

Kirby Institute



YEARS OF IMPACT

1986 – 2026



The Kirby Institute at UNSW Sydney
is located on the Traditional Lands
of the Bidjigal Peoples.

We acknowledge the Traditional Owners
of Country throughout Australia, and
First Nations peoples' continuing
connection to culture, land, sea,
waters and community.

We pay our respects to Elders
both past and present.

Commissioned for the *Aboriginal Surveillance Reports*,
this artwork was created by Jasmine Sarin (JS Koori Designs),
a proud Kamilaroi and Jerrinja woman.

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FOREWORD

Forty moments.

Four decades.

We're just getting started.

At the Kirby Institute, we are proud of our research, which for over four decades has helped improve human health in Australia and abroad.

We want to commemorate our fortieth year by choosing forty big moments this institution has been part of. These are not necessarily all the best or most significant pieces of our history. This is a collection of powerful moments that signal the journey we have been on with our community and collaborators since 1986, from our origins within the St Vincent's Hospital precinct in Darlinghurst, to our research portfolio of today spanning the globe.

Patron's message

This year marks the fortieth anniversary of the Kirby Institute. I have been associated with it from the early fearful days of HIV. More intensively since 2011, when the Institute adopted its present name and program.

I honour the pioneering work of the late Professor David Cooper AC and the others who guided the earliest days of the Australian response to the global challenges of HIV and other blood-borne viruses. Over the past 15 years, I have been proud to serve as Patron of the Kirby Institute, which has brought me into regular contact with its magnificent research staff, medical experts and scientific leaders. I have watched the Institute grow in discovery and leadership. As I look back to forty years ago, I remember the devastating reality of the HIV epidemic that gave birth to the Institute. I also celebrate the innovative science that it has developed and expanded.

The approach taken by the small team of medical and scientific professionals in the early days of the HIV crisis was unique. It placed human rights at the centre of its research and unfolding solutions. From the start, collaboration and engagement with those directly affected by the epidemic was a priority. This was a new approach to epidemiology. It has proved effective and influential.

Professor David Cooper AC was present at the creation of the Institute. He steered it through incredibly challenging times. I was fortunate to enjoy a long friendship with David. Every day with him was a marvellous learning experience.

David Cooper was not only a world-renowned scientist. He was a passionate physician and a natural leader who ignored the traditional separate silos of science, medicine and sociology. He was a master in uniting people of varying

skills to tackle the common task. He was a kind man, loved by many. His death in 2018 was devastating to us all. But we have carried on his legacy and drawn on his example. I also pay tribute to David Cooper's wife, Dorrie, and his daughters, Becky and Ilana. They all remain as part of the Institute, as they did in those early years.

The modern-day Kirby Institute boasts a workforce and research capacity significant in size and varied expertise compared to that of the small team established in the '80s. Yet the foundations laid by the early team have endured. They have allowed the Institute's commitment to community-focused research to grow ever stronger.

David Cooper's successor, Scientia Professor Tony Kelleher, has carried forward the Kirby's ambitious mission as Director since 2019. He has brought continuity to the Institute's ambitions. He has also amplified the Kirby's agenda, both locally and internationally.

I became Patron around the time of expansive change for the Institute. A few years after the renaming of the Institute came the move to an impressive purpose-built new facility on UNSW's Kensington campus. The earlier scattered team of researchers was united under one roof. This was made possible by a highly motivated philanthropy drive that raised a collective \$20 million from private philanthropic pledges, along with similarly significant funding from federal and state governments and UNSW.

A pivotal moment arrived for the Institute more recently when its research agenda and expanded skillset were put to the test during the COVID-19 pandemic. I single this out because of the extraordinary interdisciplinary response it demanded of the Kirby Institute's workforce under such difficult, time-critical circumstances. The Institute's researchers can be proud of their contributions to lifesaving research that was undertaken during and after this time.

The Institute's vision was never confined to Australia. It champions a belief that the benefits of scientific progress should reach every nation and that the strongest progress will be made together. Its researchers are determined to build lasting partnerships that will enlarge our collective capacity, particularly in Australia and its region. I am confident that the Institute's early leaders would be proud to see the enduring spirit of collaboration that exists at the heart of the Kirby Institute's work with partners across the Asia-Pacific and beyond.

Forty years on, the Institute continues the inspired ideas of its earliest days: scientific excellence combined with community partnerships. The Kirby Institute may have grown enormously. Yet its purposes remain familiar and its unity is inspiring.

There are many pioneers whose contributions may never appear in the history books. The patients and research participants who have entrusted themselves to our work. The many individual workers in community organisations who have offered their partnerships. The clinicians and health workers who have supported the fight against infectious diseases. Their contributions, among many others, have been vital to the ongoing commitment of the Institute to precious innovation.

The greatest legacy of the Kirby Institute is not a single discovery, trial or fiscal accomplishment. A very special institution has been built. Communities have given the Institute its goals. That is the responsibility that the Kirby carries forward. The past forty years have been remarkable. Yet, I have every confidence that the next forty years will be greater still.



The Hon. Michael Kirby AC CMG

Director's message

Celebrating forty years of the Kirby Institute is an opportunity to reflect on a history of which we are incredibly proud. It is equally important we take the chance to look ahead and consider what the next forty years will ask of us, and how we can respond to that challenge by building on the expertise, experience and partnerships that brought us this far.

