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
- NT Medicare Local
- 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

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

The Scream Test

A public health expert once said, “If big business put up a big fight then it’s an effective public health campaign”. Professor Mike Daube, a tobacco control advocate for almost four decades, refers to this as the ‘Scream Test’. If a public health policy doesn’t create a stir, odds are that it is not achieving its aims. Examples of unsuccessful campaigns in which the tobacco companies barely reacted include legislation changing the age that tobacco could be sold.

While The Scream Test does not replace the need for appropriate evaluation, it does suggest that there may be a real impact on tobacco consumption in Australia from this measure. Branding, as anyone who has watched The Gruen Transfer can attest, is an essential component of selling a product. Meticulous detail is put into all that makes a product, from the faintest shading of the package, to the size, shape, symmetry and position of the logo. Branding is often designed to appeal to younger people, particularly women (think slim packs advertising “light” and “strawberry” flavoured cigarettes) and the evidence behind plain packaging is substantial. A recent study on plain packaging amongst young people in Brazil found that branded packs were rated as significantly more appealing, better tasting, and smoother on the throat than plain packs – without having even been tasted.[1]

While tobacco companies in Australia are not legally required to disclose their annual expenditure on advertising or branding, millions, if not billions, of dollars are spent annually on these processes.[2]
Internal tobacco industry documents confirm the industries reliance on branding, being quoted as saying: [3]

“Our final communication vehicle with our smoker is the pack itself” and

“Government required warnings placed on the largest packaging pane ... are the biggest Marketing threat to all of us...”

Plain packaging in Australia was a recommendation proposed in 2009 by the National Preventive Health Taskforce, a group composed of preventive health experts, including Dr Christine Connors of the Northern Territory (NT) Department of Health, chaired by Professor Rob Moodie and Professor Mike Daube. The legislative changes to the tobacco trade practices regulations required significant political will, and the current Attorney General and former Minister of Health and Ageing, the Honourable Nicola Roxon is recognised as a political champion for these changes. She has received international acclaim, including the World Health Organisation (WHO) World No Tobacco Day 2011 Award and WHO Director General’s special recognition, for her work.

Following the legislative changes that passed with bipartisan support in the Australian Parliament in August 2011, the major tobacco industries launched a High Court appeal. This appeal was on the basis that the Government was trying to acquire their intellectual property, including trademarks, without proper compensation. On 15th August 2012, the High Court ruled 6 to 1 that the Tobacco companies argument was flawed, and that the legislation to enforce warning labels and plain packaging was not contrary to current intellectual property law.

The result is that all tobacco products manufactured or packaged in Australia, for the Australian market, must be in plain packaging from 1 December 2012. All tobacco products sold, offered for sale or otherwise supplied in Australia must be in plain packaging and be labelled with the new and expanded health warnings.[4]

In the NT where around 28% of the population smoke, including approximately 50% of Indigenous males and 60% of Indigenous females[5], a sustained effort to reduce the prevalence of smoking, particularly through preventing young people from taking up smoking is essential. Optimism about the effectiveness of plain packaging is evident in public health circles across Australia. Time will tell how much of an impact it will have.

References:


Tobacco Plain Packaging

In December 2011 the Federal Government introduced plain packaging legislation to have effect by 1 December 2012.

The effect of the legislation is to remove manufacturers advertising on cigarette packaging and states in part:

The retail packaging of tobacco products must comply with the following requirements:

(a) the outer surfaces and inner surfaces of the packaging must not have any decorative ridges, embossing, bulges or other irregularities of shape or texture, or any other embellishments, other than as permitted by the regulations

(b) any glues or other adhesives used in manufacturing the packaging must be transparent and not coloured.

The legislation further restricts the size and shape of Tobacco Packets and Tobacco Cartons.

The Tobacco Companies challenged the legislation in the High Court on the basis that they would no longer be able to display their company logo on Tobacco products. The Companies argued that the Federal Government had in effect acquired corporate property “otherwise than on just terms” in contravention of its powers to make laws subject to s 51(xxxi) of the Constitution which empowers the Parliament to make laws with respect to “the acquisition of property on just terms”.

At least a majority of the Court was of the opinion that the Tobacco Plain Packaging Act 2011 is not contrary to s 51(xxxi), thereby allowing the Plain Packaging Legislation to commence on 1 December 2012.

Plain packaging is part of a suite of legislation introduced by State, Territory and Federal Governments to help improve public health. Other measures undertaken to date have been to remove tobacco products from sight at point of sale, no-smoking at all indoor venues, introduce no-smoking at outdoor café’s and major events where large numbers of the general public congregate. The Health Department has introduced smoke free work places in all the grounds of Health buildings and Hospitals across the Northern Territory.
They are as follows:

- protect public health policy, including tobacco control policies, from tobacco industry interference
- strengthen mass media campaigns to motivate smokers to quit; and recent quitters to remain quit; discourage uptake of smoking; and reshape social norms about smoking
- continue to reduce the affordability of tobacco products
- bolster and build on existing programs and partnerships to reduce smoking rates among Aboriginal and Torres Strait Islander people
- strengthen efforts to reduce smoking among people in populations with a high prevalence of smoking
- eliminate remaining advertising, promotion and sponsorship of tobacco products
- consider further regulation of the contents, product disclosure and supply of tobacco products and alternative nicotine delivery systems
- reduce exceptions to smoke free workplaces, public places and other settings
- provide greater access to a range of evidence based cessation services and supports to help smokers to quit.

Health will continue to monitor the trends within the community and develop on-going strategies to reduce smoking rates across the community.

Top End Tobacco Project - 2012 Update
Jan Robertson, Senior Research Officer
School of Public Health, Tropical Medicine & Rehabilitation Sciences
School of Nursing, Midwifery & Nutrition
James Cook University Cairns, Queensland

Chief Investigator: Associate Professor Alan Clough
NHMRC project grant #436012

PROJECT AIM:
The Top End Tobacco Project (TETP) aims to implement and evaluate multiple-component community-action interventions to reduce tobacco smoking in three remote Aboriginal communities in the Northern Territory (NT) over five years (2007-2012).

Evaluation includes:

- self-reported tobacco use measured at baseline (n=400) and follow-up
- tobacco sales in each community monitored for duration of project (11 outlets)
- process evaluation.

PROJECT PROGRESS:
Community tobacco-use surveys were undertaken in 2008 in Galiwin’ku, Ngukurr and Gunbalanya. The results confirmed an extremely high rate of use (76% n=400), unchanged since studies in the region from the 1980’s. Community-level discussions arising from comprehensive face-to-face feedback of the survey results informed local interventions. Supported by our team over the past few years, these included:

- developing collaborative efforts with local health and education and employment services
- provision of brief intervention and quit support “learning circles” for Health Workers, RN’s and interested community members
- supporting local Tobacco Workers in both Government and NGO services
- provision of intense quit support to interested smokers, which included free nicotine (NRT) patches and gums

They are as follows:

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Health will continue to monitor the trends within the community and develop on-going strategies to reduce smoking rates across the community.
place-based interventions with a strong focus on work-places
• advocacy for smoke-free spaces, both private and public
• locally developed health promotion resources (posters, stickers, book, tobacco information flip charts).

Follow-up surveys were completed in February 2012. Preliminary analysis of the data indicated little change in rates of use. However other changes were noted. As part of a comprehensive exit strategy, we have reported these changes, and also made recommendations for ways forward to community members, local and regional service providers as well as local, Territory and Commonwealth Government representatives.

CHANGES IN TOBACCO USE:
• many more smokers are thinking about, or actively trying to quit. However they struggle as they “see and smell smoke everywhere in the community”. Smokers stated they needed more support to quit
• there is more interest in protecting non-smokers from passive smoking by having more “NO SMOKING” spaces in the community
• there are more policies about NO SMOKING in workplaces and public spaces such as outside the stores and sport and recreation grounds; but there is a need for effective implementation strategies.

In August, Mavis Danganbar (Indigenous Engagement officer, FAHCSIA, and Deputy Shire President, East Arnhem Shire) facilitated a workshop with members of the Galiwin’ku Local Reference Group and the TETP team. Using project data, a community Tobacco Action Plan was developed as part of the Local Implementation Plan (LIP). This plan had a focus on “Tackling Passive Smoking” and identified key stakeholders and priority actions. Mavis noted:

“Today, this (planning) is closing the gap. Getting people together and trying.”

RECOMMENDATIONS:
• encourage the use of expired carbon monoxide monitors, as they are useful tools to engage community members in brief interventions
• a wider range of NRT products should be made available through local clinics. Patches were unpopular as they did not adhere well in humid conditions. People were happy to use gums and small lozenges. There was also interest in inhalers
• strongly advocate for both private and public smoke-free spaces. Our research showed that smoke-free policies are seen as the biggest opportunity to change smoking in remote communities in the NT
• be ready to provide information about cannabis when talking about tobacco. This was recommended in all three communities.

For those working in Growth Towns: consider ways of reporting tobacco-related activities and outcomes to Local Reference Groups example: the number of smoke-free spaces in the community, including houses. These reports can inform reviews of the LIPs.

PROJECT PUBLICATIONS TO DATE:

Robertson J. Tackling tobacco: a call to arms


MacLaren DJ, MacLaren ML, Clough AR. Estimating tobacco consumption in remote Aboriginal communities using retail sales data: some pitfalls and possibilities. *Australian and New Zealand Journal of Public Health* 2010; 34(S1): S66-S70.

Robertson JA, MacLaren DJ, Clough AR. Should the Pharmaceutical Benefits Advisory Committee extend the range of free nicotine replacement therapy for Aboriginal and Torres Strait Islander people? *Medical Journal of Australia* 2009; 191(5):293.

Clough AR, Robertson JA, MacLaren DJ, Thompson MA. Community perspective on reducing Australian Indigenous smoking. [Response to Thomas DP and Johnston V. How best to quickly reduce the prevalence of Australian Indigenous smoking] *Tobacco Control* 2009; 24 August.


quit, increased by about 1% every year from 2002 to 2008 in men and women and in remote and non-remote areas, to about 30% in 2008. There are encouraging signs that less Aboriginal boys and girls are now starting to smoke. And then, most recently, we have shown a dramatic fall in the number of Aboriginal heavy smokers who smoke more than 20 cigarettes per day: from 17% of all Aboriginal people aged 18 and over in 1994 to 9% in 2008. [5]

All this had happened before 2008, so at a time when investment in Aboriginal tobacco control was minimal and before the massive increase in government resources and attention. There was already a wave of change against smoking in Aboriginal families and communities before the governments finally took notice.

Here in the NT, people often scoff at such national trends and say ‘but the NT is different’. Indeed every place is a bit different, but I think the same trends are happening in the NT. On World No Tobacco Day this year, the NT Tobacco Control Advisory Committee released its first progress report on combating the harm caused by smoking in the NT, and included some of the NT Aboriginal smoking trends [6] - this will be updated every year. Like in remote Australia more generally, NT Aboriginal male smoking is falling and female smoking plateauing (see graph). We are probably seeing similarly increasing successful quitting and decreasing numbers of heavy smokers, given the consistency of these results across remote and non-remote Australia. The next Annual Report should have updates on school surveys which will tell us if Aboriginal smoking initiation is also falling in the NT.

So I think we can be really optimistic. We are riding a wave of change which is pushing down Aboriginal smoking and the harms it causes Aboriginal families and communities. And now we have dramatically increased resources to do much, much more and assist even faster improvements.

References:


The Australian Indigenous Health InfoNet's Tobacco Use Web Resource

The Australian Indigenous HealthInfoNet's tobacco use web resource at http://www.healthinfonet.ecu.edu.au/health-risks/tobacco is a useful tool for people working, studying or interested in the area of Indigenous tobacco use.

Tobacco smoking among the Indigenous population is a major public health concern. In 2003, smoking was the leading cause of the burden of disease and injury (12%), and contributed to one in five deaths of Indigenous people [1]. The harmful effects of smoking play a major role in the increased risk of chronic diseases (including heart disease and cancer), and a variety of other health conditions [2]. Levels of tobacco smoking among Indigenous people remain significantly higher than that of the general population. In 2010, daily smoking among Indigenous people aged 15 years and over was more than twice the level (2.2 times) of non-Indigenous people [3].

