2004-2005 National Aboriginal and Torres Strait Islander Health Survey (NATSIHS). The next NATSIHS will be conducted in 2012-13, and will expand on the 2004-05 NATSIHS by increasing the number of participants by 30%, collecting new information on exercise, diet (including bush foods), and measures of cholesterol, blood glucose and iron. For the first time, the ABS will directly measure obesity and blood pressure levels, as well as nutritional status and chronic disease. By combining the selfreported information together with the biomedical samples, a more complete picture of the health of Indigenous people will be available.

Although BMI is the standard measure used for overweight and obesity, optimal BMI cut-offs are still uncertain for the Indigenous population due to differences in body shape and other physiological factors [3]. It has been suggested that a BMI of 22 might be a more appropriate than 25 as a measure of acceptable weight for Indigenous people. There is also evidence that measuring the waist to hip ratio (WHR) in Indigenous people is more sensitive and easier to measure than BMI [4, 5].

Based on BMI information collected as a part of the 2004-2005 NATSIHS, 57% of Indigenous people aged 15 years or older were classified as overweight or obese, with slight differences according to remoteness of residence (the lowest proportion was 55% in major cities and the highest was 62% in remote areas) [6]. A higher proportion of Indigenous males (34%) than Indigenous females (24%) was overweight, but Indigenous females were more likely than Indigenous males to be obese (34% compared with 28%) [7]. After age-adjustment, the level of being overweight or obese was 1.2 times higher for Indigenous people than for their non-Indigenous counterparts [6].

Overweight and obesity were slightly more common overall among Torres Strait Islander people aged 15 years or older (61%) than among Aboriginal people in that age-range (56%) (the difference is not statistically significant) [6]. The level of overweight and obesity was particularly high among Torres Strait Islanders living in the Torres Strait area, with 86% having a BMI of 25.0 or greater.

A 2012 study of Indigenous youths in the Torres Strait (aged 5 to17 years) found that 46% were overweight or obese and 35% had central obesity [8].<sup>1</sup> Females had higher levels of central obesity (50%) than did males (18%). The study also found a consistent association between overweight/obesity and low levels of physical activity.

A study in central Australia found that 21% of Indigenous youths (aged 3 to 17 years) were overweight and 5.4% were obese (there was no difference between males and females) [9].

In comparison, the NHS 2007-2008 reported 17% of all Australian children aged 5 to 17 years were overweight and 8% obese [10].

<sup>&</sup>lt;sup>1</sup> Central obesity (a high waist circumference) indicates an accumulation of fat around body organs such as the heart, liver, kidney, and pancreas. Individuals with central obesity are at high risk of developing chronic diseases such as heart disease and diabetes

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References are available at: http://www. health.nt.gov.au/Chronic\_Conditions/ Chronic\_Disease\_Network/The\_Chronicle/ index.aspx

### Darwin PITSTOP links large waistline and hypertension Matthew Chick, Clinical Nurse Specialist

Casuarina Community Care, NT Department of Health

In 2012 Casuarina Community Care, The Men's Health Strategy Unit and Unions NT combined forces to run a health screening project specifically designed for men called PITSTOP. It is a screening program that uses a mechanical theme based on the analogy of a car, i.e. comparison between men's bodies and car bodies, oil pressure and blood pressure, and other mechanical principles as a non medical, un-stigmatised, mobile screening assessment of men's health. 297 men participated in two of the NT's major events: the V8 Supercars and the Big Boys Toys Expo.

Men have identified barriers to health service utilisation including lack of time, an inability to get from work to access services and waiting time in surgery where they often feel uncomfortable and out of place. The National Male Health Policy identifies six priority areas:

- 1. Optimal health outcomes for males
- 2. Health equity between different population groups of males
- 3. Improve health for males at different life stages
- A focus on preventative health for males, particularly regarding chronic disease and injury
- 5. Building a strong evidence base on male

health and using it to inform policies, programs and initiatives

 Improved access to health care for males through initiatives and tailored health care services, particularly for male population groups at risk of poor health.

Sadly men are more likely to be overweight or obese than women, as evidenced by the latest Australian Health Survey, which showed that 66.6% of men versus 58% of women were overweight or obese.<sup>1</sup>

In research and clinical settings, body mass index (BMI) is the commonly used tool to classify overweight and obesity.

Waist circumference is another important indicator, which helps define the location body fat and whether people are at risk of developing chronic disease.

A waistline greater than 94cm for most men is an indicator of internal fat deposits, which can surround the heart, kidney, liver and pancreas, and increase the risk of chronic disease. Specifically, abdominal obesity is associated with gout, hypertension, elevated cholesterol, chronic heart disease, adult onset diabetes, and some cancers.

At the Pitstop events, 75.4% of the 297 men surveyed had a waist circumference greater than or equal to 94cm. One of the most interesting discoveries of the survey results is evidence of a direct and lineal risk relationship between a person's girth measurement and the co-morbidity hypertension.

Figure 1 illustrates girth range in cm and average Mean Arterial Blood Pressure in mmHg (MAP- diastolic pressure + 1/3 (systolic pressure – diastolic pressure))



Figure 1: Average Mean Arterial Blood Pressure of Pitstop male participants, in mmHg, by girth range, 2012

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These data confirm that there is a linear association between Darwin Pitstop male participants' waistline measurement and hypertension.

They are of concern as all levels of arterial pressure put mechanical stress on the arterial walls. Higher pressures increase heart workload and progression of unhealthy tissue growth (atheroma) that develops within the walls of arteries. The higher the pressure, the more stress that is present and the more atheroma tends to progress. The heart muscle tends to thicken, enlarge and become weaker over time. Persistent hypertension is one of the major risk factors for strokes, heart attacks, heart failure and arterial aneurysms, and is the leading cause of chronic renal failure. Even moderate elevation of arterial pressure leads to shortened life expectancy.<sup>2</sup>

### **References:**

- (1) ABS. Australian Health Survey: First Results, 2011-2012. [4364.0.55.001]. 2012. Canberra, ABS. 19-11-2012
- (2) http://www.heartfoundation.org.au/ SiteCollectionDocuments/A-Hypert-Article-AustPres-LifestyleManagement-Dec2008.pdf

### Report on best practice approaches to tailoring lifestyle interventions for obese men in the primary care setting- A Resource Booklet for Health Care Professionals working with obese men in the Primary Care Setting

**Ms Majella McCarthy & Dr Noel Richardson** Centre for Men's Health, Department of Health and Science, Institute of Technology Carlow June 2011

In 2007-2008, 61% of adult Australians were overweight or obese. This rate was higher for men (68%) than women (55%). The following article is taken from an excellent report which takes a gendered approach to the issue of obesity. While it is from Ireland the recommendations and concepts are applicable in the Australian context. The whole report is available from the Men's Health orum in Ireland located at http://www.mhfi.org/ tacklingmaleobesity.pdf

### **BEST PRACTICE APPROACHES**

Against a backdrop of a growing obesity epidemic among men in Ireland, it is imperative that there is an increased and gender-specific policy focus on promoting healthy eating and balanced nutrition, as well as increasing physical activity levels throughout the lifespan of men and boys. It is well established that the most effective interventions at a population level are those that:

- (i) adopt an integrated, multidisciplinary, and comprehensive approach
- (ii) involve a complementary range of actions, and
- (iii) work at an individual, community, environmental and policy level.

It is within this context that the following Best Practice Approaches are proposed in tackling male obesity in the primary care setting.

### 1. Don't ignore the problem [of male obesity]

There is an urgent need to strengthen the capacity of current primary care based lifestyle interventions to enable health care professionals to meet current policy recommendations in relation to tackling obesity. GPs in particular have a crucial role to play in raising the issue of obesity as a health issue in its own right with their male patients. Indeed, men are more likely to take weight-loss seriously when prompted to do so by their GP.

### 2. Adopt a 'shared investment' approach to lifestyle change

Support and empower men to take responsibility for lifestyle changes that can bring about longterm and sustained weight-loss. Men like to be consulted and to feel as equal partners in negotiating lifestyle changes that revolve around personal choice and responsibility. Trust and rapport are also key characteristics when working with obese men and help to instill confidence towards weight-loss and to build an effective working relationship.

### 3. Increase the breadth and capacity of primary care teams to deal with obesity

There is a need to increase the capacity within primary care to ensure that all overweight/obese patients requiring extra support in reducing weight can be referred appropriately (particularly with regard to mental health services and addiction services).

### 4. Consider the impact of key 'transitional' periods in men's lives

Transitional periods in men's lives often coincide with weight-gain – becoming a father, 'retiring' from competitive sport, losing one's job and stopping smoking - and are periods when support is particularly needed. Conversely, the onset of a health problem (in relation to oneself or a loved one) may be the catalyst for increased motivation and commitment towards losing weight.