Equity, Impact, Excellence, Collaboration. These are the Kirby Institute's values that provide a roadmap towards our clear and ambitious vision: a world free of infectious disease. They set the standard for not just the outcomes we are renowned for, but for the way we carry ourselves and work with our partners. They drive everything we do.

Our history is one of evolution and adaptation. For decades now, we have applied what we learnt from the HIV crisis to the treatment and prevention of other infectious diseases, from hepatitis C to sexually transmissible infections to COVID-19 and neglected tropical diseases. The breadth of expertise we have built will be critical as we look to strengthen our position as a global leader in infectious disease research.

The world faces complex infectious disease threats, accelerated by the impacts of climate change, population growth, inequitable health systems, increasing gender and sexuality discrimination, coordinated campaigns of misinformation and rapid geopolitical change. At the same time, the funding landscape for medical research and the implementation of its findings in Australia and globally is increasingly competitive. Yet rapid advances in science and technology are creating new opportunities to combat infectious diseases and halt emerging threats before they develop. Our mission to provide the evidence base to prevent,

diagnose and treat infectious diseases with a focus on health equity could not be more urgent.

Our impact does not just depend on the excellence of our research, but on how it is designed and conducted. Our focus will remain on getting relevant evidence and accessible insights into the hands of clinicians, policymakers and communities where they can make a difference to people's lives.

Strengthening our relationships with trusted stakeholders and building new partnerships, both locally and internationally, are key to delivering on that focus. Our history proves that strong, collaborative partnerships lead to the most applicable and effective public health outcomes, especially during times of crisis.

Our commitment to health equity does not stop at Australia's borders. For decades, we have worked alongside communities around the world, applying our expertise where the burden of infectious disease is greatest and resources are limited. This commitment, while geographically more expansive, has its roots in our beginnings, when working alongside communities affected by HIV in Sydney shaped the way we responded to the epidemic.

The Kirby Institute's office may be on the grounds of UNSW Sydney, but our mission is global. A world free of infectious disease can only be achieved when the benefits of research and innovation reach everyone. Our international agenda is not separate from our vision; it is fundamental to it.

An ambitious future is not possible without the people who make the Kirby Institute what it is. That includes those who have been part of the team for decades, as well as those on their first day. Our greatest asset over forty years has been our people. That will not change for the next forty. From field epidemiologists and mathematicians and modellers to clinical trials specialists, disease surveillance experts,

in qualitative research, laboratory scientists, health economists and First Nations health care researchers, the Kirby Institute brings together expertise spanning infectious diseases from the molecular level through to populations and communities.

As the Kirby Institute moves through growth in size and research scope, nurturing the talent we have in our ranks and supporting our emerging leaders will be essential to ensuring we strengthen our footing at the forefront of infectious disease research.

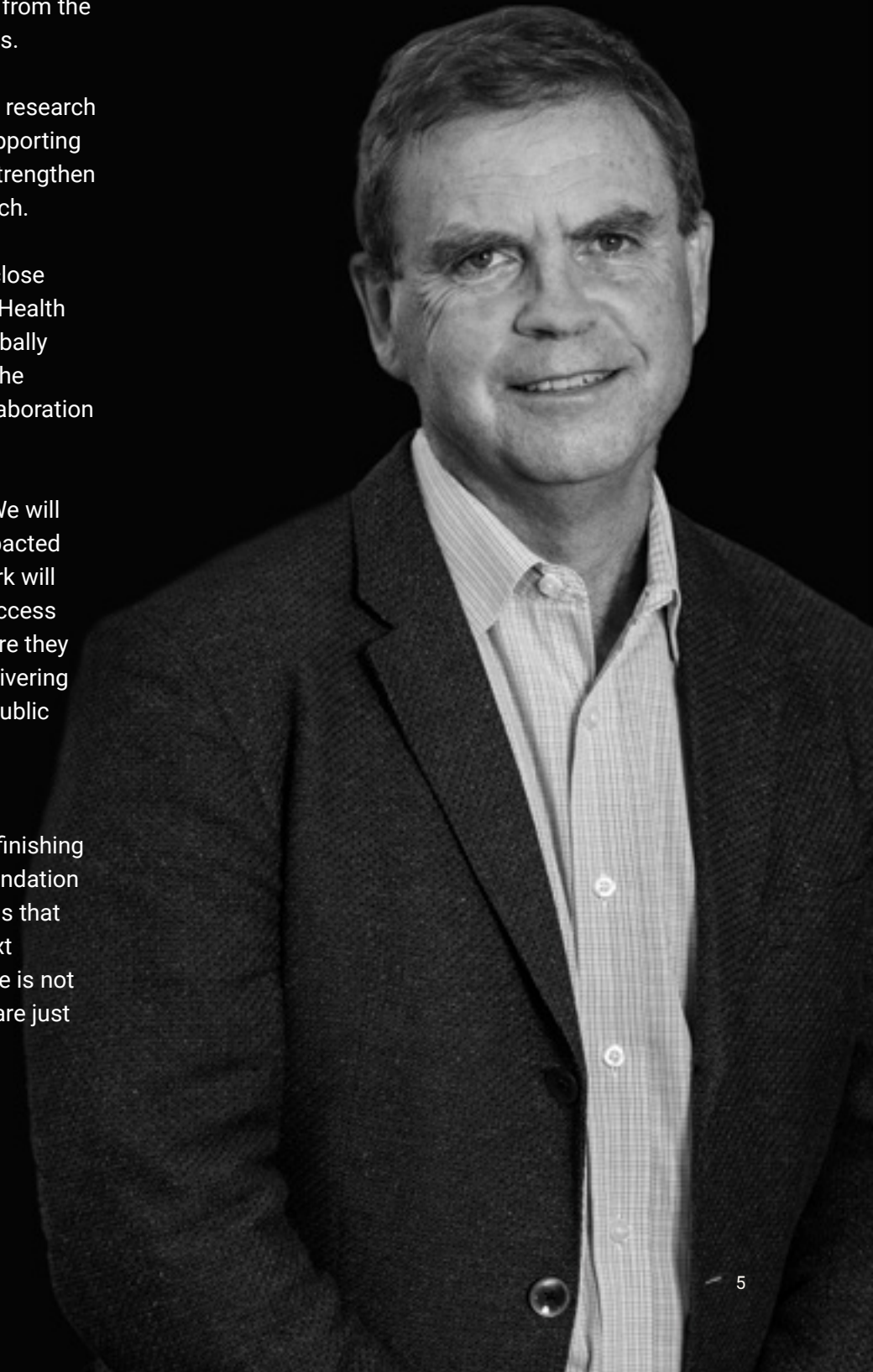
As we continue on this journey, we are grateful for the close relationship we share with the Faculty of Medicine and Health and UNSW Sydney. We are proud to have called this globally renowned institution home for the past four decades. The partnership lays the foundation for the investment, collaboration and opportunities we need to realise our ambitions.