Reducing tobacco use is a key factor to improving Indigenous health and life expectancy [4]. In 2008, a national action to reduce Indigenous smoking rates in Australia was introduced called the Tackling Indigenous Smoking Measure. Led by former Aboriginal and Torres Strait Islander Social Justice Commissioner, Tom Calma, and funded by the Australian Government as part of the Indigenous chronic disease package, the initiative aims to help reduce the number of Indigenous people smoking and encourages people not to take up smoking. An important component of this measure is the roll out of a National Tobacco Action Workforce [5, 6].

The HealthInfoNet supports the work of the Centre for Excellence in Indigenous Tobacco Control (CEITC), by providing a web-based resource on tobacco use that offers high quality information in the area of Indigenous tobacco use, as well as many other useful resources that the Tobacco Action Workforce is likely to find useful.

The tobacco use web resource includes:

- details of relevant publications
- policies and strategies
- organisations
- workforce information including courses, conferences and funding
- programs and projects
- resources.

Bibliographic information is available from the online search facility of the Australian Indigenous HealthBibliography at http://www.healthinfonet.ecu.edu.au/key-resources/bibliography; the most comprehensive bibliography of literature relating specifically to Australian Indigenous health. The searchable bibliography contains over 600 publications on tobacco use, and a searchable database of health promotion and health practice resources.

The substance use yarning place at http://www.yarning.org.au/group/10 assists members to network online and keep connected across the country. The yarning place offers a
space to share information, knowledge and experiences among practitioners, policy-makers and others working to address tobacco use among Indigenous people and communities across Australia. The HealthInfoNet also has a growing presence on social media (Twitter and Facebook), further facilitating connections with other individuals and organisations in the field of Indigenous health.

The ‘contact us’ section of the HealthInfoNet allows people to make contributions to the tobacco use web resource, and provide feedback about the website. This enables the sharing of information with HealthInfoNet staff so that it can be displayed and made available to those working in the field.

For more information on Indigenous tobacco use or specific health topics, visit the HealthInfoNet website at www.healthinfonet.ecu.edu.au

References:


December 2012

This means a lot of time travelling back and forth from the renal clinic to obtain life sustaining treatment. For some patients this may be an easy task, especially if there is a clinic close by and they have a decent transport system, but if they live five hundred kilometres away from a clinic with no bus service it becomes a problem.

The number of renal patients in Central Australia and the Barkly Region at the time of writing of this article stands at 250; 98% of these patients are Indigenous. Most patients have no choice but to leave their home and families and live in either Alice Springs or Tennant Creek. Having to leave family and country behind is a big ask for anyone to do, let alone live in a place that they don’t want to be in. Family having to travel hundreds of kilometres to see their mother, father, sister or brother is an expensive exercise, with fuel costs in some parts of the Territory at $2 or more a litre. On top of that they have to pay for accommodation and meals for everyone as well as sometimes unexpected expenses.

The sad reality is, some of these patients don’t get the chance to go back home. That was until the Northern Territory Government (NTG) began delivery of the mobile dialysis unit in Australia, which was believed to be the only one of its kind in the world when it was first launched.

The mobile dialysis bus (which is actually a truck) is fitted with two dialysis machines and two dialysis chairs; it can treat up to four patients in one day. The mobile dialysis unit is designed to travel to remote communities and give renal patients the opportunity to return home to country for short periods of time and still receive dialysis. Since commencing operation, the mobile dialysis unit has travelled thirty thousand kilometres; has completed twenty trips and performed two hundred dialysis treatments.

In late 2011 and during 2012, the mobile dialysis unit underwent a trial period with the South Australian Government and South Australian Health in trialling the unit in the Anangu Pitjantjatjara Lands (APY Lands). This has allowed patients living in Alice Springs, Port Augusta and Adelaide to return home and still receive dialysis. For one of these patients it was her first time in five years that she had been able to see her homelands.

Because of the success of this trial in the APY Lands, the South Australian Government has just recently released a statement that it will be buying its own mobile dialysis bus. It is hoped that the unit will be operational in early 2013.

During 2011 and 2012 the mobile dialysis unit has visited communities in the Top End, with plans for 2013 to visit more.

There is no better feeling than to see the happiness on the faces of renal patients and their families when they can return home to country, especially for some critically ill patients who might see their country for the last time.

Since the successful launch of the NTG’s unit, another mobile dialysis bus has started operating in Central Australia known as ‘the Purple Truck’. The truck is run by Western Desert Dialysis.

Hopefully we will see more mobile dialysis trucks in the future.

For any further information regarding the mobile dialysis unit, please contact Chris.gosling@nt.gov.au or Flynn Drive Renal Unit on 08-8951 6750.
Innovation in Adolescent Health Education
Jan Saunders, Executive Officer
Asthma Foundation NT

Asthma is a significant health problem in Australia with prevalence rates that are high by international standards. It affects 1 in 10 children and 1 in 10 adults equating to over 2 million Australians.

The National Asthma Child and Adolescent Program (ACAP) funded by the Australian Government is currently being implemented by Asthma Foundations across Australia. ACAP provides Asthma First Aid training to school and pre-school staff, directly supports families with asthma, and provides adolescents with self-management skills. As part of ACAP, Asthma Foundation NT developed a strategic partnership with the NT Department of Education and NT School Sport in order to engage with adolescents more effectively.

A plan was developed that would promote and provide asthma messages including Asthma First Aid to adolescents engaged in various sporting activities.

Asthma Foundation NT was tasked with providing a short, fun, educational and practical information session for all students attending school sport events across the Northern Territory. Two educational asthma programs were developed utilising the expertise of those within the NT Department of Education.

The first involved a thirty minute educational session using an innovative tool called the Asthma Chatterbox. In these sessions students in the younger age groups folded the Asthma Chatterbox into a chamber that held questions and answers on appropriate asthma management. To further assist students with answers, a visual flip board was used by the Asthma Foundation NT Asthma Educator that drew attention to various triggers that might be encountered at school, such as exercise, changes in the weather and excessive use of deodorant sprays in confined spaces, for example in sports change rooms. Students enjoyed these sessions immensely and loved chanting aloud the Asthma First Aid protocol of 4x4x4.

Following the information sessions, students had the opportunity to use their Asthma Chatterboxes to quiz friends and were able to take them home to share with their families.

The second educational program comprised a one hour presentation that was provided at seven national development camps. This session included an adolescent targeted DVD – “Running Short” and hands on experience implementing Asthma First Aid using a blue reliever puffer and spacer. A certificate was presented to all students who could successfully demonstrate the appropriate steps in Asthma First Aid.

A student friendly evaluation form was used to evaluate all sessions. Responses were overwhelmingly positive and included the following:

- Students liked “knowing about asthma” and saw this education beneficial as a way to “help friends and family who were having asthma”
- Students didn’t like “knowing people could die from asthma”
- Students liked “knowing lots of famous people had asthma but it hadn’t stopped sports people, famous singers or celebrities achieving their best”
- They learnt “using your blue puffer more than three times a week was a sign that asthma was not well controlled”
- They learnt “a spacer made a big difference on how the puffer worked better”.

Working in partnership with the NT Department of Education and NT School Sport enabled us to utilise their expertise to deliver health messages to adolescents in a format that was fun and interactive. As a result of this intervention over 1000 students increased their knowledge of asthma and received instruction in Asthma First Aid.
Global Hand Washing Day at Murray Downs

Christina Beatson, Clinical Nurse Consultant
Barkly Centre for Disease Control, Tennant Creek, NT Department of Health

The health and wellbeing of the children in the communities we serve are affected everyday by factors such as overcrowding, compromised food and water, dog health and poor basic hygiene.

Whilst diarrhoea is a leading cause of childhood mortality around the world; the WHO also reports that more than 100 million children suffer from skin sores or pyoderma - considered to be endemic in Aboriginal children of the NT. In reducing the burden of skin disease in our children, we hope to reduce the burden of chronic disease in later life, especially Heart and Kidney disease.

With many factors affecting the health of our communities, evidence has shown hand washing with soap to be the most effective and cost effective measure we can take to reduce infection rates.

Global Hand Washing Day was launched in 2008 by Public–Private Partnership for Hand Washing with soap (PPPHW), with the goal of changing hand washing with soap from a good idea to an automatic behaviour. The aim is to do this by raising awareness, highlighting hand washing practices in each country and supporting a local and global culture of hand washing with soap.

Wanting to join in and promote an important weapon against germs, a working group from Tennant Creek got together and planned a day of activities and fun with the children of Murray Downs School.

Murray Downs is a small Aboriginal Community of approximately 150 people 200kms from Tennant Creek. In the lead up to October 15th Global Hand Washing Day, there were visits to the school and community to raise awareness of all the issues affecting the community’s health. Before long, competitions were devised to promote action on these issues including the “Prettiest Dog” contest and the “Tidiest House”. At school the children drew pictures of healthy houses and dogs.

On the day, Jeremy the Germ, who has promoted hand washing throughout the Barkly came along to promote his message. He also brought his dog to encourage the children to think about their dogs too.

With 28 children ranging in age from 5 to 14 participating, we made dog puppets, germ masks and played games highlighting how easy it is to spread germs and how important it is to wash our hands with soap. In the afternoon, we turned our attention to caring for our dogs and there were a lot of entries for the competition.
With health snacks, lunches and prizes for all of the games, the day finished with a lot of happy children and clean dogs. We would like to say thank you to the kids and teachers of Murray Downs School for having us for the day.

A diverse group from Health Development, Environmental Health, Centre for Disease Control, Barkly Shire Animal Control, Barkly Shire Housing and Families As First Teachers made up the working group and I would like to say thank you to them for all the hard work they put in and a big thank you to Animal Management in Rural and Remote Indigenous Communities, Dion of Cheeky Dog fame for their support.

Extension of HPV vaccination to boys in the Northern Territory
Helena White, Acting Section Head of Immunisation
Chris Nagy, Senior Immunisation Officer
Centre for Disease Control, NT Department of Health

On 12 July 2012, the Minister for Health, the Hon Tanya Plibersek MP, announced that from 2013, the National Human Papillomavirus Vaccine (HPV) Vaccination Program would be extended to include boys aged 12-13 years of age (Year 7). In addition a catch-up program over the next 2 years will aim to vaccinate boys in Year 9.

Since 2007, all girls aged 12-13 years in Australia have been offered the HPV vaccine as part of the ongoing National Immunisation Program. In the Northern Territory (NT), the vaccine is primarily offered to girls in Year 7 as part of a school based program, although in remote areas the vaccine is also offered opportunistically through health clinics. Vaccine administration is recorded on the National HPV Register by each jurisdiction and recent data shows that in the NT 70-82% of 12-13 year old girls each year successfully complete the course of 3 vaccine doses¹.

Australia will be the first country in the world to incorporate the administration of HPV vaccine to boys into its health policy and the Australian government has committed to providing a national communication strategy for vaccine providers, families and communities to support the expansion of the HPV vaccine program.

HPV and Vaccination

There are more than 100 different serotypes of HPV, which are classified into high risk (oncogenic) and low risk (non-oncogenic) groups. Oncogenic serotypes are linked to a variety of cancers, including cervical, anal, vaginal, vulval, penile and some head and neck cancers, whereas non-oncogenic serotypes are linked to skin and genital warts.

There are 2 HPV vaccines currently registered for use in Australia; Cervarix®, and Gardasil®. The HPV vaccine most widely used in Australia is Gardasil®. This vaccine provides highly effective protection against persistent infection caused by 4 sexually-acquired serotypes; 6, 11, 16 and 18, in those who have not been previously infected. HPV serotypes 16 and 18 are linked to 70% of cervical cancers, and serotypes 6 and 11 are linked to approximately 90% of genital warts cases. Immunisation of children against these serotypes prior to them becoming sexually active has the potential to substantially reduce the incidence of both cervical cancer and genital warts in this group. Cervarix® is a bivalent vaccine which protects only against serotypes 16 and 18.

Immunisation with either vaccine is complete after receiving 3 doses, ideally over a 6 month period.

Rationale behind male vaccination

The HPV vaccine has been shown to be immunogenic in men, and vaccinating males in addition to females brings several additional benefits including:

- reduction in incidence of genital warts in males²
- potential reduction in incidence of penile, anal³ and head and neck cancers in males
- further protection of non-immune females by general increase in herd immunity.
Implementing the vaccine program in the NT

The Department of Health has had preliminary discussions with school based vaccine providers about the introduction of this program and further consultation with education and remote health service providers will occur in the near future.