### 5. Account for and anticipate likely problems or barriers to weight-loss

Tailor advice to account for potential barriers that can occur in men's lives, i.e. work or family commitments, food affordability, environments conducive to physical activity, cookery skills etc. There is also a need to create an association between healthy foods and substance/satiation to counter perceptions of healthy food as bland or unappetising.

### 6. Place a strong focus on physical activity as a means to weight loss for men

Men tend to see physical activity and sport as more relevant than nutrition to weight-loss and are therefore more likely to seek to manage their weight by means of exercise than by dieting. Physical activity should therefore occupy a central role in lifestyle counselling aimed at tackling obesity in men.

### 7. Use practical approaches when working with men

A good incentive when working with men is to describe processes in terms of bodily mechanics or the use of visual aids. Men tend to like gadgets (e.g. pedometers), measurements and scores (e.g. BMI, waist circumference) and tend to respond well to the identification of targets and goals.

### 8. Provide long term follow up with men to enable them to sustain lifestyle changes

It is critically important to put in place long term strategies and supports to help avoid relapse and to increase motivation. For example, followup texts or telephone calls can be used if oneto-one consultations are not feasible. A good approach might be to develop a wider network of supports for obese men to help maintain changes.

### 9. Tailor interventions to the individual - not all men are the same

Services need to account for the significant differences between men and not just between men and women. Particular focus should be placed upon men who are older (aged 45-64), unemployed, live alone, are less educated or who work unsociable hours (e.g. truck drivers, security men, taxi drivers). Lifestyle counselling should be tailored to account for men's individual circumstances.

### 10. Provide training for primary care teams on how to work effectively with men

The provision of such training should take account of the following: (i) increasing men's awareness of the potential ill effects of excess weight; (ii) ensuring that discussions on weight are an in-built and a natural part of GPs' consultations with overweight/obese men; (iii) availing of opportunistic brief interventions with men in relation to their weight that can fit appropriately within a typical consultation; (iv) adopting a client-centred approach to weight loss; (v) improving lines of communication between dietitians and GPs in relation to referrals; and (vi) using BMI and/or waist circumference measurements as a routine part of all consultations.

Acknowledgement of thanks to Ms Majella McCarthy and Dr Noel Richardson for permission to use article in The Chronicle June 2013 edition: Obesity

### The Story of Healthy Darwin Amber Herrmann, Healthy Communities Coordinator City of Darwin

The City of Darwin's Healthy Darwin program is part of the National Healthy Communities Initiative. The Australian Government is providing funding to Local Government Areas (LGAs) to deliver community-based physical activity, lifestyle and healthy eating programs as well as developing a range of policies to support healthy lifestyle behaviours.

Healthy Darwin aims to help reduce the prevalence of obesity and chronic disease by maximising the number of adults engaged in physical activity and healthy eating programs.

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The program targets adults not predominately in full time paid employment in the Darwin area with a focus on Karama, Malak, Coconut Grove and Ludmilla areas. Now in its second year this unique approach to combating chronic disease has brought with it many challenges, successes and opportunities for learning.

At the time of writing about it, the program has a total of 485 low income earners registered, many of whom are participating regularly in activities. The weekly group class timetable has grown to 23 sessions offered in total. Many of these classes are held in the target suburbs and take advantage of council facilities and parks.

Alongside the weekly timetable are a number of workshops that seek to build participants knowledge and skills in a range of areas so that they can manage their health themselves. Sessions have included: 'Cooking and Gardening in the Tropics' a six week course on eating and growing local and healthy food; Beginners learn to Swim programs and Bike skills sessions.

A snapshot of the program shows that the majority of members are female (82 percent) of which 63 percent are over 51 years old. Despite this large older demographic the 26-38 year old category is growing and now makes up 29 percent of total members. Testament to the program's diversity is that almost 35 percent of members are from Cultural and Linguistic Diversity (CALD) or Indigenous backgrounds.

Alongside the general Healthy Darwin program, a number of programs have been run with nine special groups within the community including:

- Aboriginal groups
- migrants
- people living with mental illness
- seniors groups

Sessions are always planned with the support of the group's members and Healthy Darwin has worked closely with support services and clients to ensure these programs are not only aware but responsive to the group's needs.

It must be said that the strength of the program lies in its ability to link in with specialised service providers in the Darwin region. These relationships have been invaluable in providing specialised information, developing programs, providing cultural knowledge and in reaching the 'hard to reach' target audience. Council acknowledges that it is not a health provider in the traditional sense, but does have the capacity to link other services and provide support in other areas such as facilities, infrastructure and coordination. The program has also been designed with flexibility in mind and has always allowed for feedback from services and members to guide the program to meet the community's needs.

The effectiveness of word of mouth as a key marketing tool has been a powerful reminder of the need to remain visible around the community and take the time to talk to community members. The Healthy Darwin Team have met many of the members face to face at activities and talk to many more over the phone on regular occasions. It is this 'local' and 'personal' approach that many participants seem to really enjoy and has resulted in countless referrals.

Finally, one important lesson for us has been that some outcomes are difficult to measure yet invaluable in a person's journey. A smile and look of relaxation on a member of the Bagot women's group on the boat trip back from the Tiwi islands, a 20 minute phone conversation with a member or a new friend made at the cooking program are difficult things to capture. It is these little things that have the power to greatly affect people's health and wellbeing, yet often get overlooked. In an environment that often relies heavily on weights and measurements, it has been a timely reminder that there is a lot more to seeing numerical results in tackling obesity and its effects.

For more information, please contact Amber Herrmann on 08 8930 0632





### Publication of The Chronic Diseases Network







### Sugar-sweetened beverages consumption in Australia The problem and what needs to be done

### Recommendations

Cancer Council Australia, Diabetes Australia and the National Heart Foundation of Australia recommend that adults and children limit their consumption of sugar-sweetened beverages<sup>a</sup> and instead drink water or reduced-fat milk. Australian governments should support this call and encourage consumers to limit their sugarsweetened beverages consumption in line with Australia's dietary guidelines.

Comprehensive action should be taken by governments, schools, non-government organisations and others to inform the public about the health impacts of sugar-sweetened beverages and to influence the public to limit their consumption. A comprehensive approach should include:

- 1. A social marketing campaign, supported by Australian governments, to highlight the health impacts of sugar-sweetened beverages consumption and that encourages people to reduce their consumption levels.
- An investigation by the federal Department of Treasury and Finance into tax options to increase the price of sugar-sweetened beverages or sugar-sweetened soft drinks<sup>b</sup>, with the aim of changing purchasing habits and achieving healthier diets.
- 3. Comprehensive restrictions by Australian governments to reduce children's exposure to sugar-sweetened beverages marketing, including through schools and children's sports, events and activities.
- 4. Comprehensive restrictions by state governments on the sale of sugar-

sweetened beverages in all schools (primary and secondary), places frequented by children, such as activity centres and at children's sports and events (with adequate resources to ensure effective implementation, monitoring and evaluation).

 An investigation by state and local governments into the steps that may be taken to reduce the availability of sugarsweetened beverages in workplaces, government institutions, health care settings and other public places.

### Background

Australia's draft dietary guidelines recommend limiting the intake of food and beverages containing added sugars and in particular, limiting sugar-sweetened drinks.<sup>1</sup> However young Australians remain very high consumers of sugar-sweetened beverages, and sugarsweetened soft drinks in particular:

- The 2007 Australian National Children's Nutrition and Physical Activity Survey found that 47% of children (2 to 16 years of age) consumed sugar-sweetened beverages (including energy drinks) daily, with 25% consuming sugar-sweetened soft drinks daily.<sup>2-4</sup> The mean daily intake among these children was approximately 1.2 cans (between 436mL and 448mL per day).<sup>2-4</sup> Mean daily intake was found to be even higher for consumers of sports drinks (approximately 620mL per day), most likely due to their large standard bottle size. The highest consumers of sugar-sweetened beverages among children are male adolescents aged 12 to 18 years.<sup>2-6</sup>
- Among adults, young males (19 to 24 years of age) are the highest consumers of all types of sugar-sweetened beverages.<sup>2, 5, 7</sup> The last National Nutrition Survey found that 58% of this group of consumers drank an average of 2.1 cans per day (800mL).<sup>5, 7</sup>

a "Sugar-sweetened beverages" refer to all non-alcoholic water based beverages with added sugar, including sugar- sweetened soft drinks, energy drinks, fruit drinks, sports drinks and cordial

b "Sugar-sweetened soft drinks" refer to all non-alcoholic carbonated drinks, excluding non-sugar-sweetened varieties and energy drinks