Some things will not change about the Kirby Institute. We will always prioritise the health of people who are most impacted by infectious diseases and their complications. Our work will always reflect the belief that all people deserve equal access to high-quality health care, no matter who they are, where they were born, or which communities they belong to. By delivering equitable health care to those too often overlooked in public health solutions, we are able to deliver better outcomes for everyone.

Forty years is an extraordinary milestone but it is not a finishing line. It is something we can celebrate and treat as a foundation for the next chapter of the Kirby Institute. History tells us that we cannot predict with certainty how and where the next infectious disease threat will materialise. That challenge is not going anywhere, and neither are we. In many ways, we are just getting started.



Professor Anthony Kelleher



moment 01

1983

Australia's first HIV cohort study

The year 1983 marked the first officially recorded death from AIDS in Australia, although we know the virus had in fact arrived and begun spreading on our shores years earlier. The battle against HIV/AIDS had begun, along with an era that would transform the lives of tens of thousands of Australians and set the scene for the Kirby Institute's beginnings.

The following year, our inaugural Director Professor David Cooper and his colleagues conducted the first cohort study of HIV disease in Australia and one of the largest in the world at the time, the Sydney AIDS Prospective Study.

The study recruited over 1,000 gay men and informed the largest existing database on the natural history of HIV infection in Australia. It delivered invaluable early insights into transmission routes, risk behaviours and the epidemiology of HIV, laying the foundations for some of Australia's first clinical trials of new medications to treat HIV and AIDS.

This collaboration with the communities of people most impacted by AIDS set in stone one of our core values at the Kirby Institute: collaboration.



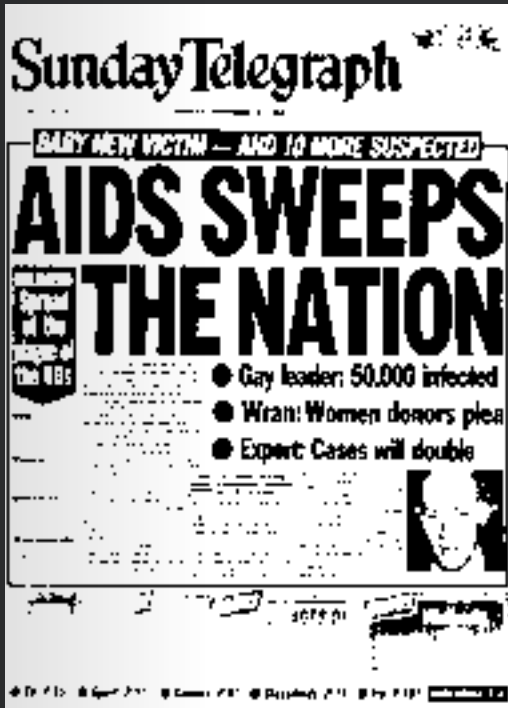
Kirby Institute inaugural director David Cooper (centre) with clinical immunologist Ann Hill (left) and his mentor Ron Penny (right), who diagnosed the first case of HIV in Australia.

moment 02

Pioneering research into primary HIV infection

1985 saw HIV continue its alarming trajectory, surpassing 1,000 new infections in NSW alone. The imperative for a better understanding of the virus and its clinical manifestations was growing exponentially. Thanks to the collaborative approaches of the Sydney AIDS Prospective Study, Professor David Cooper and his laboratory and primary care colleagues defined the 'HIV seroconversion illness', or primary HIV infection, for the first time, which was published in a *Lancet* article.