In 2013 and 2014 HPV vaccine will be offered to all boys and girls in Year 7 and to all boys in Year 9 in the Northern Territory.

Delivery of this vaccine to boys in 2013 and 2014 will require a co-ordinated response from a wide variety of stakeholders including: remote and urban vaccine providers, Aboriginal medical services and education providers. A major component of the program will be community education and encouragement for all eligible boys to attend for vaccination.

In 2015 the vaccine will routinely be given to all boys and girls in Year 7 as an ongoing program.

For further information contact the Centre for Disease Control in your region.

References:


Women’s Yarning Tent at CDN Conference

Debbie Jagoe, Senior Health Promotion Officer
Well Women’s Cancer Screening, Community Health Services

Well Women’s Cancer Screening hosted a ‘Women’s Yarning Tent’ at the Chronic Disease Network Conference this year, providing a comfortable and private space to discuss women’s business and gather information to support their practice.

Health Professionals were interested to learn of the HPV Immunisation Program being extended to include young men in 2013. Australia is the first country in the world to offer this lifesaving immunisation to young boys and this initiative will further strengthen the ‘herd immunity’ of the community.

Many visitors to the Yarning space discussed the challenges of educating young girls in remote Indigenous communities and how important it is to work side-by-side with local Health Workers, Community Leaders and Elders to ensure true understanding is reached and to assist with cultural sensitivities around Pap tests.

Young girls who successfully complete their HPV Immunisations still need to have regular Pap tests as the HPV immunisation only protects against certain strains of HPV that have a high risk of developing into cancer.

Cervical screening participation is lower for women in the Northern Territory (generally 55%) than the Australian average of 61%. (On a positive note mortality has been reduced by around 75% over the last ten years, further proof of the effectiveness of regular Pap tests and the success of the cervical screening program.


Well Women’s Cancer Screening manages the Pap Smear Register (PSR). The primary purpose of the PSR is to act as a back-up overdue reminder system, providing information to health practitioners about women’s test results. The PSR sends an overdue reminder letter when women become overdue for a Pap test or other follow up tests.

Health Practitioners can call 13 15 56 to access information on the Pap Test Register.

Our Role as Men and Fathers: A Discussion with Aboriginal Men
Warren Smith, Aboriginal Male Health Advisor
Men’s Health Strategy Unit, NT Department of Health

The Men’s Health Strategy Unit in collaboration with the Chronic Disease Network (CDN) Committee and the Newcastle University Family Action Centre, with support from the Department of Education, Department of Children and Families and the Darwin City Council, organised an Aboriginal men’s workshop as part of the 2012 CDN Conference and the NT Father Inclusive Practice Program.

This unique gathering within the CDN conference program was organised to discuss NT Aboriginal mens’ thoughts, feelings and experiences around their role as fathers, uncles, brothers and grandparents, relating to their involvement in role modelling and guiding their kids towards the prevention of chronic diseases later in life.

Twenty six people participated in this workshop session with representation from a range of government and non-government agencies from the NT and interstate.

The group talked about many issues around father/child relationships that can have positive and negative impacts in their life journey. Some topics included the environment we are brought up in and limited role models with positive examples around lifestyle, social, cultural and economic behaviours.

During the discussion, the group identified historical events of injustice and discrimination that have been part of the process of colonisation and more recently fuelled by the Federal Government’s Emergency Response (the intervention) which is now etched into the minds and being of all Aboriginal people.

The group acknowledged these historical events have left physical and emotional scars which are carried and passed from generation to generation. This is a serious, sensitive burden that has not been addressed and continues to impact heavily on the holistic health and spiritual wellbeing of all Aboriginal people.

The group felt that the direction set by past Aboriginal men’s gatherings had not been acted on by key stakeholders and the momentum fell by the way side. To address this breakdown and refocus on the current and future health and wellbeing concerns in our community, a committed long term men’s program needs to be adequately resourced to plan, lead and drive the promotion of Aboriginal men’s health and wellbeing in the NT. This would serve to develop programs and services in partnership with Aboriginal men and stakeholders to help reduce the burden of chronic diseases within this population gender group and in future generations.

The general feeling within the group was that we needed to heal ourselves first and foremost, as if we are socially, emotionally and culturally secure, it will allow us to then effectively focus on helping our families in the various roles we play in family and community life.

Key Messages from the workshop discussion:

- Men need to heal and look after themselves first in order to be able to play a central role in family and community life
- Knowledge gap between elders and youth; cultural and historic knowledge being lost at each elders passing
- Acknowledge Aboriginal men are the experts in their space; respect and support their skills, expertise and ability to develop and manage programs that are a concern to Aboriginal men and our society
- Encourage men’s annual health checks
- Need to support positive role modelling in front of children: eg physical activity, eat healthy, drink lots of water
- Need to promote increased understanding of the important role that positive fathering can play in raising healthy children, and this should be encouraged even in separated circumstances
- Approaches which are holistic and address the broad range of issues impacting on health and wellbeing rather than numerous single issues
- There is interest in a future gathering and men were invited to join the informal Aboriginal men’s group in Darwin to network.

Continued on Page 16
We would like to thank the CDN Conference organisers for including this important workshop in the 2012 program.

Dr Richard Fletcher and Craig Hammond’s presentation of the Fathers Inclusive Practice Program conducted in the NT during the week of 17-21 September 2012 are available via request to the CDN Coordinator on 08 8922 8280 or email liza.shaw@nt.gov.au

Building the Remote Early Childhood Workforce - Changing Practice and Improving Outcomes for Children

(A Report from World Vision Australia – Bridie Walsh)

The Department of Education and Children’s Services Building the Remote Early Childhood Workforce (BRECW) Project is proving a success in Yuendumu, Gunbalanya, Maningrida and Ngukurr. The Project is showing how strong partnerships are producing positive outcomes.

In Yuendumu, the BRECW trainer has teamed up with the Central Desert Shire and World Vision through the WETT Warlpiri Early Childhood Care and Development Project to support the shared goals of training early childcare workers in remote Indigenous communities. “The best outcomes are achieved when we work together,” says Adriana Beltrame, the World Vision Project Manager for the WETT Early Childhood Care and Development Project.

A collaborative approach establishes the best possible training opportunities for women in the community who have embarked on Certificates I, II and III in Community Services (Children’s Services). The skills and knowledge of partner organisations are harnessed through collaboration. The Project partners also engage with other service providers such as the Aboriginal Interpreter Service.

In her role, based at the Yuendumu School, the BRECW Educator and Trainer, Liz Banney spends half her time working and training with the women involved in the Central Desert Shire (CDS) Childcare and Playgroup. The remaining time is spent working with other Indigenous learners in the community and with the school delivering the VET courses.

“We have a unique set-up here. With training workshops and on-the-job training and support for the women studying Children’s Services,” explains WETT ECCD Mentor, Anna Lennie. “Liz provides high quality training. That training is supported and carried out into the workplace in partnership with World Vision and Central Desert Shire.” Liz is supported by the Registered Training Organisation, Batchelor Institute of Indigenous Tertiary Education (BIITE).

A training session for the childcare staff in brain development in early 2012 highlights the success of this collaboration. Liz Banney provided the training and built on work facilitated by Menzies School of Health Research. The group shared existing knowledge with important new research on how early life experiences impact brain development. Adding to the success of the training was local Warlpiri interpreter, Glenda Wayne.

“My observations have been that every time you use an interpreter you get a lot more engagement and discussion,” explains Anna. “The students are able to draw from their own experiences and strengths in the workplace to contribute to their training. The result is a deeper understanding of the curriculum content, which is helping embed the learning. People have said ‘now I understand this, now I am learning it’.

“Most of the women have completed up to year 9 in a remote school – so English language and literacy are developed from that level – and
they are succeeding in achieving a national qualification in early childhood.”

Liz Banney reports, “The course documents were specifically designed by Batchelor Institute to reflect a both-ways approach where traditional childcare practices are recognised and valued alongside non-Indigenous practices. The best way for this to occur is when local women can interact in their own language.”

As one childcare worker recently documented, “It is through friendships with other staff that I have learnt so much”. These friendships, and the ongoing partnerships from which they arise, form the basis of the Building the Remote Early Childhood Workforce Project success. The Project provides an excellent standard of training. As Anna highlights “the training they receive is not just increasing their understanding but it is changing the way they are working.”

Malnutrition among Northern Territory Children, 2011

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Background

Malnutrition incorporates the three conditions:

1. undernutrition (protein-energy malnutrition) due to insufficient intake of energy and other nutrients
2. overnutrition (overweight and obesity) due to excessive consumption of energy and other nutrients and
3. deficiency diseases due to insufficient intake of one or more specific nutrients such as vitamins or minerals.¹

Epidemiological studies have demonstrated an association between childhood malnutrition and increased risk of developing chronic diseases in early adulthood, including diabetes and heart disease.² Ensuring that children eat appropriately not only supports their immediate health but can also reduce later incidence of chronic diseases.³

This article examines malnutrition in Northern Territory (NT) children by using routinely collected data from the NT Department of Health, Community Care Information System (CCIS) and the Growth Assessment and Action (GAA) database. The article applies the World Health Organization standards for undernutrition (underweight lighter than expected for age), stunting (shortness) and wasting (thinness),⁴ and the internationally accepted measures of overweight and obesity based on the data from Cole et al.⁵

Results

Information was available for more than 10,000 Territory children, and is reported in three groups; Indigenous and non-Indigenous, urban children and Indigenous children from remote communities. Undernutrition is reported for 0 to 4 year olds, and overweight and obesity for children entering school at 4 to 6 years of age (Figure 1, Table 1).

The greatest difference in undernutrition measures, between the three groups of children, was for stunting which ranged from 2.0% among urban non-Indigenous children to 13.3% among remote Indigenous children. There was also a substantial difference between the three groups for the proportion of underweight children, again ranging from urban non-Indigenous children (3.8%) to remote Indigenous children (7.9%). Among the three groups, the proportions of children who were wasted was similar and with a range from 5.2% among remote Indigenous children to 6.0% among urban non-Indigenous children.

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In contrast to undernutrition, there were higher proportions of urban children who were either overweight or obese. The highest proportion of overweight or obese children aged 4-6 years was among urban Indigenous children (14.5%) closely followed by urban non-Indigenous children (12.2%). There was only a relatively small proportion of remote Indigenous children who were overweight or obese (4.8%).

**Discussion**

The results demonstrate that NT Indigenous children, especially those from remote communities, have high rates of undernutrition. Australia is the only developed country with high rates of undernutrition in its Indigenous population.\(^5\) Stunting is of particular concern as it demonstrates undernutrition over a prolonged period and to an extent that interferes with the child’s growth. By contrast, excessive weight gain is emerging as a critical public health problem in NT urban children. The fundamental causes behind the rising levels of childhood overweight and obesity are a shift in diet towards increased intake of energy-dense foods, that are high in fat and sugars but low in vitamins, minerals and other healthy micronutrients, and a trend towards decreased levels of physical activity.

The management of childhood malnutrition must remain a high priority for health programs in the NT if we are to improve not only the short term health of our children but also to minimise the impact of preventable chronic diseases later in life. It has been argued that prevention and
awareness programs should target children as early as kindergarten and include the involvement of parents. Families should be educated to understand the important impact they have on a child's development of lifelong habits of nutritious eating and regular physical activity. It is important to recognise within these programs that, in common with many other conditions, children from lower socioeconomic groups are more likely to experience malnutrition. Addressing the social gradient of health outcomes requires political and social action of which nutrition programmes can be only one aspect.

References:


A Model of Ear and Hearing Care in Remote Northern Territory

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Otitis Media (OM) in Aboriginal Australia is a complex health issue with an unacceptably high incidence. It has significant and multifaceted implications on quality of life.