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 People from socially disadvantaged groups (across all age groups) are significantly higher consumers of sugar-sweetened beverages than those from higher socio-economic groups.<sup>5</sup>

While sugar-sweetened beverages can be helpful for people with type 1 diabetes in the case of acute hypoglycaemia, they provide little (if any) other nutrition or health benefit. Rather, the consumption of sugar-sweetened beverages is associated with increased energy intake and in turn, weight gain and obesity.<sup>1, 8-10</sup>

- Among children (2 to 16 years of age) that consume sugar-sweetened soft drinks, these drinks contribute 26% of their total sugar intake and 7% of their total energy intake.<sup>3</sup>
- In the US, it has been estimated that consuming one can of soft drink per day could lead to a 6.75kg weight gain in one year (if these calories are added to a typical US diet and not offset by reduction in other energy sources).<sup>11</sup>
- There is evidence that people do not compensate for the energy they consume from sugar- sweetened soft drinks by reducing their energy intake from other foods. There is also evidence that sugar-sweetened soft drinks may stimulate appetite or suppress satiety, leading people to consume more energy from other sources.<sup>1, 8, 12, 13</sup>
- Obesity is a leading risk factor for diabetes, cardiovascular disease and some cancers (including endometrial, oesophageal, renal, gallbladder, bowel and postmenopausal breast cancers).<sup>14, 15</sup> It has been estimated that the risk of type-2 diabetes is 26% greater among the highest consumers of sugar sweetened beverages (most often 1– 2 servings/day), compared to those with the lowest levels of intake (none or <1 serving/month).<sup>16</sup>
- As well as considering the association with increased energy consumption and weight gain, the total economic costs of obesity that have been estimated at \$58.2 billion need to be noted as a reason for action. These costs are expected to rise significantly, driven largely by a projected rise in diabetes.<sup>17</sup>

A range of factors influence the consumption of sugar-sweetened beverages, including taste, availability, role modelling by significant others, advertising and marketing, and price.<sup>5, 18-20</sup>

- Among adults, social settings are key triggers for consumption, particularly where alcohol is consumed. The purchase of fast food and the availability of soft drinks in the home, workplace and other social settings are also leading factors relating to their consumption.<sup>21</sup>
- Among children, taste preferences and the availability of sugar-sweetened beverages in the home and at school are key drivers of consumption.<sup>18-20</sup>
- Soft drinks are heavily promoted through media advertising, a wide variety of entertainment and sporting venues, children's sports and events, targeting of schools and movie tie-ins.<sup>5</sup> There is evidence that food and beverage advertising influences children's food choices.<sup>22</sup>
- Price influences sugar-sweetened beverages consumption.<sup>23, 24</sup> After food purchased away from home, soft drinks are the category of food or beverage products most responsive to price changes.<sup>23</sup> It has been estimated that a 10% increase in soft drink prices could reduce consumption by 8-10%.<sup>23</sup> It has also been estimated that a 20% tax on sugar-sweetened beverages could reduce body weight by 0.7 to 1.2kg per capita per year.<sup>25</sup>

Some steps have been taken by governments and others to address the influences on sugar- sweetened beverages consumption; however these steps have been insufficient to meaningfully reduce consumption.

- Schools have adopted government policies and guidelines to reduce the availability of sugar-sweetened beverages in school canteens; however these initiatives are being undermined by poor implementation and monitoring,<sup>26</sup> and the promotion and ready availability of these drinks outside of school grounds.
- While there are some restrictions on unhealthy food and beverage advertising to children, these restrictions (mostly in self-regulatory codes) are inadequate to protect children as they do not restrict the volume of advertising that children are exposed to, or adequately restrict the techniques most commonly used to target children, such as the sponsorship of children's sports, events and activities.<sup>27</sup>
- In the US, some state governments have introduced small sales taxes on sugarsweetened soft drinks, at a mean tax rate of 5.4%.<sup>28</sup> However, researchers and health

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experts agree that a tax capable of reducing consumption and weight would need to be substantially higher, with suggestions that retail prices would need to increase by about 20%.<sup>25, 29, 30</sup>

Cancer Council, Diabetes Australia and the National Heart Foundation of Australia agree that comprehensive action is required by governments and others to address the problems of sugar- sweetened beverages consumption. A failure to act now will contribute to our growing public health crisis and escalating costs for individuals, families, communities and governments.

References are available at: http://www. health.nt.gov.au/Chronic\_Conditions/ Chronic\_Disease\_Network/The\_Chronicle/ index.aspx

# Combating obesity: isn't it time for legislation?

Vivienne Hobson, Program Leader Nutrition and Physical Activity, NT Department of

Health Over the last two decades Australians have been bombarded with campaigns and strategies

aimed at reducing overweight and obesity in the community. First there was *Acting on Australia's weight* which was so short lived that we never really got to the "acting" phase. This was followed by *Healthy Weight 2008,* again with a limited lifespan, and more recently the *Measure Up* campaign which morphed into the *Swap it* campaign. Now the Federal Government, through its National Preventive Health Agency, is about to launch Shape Up Australia, the latest overweight and obesity initiative.

No one can dispute the fact that Australians, and adults in most other countries of the world, including in some of the developing countries, are getting fatter. Despite any good intention of government, the latest Australian Health Survey confirms that the rates of overweight and obesity in adults continues to rise and it is estimated that by 2025, 83% of men and 75% of women over 20 years will be overweight or obese (1).

We also know that this problem isn't confined to adults, with 25% of our children and adolescents being overweight or obese (2).

The health consequences of this escalating problem are well known, with overweight and obesity overtaking smoking as the greatest single contributor the burden of disease and injury. The causes and the social consequences have also been well researched, yet knowledge of these has had little impact on alleviating the problem. Any attempt to address this issue is constantly being undermined by the commercial sector, who continue to deliver and promote products and behaviours that are not conducive to attainment of a healthy lifestyle.

The increase in overweight and obesity over the past century in Australia has paralleled the massive increase in the availability and promotion of highly processed, highly affordable, palatable, attractive convenience "items" that are readily available to the majority of people at almost any time and wherever they desire them. The term "item" has been used deliberately as in many cases these products bear little resemblance to the food they might have originally come from, and yet they frequently substitute for the food and provide little in the way of nutrients other than fat, sugar and kilojoules.

If we go back even fifty years, although there were always the corner milk bars with their array of sweets and lollies, the average child's spending power was usually limited to the equivalent of a few cents per week, the consumption of these treats was almost negligible. At this time the range of fast food available to the Australian family was limited to the local fish and chip shop, which again, with the limited spending power of a single income family, contributed a negligible amount to total food intake. Now the plethora of highly affordable fast food outlets and convenience items is mind boggling and slick food advertising ensures that even within the safety of our own homes we are still bombarded with images to tempt. The images of these products are real but the images of the people consuming these products are far from the reality.

Although it is arguably the individual that makes the final decision on what they purchase and what they consume, making healthy choices is not easy and often the rewards too long term to entice people to making permanent changes to their lifestyle. Certainly creating supportive environments and policies that promote healthier

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eating behaviours are important, but perhaps it is time for government to make some hard decisions if they are to get serious about curbing this obesity epidemic. Rather than just continuing to invest in social marketing campaigns, legislation, which includes restrictions on junk food advertising in media, downsizing of portion sizes, taxes on junk food and mandatory nutrition policies in schools and physical activity programs are required. Only these measures will see sustained changes in our obesity promoting environment.

### **References:**

Reference for the Australian Health Survey<sup>1</sup> Reference for predicted prevalence of o/o for kids<sup>2</sup>

- ABS. Australian Health Survey: First Results, 2011-2012. [4364.0.55.001]. 2012. Canberra, ABS. 19-11-2012
- (2) Department of Human Services. Future prevalence of overweight and obesity in Australian children and adolescents, 2005-2025. 2008 Last accessed: 2013 Apr 25; Available from: URL: http://docs.health. vic.gov.au/docs/doc/768FD9A0683F92 59CA2578EC0081AD6A/\$FILE/future\_ overweight\_prevalence\_report.pdf

### COMPaRE–PHC: The Centre for Obesity Management and Prevention Research Excellence in Primary Health Care

Professor Mark Harris, Executive Director Centre for Primary Health Care and Equity University of New South Wales and Leader of COMPaRE-PHC Dr Elizabeth Denney-Wilson, Chief Investigator COMPaRE-PHC

The Australian Primary Health Care Research Institute has established eight Centres of Research Excellence (CREs) in primary health care to undertake research focused on key health reform challenges. One of these is the Centre for Obesity Management and Prevention Research Excellence in Primary Health Care (COMPaRE–PHC).