The impact of this moment is felt today, with the definition still used in clinical practice 40 years later. It paved the way for a deeper understanding of the pathogenesis of HIV from the onset of infection and empowered clinicians to conduct more efficient testing of people presenting with symptoms.



Left: Cover of *The Sunday Telegraph*, Sunday 18 November, 1984.
Right: Cover of *TIME Australia*, 3 November 1986.



moment 03

The Kirby Institute begins to take shape

In response to the HIV/AIDS epidemic, the Australian Government established the country's first national HIV research centres in 1986. The Sydney centre was named the National Health and Medical Research Council's (NHMRC) Special Unit in AIDS Epidemiology and Clinical Research (later in 1989 becoming the National Centre in HIV Epidemiology and Clinical Research).

Led by Professor David Cooper as the inaugural Director, the centre initially comprised just a handful of talented researchers, clinicians, epidemiologists and support staff. The NHMRC Special Unit was then formally operating out of the same building as the Albion Street Centre (now known as the Albion Centre), while David Cooper and his colleagues provided clinical services to patients at St Vincent's Hospital in Darlinghurst, particularly in Ward 17 South, Australia's first dedicated HIV/AIDS unit.

The establishment of the Kirby Institute's first iteration was pivotal. Not only did it symbolise the recognition of the critical role research plays in responding to health crises, but it formalised a partnership model uniting research, community and government that has been so central to our impact since.



David Cooper at St Vincent's Hospital with a patient, 1991.
Credit: Kenneth Stevens / Sydney Morning Herald.

moment 04

Epidemiology comes into its own

With HIV treatment options still largely ineffective and ongoing uncertainty about where the epidemic was heading, the Kirby Institute embarked on a new and ambitious epidemiology and surveillance program in late 1989.

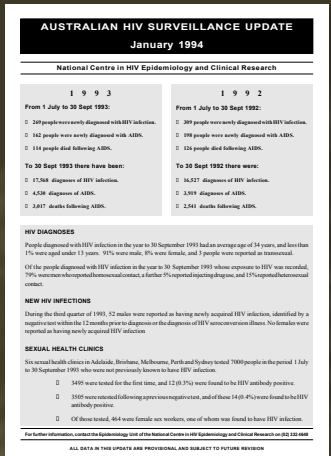
While epidemiological methods had played an important role in our work since the beginning (most strikingly in the Sydney AIDS Prospective Study), our expanded agenda acknowledged that to stop the virus, we needed to better understand both its spread and impact in the community.

A national program focusing on HIV began and would go on to coordinate epidemiological surveillance and research across a range of blood-borne viruses and sexually transmissible infections. Key activities included analyses of notifiable disease data, regular surveys of people at risk of these infections and establishment of long-term follow-up studies, all strongly linked to laboratory science and social science. A stream of new knowledge emerged that supported prevention initiatives where they were most needed.

This moment paved the way to a modern-day Kirby Institute, world-renowned for its epidemiological surveillance and research.



John Kaldor and Jenny Kemp. Kaldor joined the Kirby Institute in 1989 and led the epidemiology program.



moment 05

1990

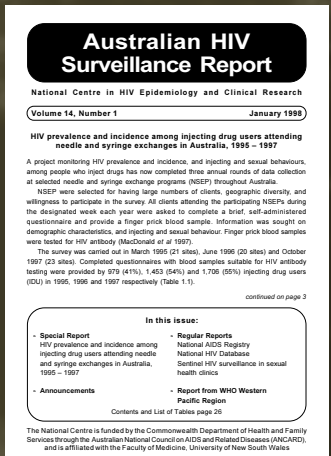
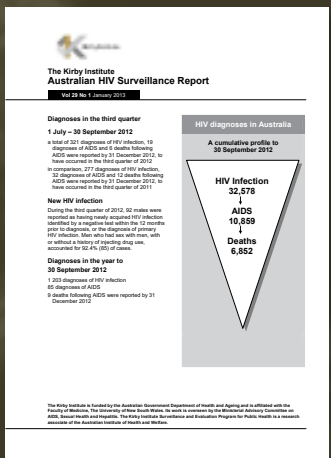
Building Australia's HIV reporting system

In 1990, the Kirby Institute's expanding epidemiological capacity led to us formally taking on what remains one of our core functions, to report on HIV occurrence in Australia. Our growing epidemiology team allowed us to respond to a recommendation from the Commonwealth AIDS Research Grants Epidemiology Advisory Committee to establish the first national HIV surveillance strategy.

The strategy, coordinated through collaboration between our researchers and state, territory and federal health authorities provided a framework for HIV surveillance with routine, standardised case reporting, and new systems for monitoring HIV incidence and prevalence data on selected populations. From 1990, we began publishing regular quarterly reports, with a more detailed annual report taking over in 1995. The reports quickly became the crucial national asset for tracking HIV, used by a wide range of government and community stakeholders as the national point of reference for progress under the national HIV/AIDS strategies.

The scope of surveillance expanded steadily to encompass viral hepatitis and sexually transmissible infections (STIs), as national strategies emerged to cover these infections. A key milestone was the introduction in 2007 of a dedicated report focusing on blood-borne viruses and STIs among First Nations people.