What we now know about OM in Aboriginal Australia is that it presents and manifests itself very differently when compared with the same condition in non-Aboriginal populations. In Aboriginal children, it happens very early in life, and it persists. Bacterial pathogens responsible for OM have been shown to appear as early as 8 weeks of age in Aboriginal infants. The early exposure of infants to bacterial pathogens is believed to lead to mucosal tissue damage, impacting on the infant's ability to eradicate pathogens. So, infants suffer from chronic mucosal disease and become chronic carriers of the multiple bacteria responsible for OM. This is when we start to see the signs of runny noses, thereby perpetuating the spread of bacteria. It is an aggressive cycle, and one that predicts chronic ear disease.

Once OM becomes chronic; irreversible damage has been done. If self healing of the perforation occurs, scarring of the drum will remain. If self healing does not occur, surgical intervention is the only option for repair.

Managing such a complex disease in a cultural context poses its challenges, both, in providing appropriate and skilled primary care using a largely itinerant workforce, and in providing effective and targeted secondary and tertiary visiting specialist services to remote locations. Meeting these challenges requires a collaborative approach involving clinics, schools, early childhood centres and visiting specialists. In particular, strong relationships and communication lines between Primary Health Centres and visiting specialist services is vital.

Given the established high incidence of ear disease and hearing loss in Aboriginal Australia, Audiology and Ear, Nose and Throat (ENT) services attracted a significant amount of attention and funding following the initial phase of the Australian Government Intervention in 2007.
Since then, short term funding agreements have provided Audiology and ENT services around the Northern Territory (NT) under different naming conventions and with different parameters. Initially as Helping Hands, then Closing the Gap and currently, under negotiation as part of Stronger Futures the ‘Hearing Health Program’. These services have been provided alongside the existing Territory and Commonwealth hearing services, NT Hearing (diagnostic) and Australian Hearing (rehabilitative). While the significant Commonwealth funding has been able to help address the previously unmet need for ENT and Audiology; it has been continuously evolving and changing, and with the higher volume of services, it has historically been the cause of some confusion and lack of integration.

Now that the Commonwealth has moved through the acute response, and long term funding agreements are being established; a more sustainable, integrated and collaborative service is being provided. Valuable time and resources are being given to providing education to families and health practitioners. It is important that all of those involved in ear and hearing care are aware of the framework within which they are working, and the integral roles each level of care plays in the holistic model. I make reference to Diagram 1: Integrated Ear and Hearing Health: Connecting Care. Never has the catchphrase ‘Prevention is better than cure’ been more fitting than it is in this context. Once ear disease becomes chronic in this population, the pathway of care is long and arduous. The very early onset of OM means that primary prevention and early identification are so important. Programs focusing on improving nutrition and the home environment, increasing breastfeeding and reducing passive smoking have been found to be effective. It is clear, that in the current environment, prevention strategies are always evolving as we continue to learn from different methods of implementation, so we also need a solid strategy for managing the existing burden of disease.

**DIAGRAM 1**

Surveillance programs such as HUSK (<5’s) and HSAK (5+) are an opportunity for Primary Health to intervene early to guide the child and family onto an appropriate plan of care. An important focus and dedication should be given to up skilling primary health practitioners in performing ear checks for under 5’s. Otoscopy on infants and small children is a challenging skill which requires training and support. It is, however the only effective way of identifying ear disease early; intervening in those first integral years of language development, and providing the best opportunity for preventing a chronic condition.

Managing acute presentations can never be achieved by visiting services. Acute infections are volatile and often present spontaneously. The precursor of an acute infection is Otitis Media with Effusion (OME), which can be difficult to diagnose, but importantly should be monitored regularly so acute presentations can be treated in a timely manner.
The role of Primary Health is to identify and manage acute presentations and to refer and monitor chronic conditions according to agreed clinical guidelines (CARPA/ OATSIH). Referral guidelines are outlined clearly in the CARPA manual, and more current and detailed guidelines are outlined in the OATSIH Guidelines - Recommendations for clinical care and guidelines on the management of OM in Aboriginal and Torres Strait Islander Populations can be found at: [http://www.health.gov.au/internet/main/publishing.nsf/Content/health-oatsih-pubs-omp.htm](http://www.health.gov.au/internet/main/publishing.nsf/Content/health-oatsih-pubs-omp.htm) - it is very helpful to be familiar with both of these resources.

Appropriate and documented referrals are paramount for achieving well targeted specialist services. The need for specialist services is captured through referrals. Making appropriate and timely referrals requires knowledge of the clinical guidelines; knowledge of the specialist services available; and familiarity with the Primary Health information systems.

I’d like to provide some clarity for Primary Health on the principals of referrals and specialist services in remote NT. Beginning in 2013, all remote hearing services for those aged 21 and under will be deployed under the Hearing Health Program. If further intervention is deemed necessary by diagnostic Audiology or ENT services, referrals will be made to Australian Hearing for consideration of hearing aids, or Department of Education for school support.

Teleotology is a service provided by the Hearing Health Program in collaboration with the ENT section of the Royal Darwin Hospital (in negotiation with Alice Springs Hospital). It is a ‘store and forward’ ENT consult, where high quality otoscopy images, comprehensive clinical information and audiological results are collected by specialist clinicians in community and then collated and reviewed by RDH ENT Consultants for their clinical opinion and management. If surgery is deemed appropriate, with the family’s collaboration, the child will be added to a theatre waitlist without needing to have attended an OPD appointment. This helps to address the long OPD waiting lists and the obvious inefficiencies in transporting patients to hospitals on multiple occasions.

A recent change has been made (at the time of writing) to more clearly reflect these visiting specialist services in Primary Care Information Systems (PCIS) and Communicare service reporting and referral addresses. For all SEMS (secure electronic messaging) activated sites, referrals entered will now be sent electronically to the Hearing Health Program PCIS inbox. For non-SEMS activated sights, referrals will still need to be printed and faxed. New referral categories/addresses have been added as follows:

- ‘Dr Teleotology ENT; Hearing Health’ referrals should be made by GP’s/DMO’s for all routine ear related ENT consults for those aged 21 and under
- ‘Audiology Outreach; Hearing Health’ referrals can be made by any health practitioner and this should be used for all individuals requiring an Audiology consult in a remote community
- Dr ENT OPD is the existing, conventional ENT referral pathway and should be used for all non-ear related ENT referrals, and for those aged 22 and over.

Visiting specialist ENT nurses, Child Hearing Health Coordinators and Audiologists are all available to provide regular in-services when visiting community to help build confidence with otoscopy among primary health. Opportunities for any learning and collaborative diagnosis should be encouraged. Video otoscopy is a valuable tool. Building clinical confidence around ear disease is important for early intervention and targeted and effective specialist services. Importantly, access the guidelines mentioned above, and utilise your Primary Health Information System to document care plans and referrals.

References:

The First Thousand Days – A Critical Window of Opportunity for Health

Heather Ferguson, Child Health Nutritionist
Health Development Branch, NT Department of Health

“The 1,000 days between a woman’s pregnancy and her child’s 2nd birthday offer a unique window of opportunity to shape healthier and more prosperous futures. The right nutrition during this 1,000 day window can have a profound impact on a child’s ability to grow, learn, and rise out of poverty. It can also shape a society’s long-term health, stability and prosperity.”1

The recent Chronic Diseases Network conference outlined just how critical early intervention is, in promoting better health outcomes for children. A healthy intrauterine environment throughout pregnancy is vital, but the most significant nutritional impact we can make to future health from birth is to promote healthy infant feeding practices. This means, exclusive breastfeeding to around 6 months of life, and timely and adequate introduction of solids and continued breastfeeding thereafter.2

Good infant feeding practice

There is strong evidence for the positive impact of breastfeeding on health outcomes.3 Breastmilk is ideal because it is an easily digested, nutrient-rich solution that is individually tailored to babies’ growth needs.4 Multiple immune factors in breastmilk provide protection against infection and stimulate maturation of the immune system, conferring benefits beyond nutrition.4 Appropriate quantities and quality of solid foods from around 6 months is then needed to provide nourishment for optimal brain and physical growth.

Not just what, but how an infant is fed is important. Breastfeeding encourages bonding and attachment that is important for healthy development. A responsive feeding style where the care giver is attuned to hunger and satiety signals, helps preserve the infant’s innate appetite regulation – potentially reducing the risk of obesity.5 Infants learn to like the foods that they are most frequently exposed to – hence frequent exposure to junk foods like sweets, soft drinks and salty snacks is not recommended, but frequent exposure to fresh foods including vegetables, meats and fruit is beneficial.6

Consequences of poor nutrition

Poor early child feeding practices contribute to growth faltering and developmental delays that have long-term consequences, such as increased risk of cardiovascular disease, diabetes and obesity.9 Paradoxically, childhood obesity is also associated with increased cardiovascular disease risk in adolescence.7

In the Northern Territory, stunting and anaemia remain the most significant recognised nutritional issues for remote indigenous children under 5.8 The prevalence of stunting is declining slowly but still remains at 13%, compared to wasting prevalence of 5% (Figure 1).8

Figure 1: Prevalence of Stunting and Wasting in Children under 5 years, Northern Territory

[Graph showing prevalence of stunting and wasting in children under 5 years in the Northern Territory, with data from 2004 to 2011 for urban non-Indigenous, urban Indigenous, and remote Indigenous populations.]
Stunting is related to both inadequate food and frequent infections and is largely irreversible after age 2. Stunting results in shorter adult height and poorer outcomes in educational and employment status. Anaemia affects up to 21% of remote children under 5, but is more prevalent in children under 2, with up to 40% of children anaemic in some communities. Anaemia due to iron deficiency adversely affects brain development resulting in delays in a child reaching motor and mental milestones, and learning ability impairment which persists into adolescence. These serious short and long term consequences of poor feeding practices underline the need for interventions to prevent both undernutrition and overnutrition, not just to improve infant health, but to help prevent chronic disease in the long term.

**NT Initiatives for early child nutrition**

Population health nutrition initiatives to promote healthy childhood and prevent chronic conditions include providing policies that facilitate, encourage and support breastfeeding in particular but also appropriate infant and child feeding. Specific initiatives that are currently being planned or actioned are:

- Implement the National Breastfeeding Strategy by developing an NT action plan which will include:
  - potentially expanding the Baby Friendly Health Initiative (hospitals) to health services throughout NT, both urban and rural
  - expanding promotion of the Australian Breastfeeding Association ‘Breastfeeding Welcome Here’ initiative to workplaces
  - incorporating support for breastfeeding into all family/child care environments
- Promote the 2012 Infant Feeding Guidelines widely to ensure consistent infant feeding advice is provided
- Deliver guidelines for remote stores to encourage stocking of appropriate foods for infants
- Develop systems for measuring breastfeeding rates and duration, and for early recognition and treatment of undernutrition, anaemia and overnutrition.

In remote communities, our ‘Talking about Feeding Babies and Little Kids’ training program, adapted from the WHO Infant and Young Child Feeding Counselling Course, is providing community based workers with the skills and knowledge to counsel parents and families about optimal infant feeding.

For further information please contact: Heather Ferguson, Child Health Nutritionist Health Development Branch, Department of Health
Phone: 89858130/heather.ferguson@nt.gov.au

**References:**

1 1,000 days. "Why 1000 Days?" 2012. (cited October 15 2012); Available from: URL: [http://www.thousanddays.org/](http://www.thousanddays.org/)


Low Birthweight and Prematurity among Northern Territory newborns, 1986 to 2009
Bhanu Bhatia, Research Officer
Xiaohua Zhang, Epidemiologist
Steven Guthridge, Director
Health Gains Planning, Strategy & Reform Division, NT Department of Health

Introduction

There is extensive evidence for the association between low birthweight (LBW) and preterm birth and the subsequent development of chronic diseases in adulthood.1 In turn, there are multiple modifiable factors which may impede foetal growth or cause premature labour including smoking and alcohol use during pregnancy, inadequate antenatal care, teenage pregnancy, and medical complications such as hypertension and diabetes.1-4

This Paper reports Northern Territory (NT) data on low birthweight and prematurity for 2009, as well as long term trends. Data were drawn from the NT Midwives Collection from 1986 to 2009. The NT Midwives Collection contains information on all births in NT, and for this article, the analysis was restricted to live births to NT residents. The average change in annual rates was calculated using generalised linear models (GLM).a

Results

In 2009, there was 3,850 livebirths to NT residents, with 1,447 babies born to Indigenous mothers and 2,403 babies born to non-Indigenous mothers. Of this total, 9% of babies were LBW (less than 2500 gms). Babies of Indigenous mothers were twice as likely to be LBW (14%) than babies of non-Indigenous mothers (6%).