A quarter of the population is obese and this proportion has increased in all age groups by about 1% a year over the past 30 years.<sup>1</sup> Rates of obesity are particularly high and increasing in disadvantaged populations groups.<sup>2</sup> This imposes a substantial burden on individuals, health services and the community in terms of higher incidence of diseases such as diabetes, higher hospitalisation rates and length of hospitalisation, disability and premature mortality. A total of 7.5% of the burden of disease can be attributed to overweight or obesity.<sup>3</sup> The Australian National Preventive Health Agency (ANPHA) has prioritised translational research on interventions to address obesity especially among children and adolescents, disadvantaged communities and Indigenous populations.<sup>4</sup>

Preventing and managing obesity requires complementary intervention strategies through population health and primary health care (PHC).<sup>5</sup> The potential contribution of PHC is related not only to its reach but the acceptability of lifestyle interventions to patients.5-7 There is increasing evidence from randomised control trials (RCTs) conducted in community settings, that PHC practitioners can assess the risks associated with obesity and effectively assist patients to lose weight and therefore reduce the risk of chronic disease.<sup>8, 9</sup> However, there is only sparse evidence on how this can be translated into routine practice, and what systems may be necessary to ensure widespread adoption. Assessment and brief advice are regularly provided to patients and are vital first steps, but are insufficient to initiate or achieve sustained weight loss.<sup>8-10</sup> Referral to more intensive interventions such as those provided by allied health practitioners is required to achieve weight loss in obese patients but this occurs infrequently.<sup>5</sup> There is also a lack of evidence for the effectiveness of strategies to maintain weight change in clinical practice. There are many barriers to referral and implementation of weight management by clinicians but little research has been conducted on how these barriers can be overcome, especially in disadvantaged populations.

COMPaRE–PHC will address these problems with a two pronged approach. Firstly research will be conducted across the lifecycle (families with young children, middle-aged people at risk of chronic disease, older people with chronic illnesses) and with disadvantaged population groups (including Indigenous people) to evaluate

new ways for primary care practitioners to deliver assessment, brief advice, goal setting, more intensive coaching and skill development, weight maintenance and relapse prevention. This includes innovative use of information technology (including web and social media with which our team has specific expertise), developing new roles for health care providers, and integrating interventions in PHC with local community services and resources. This research program will, by virtue of its embedding with health service structures and practices, have high generalisability and external validity in the Australian context (as interventions trialled overseas may not be directly translatable). Secondly, research will be conducted on how these innovative programs can be translated into routine practice. This aspect of the research will enable the implementation of the new National Health and Medical Research Council (NHMRC) Obesity Prevention and Management Guidelines<sup>11, 12</sup> and the policies and initiatives of ANPHA.<sup>4</sup> The translational research will address models for funding (of both health care services, providers and consumers), workforce development (including new roles and training for health professionals), the roles of Medicare Locals - Australia's new primary care organisations including their roles in service development, coordination and facilitation, the roles of Indigenous health services, state and local government, and non-government organisations, and links between PHC and population health programs and inter-sectoral initiatives.

COMPaRE-PHC brings together a strong multidisciplinary research team from the University of NSW, University of Technology Sydney, Deakin University, University of Adelaide, University of Sydney and Inala Indigenous Health Service together with a range of international and national collaborators, advisors and stakeholders. COMPaRE-PHC brings together a body of existing and ongoing research as well as providing funding for research students, post-doctoral fellows and the development of new research. It will build national capacity in PHC and link to existing practice, consumer and research networks in New South Wales, Victoria, South Australia and Queensland.

References are available at: http://www. health.nt.gov.au/Chronic\_Conditions/ Chronic\_Disease\_Network/The\_Chronicle/ index.aspx

### New Health*infonet* Website Features for Chronic Disease Health Professionals Miranda Poynton, Research Officer

Australian Indigenous Health InfoNet

The Australian Indigenous Health *InfoNet* is an essential source of Indigenous-specific information about obesity. The *Overweight and obesity* section of the Health *InfoNet* web resource provides information about Indigenous obesity programs, research projects, policies, publications and health promotion resources. http://www.healthinfonet.ecu.edu.au/healthrisks/overweight-obesity

The Health *InfoNet* also offers comprehensive Indigenous-specific information about chronic health conditions which can develop as a result of obesity, including cardiovascular disease (CVD), type 2 diabetes and some cancers. Below is a summary of recent enhancements to the Health *InfoNet* website as they relate to obesity and/or chronic disease.

### Overview of Australian Indigenous health status 2012

The Health *InfoNet*'s major publication, the *Overview of Australian Indigenous health status*, has been released and is now freely available online. The *2012 Overview* is a comprehensive summary of the most recent indicators of the health of Indigenous people, drawing on the most up-to-date, authoritative sources including special analyses.

A summary of current information about overweight and obesity in Indigenous populations is included in the Overview's coverage of health risks and protective factors.

The 2012 Overview also contains information about:

- the context of Indigenous health
- births and pregnancy outcomes
- mortality
- hospitalisation
- selected health conditions (CVD, cancer, diabetes, social and emotional wellbeing, kidney health, injury, respiratory health, communicable disease, eye health, ear health, oral health and disability)
- other health risks and protective factors (nutrition, physical activity, immunisation,

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breastfeeding, tobacco smoking, alcohol use, and illicit drug use).

The key facts, tables and figures from the *Overview* are once again freely available from the Health*InfoNet* website as PowerPoint presentations which can be used in a variety of contexts, including teaching and training. http:// www.healthinfonet.ecu.edu.au/health-facts/ overviews

### Review of cardiovascular health among Indigenous Australians

The risk of developing CVD (particularly coronary heart disease (CHD) and stroke) and type 2 diabetes is higher among people who are overweight or obese. Other risk factors for CVD are also exacerbated by excess body fat; these include high blood pressure, high blood cholesterol, and high levels of blood lipids. The Health *InfoNet* has released a new *Review* of cardiovascular health among Indigenous *Australians*. In addition to its coverage of CVD risk factors such as obesity, the *Review* provides information about:

- the context of Indigenous cardiovascular health
- the extent of cardiovascular disease among Indigenous Australians (CHD, cerebrovascular disease, hypertension, rheumatic heart disease, congenital heart disease)
- management, prevention and rehabilitation
- policies and strategies.

The *Review* is now freely available for download from the Health*InfoNet* website. http://www. healthinfonet.ecu.edu.au/chronic-conditions/ cvd/reviews/heart\_review

### National Indigenous Cancer Network (NICaN) yarning place

In partnership with the Menzies School of Health Research, the DISCOVER-TT Centre of Research Excellence, the Lowitja Institute, Cancer Council Australia, and Indigenous health consumers around Australia, the Health*InfoNet* has launched a new online 'yarning place' to facilitate discussion between members of the National Indigenous Cancer Network (NICaN). NICaN aims to improve quality of life and survival rates among Indigenous cancer patients in Australia by encouraging and supporting collaboration around Indigenous cancer research and delivery of services to Indigenous people with cancer, their carers and families.

The new NICaN 'yarning place' is free and open to all interested individuals, groups and organisations. It includes a discussion board, mailing list, member directory and chatroom. To join the yarning place and network with other health professionals with an interest in Indigenous cancer research and service delivery, visit http://yarning.org.au/group/15

### New continuing professional development (CPD) portal

Health professionals with an interest in selfdirected learning about Indigenous health issues will benefit from a new feature of the Health *InfoNet* web resource. The Health *InfoNet*'s new continuing professional development (CPD) portal is designed to assist people working in the health system to maintain or extend their professional knowledge on a wide range of topics in Indigenous health.

The new portal provides access to all of the Health *InfoNet*'s recent research publications, each of which have been allocated a number of CPD hours based on the average time it takes to attentively read them. The new portal will assist busy health professionals to accurately maintain their CPD record. http://www.healthinfonet.ecu. edu.au/cpd

### Frequently Asked Question Grace Chirgwin, Senior Community Dietitian/ Nutritionist

Community and Primary Care, NT Department of Health

### **Question:**

### Does BMI tell the full story?

### Answer:

In a general community setting the most common way of working out whether someone is in the healthy weight category, is by looking at their weight in context with the person's height – known as body mass index or BMI. This is calculated and categorised using the tables below:

BMI = weight (in kg) ÷ height (in metres) <sup>2</sup>			
Classification of body mass index	BMI	Risk of co-morbidities	
Underweight	< 18.5	Low (but possibly increased risk of other clinical problems	
Normal range (healthy weight)	18.5 -24.99	Average	
Overweight	>25		
Pre-obese	25.00-29.99	Increased	
Obese class 1	30.00-34.99	Moderate	
Obese class 2	35.00-39.99	Severe	
Obese class 3	>40.00	Very severe	

Reproduced from: Obesity: Preventing and Managing the Global Epidemic, 2000, WHO, Geneva

However, there are certain problems with just looking at BMI. These include:

- BMI does not distinguish between fat and muscle – muscle is heavier than fat
- BMI does not provide an accurate risk assessment for certain groups (e.g. elderly, very obese people, some high performance athletes and pregnant women, people from different ethnic backgrounds, including those from Asia and indigenous Australians)<sup>i</sup>

More and more evidence is highlighting the importance of looking at the distribution of the fat, and central obesity is now considered a better indicator for chronic disease risk than total body mass." This means that measuring waist circumference in addition to BMI is also important.