Covers of the *Australian HIV Surveillance Report* over the years.



moment 06

Gathering the evidence for harm reduction

Australia has long been a globally renowned leader in its adoption of needle and syringe programs (NSPs). The Kirby Institute is proud of the role our surveillance program played in helping cement their crucial place in Australia's approach to harm reduction.

Our data shows that there were over 4,600 NSP services across Australia in 2025, with 64.4 million needles and syringes distributed across 2024/25. Forty years ago, the first NSPs in Sydney were operated illegally by community-based organisations until the policy was adopted by the NSW Government in 1987. There was still uncertainty about their effectiveness and stigma towards their clients, and a need for evidence to demonstrate the value they offered.

We began conducting surveys at a small number of NSP sites in 1994, and took this approach to a national scale in 1995, when we launched the first annual *Australian NSP Survey (ANSPS)*. Our researchers collaborated with service providers, government and community members to collect information on injecting practice, service utilisation and other key characteristics, as well as a blood sample that was used to test anonymously for HIV and later hepatitis C. The survey would go on to engage with tens of thousands of NSP clients over the next three decades. It continues to serve as a key data source for underscoring the significant benefits NSPs provide for the health and safety of Australian communities.



Australian NSP Survey, 2011.

Two years after the ANSPS commenced, our epidemiologists collaborating with researchers from the University of Melbourne published the first global analysis supporting the effectiveness of NSPs.

Findings from the ongoing ANSPS highlight the benefits of investing in robust sentinel surveillance to monitor trends in drug use, sexual and injecting risk behaviour, treatment uptake and prevalence of blood-borne viral infections among people who inject drugs. Results from the ANSPS continue to inform NSP policy and practice in Australia, as well as being key inputs to *Return on Investment* reports proving the cost-effectiveness of NSPs. They are important indicators of progress towards eliminating hepatitis C and sustaining low levels of HIV among people who inject drugs.

moment 07

HIV treatment research and clinical trial networks

The 1980s and '90s were a period of intense HIV treatment research, as scientists and clinicians worked urgently to test potential therapies through clinical trials. In 1997 alone, the small Kirby Institute team was coordinating 11 clinical trials, with another 9 approved and in preparation. While many early trials had disappointing results, each one added to scientific understanding and helped build the foundation for the highly effective HIV treatments available today.

The early treatment trials were focused on delaying disease progression and reducing viral load in people with HIV. At the time, when there were few approved treatment options, joining a clinical trial was often one of the best ways for people living with HIV to access promising therapies. Recognising that this opportunity was less available in low- and middle-income countries, much of our work during this period focused on building international networks of clinicians who could run trials collaboratively. These networks helped people living with HIV access studies and available treatments, while also accelerating research via international collaboration.

Kirby Institute clinical trials helped show that combination therapy could deliver long-term improvements in viral suppression and immune reconstitution, contributing to the dramatic reductions in HIV-related morbidity and mortality that followed.



L-R: Researchers David Cooper, Basil Donovan and Brett Tindall. Donovan co-founded Taylor Square Private Clinic, an important site for early HIV research and recruitment. Tindall was one of the Kirby Institute's first researchers. He died of AIDS in 1994.



L-R: HIV-NAT co-founders Professors Joep Lange, Praphan Phanuphak and David Cooper at the 15th Bangkok International Symposium on HIV Medicine, 2012.

moment 08

Building clinical research capacity in our region

One of the exemplars of the Kirby Institute's long history of international collaboration is the HIV Netherlands, Australia, Thailand Research Collaboration (HIV-NAT). HIV-NAT, established in 1997, was borne out of discussions David Cooper had with like-minded senior HIV researchers based in Amsterdam and Bangkok about the interventions desperately needed to curb the HIV epidemic in Thailand.

Thirty years later, HIV-NAT maintains its internationally recognised reputation as the leading institution conducting clinical research in South-East Asia. HIV-NAT has grown into a Thai-led clinical research centre with an internationally

recognised track record of research that informs HIV-related guidelines and policies locally and internationally, owed to its strong community engagement and the quality and relevance of its clinical research output.

That collaboration kick-started a two-way capacity building philosophy that champions the exchange of expert knowledge between our researchers and our neighbours across the Asia-Pacific region. That philosophy has become deeply engrained in the Kirby Institute's identity and agenda, seeding countless collaborations and partnerships.



moment 09

Celebrating resilience at Mardi Gras

In 1999, David Cooper led the Kirby Institute's first appearance at Sydney Mardi Gras with his colleagues (dressed as HIV medication), marching amongst the community they had been working together with in their HIV research for well over a decade.

That set the scene for more parade appearances in the years to come, each one another special opportunity to celebrate the unshakeable resilience of the communities we have been privileged to work alongside for so long.



Left: David Cooper (centre) with staff and students at the 1999 Sydney Mardi Gras parade. Right: Cooper with his daughters Ilana and Becky.

moment 10

2000

Expanding our focus to hepatitis C

Following the discovery of the hepatitis C virus and development of an antibody test that could diagnose it in 1989, the 1990s were about building an understanding of how it was transmitted and how it was impacting health.

Recognising that hepatitis C was a major unaddressed public health crisis, with patients among the most marginalised populations, the Kirby Institute formalised a dedicated viral hepatitis research program in 2000, expanding its research into clinical trials. The Kirby Institute established national surveillance among people who inject drugs and together with modelling, we developed the data to show a rapid increase in incidence and considerable overall burden of poor health and mortality.