Over the long term, from 1986 to 2009, the proportion of LBW babies improved for both populations (Figure 1, Table 1). The rate of improvement was greater for Indigenous LBW babies (-0.30% per year) than non-Indigenous LBW babies (-0.26%) resulting in a gradual reduction in the difference in proportion between the populations. While the gap between the populations was gradually closing for LBW babies, there was a significant increase in the proportion of Indigenous babies who were born with very low birth weight (less than 1500 gms). From 1986 to 2009, the proportion of Indigenous very LBW babies increased at an average annual rate of 1.9%, while among non-Indigenous babies the proportion decreased (-0.26% per year). In 2009, less than 1% of non-Indigenous babies were very LBW compared to 3% of Indigenous babies.

Most LBW babies are also born preterm. In 2009, 13.3% of Indigenous babies were born preterm (less than 37 weeks gestation) and 3.32% were born very preterm (less than 32 weeks). The proportion of non-Indigenous babies born preterm (6.6%) was half the proportion among the Indigenous population and only 0.7% of babies were very preterm. From 1986 to 2009, in contrast LBW births, there was a trend of an increasing proportion of both preterm and very preterm births in both populations (Figure 2). The greatest increase was among Indigenous very preterm babies, with an annual rate of increase of 2.7%, and an overall increase of 83.4% in 24 years.

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*a The trend value captures the average change per year for the period 1986–2009. A negative rate represents a reduction of cases over time and a positive rate represents an increase. A full outline of methods is available in the Trends in the health of mothers and babies, Northern Territory 1986-2005.5
Figure 1: Trend in the proportion of very low and low birthweight babies by Indigenous status of mother, Northern Territory 1986 to 2009.

Table 1: Proportion of low birthweight babies, by Indigenous status of mother and four-year period, Northern Territory 1986-1989 to 2006-2009

<table>
<thead>
<tr>
<th>Period</th>
<th>Indigenous &lt;1500 grams (percent)</th>
<th>Indigenous &lt;2500 grams (percent)</th>
<th>Non-Indigenous &lt;1500 grams (percent)</th>
<th>Non-Indigenous &lt;2500 grams (percent)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1986-1989</td>
<td>1.6</td>
<td>14.4</td>
<td>0.8</td>
<td>5.9</td>
</tr>
<tr>
<td>1990-1993</td>
<td>2.3</td>
<td>13.7</td>
<td>1.0</td>
<td>6.7</td>
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<tr>
<td>1994-1997</td>
<td>1.9</td>
<td>13.7</td>
<td>0.8</td>
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<tr>
<td>1998-2001</td>
<td>1.9</td>
<td>12.7</td>
<td>1.0</td>
<td>6.8</td>
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<tr>
<td>2002-2005</td>
<td>2.4</td>
<td>13.8</td>
<td>0.9</td>
<td>6.3</td>
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<tr>
<td>2006-2009</td>
<td>2.6</td>
<td>13.4</td>
<td>0.8</td>
<td>5.7</td>
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<td>-5.8</td>
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<tr>
<td>Annual % change</td>
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<td>-0.30</td>
<td>-0.26</td>
<td>-0.27</td>
</tr>
</tbody>
</table>

Note: percentage change is based on odds ratio derived from GLM techniques
* Statistically significant at 5% level

Figure 2: Trend in the proportion of preterm births by Indigenous status of mother, Northern Territory 1986 to 2009.

Note: percentage change is based on odds ratio derived from GLM methods
* Statistically significant at 5% level
Discussion

The contrasting trends in the proportions of LBW and premature births provide both encouragement and some ongoing challenges. Of particular importance is the sustained difference in outcomes between Indigenous and non-Indigenous populations. The reasons behind the differences can, in part, be explained by the differences in perinatal risk factors. Most, if not all, of these risks are more common among Indigenous mothers than non-Indigenous mothers (Table 2). In 2009, prominent examples included:

- differential rates of smoking (54% and 16%)
- proportion of mothers with less than 4 antenatal visits (18% and 4%)
- teenage mothers (22% and 4%) and
- maternal conditions such as anaemia, diabetes and hypertension.

An additional factor that may be of particular relevance for the observed increases in some outcomes for “liveborn” babies was the change in stillbirth rates. Between 1986 and 2005 there was a 60% decline in stillbirth rates among Indigenous mothers and a 15% decline among non-Indigenous mothers. These changes are consistent with improvements, such as better antenatal care, resulting in a shift in the outcome of high risk pregnancies from a stillbirth to a livebirth. The true improvement in outcomes may be understated when based solely on livebirths.

Conclusion

While improvements in some outcomes such as low birthweight are encouraging, there remains substantial gaps in birth outcomes between NT Indigenous and non-Indigenous mothers. The difference in the prevalence of perinatal risk factors is well documented and provides a clear target for continued effort to improve outcomes for NT women and their babies. A reduction in smoking rates and improved antenatal care is of particular importance.

References:


NT Diabetes in Pregnancy Partnership - Models of Care in the NT

Edwards L¹, Connors C¹, Whitbread C¹,², Brown A³, Maple-Brown L¹,²
¹NT Department of Health, ²Menzies School of Health Research, ³Baker IDI Heart and Diabetes Institute

on behalf of the NT DIP Partnership Investigators

The Northern Territory (NT) Diabetes in Pregnancy (DIP) Partnership commenced in 2012. The five-year partnership brings together researchers, government and non-government organisations across the NT to improve the care for women with DIP, as well as to conduct a major research project on the effects of DIP on both the mother and baby.

The term “Models of Care” in this partnership refers broadly to the way health services are delivered. Models of Care incorporate most aspects of services including staff roles, location, services provided, referral pathways, information management, recalls and guidelines.

In the NT, a number of different care options are available depending on a range of factors such as location (urban, regional, remote), type of diabetes (e.g. pre-existing, gestational) and public or private provision of care. By reviewing these options we aim to identify service delivery issues and reduce the gaps between evidence and clinical practice. Overall the aim is to improve all aspects of care for women with DIP and their babies with an emphasis on preventing both short and long-term complications.

Since the project commenced, a number of workshops have been well-attended in Darwin, Alice Springs and Katherine. Attendees representing health services at all levels, from primary health care staff to senior hospital managers and from a number of specialties across the NT participating in documenting care-processes through a process known as Patient-Journey Modelling. Patient-Journey Modelling is a patient-centric method of looking at the way patients move through health systems from the prenatal period, through pregnancy and into the postnatal years. It is a useful technique for identifying issues across specialties, locations and time.

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Issues identified during the workshops were grouped into common themes. Recurrent themes have included the following:

- **Communication** e.g. need for timely and appropriate communication from Specialist appointments
- **Care-coordination** e.g. coordination of postnatal care and ongoing testing for diabetes Mellitus
- **Information Technology** e.g. transfer of information from remote clinics to hospital system
- **Education, guidelines and orientation** e.g. high turnover of staff needing orientation
- **Logistics and Access** e.g. food security, accommodation for hospital appointments.

This information is being used to determine the following key areas for improvements. Workshop participants have volunteered to work in the following areas:

- referral pathways
- telephone and video case conferencing
- resources and Education.

Other changes taking place include updates to current guidelines such as the Women’s Business Manual, expected to be released towards the end of 2012, and Department of Health (DoH) guidelines. The expansion of the my eHealth Record (Shared Electronic Health Record) and the NT DIP Clinical Register will provide greater access to health information throughout the NT.

Another aspect of the Models of Care project is a survey of health care workers in the NT to look at knowledge and current practices in care for women with DIP. This survey will be repeated in the fifth year of the Partnership Project in order to determine if there have been changes in that period. The survey has now been completed and results will be published in the coming months.

Further workshops are planned for Tennant Creek and Nhulunbuy towards the end of 2012 and beginning of 2013. If you have any further questions about the project or would like to become involved, please contact:

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**NT DIP Facts:**

- Each year around 3500 babies are born in the NT. Indigenous babies make up 38% of births, a higher proportion than the overall Indigenous population of 30%
- Several studies in the last decade have shown the high prevalence of diabetes in the NT. In Central Australia 10% of young Indigenous adults aged 15-34 years are estimated to have diabetes [1] while in the Top End the Darwin Regional Urban Indigenous Diabetes Study (DRUID) found 6.1% of urban Indigenous women aged 15-34 had type 2 diabetes and a further 8% had impaired glucose tolerance.[2]
- Pre-existing diabetes is estimated to be 10 times more common in Indigenous women than non-Indigenous women and gestational diabetes is estimated to be at least 1.5 times as common.[3]
- Important issues in the management of DIP are early diagnosis followed by tight blood glucose control to prevent complications and adverse outcomes.

**References:**

NT Diabetes in Pregnancy
Clinical Register
Connors C, Maple-Brown L, Brown A, Whitbread C, Moore L
1Menzies School of Health Research, 2NT Department of Health, 3Baker IDI Heart and Diabetes Institute, 4Aboriginal Medical Services Alliance Northern Territory

on behalf of The NT DIP Partnership Investigators

Diabetes in Pregnancy (DIP) can be problematic for both mother and baby. The amount of DIP and outcomes for mothers and babies in the NT at this stage is unknown. A Clinical Register can assist to address this gap in the knowledge about the care and prevalence of DIP.

The register is governed by a Steering Committee with representatives from each of the project partners.

Purpose of the NT DIP Register:

1. Improve management of women with DIP by:
   a. assisting improved care coordination
   b. centrally collating key clinical information to assist communication between primary and tertiary providers as well as antenatal & diabetes care providers
   c. linkage of data between primary & tertiary systems
2. Improve follow-up of women with DIP
3. Quality Assurance
   a. Routine quality assurance cycles for antenatal care, pregnancy outcomes, postpartum follow-up via links to both primary & tertiary health care systems
4. Epidemiological tool to establish DIP burden and its variability over time, place, ethnicity.

Inclusion/Exclusion criteria: All women in the NT with DIP aged 16 years and above will be eligible for inclusion in the register.

Ethics & Consent: Ethics approval has been received from the two NT Human Research Ethics Committees (Top End and Central Australian). Consent is verbal and includes a tick-box on the referral form (that the woman agrees to inclusion of her information in NT DIP Register) and a fact sheet with details on how she can ask to be removed from the register.


Access: Health professionals involved in the direct care and/or care coordination of clients with DIP may apply for access in accordance with the NT Information Act and as outlined in the NT DIP Register Access Policy Statement at the above link.

Data custodianship and use: the data remains the property of the relevant partner organisation/health care provider.

- Annual reports of aggregated (NT-wide) de-identified data will be prepared by the NT DIP Partnership Project Steering Committee for the purposes of quality assurance and will be circulated to all relevant health care providers in the NT
- Information on the register will not be used for the purposes of research without individual written informed consent (a separate process to that of the verbal consent for the Register). Women listed on the register will be invited to participate in the NT DIP Research project. This involves full written informed consent. Data from women who do not consent to the research project will not be used for the purposes of research and their clinical care will not be impacted.

Pregnancy and Adverse Neonatal Diabetes Outcomes in Remote Australia (PANDORA) Study
1Menzies School of Health Research, 2NT Department of Health 3Baker IDI Heart and Diabetes Institute, 4Sansom Institute of Health Research, 5Royal Women’s Hospital, 6Mater Medical Research Institute

on behalf of the PANDORA Investigators

The Pregnancy and Adverse Neonatal Diabetes Outcomes in Remote Australia (PANDORA) Study is the research component of the NT DIP Partnership.
Diabetes in Pregnancy (DIP) Partnership Program. The study aims to accurately assess antenatal characteristics and neonatal outcomes of DIP in all women in the NT. It also aims to describe the relative contributions of adipose tissue mass and fat free mass to birth weight in a population at high risk of both low birth weights [4] and large for gestation age due to hyperglycaemia in pregnancy.

