Building strong foundations for a healthy future 2017



Strategic and timely investment in children's health will help build strong foundations for longer, healthier lives.

WHEN BEER BUILDE

- 4 Investment to date
- **5** Foreword
- 7 Introduction
- 8 Future-proofing our health system
- **10** CareTrack Kids
- 12 First 1000 days
- 14 Take Heart
- **16** Brooklyn's story
- **18** Emerging health researcher

We have invested over \$30 million in projects that aim to improve health outcomes for all Australians.



Bupa Health Foundation Investment to date

On behalf of the Bupa Health Foundation Board, I am pleased to present the **Highlights Report for 2017.**

For this year's report, our particular focus is the health and wellbeing of our nation's children - seeking ways to help the next generation start life with an improved foundation of good health and wellbeing. We highlight our partnerships that focus on investing in prevention and early intervention in childhood and showcase an important project targeting rheumatic heart disease among Aboriginal and Torres Strait Islander children living in the Northern Territory.

Of continuing concern is the rising level of obesity. particularly in our children, with one in four children aged 5-17 now reported as being overweight or obese. Obesity is a major risk factor for so many diseases; tackling it as a national health priority is essential to the future sustainability of the health system.

Prospectively, governments and the community must make hard decisions about where health investment is to occur, including, for example, the underfunding of health promotion and disease prevention. We need ingenuity and imagination to tackle the complex health and social problems that are compromising our children's wellbeing. It will be inevitable that the acute care sector will continue to experience rising demand and the need for additional resources.

This year saw the establishment of the NHMRC Partnership Centre on Health System Sustainability. The Bupa Health Foundation was instrumental in the proposal to form the Centre and is a major funding partner. The Centre is hosted by the Australian Institute for Health Innovation at Macquarie University and includes an extensive network of organisations and researchers from across the Australian health sector and universities.



The Partnership Centre on Health System Sustainability has the capability to add significant understanding of developing a sustainable and affordable health system. The Bupa Health Foundation looks forward to playing a meaningful role in the work of the Centre over the next five years.

On behalf of the Bupa Health Foundation Board, which includes Richard Bowden, Bupa's Chief Executive Officer, I acknowledge all those who contribute to our work. This importantly includes our Bupa Health Foundation partners, as well as the ongoing funding commitment from Bupa. I acknowledge also and thank the Steering Committee, chaired by Bupa's Chief Medical Officer Dr Paul Bates, and the Executive Leader of the Foundation. Associate Professor Annette Schmiede, and her team.

I will be retiring in March 2018 as Chairman of Bupa Australia & New Zealand and of the Bupa Health Foundation. I record my personal appreciation to Bupa, to my Board colleagues and to everyone who has been part of the Foundation's establishment and development. I wish the Foundation continuing success and I will be very proud always to have been associated with it from its inception.

John Cande

John C. Conde AO Chairman

The Foundation has built strong relationships with the research community through our university partnerships.



Foundation projects have been with universities

More than 40% of funding has been allocated to university partnerships







Bupa Health Foundation university partnerships at a glance



Introduction

The Bupa Health Foundation has a long held interest, and commitment to, the importance of good health on a child's quality of life. We continue to see evidence which supports the concept that good physical, mental and social health in childhood leads to healthier, happier adult lives.

In this year's report, we highlight the key projects we are supporting that aim to improve the health and wellbeing of children and parents. We believe that strategic and timely investment in children's health will develop strong foundations for a healthy life. This, in turn, may help reduce reliance on the healthcare system in the future.

Over the following pages, you'll learn of some key Foundation partnerships with this focus, from prevention and early intervention to improving clinical practice and developing policy and advocating for its implementation. The Take Heart Program is an innovative public health approach to tackle the inexcusable high rates of rheumatic heart disease and acute rheumatic fever among Aboriginal and Torres Strait Islander children in rural and remote communities. It has been designed to raise awareness and increase compliance to treatment using a mixture of multimedia tools, and the Foundation is supporting the evaluation of this program in communities in the Northern Territory.

Late last year, we announced the Strong Foundations partnership with the Murdoch Childrens Research Institute among others. This work is looking to update our understanding of the significance of the first 1000 days. Research is starting to uncover the mechanisms by which experiences during the early years affect a child's outcomes. This work will underpin discussions and action on policy and practice.

And finally, CareTrack Kids, which has been a flagship project since it commenced in 2015. This project is focused on the efficacy, safety and efficiency of health services delivered to our children, with an objective of highlighting any barriers to delivering appropriate and evidence-based healthcare.

The Foundation is proud to be associated with these projects, and through these and other initiatives, to facilitate a better, healthier and happier future for our children.