This program would grow into one of the world's most influential hepatitis C research groups, focused on driving better health outcomes for people affected by hepatitis C, particularly those often overlooked by mainstream research and treatment, such as people who inject drugs or prisoners.

The Kirby Institute Surveillance team, 2002. L-R: Melanie Middleton, John Kaldor, Andrew Grulich, Gregory Dore and Ann McDonald.



moment 11

A landmark HIV vaccine trial partnership

At the turn of the millennium, the search for an HIV vaccine remained one of the most urgent challenges in global health. Off the back of running a series of vaccine trials in the mid to late '90s, in 2000, the Kirby Institute was awarded the largest research contract ever granted to an Australian group at the time: US\$27 million by the United States National Institutes of Health.

The funding supported an Australian-Thai consortium led by the Kirby Institute to develop and test a novel HIV vaccine strategy. The consortium combined researchers from the CSIRO, Australian National University, Melbourne University, National Centre for Social Research, industry partner Virax, along with community partners represented by the Australian Federation of AIDS Organisations and Thai partners from HIV-NAT and the Thai Red Cross.

Built on years of laboratory research undertaken by Australian scientists, the program saw the consortium completing preclinical development, manufacturing vaccine components and conducting phase 1 and 2 clinical trials in both Australia and Thailand of a prime boost strategy involving DNA and recombinant viral vectors. The selection of an Australian consortium by a US funding agency to lead this work reflected the international reputation the Kirby Institute had already earned for leading complex clinical trials and building partnerships across research, healthcare and affected communities.

The results of the trials were disappointing. While the vaccine candidates were found to be safe and well tolerated, they

failed to generate the immune responses required to justify further development. Similar findings followed from HIV vaccine programs around the world, highlighting the extraordinary challenge of developing an effective vaccine against the virus.

Despite the disappointing result, the trials' legacy was greater than their outcome. The program strengthened scientific links across Australia and the Institute's capacity to design and deliver large-scale vaccine studies and built new international partnerships. In a field where progress often depends as much on rapidly eliminating unsuccessful strategies as discovering successful ones, the work demonstrated the scientific rigour and collaborative spirit that continue to underpin the Kirby Institute's research today.



HIV-NAT research facilities in Bangkok, Thailand, 2016.



Members of the Biostatistics and Databases Program at the 24th Network Annual Meeting for TREAT Asia, 2024. L-R: Azar Kariminia, Awachana Jiamsakul, Matthew Law, Dhanushi Rupasinghe, Anna Han and Kathy Petoumenos.

moment 12

Launching the TREAT Asia network

Another step in expanding impact beyond Australia's borders, the Kirby Institute helped catalyse amfAR, The Foundation for AIDS Research's TREAT Asia network in 2001, one of the first multi-country initiatives for the systematic collection of HIV treatment outcome data across Asia and the Pacific.

Since its inception, network investigators have published over 400 analyses in peer-reviewed medical journals, creating a unique evidence base for understanding the treatment

environment for adults and children living with HIV in the region. The research helps inform World Health Organization and UNAIDS reports and guidelines, as well as the delivery of clinical interventions in routine HIV patient care.

Now almost three decades later, the network is another example of our commitment to transforming healthcare practice and policy through collaboration with our regional neighbours.

moment 13

2006

Transformative collaboration with Australia's closest neighbour

Infectious diseases are a global challenge that no single country or institution can take on alone. A collective response is best delivered by networks of diverse expertise who share an enduring commitment to strengthening capacity and a passion for long-term values-based partnerships. One of the Kirby Institute's most enduring partnerships of this kind is with the Papua New Guinea Institute of Medical Research (PNGIMR).

The PNGIMR was established in 1968, and over almost 60 years it has grown to become an internationally recognised leader in biomedical, social sciences and public health research. The Kirby Institute has been a proud partner of the PNGIMR for over 20 years, with our staff seconded to the institute since 2006 and taking up senior leadership roles including PNGIMR Deputy Director and Head of key research programs. We have co-chaired its Buttressing Coalition that brings together research partners and fosters sustained Australian government investment to support the PNGIMR.

The partnership has set the stage for numerous pioneering research projects addressing global public health challenges, including studies in HIV treatment and prevention, maternal and newborn health, advancing the elimination of cervical cancer, and co-designing of testing and prevention strategies for a range of infectious diseases. The PNGIMR/Kirby Institute collaborative research team led the WANTAIM

(‘Together’ in Tok Pisin language) Trial: a world-first clinical trial of antenatal point-of-care testing and treatment of sexually transmissible infections to improve birth outcomes, showing for the first time that point-of-care testing and treatment of gonorrhoea in pregnancy reduced preterm birth and low birthweight.

The landmark Kauntim Mi Tu (‘Count me too’) study provided the most comprehensive picture of HIV among key populations in PNG, helping guide national HIV prevention and treatment efforts. Through ACTUP-PNG, researchers have strengthened HIV drug resistance surveillance, point-of-care diagnostics and maternal and child health services, while building local laboratory and public health expertise. More recently, collaborative tuberculosis research has highlighted the social and structural conditions that drive disease transmission, helping inform more effective and culturally appropriate responses.