Background

The prevalence of DIP in the NT is not accurately known. Data in Indigenous women of child-bearing age from Central Australia [5] and Darwin urban areas show high rates of type 2 diabetes (T2DM, 6.1%) and impaired glucose tolerance (8%). The onsets of these diseases are occurring at a younger age group compared to non-Indigenous Australians [2]. This could potentially reflect higher rates of DIP in Indigenous Australians in the NT. DIP not only has short term implications for the mother and baby [6], but there is growing evidence of the adverse intrauterine effects on the baby to cause increased future risks of diabetes and obesity [7]. This further perpetuates the vicious cycle of “diabetes” in future generations adding to the already growing epidemic [8]. Optimal treatment of DIP can reduce the short term complications for both the baby and mother [9, 10].

The rates of “low birth weight” (birth weight under 2500gm) babies are higher among Indigenous than non-Indigenous Australians due to factors such as maternal malnutrition, teenage pregnancy, high rates of cigarette smoking, alcohol use and socioeconomic disadvantage [11]. As babies born to mothers with DIP have higher percentage body fat [12], the assessment of fat distribution in the babies of DIP mothers is crucial in this study to understand the interplay between multiple variables impacting the birth weight of the baby in this high risk population.

Method

The PANDORA Study is a longitudinal observational study that includes all women in the NT aged 16 years and older with DIP. Once a woman is diagnosed with DIP and in contact with either the treating or the research team, she will be approached and invited to participate in the research study. After written consent has been completed, the participant’s details will be transferred from the clinical register to the research study database.

The research team will collate antenatal data, birth information, maternal, perinatal and neonatal details that have already been collected by the clinical team as standard clinical care. In addition, information regarding maternal/paternal ethnicity, family history of diabetes, medications, smoking/alcohol use in pregnancy, socio-economic status, education and language will be sought from the participant by the research team. The baby’s body fat will be assessed within 72 hours of birth with circumference measurements, limb lengths and skin-fold thicknesses. Cord blood will be collected by midwives at delivery for measurement of glucose, c-peptide (marker of baby’s insulin production), lipids, adiponectin and leptin.

The follow-up of participants includes the collection of the 6-week postpartum oral glucose tolerance test (OGTT) results from women with GDM only. The rates and duration of breastfeeding, rates of diabetes, assessment of metabolic and cardiovascular risk (adult health check) at 12, 24 months and occurrence of preconception counselling will be collected (with consent) from health clinic/medical records, pathology records and/or the participant.

The results of routine growth assessments of the babies at 6, 12, 18 and 24 months at times of vaccination or other clinic visits by the primary health team will also be collected by the research team. Consent from the mother will be sought to collect data from health clinic/medical/pathology records until the child reaches age 12 years. At age 12 years, consent will be sought from both the child’s parents/guardian and from the child for ongoing follow-up from medical records until age 20 years.

Significance and outcomes

This research study will accurately document rates of DIP in the NT, including the high risk Indigenous Australian population of remote and urban NT. It will assess demographic, clinical, biochemical, anthropometric and socioeconomic factors that may contribute to key maternal and neonatal outcomes associated with DIP. It should also provide evidence for clinical guidelines in a field where evidence is currently
lacking regarding the relative contributions of adipose tissue and fat free mass to birth weight in the Indigenous population at high risk of both low birth weights and DIP. With key individuals and organisations involved in this partnership project, the new research findings of this study will be effectively translated into policy and clinical practice to reduce risk of future obesity, diabetes and cardiovascular disease in both the mothers and their babies.

References:


Health Promotion Pre-Conference Workshop
Catherine Devine, Program Development Officer (Research and Evaluation)
Health Promotion Strategy Unit, NT Department of Health

The Health Promotion Strategy Unit, Health Development, Department of Health (DoH) facilitated a pre conference Health Promotion Workshop on the 19th September 2012. The day workshop covered an introduction to health promotion principles and approaches, program planning and evaluation using the Quality Improvement Program Planning System (QIPPS) tool. The workshop is one of the ways DoH aims to increase the workforce capacity to deliver quality, effective health promotion strategies to improve the health and well being of all Territorians. Ten people attended the workshop with a high representation from non government organisations. The workshop covered:

- An overview of health promotion was provided including the draft NT Health Promotion Framework that defines Health Promotion action in the NT within the context of Social Determinants of Health, the Health Promotion Continuum and the Ottawa Charter
Health Promotion key principles in the NT were discussed including to promote equity, ensure social justice, to work in partnership and foster collaboration, promote community engagement, to build capacity in the community, to promote sustainability, to celebrate and value cultural knowledge and improve health literacy through system level changes.

Social determinants of health were explored and the role and impact social determinants have on health and well being. Social determinants for health include early years, education, food security, employment and work conditions, income, housing, transport, the social gradient, social inclusion, gender and health literacy.

The concept of the continuum of Health Promotion Practise in the NT was discussed including health promotion actions that work at a population level through to working with individuals. Workshop activities were intended to get participants to think about the broad range of strategies that encompass Health Promotion and opportunities to expand the range of health promotion actions they carry out in their roles.

The workshop also included program planning and evaluation methods. The purpose was to provide information so that participants can develop skills to plan and evaluate high quality programs.

The workshop also provided an introduction to QIPPS which is used by DoH. QIPPS is an online easy to use template that uses health promotion planning and evaluation methodology and provides a guided process for effective planning and evaluation. QIPPS also promotes working collaboratively with partners within DoH, other departments and organisations. DoH has a joint QIPPS subscription with the Department of Education which has facilitated working in partnership particularly in the area of the early years. Knowledge and information management is often a major challenge for organisations particularly when there is a turn over in staff. QIPPS ensures information is stored and easily accessible and the knowledge is retained and built on over time. QIPPS also provides an opportunity to contribute to the evidence base of health promotion through the possibility of publishing projects on the QIPPS public library.

The workshop evaluation provided positive feedback on the content and usefulness of the workshop. Participants found the activities and interactive nature of the workshop enjoyable and effective for learning and discussing health promotion principles. Future health promotion training, including one-day workshops are planned for 2013.

Chronic Diseases Network Recognition Awards
Liza Shaw, CDN Coordinator
Department of Health

The Chronic Diseases Network Recognition Awards have been held annually since 2008. They provide an opportunity to recognise and celebrate innovation, leadership and achievements made by those working in the field of Chronic Diseases across the NT. There are four categories for the Chronic Diseases Network Recognition Awards.

The award winners were announced at Parliament House, where the conference welcome function was kindly hosted by the Minister for Health. The event was well attended with approximately 200 attendees, including the Honourable David Tollner, who announced that this was his first official function as Minister for Health and Jeffrey Moffet, Chief Executive of the Department of Health. Dr Christine Connors, Program Leader of The Chronic Conditions Strategy Unit was the MC at the function with the Marrara Cheeky Boyz providing the evening’s entertainment.

The first category is the Chronic Disease health Promotion/Program Delivery Award, for which the following nominations were received:

- The Healthy Worker Program, led by Marina Tomasella
- Jill McGee, Asthma Foundation NT
- Milikapiti Health Centre Team - This nomination was highly commended

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- The Health Promotion Team at Casuarina Community Care Centre
- The Danila Dilba Kidney Health Program.
The winner was the Health Promotion Team at Casuarina Community Care Centre

The nominations for the Aboriginal and Torres Strait Islander Health and Leadership Award were:

- Sally Ann Sherman, Manager of the Mobile Health Service at Danila Dilba - This nomination was highly commended
- Barbara Cox, Strong Women Strong Babies Strong Culture Coordinator for Top End West
- Raelene Mungatopi, Senior Aboriginal Health Professional at Milikapiti Health Centre.

And the winner was Barbara Cox, Strong Women Strong Babies Strong Culture Coordinator for Top End West

For the Outstanding Contribution to the field of Chronic Disease Award, the following individuals were nominated:

- Shirlee Faulkner, Special Needs Coordinator at Royal Darwin Hospital
- Kraut Hauth, Renal Case Manager at Congress - This nomination was highly commended
- Britt Hallenrud, Preventable Chronic Disease Educator
- Robyn Williams, Senior Lecturer at Charles Darwin University
- Beth Amega, Renal Public Health Nurse at Danila Dilba
- Jeanette Smith, Chronic Conditions Strategy Unit Education Consultant.

The winner was: Robyn Williams, Senior Lecturer at Charles Darwin University

The final category was the Conference Theme Award, Promoting Healthy Childhood – Preventing Chronic Conditions. The nominations were:

- Beatrice Parry, Child Health Aboriginal Health Practitioner at Nauiyu Nambiyu Health Centre - This nomination was highly commended
- Pre-school Readiness Program at Central Australian Aboriginal Congress
- Rhonda Pawape, Community Worker at the Ear Mopping Program, Central Australian Aboriginal Congress
- Belinda Morton and Megan Cock, Team Leaders of the Aboriginal Early Childhood Health and Education Program in Galiwin’ku
- Marlene Liddle, Coordinator at Strong Women, Strong Culture, Strong Babies Program

Continued on Page 34
The CDN would like to take this opportunity to thank DoHA / OATSIH for their ongoing support, which this year supported 56 people to attend the conference. All recipients expressed appreciation for the support they received and in particular acknowledged the great opportunity that attending the conference gave them to learn, meet others and for some, experience their first ever Conference.

Although the final evaluation report is yet to be released, below is feedback from one sponsored delegate:

“Just wanted to send through my sincere thanks to you, for all your hard work, communication and organising and also to the committee for a wonderful conference. I brought home lots of great information and was really inspired by some wonderful speakers. So to the committee, thanks so much for allowing me to be a sponsored delegate this year, I thoroughly enjoyed the experience. Many, many thanks”

2012 OATSIH Sponsored Delegates

Welcome to country

This year’s welcome to country was performed by Larakia woman Nadine Lee, who welcomed conference delegates to the land of the Larakia people.

Nadine Lee welcomes delegates of the CDN Conference to her country

OATSIH Sponsorship

The Department of Health and Ageing (DoHA) and the Office of Aboriginal and Torres Strait Islander Health (OATSIH) have, since 2006, provided funding to sponsor Aboriginal and Torres Strait Islander people to attend the Annual Chronic Diseases Network (CDN) Conference. The funding can cover registration, accommodation and travel costs for sponsored delegates.

This year, a total of $70 000 was granted for sponsorship of delegates; over 100 applications were received resulting in many applicants unable to receive sponsorship. Financial support was also provided to Aboriginal Health Workers and other direct service providers whose work is relevant to children across the field of chronic conditions.

In addition to delegates from across the NT, other sponsored delegates came from Nowra, Thursday Island, Dubbo, Armidale, Mount Magnet, Broome, Geraldton, Port Augusta, South Hedland, Mooroopna and Mabuig Island.

The Australian Government

Department of Health and Ageing

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Nadine Lee welcomes delegates of the CDN Conference to her country
Official opening of the CDN Conference

Jeff Moffett, Chief Executive of the Department of Health officially opened the conference. He set the scene by talking about child health, and the recognition within the Department that early childhood development exerts a powerful influence on subsequent life chances and health. He spoke about how this recognition has meant that the department has been an active partner with the Department of Education in the development of an Early Childhood Plan for the Northern Territory, which is to be considered by Government shortly.

Supporting the conference

Sponsors for the CDN Conference are essential in ensuring the sustainability of CDN Conferences, and the CDN would like to thank all of this year’s sponsors:

- Platinum sponsor, NT Department of Health Child and Youth Health Strategy Unit
- Satchel sponsor, Healthy Living NT
- Bronze sponsor, Good Health Alliance NT
- Bronze sponsor, HESTA Superfund
- Bronze sponsor, Remote Area Health Corps
- Keynote sponsor, The Fred Hollows Foundation
- Marquis and Shuttle bus sponsor, Danila Dilba Health Service
- Committee T-shirt sponsor, Danila Dilba Health Service
- Water bottle, notepad and pen sponsor, the NT ‘Swap it don’t stop it’ program.

The CDN thanks all of this year’s exhibition booth holders who also provided financial support to the conference, as well as a source of information and networking for delegates:

- Department of Education
- Menzies School of Health Research
- Department of Health, Centre for Disease Control
- NT Nursing and Midwifery
- CRANA Plus Bush Support Services
- Arthritis Foundation of the NT
- Heart Foundation of Australia – NT Division
- School of Health, Charles Darwin University
- NICHE Medical
- Anglicare NT
- MDA National
- Department of Families and Children
- Centre for Remote Health
- NT Medicare Local.

