

# HEALTHLAB – AN INNOVATIVE APPROACH TO TACKLING CHRONIC DISEASE THROUGH HANDS-ON EDUCATION

## THE NEED

Chronic diseases are the leading cause of illness, disability and death in Australia, accounting for 90% of all deaths. Four modifiable lifestyle factors - smoking, physical inactivity, poor nutrition, and alcohol misuse - have a huge influence on the development of chronic conditions such as cardiovascular disease and diabetes. Such chronic diseases are responsible for nearly 80 per cent of the total burden of disease and injury in Australia and more than two-thirds of all health expenditure. Diabetes and heart disease alone cost the health system more than \$6 billion each year. Concerningly, Indigenous Australians living in remote regions experience a substantially higher burden of chronic diseases than other Australians.

The disproportionate rate at which Indigenous Australians bear the burden of chronic disease sits at the heart of the gap in Indigenous and non-Indigenous life expectancy. In this context, engaging health education to this group is critical, urgent work. Menzies is at the forefront of research discovery in this regard. For this project, we are scaling up the findings of 'HealthLAB', an interactive and educational experience in a mobile pop-up laboratory showing participants the workings of their body and measuring their own biomedical risk factors for chronic diseases. It aims to help the community make positive lifestyle choices for good health. There is a series of hands-on work stations where participants can assess their own health and have direct exposure to how the body works using modern technology supporting actionable health messages. This is an innovative project to translate research into action and improved health. Because some of the young people we most need to reach live in Australia's most far-flung places, we take our trailblazing HealthLAB on the road.

## THE PARTNERSHIP OPPORTUNITY

HealthLAB will visit high schools in urban, regional, and remote communities across the Northern Territory. HealthLAB has a growing number of stations around the core themes of diet, exercise, smoking and alcohol intake, including equipment to test blood pressure, body mass index, haemoglobin, and exhaled carbon monoxide to gauge the impact of smoking and passive smoking. There are hands-on displays and experiments demonstrating the sugar content in common drinks, the poisons in a cigarette, and the effect of alcohol on coordination. Participants have the unique opportunity to speak directly with a dietician, clinician and other health experts. With an ultrasound and sonographer on board, participants can see their organs at work in their bodies. Direct visualization of personal ultrasounds of the heart beating, the blood flow in major vessels and kidneys facilitates health ownership, and encourages discussion about the body and how it functions.

It is a complete immersion experience, from which participants walk away with their own personalised health 'report card' along with a greatly enriched understanding of their own health and the way lifestyle decisions they make today will shape it. HealthLAB aims to help its participants gain greater ownership over their health, and the urgency at which they need to take control of their own healthier tomorrow.

## THE IMPACT

At its broadest, this initiative is about reducing the prevalence of chronic, preventable disease in Australia. It starts where the greatest need lies, with the people and places most burdened by chronic diseases and seeks to short circuit their development among the young people of Northern Territory's remote Aboriginal communities. Here, it will benefit thousands of people we know to be at risk of developing chronic diseases. There is a critical need for effective interventions to arm the Australian public with knowledge and tools to effect lifestyle changes to guard against chronic disease. This project will test HealthLAB's potential for wider uptake across Australia and in every age group, with a positive impact on the health of all Australians.

HealthLAB aims to encourage Aboriginal people in remote communities to make better lifestyle choices supporting better health over their lifetimes. The program aims to change behaviours linked to smoking, alcohol and the development of obesity and diabetes and improve the health and wellbeing of the population and in the long term, to decrease the adult onset of chronic disease and improve the health of the next generation.

## PARTNERSHIPS SOUGHT SCALABLE: \$250,000 - \$1,000,000

HealthLAB is scalable depending on the level of support we are able to attract. It utilises a large pool of volunteers in remote communities, at Darwin schools and Indigenous services, and among health professionals, and in this way is able to do much more than would otherwise be the case. As funding allows, it can employ Indigenous trainee nurses, medical students and dietitians. HealthLAB has an impressive record in this regard – seven trainees who have previously volunteered for HealthLAB have continued on science career pathways.

We seek funding for:

- A school based program targeting Year 10-12s.
- A visiting program to remote communities.
- An urban adult program delivered in public spaces and workplaces.