Annette Schmiede Executive Leader

Future-proofing our health system

With a baby now being born in Australia nearly every 2 minutes, it's essential we enhance our health system so that it can support our children and help them thrive.

But identifying the most effective ways to invest in child health and improve the wellbeing of Australians across their lifetime requires outstanding research efforts.

By the year 2075, it's predicted that Australia's population will double to 46 million people, and forward-thinking and evidence based planning is needed to make sure the health system can meet this growing demand.

At the Bupa Health Foundation, our vision is to support the best people and the best ideas in research. To future-proof our health system and make sure children have the greatest possible start in life, the Foundation has developed strong partnerships with the research community, consumers and health care organisations.

The nurturing of innovative studies will help us create a health system that is efficient, affordable and sustainable for our children and future generations.

Future-proofing our health system

9

"Once we have the final results, we have the blueprint for delivering better care to the most precious people in society—our children"

Professor Braithwaite

CareTrack Kids

A blueprint for better childhood health care

With many children now living with at least one chronic health condition, researchers are now asking a critical question: are our kids getting the best health care available?

Supported by the Bupa Health Foundation, Professor Jeffrey Braithwaite and his team at the Australian Institute of Health Innovation at Macquarie University started the CareTrack Kids project to find the answers.

"If you are being treated for a certain condition, you want the care you get to be based on the best available evidence."

However, previous studies have shown that around 50% of the care patients receive is not in line with what the latest research recommends.

"What we want to do is make the care that patients receive more evidence based. We designed CareTrack Kids to do exactly that – to measure how much of the care, across different conditions for kids aged 0 to 15 years, is in line with the evidence", Professor Braithwaite said.

To achieve this, CareTrack Kids looked at the care children are getting for 17 common health conditions, including diabetes and asthma. The researchers then compared this care against what is recommended by evidence or consensus guidelines.

The ultimate goals of the study are to uncover the reasons why evidence-based care isn't provided, and develop new ways to ensure this care is delivered going forward. Not only will this improve outcomes for children, it will also help our healthcare system run more efficiently. Professor Braithwaite and his team are now busy analysing the data from this research, which is set to be released at the end of 2017.

"We think there will be widespread interest when the results are released. We're expecting a lot of action from policymakers, clinicians, colleges, local health districts and managers in the system, and for them to think about how we can increase the evidence-based care around the common conditions affecting children."

Professor Braithwaite is already considering the next phase of his research. "Once we have the final results, we have the blueprint for delivering better care to the most precious people in society—our children".

He said one possible approach was to take the key indicators of evidence-based care for certain conditions, identified in CareTrack Kids, and put this into an easy-to-understand map for patients. This could provide kids and their families with all the evidence they need to know about a health condition before they visit the doctor.

"The patient and their parents could then ask the question, 'is this the best treatment for this condition, or should we be getting a different kind of care to this?"

Professor Braithwaite said that another option lies in technology. "We're working with clinicians to trial a smartphone app for childhood asthma, which is all evidence-based."

Strong Foundations

Getting it right the first 1000 days

The importance of the first 1000 days - the period from conception until a child reaches the age of two - is quickly gathering momentum as a crucial time for shaping the development and long-term health and wellbeing of our children.

With a shared ambition to advocate for both investment and early intervention in the health of young children and their families, the Bupa Health Foundation has joined with the Australian Research Alliance for Children and Youth (ARACY), the Murdoch Childrens Research Institute (MCRI), and PricewaterhouseCoopers (PwC), to form Strong Foundations the First 1000-days partnership.

"The way in which we experience life during those first 1000 days, the positive and the negative, may have long lasting effects on health and wellbeing", explains Sue West from the Murdoch Childrens Research Institute.

"This encourages us to draw our attention to review how we as a community positively support not only our children, but those seeking to conceive a child, women who are expectant, and the environments in which we live. We want to encourage an optimal environment for those early days of life which will establish a foundation for longer term health."

In its first year, the partnership has produced a unique and comprehensive report summarising the current evidence and research available around this imperative time.

Researchers from the MCRI compiled the evidence, drawn from an array of research disciplines, and submitted the report for review by leading experts from around the globe. Dr. Michael Little, Co-Director of the Dartington Social Research Unit in the UK was one expert reviewer, he noted that "Even those relatively well read in this area will learn more from this review. The specific evidence is fast changing and the MCRI is becoming the go to place on where we have got to on the evidence base in this area".

Having gathered these valuable insights, the partnership is now focused on sharing this knowledge with health practitioners and care providers so that this important advice and support can be implemented and make a true difference in the communities they look after. The partnership also aims to share this evidence with policy makers to encourage well placed investments and early intervention strategies to prevent the complex health and social issues that often require costly and resource-heavy management later down the track.