Waist measurements of >94cm for men or >80cm for women (as listed in the box below) are indicators of internal fat deposits that can coat the heart, kidneys, liver and pancreas and increase the risk of chronic disease. Waist measurements are independent of BMI. meaning that someone can be in the 'healthy' BMI category and have a high risk waist circumference.

For most people, a waist measurement higher than the following is associated with increased risk of chronic disease:

Increased risk: men >94cm, women >80cm

Greatly increased risk: men >102cm, women >88cm

Waist circumference is measured half way between the top of the hip bone and the bottom rib

Reproduced from: National Health and Medical Research Council

### Are these figures suitable for everyone?

As previously mentioned there are flaws in the BMI, particularly as it can be influenced by age, gender and ethnicity, making it a less useful measure when used alone.

Similarly there are variations depending on ethnicity and gender for waist circumference, as well as the variations in results when

the measurements are completed by different practitioners. Currently the NHMRC recommendations are for Caucasian adult men and Caucasian and Asian adult women.

Studies investigating the appropriateness of BMI and waist circumference cut offs in Aboriginal and Torres Strait Islander population groups include only a small number of studies with Aboriginal and Torres Strait Islander groups.

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#### Indications include:

- BMI cut offs for Asian and Indian people may need to be lowered,<sup>iii</sup> and waist circumference also lowered for Asian men<sup>iv</sup>
- African Americans and Pacific Islanders (men and women) tend to have a lower percentage of body fat for the same BMI, so BMI and waist circumference cut offs may need to be raised<sup>v vi vii</sup>
- Aboriginal BMI recommendations may need to be lowered for men and women,<sup>viii ix</sup> and waist circumferences may also need to be lowered particularly for Aboriginal men<sup>x</sup>
- Torres Strait Islander recommendations may be similar to those for Pacific Islander populations

Different studies are also looking at using other measurements such as waist-to-hip ratio and waist-to-height ratio in the Aboriginal and Torres Strait Islander populations with BMI and waist circumference to see which are more closely associated with different chronic disease risk factors; more research is needed in this area.

It is therefore important to look at both BMI and waist circumference when assessing overweight and obesity and the associated chronic disease risk, as well as looking at other risk factors when assessing chronic disease risk, particularly in Aboriginal and Torres Strait Islander people, where more research is needed to provide more appropriate recommendations for waist circumference and BMI.

References are available at: http://www.health. nt.gov.au/Chronic\_Conditions/Chronic\_ Disease\_Network/The\_Chronicle/index.aspx

### **Frequently Asked Question**

Kate Robinson, Urban Public Health Nutritionist/Dietitian Community Health, NT Department of Health

### Questions:

- (1) Why do people put on weight when they stop smoking?<sup>i</sup>
- (2) What can be done about putting on weight?

### Answer (1):

- Eating and drinking more:
  - Nicotine in cigarettes raises the levels of certain hormones (dopamine and serotonin) that suppress our appetite; as a result smokers are generally less hungry
  - Cravings for fat, salt and sugar lead many to eat more junk food and drink more sugary drinks
  - Some replace the act of smoking with eating, and snack more
  - Within about two days of quitting, sense of taste and smell improves, which may increase desire to eat more
- Body is burning less energy: the basal metabolic rate (BMR) is the amount of energy (kJ) our body burns when resting.
   Smoking raises your BMR and so you burn

more energy than usual. However, your BMR returns to normal after quitting.

- Decreased physical activity
- Genetic factors

How much weight can a smoker expect to gain after quitting?

Giving up the smokes is linked with significant health benefits, however many studies have proven that it also associated with weight gain.<sup>a</sup>

A 2009 Cochrane Collaboration review<sup>iii</sup> concluded the average quitter will gain between 4 and 6kg in the first year, and on average women gain more than men. However changes in body weight vary widely, with around 16% of quitters losing weight and 13% gaining more than 10kg.<sup>iv</sup>

Weighing up the benefits of quitting and dangers of weight gain ...

Smokers (especially women) report weight gain as a key reason for putting off quitting smoking,<sup>v</sup> <sup>vi vii</sup> and weight gain during or after giving up has been linked as a reason for people taking the smokes back up again<sup>viii v vi</sup>

Quitting significantly reduces the risks of cardiovascular disease (CVD),<sup>ix</sup> however it is also associated with a small number of health dangers

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and weight gain is one of them.

Obesity increases your risk of CVD and the risk of dying from a heart problem goes up by 40% for every 5-unit increase in body mass index (BMI) above 25<sup>x</sup>. However one study<sup>xi</sup> found that even though participants had gained weight in the four years since giving up smoking, quitting was still associated with a lower risk of CVD.

### Answer (2):

A recent 2012 Cochrane Collaboration review of the evidence provides an important summary of what has and hasn't worked for preventing weight gain after smoking cessation. Here is a summary of the evidence so far that may be helpful in guiding your practice:

- General weight management education may reduce smoking abstinence and is not effective at controlling weight and should not be used
- Personalised weight management support programmes, which include personal goal setting, monitoring, feedback and a personal energy prescription, may reduce weight gain and they don't affect rates of quitting success (abstinence)
- Very low calorie diets may increase abstinence and prevent weight gain in the short-term at least
- Cognitive behavioural therapy (CBT) to relieve a quitter's concerns about weight gain does not reduce weight gain or increase abstinence in the long term
- There is conflicting evidence about whether exercise limits post cessation weight gain. However there is convincing evidence that exercise suppresses cravings to smoke<sup>xii</sup>
- Nicotine replacement therapy, bupropion, fluoxetine and varenicline all reduce weight gain in the short term, but clients need to be told that it is unclear whether they reduce weight gain in the long term
- Personalised dietary and exercise interventions may reduce any weight gained after quitting by 50%

References are available at: http://www. health.nt.gov.au/Chronic\_Conditions/ Chronic\_Disease\_Network/The\_Chronicle/ index.aspx

### Need something different for health classes this year? Order Smarter than Smoking competition sheets now

Are you looking for an engaging classroom activity that will help students learn about the dangers of smoking?

Smarter than Smoking's *Classroom Activity Sheet Competition* is suitable for all West Australian students aged 10 to 17. Entries open now – Go to **www.futureinyourhands.com.au** 

Your school could be the lucky winner of a \$1,500 or \$500 voucher at a store of your choice, plus awesome prize packs with the latest Smarter than Smoking merchandise including caps, beanies, pens, water bottles, stickers and slap wrist bands. Entry is free, and provides an innovative alternative to health education.

Students can navigate an interactive antismoking website, watch ads made by other young people, provide options in polls and quizzes and play games.

The Smarter than Smoking *Classroom Activity Sheet Competition* was developed in consultation with School Drug Education and Road Aware (SDERA) team and is ideal for health, library and information technology classes. A 'tear and copy' version of the *Classroom Activity Sheet Competition* will feature in the Term 2 School Matters and SDERA Newsletters, or at **www. futureinyourhands.com.au** It can also be sent by email.

The competition coincides with the launch of the *Future In Your Hands* media campaign which aims to raise awareness about negative health and social consequences of smoking, as well as challenge misconceptions around smoking and young people. The competition closes on 5 July 2013. Good luck!

Implemented by the Heart Foundation, and funded by Healthway, Smarter than Smoking is a long-term, comprehensive and sustained approach to prevent smoking among young people in WA.

For more information please contact: SMART@heartfoundation.org.au or www. futureinyourhands.com.au

### The Tobacco Plain Packaging Act: in Singapore's context

**Eileen Soon, Year 5 Medical Student Mark Yeow, Year 5 Medical Student** National University of Singapore, Yong Loo Lin School of Medicine

> We would like to thank the Singapore Medical Association (SMA) for allowing us to adapt the article "Thank You for Not Smoking" from the October 2012 issue of SMA News.

Recently, in what has been hailed as a "watershed moment for tobacco control around the world", Australia's highest court upheld its Tobacco Plain Packaging Act, overturning legal challenges by the tobacco industry.