The Kirby Institute has welcomed PNGIMR researchers to Sydney to undertake intensive HIV drug resistance training, building skills and expertise they have brought back to PNG. We have also been fortunate to have several PNGIMR researchers completing their PhDs at the Kirby Institute, many of whom have gone on to become leaders in their chosen research fields. In turn, we have had Kirby Institute researchers on the ground in PNG supporting the PNGIMR team since 2007.

The PNGIMR partnership exemplifies the importance of long-term partnerships with a steadfast commitment to collaboration that delivers meaningful impact. It has helped shape other long-term collaborations such as those in Thailand, Fiji, Cambodia and Indonesia, that drive impact and research excellence across the region.

Community reporters at Mugil Rural Hospital in Madang Province, PNG, 2017. They assist with community awareness and recruitment of women into research studies.



moment 14

Examining the intersections of sex work, law and public health

Australian sex workers have long been among the strongest advocates for their own health and the health of their clients, underscoring the importance of research conducted in partnership with the sex work industry.

The Kirby Institute’s research and epidemiology in collaboration with sex workers dates back to our origins during the early years of the HIV epidemic, but the Law and Sex Worker Health Project (LASH) marked a shift towards understanding the broader social and legal determinants of health in the industry.

LASH took a broader approach than traditional infection surveillance, examining how laws and policies shape sex work,

health promotion effectiveness, workplace practices, and the health and wellbeing of sex workers and their clients. Recognised as leading international authorities on the public health and legal components of sex work, the LASH team was contracted by several state governments to review their legislative approaches to sex work and help inform their policy development.

The LASH findings contributed to the decriminalisation of sex work in Queensland and Victoria, while other jurisdictions continue on that path. We acknowledge the dedicated community advocacy that has been the most important driving force behind that change.

Julie Bates AO, sex worker rights champion and the Kirby Institute’s Basil Donovan, outside Taylor Square, 2007.
Credit: Marco Del Grande / Sydney Morning Herald.



moment 15

2010

SPANC puts anal cancer research on the agenda

Building on earlier research in the field, Kirby Institute researchers launched the Study of the Prevention of Anal Cancer (SPANC) in 2010, establishing a landmark study that would shape the future of combatting anal cancer. While its name and logo may be memorable and slightly cheeky, SPANC was addressing a serious and historically neglected health risk for gay and bisexual men.

The cohort study examined the epidemiology of anal human papillomavirus infection and its associated precancerous anal lesions in HIV-positive and HIV-negative gay and bisexual men, generating evidence that would inform future research and shape prevention and screening efforts.

More than a decade of anal cancer research leadership at the Kirby Institute reached a major milestone in 2023 with a \$5 million donation from the Glendonbrook Foundation (building on an initial donation of \$1.25 million for this work in 2017). The gift empowered the establishment of a national program to reduce the burden of anal cancer in people living with HIV.

The transformative donation reflected Lord Glendonbrook CBE AM’s long-standing support for the Kirby Institute and our commitment to working with marginalised communities, particularly gay and bisexual men.

The eye-grabbing SPANC study logo.





Gregory Dore (right) speaking to patients outside St Vincent's Hospital, Darlinghurst, 2017.
Credit: The Digital Clinic.

moment 16

Ensuring no community left behind in the path to hepatitis C cure

During the 2010s, Kirby Institute researchers played a key role in hepatitis C research on treatments called 'direct-acting antivirals' (DAAs), designing and conducting trials with groups previously excluded from treatment and research, such as people who inject drugs, prisoners and people with acute hepatitis C.

These world-first and paradigm shifting trials would eventually demonstrate DAA cure rates among these populations exceeding 95% and reshape global hepatitis C treatment guidelines. Our research helped pave the way for DAAs to be listed on the Pharmaceutical Benefits Scheme in 2016, making these lifesaving drugs broadly accessible to people living with hepatitis C.

moment 17

Strategic global HIV clinical trials

The discovery of effective HIV treatments marked a new phase of HIV clinical research at the Kirby Institute: large, strategic international trials designed to answer practical questions about how these treatments should be delivered, when they should begin, and how the benefits could reach more people.

Kirby Institute researchers, working with colleagues from across the globe, helped to form INSIGHT, the International Network of Strategic Initiatives in Global HIV Trials in 2006. INSIGHT was designed to conduct large gold-standard pragmatic trials of strategic therapeutic interventions and measured clinically meaningful end points across diverse settings. This meant findings would be broadly relevant and applicable so they could be made quickly available where they were most needed. The INSIGHT network comprised five coordinating centres, including the Kirby Institute, running more than 300 sites in over 30 countries, with a strong focus on building clinical trials capacity in resource-poor settings.