RHD is estimated to effect more than 30 million people worldwide, with Australia having one of the highest rates

Take Heart

Rheumatic Heart Disease (RHD) is a devastating condition where one or more heart valves are damaged. It's caused by repeated episodes of Acute Rheumatic Fever (ARF) and when left untreated, can lead to permanent disability, heart failure and premature death in young adults. RHD is completely preventable, and in fact has been all but eradicated in Australian urban centres, but sadly is still prevalent in Indigenous communities.

ARF is a condition resulting from untreated infection with Group A Streptococcus bacterium ('Strep') in the throat or in skin sores. The good news is that Strep is very treatable with one of the most inexpensive medicines we have - penicillin. ARF is most common in children aged 5 to 15 years however the challenge is it can often go undiagnosed, resulting in failure to provide treatment and reduce the risk or even prevent a child developing RHD.

In response to this challenge, the team at Moonshine Movies developed the Take Heart program. In partnership with Bupa, RHD Australia, the National Heart Foundation, Aspen Foundation and other key partners, the program uses a range of multi-media tools including a feature film and free smartphone app to help raise awareness and improve treatment compliance for both ARF and RHD.

Based on a wave of positive feedback following the program launch, the Bupa Health Foundation is now supporting a two-year evaluation of Take Heart, which will provide crucial insights on the impact of the program across five Indigenous communities in the Northern Territory.

Lead evaluator, Dr Fabrizio D'Esposito from the University of Melbourne explains, "We're not only looking at measurable outcomes, we're also evaluating our processes as we go, resulting in continuous improvement of the program based on feedback from our team on the ground."



Kev outcomes being measured are download rates of the smartphone app, and how well the children who use the app stick to their regular penicillin injections. The evaluation team will look at the number of days at risk (i.e. when on-time antibiotic injections are missed) in a sample group from the five communities, and compare this with data from the broader Northern Territory population.

"We're not only looking at measurable outcomes, we're also evaluating our processes as we go, resulting in continuous improvement of the program based on feedback from our team on the ground." Dr Fabrizio D'Esposito

According to Dr D'Esposito, its essential that the messaging of the campaign is right for the community most affected. "We'd like to determine how people use the tools we've developed and what messages they retain from the resources."

The evaluation of Take Heart hasn't been without its challenges, with education events held at the mercy of the environment and only during the dry season. Initial findings are expected after September, and despite the limitations, Dr D'Esposito states, "It's so important to evaluate the outcomes and with this support from the Foundation we are able to shape the key guestions and fine-tune our approach. Thanks to our partnerships, we're contributing to closing the gap and hopefully reducing the rates of an entirely preventable disease in our indigenous communities."

Brooklyn's story

Brooklyn developed Acute Rheumatic Fever when she was 6-years old

"Brooklyn was in hospital for 6 months," explains Alice Mitchell, community education consultant and PhD student at the Menzies School of Health Research. "She developed a severe heart complication and was flown to Melbourne on her 7th birthday for open heart surgery to repair a heart valve."

While working on her PhD, Ms Mitchell has spoken with many Indigenous children like Brooklyn, along with their families, who are affected by Rheumatic Heart Disease (RHD). She found that community education is a crucial area that needs to be addressed to combat RHD and its precursor, acute rheumatic fever (ARF).

"I spoke to a lot of people in remote communities in the Northern Territory during my fieldwork and very few knew what rheumatic fever was, what complications are involved or how to prevent it. People had some idea that penicillin injections were needed, but didn't know what the medicine did or the significance of missing an injection."

"The challenge we face in the Northern Territory is that many people don't have English as their first language and don't have a background in Western medical models."

To overcome this, the Take Heart program provides practical health information through visual media, with videos and clips providing meaningful messages around ARF and RHD. Importantly, these are published in different languages so they can be accessed by all people in the communities that are at greatest risk. Another issue faced by the Take Heart team is the level of stress so often experienced in disadvantaged and remote communities. "Education and self-management tools are key components to reducing stress," says Mitchell. "We hope that the Take Heart films and the smartphone app will reduce families' stress levels by providing education and helping to prioritise the timing of the penicillin injections."

Already, the message is starting to make a real difference in the community. "Through their involvement in the Take Heart program, Brooklyn's family became aware of the critical need for the injections, and since being in the Take Heart film, Brooklyn's family has a new sense of the critical timing of the injections," says Ms Mitchell. Brooklyn's experience is also impacting her broader community. "We've found that some older teenagers have become health advocates, using the film clips in their language to educate younger children in their community."

The Take Heart program represents an exciting step towards eradicating ARF and RHD from our Indigenous communities. "Take Heart is a clear example of the importance of matching the service provided to the particular clientele. We've been able to explain the problem in their languages, and empower them with the knowledge and tools to do something about it."