The passage of the Plain Packaging Act is a great step forward in the fight against the scourge that is tobacco, as it represents a commitment by the Australian government to take steps to curb tobacco use in spite of considerable tobacco industry opposition. It is clear that Australia has deliberated and decided that the health of its citizens is worth more than caving in to pressure and threats from the tobacco industry. That the decision was supported by all branches of government including the judiciary is a significant confidence booster to non-government organisations as it shows the degree of governmental receptiveness and commitment to this cause. In fact, despite assertions by tobacco companies about the economic ramifications of reducing tobacco sales, stopping smoking actually makes economic sense in the long run due to reduced healthcare costs.

Plain packaging is a simple yet effective concept that aims to reduce demand for cigarettes by smokers. It does this by removing visual cues and adopting scientifically validated measures to make cigarette boxes as undesirable as possible, in order to reduce the psychological temptation of purchasing cigarettes.

The Plain Packaging Act is based on extensive research and studies analyzing how important a role packaging has in tobacco promotion. These studies have shown that plain cardboard packs, with a drab olive green colour, strict rules on the font, size and placement of the brand name, along with graphic health warnings, have reduced the attractiveness of the pack to consumers. Plain packs were also reported to increase behaviours such as hiding or covering the packs, smoking less around others, going without cigarettes and increased thinking of quitting.<sup>1</sup>

The implementation of the Plain Packaging Act is significant not just in its novel approach, but more so in that the bill has stood up against tobacco industry challenges from large multinational companies with vested interests in this unhealthy product. This shows that such barriers to tobacco control efforts can be overcome, and paves the way for further efforts locally as well.

In Singapore our current system mandates graphic health warnings on cigarette packets to discourage smokers as a visual deterrent, in addition to other measures and campaigns. However, this does not parallel the Plain Packaging Act in its entirety, which also more strictly limits the appearance of the cigarette pack. We think that this would then be the next logical step forward in enhancing the effectiveness of current measures to curb smoking demands in Singapore. Earlier this year, several new tobacco control measures were instituted locally. These included:

- the removal of misleading descriptions of cigarettes such as "light" and "low tar"
- including health information on the packaging
- lowering the maximum allowable tar and nicotine yield levels in cigarettes
- banning the sale of mini-packs of less than 20 cigarettes.

The smoking ban was also extended to include areas such as common corridors, void decks, staircases of residential buildings, sheltered areas and within a 5-metre radius of bus shelters.<sup>2</sup>

Aside from such current measures, it is important to prevent the initiation of youths into the smoking habit and thus avoid even the beginnings of addiction and dependence. Every year, nearly 7000 underage smokers are caught each year. Of concern is not just those that are slipping under the radar but their increase in numbers each year and the fact that smoking in youths is a dangerous phenomenon that needs addressing. The Towards Tobacco Free Singapore movement works towards achieving a Tobacco-Free Millennium Generation. The concept is simple: a proposal to prevent sales of tobacco to anyone born after the year 2000, rather than based on age. This proposal would minimize immediate impact on stakeholders and allow time for

transitions, while being entirely congruent with the tobacco industry's assertions that they now seek to market only to existing smokers and not to youth. Interestingly, preliminary work suggests strong public support, including support from current smokers, for such an idea.

The plan to prevent sales to those born after the year 2000 is a strictly supply side intervention, however the Tobacco Free Millennium Generation approach reduces demand as well but from another angle. With the denormalisation of smoking at the age of 18, this sends the message to youths that smoking is unacceptable and harmful to one's health regardless of age. This removes the argument that "I can smoke in a few more years, so why don't I do it now?" By getting students in primary and secondary schools in Singapore to see themselves as the Tobacco Free Millennium Generation, we hope to utilise peer influence in a positive manner to prevent youths from even initiating smoking.

Overall, eradicating smoking in Singapore can be a contentious topic, and is a goal that will require a multi-pronged approach, with many concepts and different groups working in unison to achieve. While it may be radical to conceive a Singapore without the presence of these dangerous products, the success of legislating Plain Packaging in Australia makes it clear that progress can be made and that these dreams are not so impractical after all. The most important thing is that the campaign against smoking must be comprehensive and sustained in order to have an impact, involving support from all walks of Singaporean society: government, NGOs and even the average man on the street.

Perhaps Ruth Malone, editor-in-chief of *Tobacco Control*, addresses it best: "Could any of these latest big picture ideas really work? Perhaps not immediately, but they inspire us all to think beyond the next smoke-free ordinance or tobacco quitline." It is visionary thinking, combined with skilled advocacy that pushes governments to act more decisively to protect the public and to rein in the activities of tobacco companies. Plain packaging and the Tobacco Free Millennium Generation notion are complementary and we hope that ultimately Singapore will be able to bring this dream of protection against the harms of smoking to fruition. To find out more about the efforts towards a Tobacco-Free Millennium Generation go to: www.TobaccoFreeSingapore.info or 'Like' us on Facebook at www.facebook.com/ tobaccofreesingapore Interested parties can contact the author at soon.weiling.eileen@gmail. com or dreamoftobaccofreefuture@gmail.com

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#### Original Article available at:

http://www.sma.org.sg/UploadedImg/files/ Publications%20-%20SMA%20News/4410/ Insight.pdf



### Impact and perceptions of a tobacco tax increase in remote Aboriginal communities David P Thomas,<sup>1,2</sup> Associate Professor

Megan Ferguson,<sup>1</sup> Senior Research Officer and PhD Candidate

Vanessa Johnston,<sup>1</sup> Senior Research Fellow Julie Brimblecombe,<sup>1</sup> Senior Research Fellow <sup>1</sup> Menzies School of Health Research, Darwin <sup>2</sup> The Lowitja Institute, Charles Darwin University, Darwin

Increasing the price of tobacco by raising taxes is claimed to be the most effective way of reducing smoking in a population.<sup>1</sup> We have recently published the first ever empirical research on the impact and perceptions of a tobacco tax increase among Aboriginal people.<sup>2</sup>

The Australian Government increased the excise on tobacco products by 25% on 30 April 2010. This has been the only real increase in the tax since 2000, although there are small increases for the tax to keep up with inflation every February and August. We used this opportunity

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to assess the impact of the tax rise on tobacco sales and to ask people about the tax rise.

We compared tobacco sales in the seven months before and after the tax rise in 18 stores. There was a 2.2% average reduction in total tobacco sold after the tax rise, with large variation across the stores. This drop in consumption was not statistically significant, which means that we cannot be certain there was a real drop in consumption due to the tax rise. Future studies in the NT, where all stores must now provide wholesale data as a condition of their tobacco licenses, will be able to provide a more precise estimate of this impact after future tax rises.

We also interviewed 54 people in six of these communities about their perceptions of the tax rise. All the Aboriginal participants were aware of the price rise and supported price rises as an important part of the solution to reducing smoking in their communities.

The interviewees also reported increased demands to share cigarettes, with a perception that there was an increased reliance on those with more disposable income to buy cigarettes for other smokers. The main reasons given for not quitting or reducing smoking were that people were too addicted to smoking, that smoking was considered normal and accepted in these communities, and the inadequacy of local support to quit.

On balance, like our interviewees and the huge body of supporting international research from other settings, we still support tax rises as an important part in reducing Aboriginal smoking and the harm it causes. However, we recommend that the impact in Aboriginal populations of future tax rises be carefully monitored and evaluated.

More detailed discussion of our findings and



Average daily combined tobacco sales from 18 stores before and after tax rise

their strengths and limitations, along with all our acknowledgements and funding support, are available in the published article, available at: http://ntr.oxfordjournals.org/content/ early/2012/11/16/ntr.nts232.long References:

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# New quit smoking resources for Aboriginal communities

Suzanne Hales, Tobacco Project Officer Alcohol & Other Drugs Program, NT Department of Health

Smoking rates in the Northern Territory (NT), and particularly in remote Aboriginal communities is a challenging issue for the Department of Health (DoH) to tackle.

A new suite of resources have been developed by the Tobacco Policy and Education Unit to increase awareness in communities; promote services like Quitline and educate people on the Smoke Free policy for DoH.

The four brochure suite covers the following topics:

- Did you know about Quitline?
- Have you thought about quitting the smokes?
- Things to know about the No Smoking Policy in DoH
- Protecting your family and friends from second-hand smoke



Continued on Page 33 June 2013



Alcohol and Other Drugs has also developed a Quitting Journey Planner and Poster which is to be used by clients on their journey to quitting. Our new suite of resources can be acquired by accessing the smokefree website (**www. smokefree.nt.gov.au**) and selecting the Quitline tab

An order form is available from: http://www. health.nt.gov.au/Alcohol\_and\_Other\_Drugs/ Tobacco/Quitline/index.aspx for you to complete and email or fax to us







### Public Health Awareness Campaign 2012/13 Tobacco Control - Passive Smoking & Children

Suzanne Hales, Tobacco Project Officer Alcohol & Other Drugs Program, NT Department of Health

There is no level of exposure to second-hand smoke that is free of risk and children are especially susceptible.1 Second-hand smoke has a number of negative health consequences for children, including exacerbation of respiratory infections and disease such as bronchitis and pneumonia in the first year of life. It is a cause of chronic respiratory symptoms in school-aged children, increases the severity and frequency of symptoms in children with asthma, is associated with increased risk of acute and chronic middle ear disease, sudden infant death syndrome (SIDS), decreased lung function and reduced sense of smell and childhood cancers. It is therefore of great concern that almost 98% of Indigenous children who reside in remote communities in the Northern Territory (NT) live with at least one smoker and 43% of these children live with five or more smokers.

