



Childhood Determinants of Adult Health (CDAH) Study

DECEMBER 2017

CDAH Hits the Road!

We are delighted to report that the third CDAH follow-up (CDAH3) offering free health checks was launched in Victoria in August, followed by South Australia in November. Our first six community-based clinics have been very well attended, with fieldwork staff welcoming over 400 participants through our doors.

Our free health checks consist of a range of physical and biochemical measures. These include blood pressure, weight, height and skinfold measures,



Our dedicated couple, Naomi and Tony Fitzakerley.

cardiac ultrasound, strength and fitness testing, mental health questionnaires, and retinal photography. Blood and urine are also taken to assess markers of cardiovascular and

kidney disease. Completing this full clinic protocol takes approximately three hours, and on any one day, we can have over twenty participants attend.

Friendly and professional technicians and engaged participants have meant that these busy clinic schedules have been an extremely enjoyable experience. Some days, old school friends unexpectedly reunite at the clinics, often enjoying a catch-up and reminiscing.

Whilst it would be ideal to visit all previously-attended regions, due to limitations on funding, clinic locations have had to be determined according to the most heavily populated regions.

Organising our clinics requires careful orchestration, as we secure appropriate clinic sites, transport all our medical equipment to each site, and hire specialist fieldwork staff in each state. Our Fieldwork Manager, Jasmine Prichard, works onsite at each venue to ensure the smooth operation of the clinics, rigorous collection of study data, and to ensure you have a positive experience.

We are currently planning our next trip to Western Australia for March 2018, with Queensland, New South Wales and ACT to follow in the same year.



Vic clinic team (from left) – Rhylee, Stephanie, Jasmine (Fieldwork Manager), Hilda (Cardiac ultrasound), & Lachlan

We now offer an online booking system, with a choice of clinic locations in most cases.

Our health and lifestyle questionnaires are also now offered online, with many participants reporting these are now easier – and *quicker* – to do.

We are very appreciative of those who have given their time to attend clinics already and look forward to seeing many others at the future clinics!

Please follow our progress on Facebook - <https://www.facebook.com/cdahstudy/>



Janelle and nephew Aaron Miatke were both surprised to learn of their unexpected CDAH connection!

CDAH-PATHWAYS SUBSTUDY

In 2016, staff in our CDAH-Pathways sub-study spoke in detail with 50 CDAH participants to gain a better understanding of the things that have helped or hindered healthy dietary and exercise behaviours across the lifecourse. We asked about how a range of things at the individual level (e.g. motivations, priorities), social level (e.g. family, friends) and environmental level (e.g. neighbourhood design, workplaces) play a role in shaping our behaviours. Interviews

were recorded, transcribed word-for-word, then the team searched for both common and contrasting themes within the data.

The sub-study's lead investigator, Dr Verity Cleland, recently presented some preliminary findings at the 2017 Australian and New Zealand Obesity Society annual scientific meeting in Adelaide. She spoke about how the findings suggest a long-lasting 'legacy effect' of parental influences during childhood on lifestyle behaviours in adulthood. Participants whose weight was typically more stable over time

tended to discuss this effect positively and with much greater emphasis (e.g. "mum did a great job setting me up") than those whose weight increased over time. Others indicated that the undesirable aspects of their parents' lifestyles had prompted them to adopt healthier lifestyles.

These findings are being written up for submission to an academic journal, and highlight the critical role that parents can play in promoting a healthy lifestyle both in the short and long term.

Chief Investigator's message



2017 has been a very exciting year for the CDAH team. There has been a huge amount of activity hiring staff, planning for clinics in Victoria and South Australia, and meeting many of you again. I'm extremely grateful to all the team members who have put so much effort into ensuring the success of the project – the logistics are complex! Most of all, I'm grateful to all of you for your continued involvement in the CDAH study in whatever form that takes. The longer the CDAH study runs, and the more information you share with us, the more significant it becomes on the international medical research stage. Findings from CDAH have already shaped strategies to promote good health for today's generation of children and we are confident that with your continued help we can contribute to further significant advances in the next few years. We look forward to meeting many more of you in 2018 and wish you a very happy new year.

Professor Alison Venn, Director, Menzies Institute for Medical Research

Highlights from recent research findings

The main aim of the CDAH study is to better understand how factors in childhood affect the risk of developing heart disease and diabetes later in life but the rich and varied data that you have provided over the years make it possible for the research team to address a broad range of related questions. Here are just some examples from publications in the last year – we hope you find them interesting.

Is our weight affected by where we live?