Building a bright future for Australia's health

The Bupa Health Foundation Emerging Health Researcher Awards is an opportunity to celebrate the achievements of early career researchers. As outstanding academics and clinicians in their field, these researchers are making a true difference in improving the health of Australians.

The recipient of the 2016 award is Indigenous researcher, **Professor Gail Garvey** from the Menzies School of Health Research, who has dedicated her work to helping close the gap in health outcomes for Aboriginal and Torres Strait Islander peoples.

Cancer is the second leading cause of death in Australia. For Indigenous Australians, the risk of dying from cancer is even higher. There has long been a need for more research to provide insight on how to reverse this trend, and Professor Gail Garvey is now a key driver in this study space.

"My research is focused on cancer and Aboriginal and Torres Strait Islander peoples. I'm doing that because cancer has impacted on my family and my community, and it's an important issue that requires addressing", she says.

Professor Garvey's research is delving into Australia's health services, and exploring ways to improve existing systems to get better outcomes for Indigenous communities.

A key aim is to look at how to increase the participation in prevention strategies, such as cancer screening, so that the burden of cancer in these communities can be reduced.

"It also requires investigating the supportive care needs, and the unmet needs, of Indigenous cancer patients, and how that can impact on the uptake of services".

Professor Garvey said the Bupa Health Foundation Emerging Researcher award will help keep Indigenous health on the radar.

"It's going to be another way to illustrate and demonstrate to the wider community that cancer is indeed an issue that needs to be addressed."



Professor Gail Garvey Menzies School of Health Research

Recipient of the 2016 Bupa Health Foundation Emerging Health Researcher Award

Professor Garvey was awarded \$25,000 to further her research with the remaining four finalists each receiving a \$5000 prize;

Dr Laura Dagley

Dr Laura Dagley from the Walter and Eliza Hall Institute of Medical Research is working on a new test to diagnose acute rheumatic fever in children. The test works by looking for a key 'signature' of the disease in the blood.

"There currently is no definitive test for this disease, so if we're able to identify a more reliable way of diagnosing acute rheumatic fever and rheumatic heart disease, then we can prevent children who have the disease progressing to a stage where it's life-threatening."

Dr Dagley said that those who stand to benefit most from this test are young Aboriginal children aged between 5 and 14 years old. The focus of the research now is to get the test ready to be used in clinical practice - particularly in remote parts of Australia, where it is most needed.

Dr Johana Tello Velasquez

Based at Griffith University. Dr Johana Tello Velasquez's study has opened the door to a new potential way of repairing damaged spinal cords.

There are 12,000 Australians currently living with spinal cord paralysis. Not only are they unable to move, they have also lost the ability to feel their bodies.

Having worked previously as a marine biologist, Dr Valasquez has always had an interest in how we can use marine organisms to understand why some of them are can regenerate, while humans cannot.

"Very simply, the aim of my research is to be able to develop a holistic therapy for a spinal cord injury. We are making a difference and I really believe that we are very close to finding a cure" Dr Velasquez says.

Dr Joseph Dovle

Infectious disease specialist at The Alfred Hospital. Dr Joseph Dovle, is undertaking crucial research on hepatitis C - a serious condition affecting the liver.

With around 230,000 Australians currently living with chronic hepatitis C, Dr Doyle wants to improve the delivery of treatment. He says that if everyone with the disease can be treated, there is the potential to eliminate hepatitis C as a public health problem in the next decade.

"This research is important because it's something that impacts all of Australians and many people overseas, particularly those who are the most vulnerable and are often nealected."

Dr Emily Reeve

Dr Emily Reeve is conducting a study through the University of Sydney and Dalhousie University that will make a big difference to the health and quality of life for older people in Australia and internationally.

Many older people are taking multiple medications, and while these may have helped them in the past, these drugs could now be causing more harm than good.

Dr Reeve's research is focused on developing guidelines for the deprescribing (withdrawing) of medications that are high risk or unnecessary, and understanding how older people and their carers feel about this. "The first group of drugs that we're looking at are medications that are used to treat the symptoms of dementia", she says.



For the first time, due to the high calibre of nominations received, the Bupa Heath Foundation also acknowledged five researchers with a commendation award of \$1000.

Dr Katy Bell - The University of Sydney

Dr Andrew Gardner - Hunter New England Local Health District

Dr Ruth Webster - The George Institute of Global Health

Dr Quan Hyunh - Baker IDI Heart & Diabetes Institute

Dr Jocelyn Bowden - The University of Sydney

Bupa Health Foundation Emerging Health Researche Award 2016

Recipien

Associate Protessor Gail Garvey Menzies School of Health Research



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Bupa Health Foundation leadership





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