Presentations at the conference

Keynote speakers

This year’s conference had five keynote speakers. Donna Ah Chee spoke first with her presentation ‘From evidence into practice: primary health care making a difference in the early years’, which described evidence based programs at Central Australian Aboriginal Congress with child health outcomes. This was followed by Professor Victor Nossar’s popular presentation on the need to more effectively support the early years of life in reducing future health risks. Day one concluded with Doctor Richard Fletcher, who spoke about the direct role of fathers in influencing children’s diet, exercise and self regulation, all of which influence the risk of future chronic disease.
The first keynote speaker on day two was Doctor Howard Bath, who spoke about the role of safety, and the ongoing developmental impact of violence on vulnerable children in the NT. This was followed by Professor Fiona Arney, who spoke about the impact of stress in early childhood on health and mental health, and strategies to prevent long term harm.

Power Point presentations of the presentations by keynote speakers, where permission has been given, are available on the CDN website.

Plenary sessions, Concurrent sessions and workshops

The other 45 presentations at the CDN conference will not be described individually, but the feedback about these sessions overall was very positive. Comment was made about how it was excellent to have so many Aboriginal presenters, and another delegate made the following comment:

“I enjoyed all of the sessions and have gotten a lot out of them”

These sessions covered a broad range of areas, including Aboriginal and Torres Strait Islander perspectives, parenting, pregnancy, early childhood, public health influences, child abuse prevention, nutrition, tobacco and alcohol.

Poster presentations

This year’s conference had 12 poster presentations, a huge increase on the one poster presentation at the 2011 CDN Conference. The posters topics included nutrition, early education, respiratory conditions, Otitis media, the Australian Early Development Index, impact of childhood infections and the Midwifery Group Practice responding to Aboriginal women.

Discussion Forum: Promoting Healthy Childhood – Achieving Aboriginal Health Equality

The conference concluded with a discussion forum called ‘Promoting Healthy Childhood – Achieving Aboriginal Health Equality’. Charlie King led this discussion, and the following people were on the panel:

• Donna Ah Chee, A/CEO of Central Australian Aboriginal Congress
• Dr Howard Bath, NT Children’s Commissioner
• Bernie Shields, Senior Aboriginal Health Promotion Officer
• John Paterson, CEO of Aboriginal Medical Services Alliance NT (AMSANT).

Participation from conference delegates was encouraged by providing microphones in the audience, and also an option to send questions and comments to Charlie King by SMS. The SMS option was very popular amongst the audience and led to a lot of audience input.

Some of the discussion questions included:

• What should we be doing to promote healthy childhood, and hence close the gap in life expectancy?
• What should we be doing for pregnant women to help reduce future risks for her baby?
Should we be improving the social determinants of Aboriginal health rather than focusing on the consequences and how can we best do this?

- How do we support parents to effectively engage with their children and promote their education?
- Are we likely to meet the COAG goal to halve the mortality rate of Aboriginal children within 10 years?

### Stretching Breaks

The CDN are committed to being a health promoting conference by incorporating physical activity into the program. In previous years, we have held walking sessions yet these have not been so popular. The stretching exercises between sessions have been more popular and therefore remained incorporated in the program. The committee traditionally links the stretching breaks to the theme.

On the first day, the stretching break was led by the Hoops 4 Health Program, where the program’s mascots motivated the audience to stretch to music. The Hoops 4 Health program is an initiative of Timmy Duggan and evolved out of concern for the poor health of Aboriginal and Torres Strait Islander Australians. Timmy was involved in basketball at a professional level and launched the program in 2002. Although the Hoops 4 health program is focused on engaging Aboriginal adolescents, the program is not limited to this population group.

The Hoops 4 Health program consists of three components, one of which is the Hoops 4 health challenge. This involves health promotion, health education messages, and concludes with a basketball game between the Hoops 4 Health All Stars and players from the Northern Territory. The challenge uses high profile basketballers and athletes to raise awareness about different health issues and seeks to encourage healthy lifestyle choices.

The stretching break on day 2 involved a tai chi session with input from the ‘Swap it don’t stop it’ campaign. This was launched by the Commonwealth Government as a call to make easy, small, healthier lifestyle choices to reduce the risk of illness and disease. ‘Swap it don’t stop it’ features Eric, an animated blue balloon character who is likeable but overweight.

### Panel members left to Right: John Paterson, Donna Ah Chee, Bernie Shields and Dr Howard Bath

- Charlie King leads the discussion forum at the conference

As well as providing an hour of lively discussion, a longer term outcome of the discussion panel included a commitment by AMSANT to reconvene the “Caring for Kids Coalition”, and advocate for the expansion across the NT of identified early childhood development programs that have the strongest evidence of efficacy, such as the Australian Nurse Family Partnership Program (website is [http://www.nursefamilypartnership.org/](http://www.nursefamilypartnership.org/)) and the Abecedarian Program (Joseph Sparling, Highlights of Research Findings from the Abecedarian Studies, Center on Health and Education: Georgetown University).
On television, in print and on the radio, Eric urges Australians to make some simple lifestyle changes to become healthier – for example, to swap big for small (portion control); swap often for sometimes (occasional treats); swap fried for fresh (nutritional quality); swap sitting for moving (physical activity); and swap watching for playing (physical activity).

There were 130 evaluation forms received at the conference (38% of attendees). Most comments were very positive with 65% of respondents rating their overall experience as excellent. Overall organisation was rated highly by 88 respondents (68%). Comments included:

- best conference re child health that I have attended
- best conference I’ve been to in years - Thank you
- keynote Presenters did well to pitch presentations to all levels of the audience
- excellent having so many Indigenous delegates and presenters
- keep up the good work
- unable to fault this Conference
- well done, first one I have attended, most informative
- well organised seemed to go like clock - work great job.

Suggested areas for improvement included:

1. seating for lunch – 10% of respondents indicated there was not enough seating (13 respondents); in addition 15 people rated the venue as only Average, with 10 of those indicating an unspecified issue with chairs (total = 21%).

2. better coordination for movement between concurrent sessions was suggested by 17 respondents (13%). Comments included complaints of being ‘locked out’ and disruption from people arriving late. Suggestions included leaving the doors open and having seats kept vacant close to the door as well as a corridor space to enter so latecomers are not walking in front of presenters.

3. communication and information prior to the conference: 60 respondents (46%) rated the process as Excellent and 17 (13%) rated this aspect as only Average. A further 53 (41%) thought that the process was Good.

**Keynote Speakers**

Professor Victor Nossar was thought to have entirely met the conference objectives between
75-85% of the time. He was generally thought to be a passionate and enthusiastic speaker, and delegates commented that he was ‘fantastic and wonderful’ and they ‘loved listening to him’; 24 respondents (18%) made comments to this effect.

Dr Howard Bath’s presentation was thought to be ‘very powerful’ and he met key objectives between 65-78% of the time. There were 16 (12%) respondents who nominated Dr Bath as their favourite speaker.

Donna Ah Chee, Dr Fiona Arney and Dr Richard Fletcher all entirely met the conference objectives between 59 – 78% of the time.

All keynote speakers were nominated as equally enjoyable by 12 (9%) respondents.

**Concurrent Sessions and Interactive Workshops**

Multiple nominations for the session enjoyed most by delegates were made for the following sessions:

- Holly-Ann Martin – Innovative resources for abuse prevention education
- Yarlp Yarlpu Karu - Baby Poster Project
- Crusted Scabies - a neglected Chronic Disease
- The Healthy Kids Under Five Program
- Maari Ma - Early Years Project
- Adele Gibson and Leonie Williams - Drinking for 2
- Food Bank WA - school breakfast program.

**Overall Comments**

The conference entirely met the needs of 73 (56%) of the respondents - and was entirely relevant for 78 of them (60%). The conference theme was the most important motivator to attend with 68% of people confirming this with 66% motivated by Professional Development outcomes and 45% by the networking opportunity. Of the delegates interested to attend in 2013, 56 respondents (42%) said they would definitely attend while 62 (48%) said they were unsure.

Analysis of the observational evaluation and the visual evaluation is yet to be completed, yet these will be in the final evaluation report which will be posted onto the CDN website once completed.

The completed visual evaluation banner contains many hands. As a result, the conference organising committee aim to include hands in the 2013 logo

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**Regional Profile-Tanami Region**

**Good Fun in Willowra**

The Warlpiri community of Willowra sits nestled beside a fork in the Lander River at the heart of the Tanami Desert. A community of about 200, Willowra has not been immune to the difficulties and challenges of the modern world, but has taken significant steps to respond to them and grow strong. Warlpiri Youth Development Aboriginal Corporation (WYDAC) has been privileged to be a part of Willowra’s determination to look after young people and provide healthy options for youth.

WYDAC, then known as the Mt Theo Program, was started in 1993 by Yuendumu Community to address chronic petrol sniffing in Yuendumu. Young people were taken to Mt Theo Outstation, some 160km from Yuendumu, where they were cared for by Yuendumu elders as part of a cultural rehabilitation program on sacred and remote Warlpiri Country. Since then, the Mt Theo Outstation has taken over 500 young Warlpiri clients from over 14 different
communities. These clients spend time in the cultural respite and rehabilitation program at Mt Theo, where they reconnect with culture, regain their health, and get education in a supportive, case-managed remote bush environment. Currently, clients may present, and are referred by community elders, Police and Corrections, not just for petrol sniffing or substance misuse but with any ‘youth at risk’ issue.

The second key project beginning in 1993 was the introduction of a comprehensive youth program (“the program”) in Yuendumu. Elders saw the need for youth to be engaged, interested and challenged by activities outside of school hours which meant they were less likely to engage in at risk behavior. Whilst this was initially as a response to the petrol sniffing crisis, it later broadened to help prevent other substance abuse and/or any youth at risk issues. The program also serves as a critical aftercare service for those clients who have returned from Mt Theo Outstation.

Over subsequent years the significant initial success has seen the program broaden in nature and scope to provide a comprehensive program of youth diversion, development, further education, counseling and rehabilitation throughout the Warlpiri region of the Tanami Desert.

At the invitation of Willowra community, WYDAC introduced a youth program in Willowra in 2004. There have been only rare incidences of petrol sniffing since the beginning of the program.

Willowra’s youth program offers a range of activities for young people, including sports, arts and crafts, a hang-out space with x-box, board games, lego and family movie and disco nights. Youth also have the opportunity to learn about culture and country on regular bush trips with elders, as well as splash around in nearby waterholes (during the wet season!), or enjoy WYDAC’s much-loved swimming pool in Yuendumu on hot days.

The collaboration between the Community and NT Libraries provides the young people in Willowra access to computers and the internet, and therefore the opportunity to further their education through certificate programs with assistance from our trainer. Young people are able to gain skills and confidence by helping in running program activities, such as providing customer service in the disco canteen or as DJs on disco nights; organising sport activities and helping to cook lunch on bush trips. Workshops and media training are also on offer during the year. This year two video productions made in Willowra, with Willowra young people, won awards at the Remote Indigenous Media Festival – one was an animation of a story from Willowra elders about how people used to live in this area; the other was a film about hunting and cooking echidna, after young people caught an echidna on one of their bush trips.

The aim of youth program is to keep young people in Willowra healthy and active by providing a variety of healthy ways to spend their after school hours and weekends, as well as plenty of fun activities to engage in as they grow into healthy adults with a strong understanding of culture; confident in themselves and engaged in their communities.

On any given day in Willowra, some 20 to 50 young people take part in youth program activities with the Young adults also helping out with youth program. Community elders provide advice and guidance, while parents stop by the youth centre to watch their kids, or view videos made in Willowra in collaboration with WYDAC. Youth program is very much a community thing, which makes it strong.

Although things have come a long way; the work will never be over. New risks, challenges and opportunities continue to come up for youth in Willowra and other Warlpiri communities. WYDAC works to facilitate the profound strength and capacity of Warlpiri youth to meet these challenges. The key aim of this partnership between WYDAC, Warlpiri youth and their communities is the development of positive and meaningful futures for young people, their families, community and culture at large. The future is bright!!
Frequently Asked Question
Heather Ferguson, Child Health Nutritionist
Nutrition and Physical Activity Strategy Unit
NT Department of Health

Question:
Do I have enough breastmilk for my baby?