In this study led by PhD student Kira Patterson, we examined how living in a rural or urban area at different stages of life might be associated with overweight and obesity. The study was recently published in *Annals of Epidemiology* and Kira found that people who lived in rural areas for a longer time were more likely to become overweight or obese. The explanations for this finding are likely to be complex and

reflect differences between rural and urban residents' dietary and physical activity behaviours, and the built environment..

[Accumulated exposure to rural areas of residence over the life course is associated with overweight and obesity in adulthood: a 25-year prospective cohort study](#)

The link between simple habits and weight gain

Research fellow Dr Kylie Smith recently published this study looking at how common dietary and physical activity behaviours (e.g. eating breakfast, limiting TV viewing and doing enough steps per day) were associated with weight gain over five years in adulthood. The study was published in *BMC Public Health* and we found that people who adopted or maintained healthier behaviours had less weight gain.

<https://bmcpublihealth.biomedcentral.com/articles/10.1186/s12889-016-3931-y>

How well does muscular fitness in childhood predict

adult fitness?

Findings from Brooklyn Fraser's PhD project have shown that childhood muscular fitness levels are predictive of adult muscular fitness. Low muscular fitness is a risk factor for obesity, type 2 diabetes and cardiovascular disease. These results suggest childhood muscular fitness levels are a potential target for prevention strategies aimed at improving future health outcomes.

[Tracking of muscular strength and power from youth to young adulthood: Longitudinal findings from the Childhood Determinants of Adult Health Study.](#)

Do partnering and parenting transitions change our health-related habits?

As part of her PhD, Jing Tian looked at smoking among CDAH participants, including some of the things that are associated with quitting. In this paper she found that changing from being single to married/ de facto was good for helping men and women quit smoking. She also

found that having a first baby was strongly associated with quitting smoking for women but not men.

<https://rd.springer.com/article/10.1007/s00038-017-0984-3>

Dr Kylie Smith looked to see whether partnering and parenting transitions were linked to changes in diet quality, breakfast habits and takeaway food consumption. She reported in her paper published in the *Journal of the Academy of Nutrition and Dietetics* that on average, diet quality improved over 5 years irrespective of partnering and parenting status. Both men and women who became parents were less likely to skip breakfast, as were men who became partnered. Does breakfast matter? Our previous research has shown that eating breakfast is associated with better heart health.

[Associations between Partnering and Parenting Transitions and Dietary Habits in Young Adults](#)

International Childhood Cardiovascular Cohort (i3C) Cardiovascular (CV) Outcomes Study

The objective of the CV Outcomes Study is to determine whether there are linkages between risk factors for heart disease measured during childhood and adolescence (overweight/obesity, high blood pressure, high cholesterol, smoking) with the development of heart disease in middle-aged adults (ie coronary artery disease, heart attack, angina, stroke).

The i3C CV Outcomes Study pools data from 40,000 participants in seven long-standing studies based in the USA, Finland, and CDAH in Australia.

Since mid-2015 all studies have been surveying participants about their health status to ask if they have ever been diagnosed with cardiovascular disease. Investigating any cardiovascular conditions is vital to the scientific aims and validity of this

important international study.

If you have had a cardiovascular event, we will ask your permission to access your medical records. This involves signing a consent form and returning this to us in a reply-paid envelope. Relevant records are then obtained from the hospital and de-identified, before being reviewed by an independent expert group of cardiovascular physicians.

Thank you to all our

participants who have taken the time to do this survey – all 2,500 of you to date! This is a fantastic contribution, which is well on the way to achieving our target of over 3,300 completed surveys for Australia. For the study overall, 12,000 questionnaires have been completed from a target of 19,000.

For more information on i3C research and cohorts:
<http://i3cconsortium.org/index.html>

CDAH KNEE STUDY

Osteoarthritis is the most common joint disorder in adults around the world for which there are no disease-modifying treatments. Identifying the modifiable risk factors early in life and intervening on them is the key measure to preventing or delaying the development of osteoarthritis.

A sub-study of CDAH, known as the **CDAH Knee Study**, utilises the childhood and adulthood data collected in the CDAH Study (obesity and physical activity measures) to evaluate the impact of lifestyle risk factors on knee pain and knee cartilage

degradation markers that predict the development of osteoarthritis in later life. The current CDAH Knee Biomarker project will be the first long-term study of this issue using serum biomarkers. These biomarkers are available for the diagnosis of early stage osteoarthritis in a research setting and none has entered routine clinical use for monitoring disease activity.

This project will enable us to confirm the predictive validity of biomarkers, which can be easily translated to clinical practice to identify osteoarthritis at early stages.