## STATS AND FACTS

- The lifestyle factors of Smoking, poor Nutrition, Alcohol misuse and Physical inactivity (SNAP) are the main causes of chronic disease.
- Chronic, preventable heart disease affects more than 3.7 million Australians, accounting for 90% of all Australian deaths.
- Indigenous Australians and those living in regional and remote areas have significantly higher rates of hospitalisation and death resulting from cardiovascular disease than other Australians.
- One third of young Australians aged 12 to 24 are overweight.
- Levels of physical activity drops by 50% between the ages of 5 to 8 and 15 to 17.
- Less than one in ten Australians eat their recommended daily intake of vegetables.

### Contact

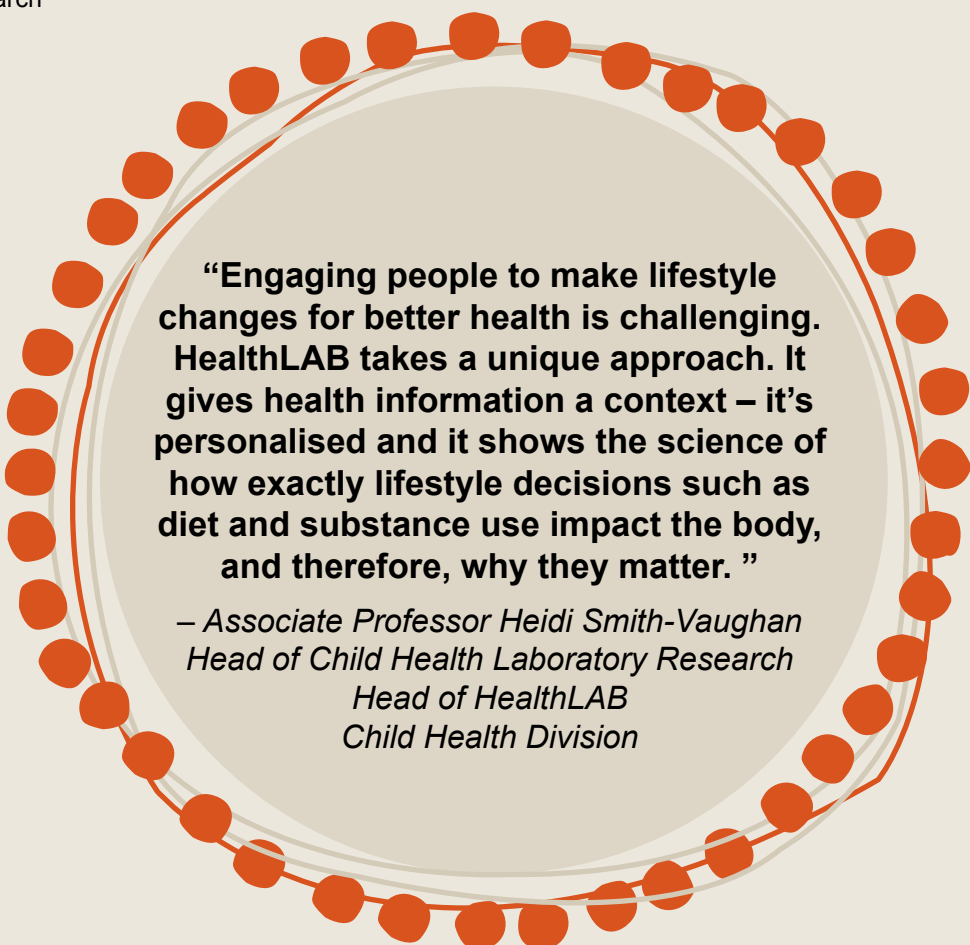
**Colin Baillie, Head of Development**

Menzies School of Health Research

Phone: 0410 634 889

Colin.Baillie@menzies.edu.au

www.menzies.edu.au



**“Engaging people to make lifestyle changes for better health is challenging. HealthLAB takes a unique approach. It gives health information a context – it’s personalised and it shows the science of how exactly lifestyle decisions such as diet and substance use impact the body, and therefore, why they matter. ”**

*– Associate Professor Heidi Smith-Vaughan  
Head of Child Health Laboratory Research  
Head of HealthLAB  
Child Health Division*