The NT Government Department of Health funded Cancer Council NT to make two television commercials (TVC's) around passive smoking and children. Two separate commercials were created with messages aimed at adults re-thinking their smoking behaviour in the presence of children:

- a) Smoking in cars with children damages their health; don't smoke in cars with kids.
- b) Smoking in homes when kids are present is damaging their health – don't smoke around kids.

Production Company, Simon Says Television was commissioned to make the TVC's that have aired on major television networks throughout the NT from October to December 2012 and again in 2013. The advertisements are currently being aired throughout April on TV Stations 7, 9, 10 and Imparja and it is planned to run the TVC's at intervals throughout the year with a particular push for the period leading up to World No Tobacco Day on 31<sup>st</sup> May, 2013.

Posters have been developed to support the campaign and can be downloaded from our smokefree website http://www.health.nt.gov. au/Alcohol\_and\_Other\_Drugs/Tobacco/ Quitline/ or you can view the advertisements at the following websites:

### Smokefree <u>Homes</u> Clip at: http://youtu.be/ X9eCAWUgX14

Smokefree <u>Cars</u> Clip at: http://youtu.be/ X9eCAWUgX14

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### **REGIONAL PROFILE - MARYVALE**

### Titjikala

#### Britt Hallenrud, A/Manager - Southern Region Health Development CA, NT Department of Health

The community of Titjikala is located approximately 130 kms south of Alice Springs via the Old South Road 4WD track to Chambers Pillars.

In 1953, there were only 6 people living in the community as they were employees or family of employees from nearby Maryvale Station, however in the 1950s more people started arriving in the area when the mission truck visited every 6 weeks. Currently the population size of Titjikala is 230, and the people belong to the Arrente, Luritja and Pitjantjatjara language groups.

There are a number of services offered to community, both on the ground and externally. Catholic Care offer employment services, including the overseeing of a large community garden with a number of local staff. There is also a Community Development Employment Projects (CDEP) healthy cooking & nutrition program for women facilitated by Community Enterprises Australia (CEA), a child care centre, and a women's / aged care centre that provides lunches everyday for Home and Community Care program clients, as well as for the local primary school. Additionally, the local art centre provides a wonderful creative outlet for the women in community to not only spend most of their days producing incredible art work, but also provides the occasional opportunity for them to travel interstate exhibiting their masterpieces.

The local MacDonnell Shire Council also plays a large role in service provision for the community. It's responsible for the child care and aged care centres, the workshop where a number of men are employed part time, and one full time, as well as a youth development program. This youth program is coordinated by a male and a female local community member, and the young people in community can often be heard playing music after school in the recreation room, or seen playing basketball on nearby courts. Recently, the male coordinator has started facilitating a cooking group for the young men, with great success. The Health Development nutritionist has supported the group by supplying cookbooks. The Preventable Chronic Conditions Educator (PCCE) and Public Health Nutritionist (PHN) from Health Development have also been visiting Titjikala at least every three weeks for the past 12 months. In that time they have developed rewarding relationships with both community members and service providers. For International Women's Day (IWD) this year, the Health Development staff applied for a grant to celebrate IWD with all the women in community, and were successful. They linked in with five other service providers including CEA, Waltja, MacDonnell Shire, the clinic and Aged Care to arrange for an overnight bush/hunting trip for all the women. In total they had 32 women participate, and they all convoyed to Robinson dam approximately 20kms away from Titjikala. Unfortunately, due to segregation within the group, there were two separate camps, and two different activities during the first day. One group went to Chambers Pillars as it was country to a couple of the older ladies, and the younger women went swimming in the dam, and went exploring in the nearby Finke River. In the evening the women cooked kangaroo tails, damper and roasted vegies, while PCCE and PHN cooked spaghetti bolognaise. There was a ton of food! Waltja kindly provided swags for everyone who camped in the riverbed, with the flies and cows for company. The following day some of the ladies made punu before everyone headed back to community. The feedback from all was highly positive with all the women already talking about 'the next trip'...



Over 20 percent of people in community have diabetes, with over 30 percent of people identified as having at least one chronic condition. In April 2012 a group of women at the arts centre expressed interest in starting a group for women with diabetes, with an exercise and healthy cooking component. The PCCE and PHN facilitated this group throughout the year, focusing on many various facets of ways to self manage diabetes, starting the group with an exercise session, and finishing with a

healthy cook up. The feedback was always positive from the women, however by the end of the year attendance was low and the women decided they wanted to finish up the group. This year Titjikala has been involved in the Self Management Pilot project between Northern Territory Department of Health, Flinders University and Menzies School of Health. So far we have piloted the self management tool on 3 people, with positive feedback.

Looking ahead, the women from the self management group, in addition to many other community members, have expressed great interest in an exercise program.

We are currently looking into submitting a grant for funding to implement the Lift for Life program out in community by a trained practitioner, and to also train up at least 4 local mentors to continue program delivery once the initial program has finished. Fingers crossed this will come to fruition!



The PCCE and PHN are also liaising with the youth development coordinators to facilitate a women's evening each time we visit community to discuss concepts around nutrition and health with the young women, as well as share stories and build rapport with the younger members of community. We hope these groups will begin when we next visit community, so... lots of positive things happening in the community of Titjikala!

### From the desk of the Chief Medical Officer, Dr Dinesh Arya

'Patients First'

In my last column in `The Chronicle' at the beginning of this year, I reflected on how the New Service Framework was evolving. This framework is a sincere attempt to make changes to the **structure** of healthcare provision in the Northern Territory to address many system-wide issues that may be interfering in our ability to deliver the best possible care to Territorians. In addition to considering changes needed to the structure of health care provision, it is also useful to consider whether there is potential for us to make changes to **how we deliver direct clinical care**. Two aspects are worthy of discussion.

- 1. Our general approach to working with patients, their families, carers and the community
- 2. Delivering care in a manner that is seamless, coordinated and well integrated

Let me reflect on the first aspect in this column, and I will take the opportunity to expand on the second aspect in the next issue of The Chronicle.

### Achieving our vision

Let me start by suggesting that it will not be possible for us to achieve our vision – "Healthy Territorians Living in Healthy Communities" unless everyone is fully involved and engaged in achieving this vision. Achieving this vision does require considerable work to be done with communities, but in this piece I want to focus on our first contact point – engagement with patients and their families and carers. The reason for limiting scope of this discussion to just patients and their families is because I believe even this limited focus requires considerable shift in our mindset about how care should be delivered.

The first cultural shift we must make is that engagement with patients can no longer be just with patients as recipients of care. We must consider it our responsibility to help the patients to become decision makers and fully equip them with information to make choices with regard to their treatment. From this follows two key

### Continued from Page 35

guiding principles – one for the patients and one for health providers:

- 1. Patients must take responsibility for their health and for receiving care
- 2. Health care professionals and services (all health providers) must enable patients to fulfill this responsibility, as well as meet their expectations

Clearly, as a healthcare provider system, our responsibility has to be to:

 empower patients with necessary information and knowledge to look after themselves

- ensure we understand their needs and expectations and provide treatment and care that meets those needs and expectations
- enable both patients and providers to have an uncompromising mutual respect for each other.

The above principles can only be met in an environment in which patients and healthcare providers work in partnership and the system is oriented to achieve the **best possible outcomes for each patient, every time**. This does require an overarching framework that ensures the following:

1	Consistency	Excellence in service delivery each time and every time
2	Reliability	Confidence that every patient will receive the best possible care
3	Listening	Understanding needs, desires and expectations
4	Fairness	No discrimination in access or care delivery
5	Teamwork	The patient is at the steering wheel with health providers supporting the patient
6	Recovery	There is transparency and lessons are learnt
7	Responsibility	Patients and health providers take responsibility to achieve the vision of "Healthy Territorians Living in Healthy Communities"
8	Servant leadership	Patients are the decision makers. We serve their needs
9	Partnership and communication	Decisions must be made in partnership and communicated clearly and explicitly
10	Safety and confidentiality	All interactions are safe and confidential

### System components and process enablers that will enable us to achieve the above vision

To set up the above system, in my view there have to be five system components and five process enablers. System components are

rules that should guide our clinical care delivery system i.e. what we must achieve. Process enablers describe how we can achieve it.