Osteoarthritis is often regarded as a potential adverse effect of physical activity. If

a negative association between childhood physical activity and adult knee cartilage degradation biomarkers is demonstrated, it will have important implications for the prevention of osteo-arthritis and will provide reassurance that physical activity recommendations in childhood do not have unintended harmful effects on joints. This can reduce osteoarthritis in the future and can significantly decrease the number of costly joint replacement surgeries resulting from osteoarthritis.

This project is funded by the Royal Hobart Hospital Research Foundation.

CDAH Staff

Gearing up to run clinics across the country again has seen the expansion of our CDAH team here at Menzies.



Our friendly telephone interviewers, Hilary (left) and Deirdre (right) work evenings, and look forward to speaking with you to discuss your participation, conduct survey interviews, and answer any queries you have about the study. They also work hard retracing participants who have moved, so we can continue to keep in touch.

Don't hesitate to call us on 1800 634 124 (freecall) with any questions about the study or your participation.

You can keep up with the study's progress on our Facebook page – "Childhood Determinants of Adult Health study".



<https://www.facebook.com/cdahstudy/>

The admin team at CDAH – Karen (centre) coordinates recruitment and logistics for clinics, questionnaires and medical records, and liaises frequently with our partner sites in the US.

You may meet Janette (right) at one of our clinics as hers is the friendly face welcoming participants to clinics. Back at HQ Janette is our day-time interviewer attending to phone surveys and follow-ups. Emerson (left) is kept very busy seeking out and securing our clinic venues, preparing participant results letters and processing study documents.



Have you moved?

Or changed your name?

We'd love to hear from you so we can keep up to date with your contact details.

SMS 0418 491 988 Freecall 1800 634 124
Email cdah@menzies.utas.edu.au

For information on other research activities at the Menzies Institute, please visit

<http://www.menzies.utas.edu.au/publications/bulletin-newsletter>

or the Menzies Facebook page:

<https://www.facebook.com/MenziesResearch/>

Frequently Asked Questions

I can't come to a clinic, what else can I do?

There are many participation options during this study phase. Clinics do give us the best and most complete information for our research, but that isn't all there is. Valuable information is also provided through our health and lifestyle questionnaires that range in length from 45 minutes to 5 minutes. These are now all available online to complete at your convenience.

Everyone is talking about doing the questionnaires online, but I don't have internet access.

We are happy to send you a paper copy of our questionnaires or other study documents at any time. Feel free to contact us to request what you need and confirm your address – (freecall) 1800 634 124.

Last time there was a clinic near me, why not this time?

We use a variety of methods to find the best locations for our clinics. First we map participant addresses and identify 'hotspots' to look for potential clinic sites. Finding the right venue available at the right time for the right price is actually the hardest part! We also have to take into account the best use of our funding to reach the most people. Unfortunately, we received a significant cut to our funding, which has meant we aren't able to provide the same level of coverage as we did with our first round of clinics.

What results will I get from attending a clinic?

You will receive a summary of selected results, and we can send these to your GP if you wish. We will report results including your body mass index (BMI), blood pressure, indicators of your kidney function, cholesterol levels, and glucose levels. We will be taking other measures, but these results are for research purposes, not for the purpose of medical diagnosis.

What is the Medicare consent form for?

We will ask you to complete a Medicare consent form that we will provide to Medicare in about 5 years' time. This form authorises us to access your Medicare and Pharmaceutical Benefits information about your medical investigations, treatments and medications relevant to cardiovascular and diabetes conditions. Medicare will only release data to us with your signed consent. You may withdraw this consent at any time. This gives us another reliable method to find out about your health, particularly in relation to heart disease and diabetes.

Why do you want access to my medical records?

To determine whether there are linkages between risk factors we measured in you as children, and the development of heart disease in later life, we are interested in the medical records of participants who report particular cardiovascular tests or procedures ('events') in their lifetime. We identify these events through our short 5-minute cardiovascular survey. In order for us to access your medical records, we need a signed authorisation form from you to provide to the hospital/medical facility to allow your release of this health information to us. You can withdraw your consent at any time. All medical records are deidentified (your name and any identifying information removed). An expert independent panel of cardiologists then reviews the details of your deidentified records for study purposes.

I lost my medical consent form, what do I do?

Call, SMS, Facebook, email, smoke signal... just get in touch and we will send you a new copy of any documentation you need, including consent forms and reply-paid envelopes.

How do I find out what research is coming from the study?

The best way to see some of the scientific publications produced by the study is via our [Facebook page](#). It's a public page so you don't even have to be a Facebook member to take a look. Click here: <https://www.facebook.com/cdahstudy/> or just type in 'childhood determinants' and it will pop up.

From All at the CDAT Team, we'd like to wish you and your family a safe and joyous Festive Season and a very Happy New Year!