Answer:

One of the most common reasons for mothers stopping breastfeeding is the perception that they do not have enough milk. While it is not possible to see how much milk a baby is receiving, it can be assessed quite simply by answering the following questions:

- Is baby feeding about 8 times or more per day?
- Is baby gaining weight?
- Does baby have 6-8 pale, wet nappies per day?

Understanding how babies feed and grow normally, helps to reassure mothers that their baby is getting enough milk. So what is ‘normal’?

‘Normal’ encompasses a range of feeding since every mother/baby pair is different. All babies develop and grow at different rates. During the first six months there are times when babies grow more rapidly, often called ‘growth spurts’. At this time a baby may seem hungrier and want to feed more, or more often, which is very normal. Mothers may believe that their hungry baby needs a ‘top-up’ with formula, but this is not the case. In fact, breastfeeding more frequently is the solution, because feeding more often results in more milk being made, which provides for baby’s increased needs.

It is normal for young babies to feed frequently because they have very small stomach capacity – as shown in the figure below!

Figure 1: Stomach Capacity of Baby 1-10 days Old

If a mother is only able to express a small amount, she may think that that she has very little milk. But babies are very efficient at suckling milk from the breast, so how much is expressed is not a good guide to how much milk is available!

Recent Australian research of babies aged 1-6 months published on the Australian Breastfeeding Association website shows that:

- the average time between breastfeeds was 3 hrs 2 mins
- most babies (64%) fed at night, having 1–3 feeds between 10 pm and 4am - this did not change with the age of the baby
- infants who had frequent small breastfeeds had similar intake as those who take fewer, larger breastfeeds.

If a mother is concerned about her milk supply, health professionals can:

- reassure her that feeding frequently will increase her supply
- ensure appropriate positioning of baby at the breast
- encourage a healthy diet and fluid intake
- encourage continued night feeds – prolactin, a hormone which helps milk production is secreted at night.

Continued on Page 42
Frequently Asked Question
Laura Edwards, Public Health Registrar
Chronic Conditions Strategy Unit
NT Department of Health

Question:
A woman has gestational diabetes, why is it important and are there any long-term effects to the mother or baby?

Answer:
Gestational diabetes is a form of diabetes that occurs during pregnancy. In pregnancy, hormonal changes can reduce the effects of insulin resulting in higher than normal levels of glucose in the blood. When the glucose reaches a certain level, it is classified as gestational diabetes. Some people have a higher risk for developing gestational diabetes, including Aboriginal or Torres Strait Islanders, some other ethnic groups (e.g. South or East Asian), people who are overweight or obese, have high blood pressure, are over the age of 40, and those with a history of gestational diabetes in a previous pregnancy.

Other forms of diabetes that can affect pregnant women are type 1 and type 2 diabetes, which may be already known or diagnosed for the first time during pregnancy. In type 1 or type 2 diabetes during pregnancy blood glucose levels are usually higher than in gestational diabetes. Diabetes in Pregnancy (DIP) refers to all types of diabetes that occur during pregnancy.

Overall about 1 in 20 Australian women have diabetes in pregnancy, but this is much higher in Aboriginal women in whom pre-existing diabetes is about 10 times more common and gestational diabetes is about twice as common.[1]

All forms of diabetes in pregnancy can cause short-term and long-term complications that affect the mother and her baby, which is why it is important to identify and treat DIP as early as possible. Short-term complications are linked to high blood glucose levels and include miscarriage or congenital malformations. As the pregnancy progresses babies are more likely to be bigger than normal (macrosomia) as they are continually supplied with glucose and this is more likely to result in birth trauma (episiotomy, 3rd degree tear or caesarean section). After birth, a sudden reduction in glucose can result in the baby developing hypoglycaemia (low blood sugar) which may require admission to the special care nursery. Mothers with DIP are more likely to develop pre-eclampsia, a condition in which the blood pressure rises and kidneys leak proteins. This can result in serious complications for the mother and her baby.

In recent years a lot of research has become available looking at the long-term effects from DIP to the mother and baby. About half of mothers with gestational diabetes will go on to develop diabetes themselves, which is why it is important they undergo repeat testing every one or two years. A free National Register is available through the National Diabetes Services Scheme (NDSS) to remind women to have yearly screening tests for diabetes. For women with pre-existing diabetes, the progression of small vessel complications, such as retinopathy (eye damage) and nephropathy (kidney damage) may be increased during pregnancy.

For the baby, the risk of developing diabetes as a teenager or adult is increased. This risk is believed to be partly related to genetics, but also related to the pregnancy environment,

Reference:
whereby the exposure to high glucose levels can affect the pancreas and fat cells of the baby making it more likely to develop both obesity and diabetes. One study of Pima Indians found that 45% of babies born to mothers with type 2 diabetes developed diabetes by the age of 24, even when adjusted for birth weight, father’s history of diabetes and age of onset of diabetes in the parents.[2]

The risk of obesity is also increased in babies born to mothers with DIP. A long-term study in Denmark showed that babies born to mothers with gestational or type 1 diabetes were twice as likely to become overweight and more than 4 times as likely to develop the metabolic syndrome by the age of 18-27.[3] Breastfeeding has been shown to reduce the risk of babies developing type 2 diabetes. [4, 5]

The best way to prevent type 2 diabetes and gestational diabetes is to encourage women to enter pregnancy at a healthy weight, exercise regularly and eat a healthy diet. For those who are diagnosed with DIP, good glycaemic control through diet and medication can prevent complications and long-term risks to the baby. Breastfeeding should be encouraged. Some useful resources for further information and client education include:

- Diabetes Australia www.diabetesaustralia.com.au
- National Diabetes Services Scheme www.ndss.com.au
- Healthy Living NT www.healthylivingnt.org.au Ph. 1300 136 588
- RDH Diabetes Educators via switchboard (08) 8922 8888.

References:


The 2012 Combined Networks

The Combined Networks is a collaborative effort to provide a coordinated approach to supporting community service providers to:

- find out more about the health services that are available in their local community and region
- network with other local service providers
- participate in locally based training and development opportunities
- access multiple services at the one meeting.

The 2012 Annual CDN Conference theme: ‘Promoting Healthy Childhood – Preventing Chronic Conditions’ was also the theme to which speakers at the 2012 Combined Network Meetings presented. The linkage of the conference theme to the Combined Network Meetings will continue in the future.
The meetings are usually held in four places: Nhulunbuy, Katherine, Alice Springs and Tennant Creek, however this year one was held in Darwin as well and from 2013, we hope to hold the Combined Network Meetings in all five places.

The format has included networking, information sharing, guest speakers, catching up with familiar faces and meeting new people.

- Anne Goodman of Student Services at the Department of Education, who spoke about ‘Sharing the message of chronic disease through school education’
- Ebony Miller from what was then called General Practice Network NT spoke about ‘Improving Indigenous Access to Mainstream Primary Care – General Practice Model – Alice Springs’
- Kerry McKeown of Miwatj who spoke about ‘Maternal and Child Health Services’
- Diane Kearney, East Arnhem Shire Children’s and Family Services Regional Manager who spoke about ‘East Arnhem Shire Council Children and Family Services’.

The Meeting dates for 2013 are:

Alice Springs – Tuesday February 12
Darwin – Wednesday March 1
Gove – Tuesday June 18
Katherine – Tuesday August 13
Tennant Creek – Tuesday October 29

Some of the really fascinating guest speakers at the 2012 meetings were:

- Professor Victor Nossar, Program Leader-Child & Youth Health, who spoke about ‘Preventing chronic disease in adults through more effective support of the earliest years of life’
- Jenny Kennedy, Child & Family Health Nurse who spoke about ‘Developmental Assessments and Early Intervention’
- Angela Panagopoulos, Programs and Events Manager, Heart Foundation Darwin gave a five minute talk on “Warning Signs of Heart Attack Campaign”
- Karen Rosas, Manager for Child and Maternal Health at Wurli Wurljiang spoke about ‘Child and Maternal Health Services at Wurli Wurljiang’

Combined Networks Representatives:
Left: Susanne Schleich - Cancer Council, Alice Springs
Middle: Susan Wong - Chronic Diseases Network, Darwin
Right: Annette Holmes - NT Medicare Local, Darwin
A sneak peak of activities from Section B in each of the Key Action Areas was provided in the previous edition of the Chronicle. In this article we provide snapshots from section A of the report focusing on the early years. Most of the data was presented at the recent Chronic Diseases Network conference in Darwin. Epidemiological information was collected from a range of NT sources including Health Gains Planning, the Perinatal Data Unit and government clinic audits. National data sources included the COAG Reform Council, Australian Bureau of Statistics (ABS) and the Australian Institute of Health and Welfare (AIHW).

**Life expectancy**

Data on life expectancy is not available each year but death rates give an indication of life expectancy for populations. A recent report by the COAG reform council showed a reduction in Indigenous death rates in the NT from 1998 to 2008 of 26%.[1] If this trend were to continue the NT would become the only jurisdiction to close the gap in life expectancy between Indigenous and non-Indigenous people by 2031.

![Figure 1: Age-standardised death rate per 100 000, actual and projected rates, by Indigenous status, Northern Territory, 1998–2031](source: COAG Reform Council 2012, Indigenous Reform 2010-11, p23)

### Mortality rates for specific conditions

In the NT, death rates for almost all causes of death are higher in Indigenous people compared to non-Indigenous. Figure 2 shows death rate ratios for Indigenous compared with non-Indigenous persons in the NT. In 2009, Indigenous people were 7 times more likely to die from endocrine and related disorders (e.g. diabetes), twice as likely to die from circulatory diseases, 1.7 times more likely to die from cancer and 2.2 times more likely to die from external causes including accidents, assaults and suicide and (figure 9).[1]
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Figure 2: Age-standardised rate ratio and gap, Indigenous and non-Indigenous persons, by selected causes of death, selected States and Territories, 2009.

<table>
<thead>
<tr>
<th>Cause</th>
<th>Rate ratio</th>
<th>Gap</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cancer</td>
<td></td>
<td>135.6</td>
</tr>
<tr>
<td>Endocrine</td>
<td></td>
<td>185.0</td>
</tr>
<tr>
<td>Circulatory</td>
<td></td>
<td>176.1</td>
</tr>
<tr>
<td>Respiratory</td>
<td></td>
<td>53.7</td>
</tr>
<tr>
<td>External causes</td>
<td></td>
<td>63.7</td>
</tr>
<tr>
<td>Other</td>
<td></td>
<td>208.9</td>
</tr>
<tr>
<td>All causes</td>
<td></td>
<td>822.9</td>
</tr>
</tbody>
</table>

Source: COAG Reform Council 2012, Indigenous Reform 2010-11

Smoking in pregnancy

It is encouraging that there was a reduction in smoking during pregnancy among non-Indigenous women during the period 1996/97 to 2008/09, however this was countered by an increase in smoking during pregnancy by Indigenous women to over 50%. Evidence-based programs to reduce this number will provide long-lasting benefits to mothers and their babies, reducing the future incidence of chronic diseases.

Figure 3: Trends in smoking prevalence in pregnant women in the NT 1996/97 to 2008/09


Low birthweight

The proportion of babies born with low birthweight (less than 2500 grams) remained roughly stable between 2006 and 2010. Indigenous babies are more than twice as likely to have low birthweight as non-Indigenous babies. Smoking is a major contributor to low birthweight; however a number of other factors, such as nutrition, are also important.

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Figure 4: Proportion of low birthweight babies by Aboriginal status in the NT, 2006-2010

Source: NT Perinatal data collection

Childhood nutrition

Adequate nutrition in childhood is important for overall health across the lifespan reaching into adult years. In childhood undernutrition is linked to adverse health outcomes including recurrent and more frequent infections, while in adult years chronic diseases such as diabetes are more likely. Between 2004 and 2011 the number of underweight children in remote Indigenous communities reduced from 14.5% to 7.9%. The number of children between 0 and 5 years classified as stunted remains high, particularly in remote Indigenous children (13.3%) compared with NT urban Indigenous children (4.2%) and urban non-Indigenous children (2.0%).

A comprehensive overview of the 7 target chronic conditions in the Strategy is available in the CCPMS Annual Report 2010 which is available online at www.health.nt.gov.au/Chronic_Conditions. The Annual Report for 2011 will be available at the same website when published.

Reference:

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

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Arthritis & Osteoporosis

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