### System components

1	Focus on enabling self- management	Equipping recipients of care with adequate information and providing methods to access and manage this information to enable informed decision making
2	Focus on improving care delivery	To ensure that we are providing the best possible care to the patient
3	Focus on staff	To allow them to provide the best care to the patient

4	Focus on preventive health care	To ensure that we have healthy communities
5	Focus on communication	Exchange of information is full, explicit and transparent

#### Process enablers

1	Consistent and flawless processes	To ensure we provide evidence-based and consistent care to each patient every time
2	Efficient and lean	Provide most care within available resources
3	Accountable, responsible and transparent	Systems and processes are in place to enable everyone (health providers as well as patients) to be responsible and accountable for the role they play in providing and receiving health care
4	Stewardship	To ensure that resource investment and decision making by health providers (administrative and clinical) and by patients (in choosing options and making choices) is responsible
5	Speed of communication	Access to information is quick, immediate and appropriate

### Just some nice words or time to make a move!

The above principles, system components and process enablers can easily become some `nice words' and `jargon' that doesn't mean much. We can continue to pretend that we empower and enable patients to self-manage, provide consistent and reliable care, have good stewardship over resources and investment, and have good enough communication systems to ensure access to appropriate clinical information.

On the other hand, adoptions of these principles as key drivers to set up our clinical care delivery systems can potentially signal a major shift in how we might want to do things in the future. For example, it could mean that a test of every new system or process we introduce will be whether it facilitates delivery of consistent and reliable healthcare; whether it promotes selfmanagement; whether there is adequate error proofing in our system and we have processes to eliminate variability; and more importantly whether it moves us more towards our vision. In such a system, access to information and necessary resources for the patient to make treatment decisions will become an absolute key to our practice. The question of the patient not being clear about our recommendations for their treatment or their treatment plan will not arise; there will be an expectation that they will take responsibility for managing their own treatment and care – not doing so (when they are able to) may not be an easy option; etc.

Erecting a building is dependent upon a number of things. Two are really significant – the design and the scaffolding. The New Service Framework is just a wonderful opportunity for us to erect a structure with a potential to serve Territorians well in years to come. I am hoping that the new design of the structure of health care (including governance, management and clinical governance arrangements) will provide the necessary scaffolding, and discussion to adopt the above principles will help us design a system that helps us to **deliver the best possible care to each patient, every time,** which should be our goal.

### The Combined Networks Meeting Update

Susan Wong, Member Services Officer Chronic Diseases Network (CDN), NT Department of Health

Guest Speakers and the theme for **all** the 2013 Combined Networks meetings are confirmed as follows:

Guest Speakers:

- Liz Kasteel presenting on the "Self Management Framework"
- Annie Villeseche presenting on the "Updated Physical Activity Guidelines"
- Jo Watts presenting on "Lifting the Lid: Discussing End of Life & Chronic Disease"

### Theme: "Self Management-A Partnership Approach"

On 15 February the first Combined Networks Meeting for 2013 was held in Alice Springs with 24 people attending.

From the evaluation of the meeting, eight people found the **Network Updates** of value to them, comments received were:

"Met great contacts" "New Information" "Excellent way to learn of new organisations quickly"

Eight people also found the **meeting of value** to them; here are some of the comments:

"Great for physical activity update" "Good to meet health workers" "Information and networking" "Good use of time to network further in Alice Springs"

The Darwin Combined Networks Meeting took place on the 1<sup>st</sup> of May with 30 people attending.

We also had a fourth Speaker: Vongayi Majoni, Cardiac Rehabilitation and Diabetes Educator, Healthy Living NT (HLNT) who presented on "Self-Management in practice from HLNT perspective".

The evaluation on "Were the Presentations of value to you?" received 16 Yes responses and here are some of the comments:

"Clear points in palliative care presentation and information regarding exercise guidelines"

"Presenters were enthusiastic and presented well"

"Interesting topics for HP Management of health to prevent developing chronic conditions=specific guidelines"

"Good mix of speakers"

"work with clients/carers of people with chronic diseases; good to have framework explained initially"

"They offered information on a diverse range of community groups or programs and their unique ways of dealing with specific chronic conditions"

16 Yes responses were also received against the question **"Was the overall meeting of value to you?"** some of the reasons were:

"Very good"

"Relationship between chronic disease and palliative care/end of life interesting" "Prompting me to think of formalising palliative care assessment for <u>all</u> renal patients" "Good to see range of professions interested in CCM"

"Beneficial to get out of office and see what others are doing – informative" "Good variety of information"

Eight Yes responses to the question "Was the speed networking an effective way to network?" attracted comments such as:

"Great Networking" "Faces to names" "Great to network with such a diverse group"

Plans are already underway for the next Combined Networks Meeting which will be held in Gove on Tuesday, 18 June. Details once finalised will be distributed via the e-CDNews through the chronic diseases network members listing.

### NT CCPMS - update

### Liz Kasteel, Senior Policy and Program Manager

Chronic Conditions Strategy Unit, NT Department of Health

### The NT Chronic Conditions Self-Management Framework 2012-2020

Self-management is an element of the chronic care model that ensures chronic conditions receive high quality care that is proactive, planned and population-based. Self-management differs from traditional approaches to disease management or case-management.

There are many definitions for self-management and self-management support. The National Chronic Disease Strategy 2006 describes selfmanagement as an approach that requires the person, the family and carers, service providers and the health system to work together to achieve better health outcomes. Self-management is underpinned by the person being at the centre of their own health care and involves the skills and resources that a person needs to negotiate the health system and maximize their quality of life across the continuum of prevention and care. On the other hand, self-management support is what health professionals, carers and the health system does to assist the person to manage his/her chronic condition.

In Australia, there are a number of selfmanagement models and programs currently on offer for people with chronic conditions, including the Flinders Chronic Conditions Self-Management Program (now is called the Flinders Program), Stanford Chronic Disease Self-Management Program and Expert Patient Program.

The best model is one that meets the person's needs for self-management support. This will vary between people and at different times for any one individual. Ideally, a range of options is needed and a person may benefit from more than one means of self-management support at any point in time. It is important for health professionals and managers to understand the principles of self-management and how to incorporate self-management approaches into routine practice.

The Department of Health together with its key partners from non-government organisations and Aboriginal community-controlled health services have developed a framework on chronic conditions self-management to provide a consistent approach and shared vision of selfmanagement.

The NT Chronic Conditions Self-Management Framework 2012-2020 is a commitment under Key Action Area 4 of the NT Chronic Conditions Prevention and Management Strategy 2010-2020. The Department of Health Executive Leadership Group has endorsed this Framework as a department-wide approach to improve care for clients/patients with chronic conditions; this means that :

- 1. Work units: Health Development, Remote Health, Community Health, Chronic Disease Coordination Units in Alice Springs and Royal Darwin Hospitals, and Renal Services have been identified as priority areas to implement the self-management approach
- 2. Self-management training, through e-learning module, will be made available to up-skill health professionals in providing self-management support to clients
- 3. Appropriate self-management tools will be developed for health professionals to provide self-management support to Aboriginal clients
- A Self-Management Network will be established, as a sub-network of the NT Chronic Disease Network (CDN), as a mentoring forum where health professionals can support one another to improve skills and knowledge in self-management.

The Department of Health represented by Chronic Conditions Strategy Unit is working together with Flinders Human Behaviour & Health Research Unit and Menzies School of Health Research to develop a new chronic conditions self-management tool by integrating the AIMhi (Australian Integrated Mental Health Initiative) tool of MSHR with the Flinders selfmanagement tool. The draft tool is currently being piloted in eight sites across the NT. The recommendations presented in the evaluation report will inform managers and health professionals on the appropriate selfmanagement tool that can be used to support Aboriginal clients to self-manage their chronic condition. They will also be providing information on what supports are required to incorporate self-management into routine clinical care.

As part of the implementation plan for the NT Chronic Conditions Self-Management Framework, the upcoming 17<sup>th</sup> Annual CDN Conference 2013 in September has chosen *"Self-Management: a Partnership Approach"* as its theme. In addition to this, the Combined Networks Meeting hosted by CDN, NT Medicare Local and Cancer Council NT has also identified self-management as its focus for their 2013 Meetings.

To view the framework please visit **Department** of Health Chronic Conditions Strategy Unit's website at: http://www.health.nt.gov.au/ Chronic\_Conditions/index.aspx

The Chronic Diseases Network acknowledges the participation and support of the CDN Steering Committee members from the following organisations:



Foundation NT

### June 2013 Chronicle – OBESITY Reference Document

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