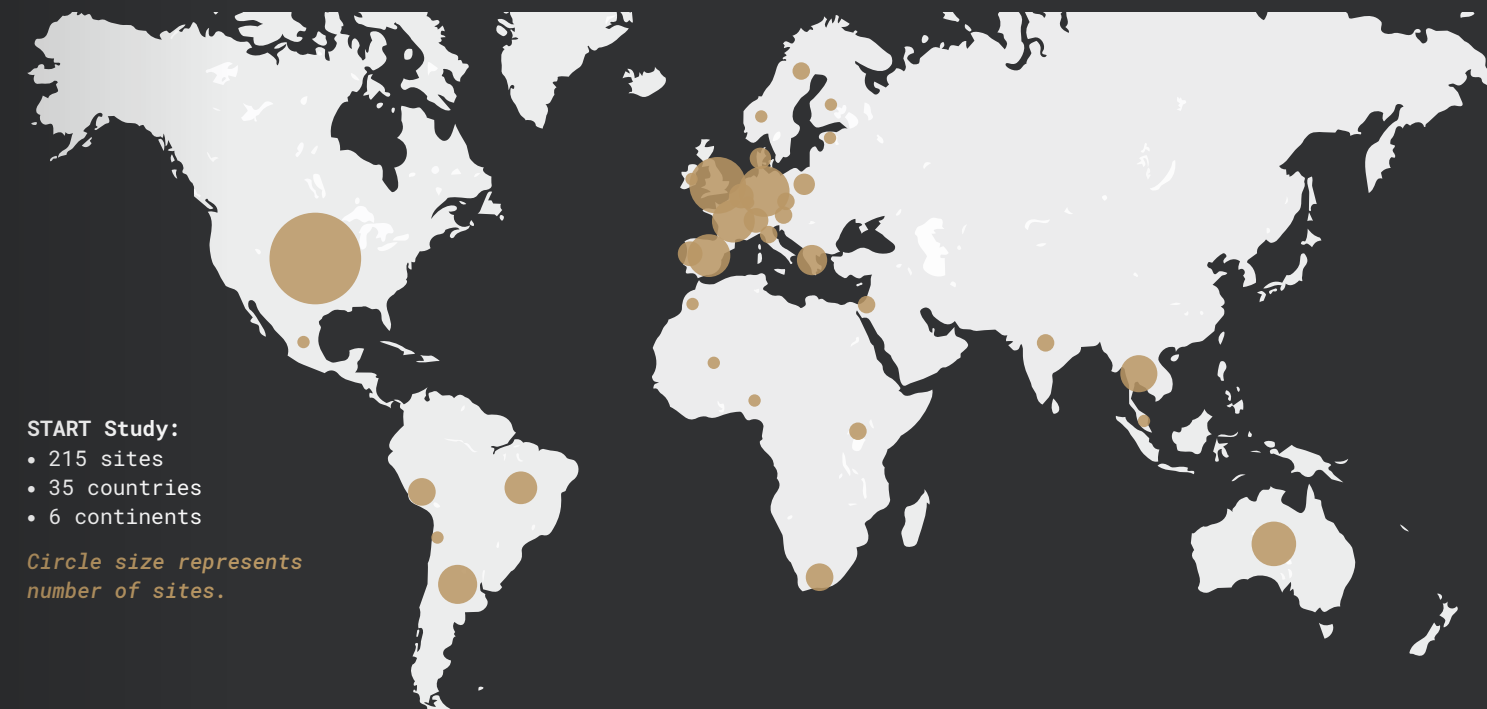
The network conducted the pivotal clinical trials (SMART and START) that definitively showed that treatment of people living with HIV should be started as early as possible in the disease course and should not be interrupted – therapeutic principles that underpin global policy and practice to this day. In 2020, the INSIGHT network was called upon to run crucial COVID-19 trials, demonstrating its robustness and adaptability.

The Kirby Institute also conducted crucial trials outside of the INSIGHT network. In 2009, the Kirby Institute led ENCORE

(funded by the Bill & Melinda Gates Foundation), a large-scale international trial with the goal of expanding access to HIV treatment by reducing costs. It made crucial findings that reducing the dose of antiretroviral therapy by one third was just as safe and effective for treating HIV, with fewer side effects. This expanded life-saving HIV medication access to millions more people worldwide, especially in low- and middle-income nations.

As global trials continued to show that effective HIV treatment could suppress the virus to levels undetectable by routine blood tests, the next question was whether this also prevented transmission. This was explored in our Opposites Attract study which is described on page 35.

The clinical trials of the 2000s generated global evidence that reshaped HIV treatment and prevention strategies and informed major national and international guidelines. Their impact has been profound: improving the health of millions of people living with HIV and strengthening prevention for people at risk.



moment 18

2011

Inauguration of the Kirby Institute

Reflecting the breadth of research that had expanded far beyond our HIV-focused origins, the National Centre in HIV Epidemiology and Clinical Research was renamed the Kirby Institute for Infection and Immunity in Society (Kirby Institute) on our 25th anniversary. The change marked our evolution from a national HIV research centre into a world-class infectious disease research institute, while retaining the community-partnered approach that has defined us since inception.

Our name honours The Hon. Michael Kirby AC CMG, Australia's longest serving High Court Justice at the time of his retirement in 2009. His passionate championing of human rights, public health and social justice, inclusive of his role as key adviser to the World Health Organization and UNAIDS from the earliest stages of the epidemic, is synonymous with the ethos of our institute, and makes him a fitting namesake, Patron and enduring friend.



L-R: Dorrie Cooper, Michael Kirby and David Cooper at the Kirby Institute renaming event.

moment 19

2014

Kirby Institute moves to purpose-built facility at UNSW Sydney

The Kirby Institute leapt into its modern era in 2014 when we united our researchers who were spread across three locations in a new, purpose-built facility on UNSW's Kensington campus.

It was an extraordinary \$10 million pledge made on our 25th anniversary in 2011 by Chuck Feeney's foundation 'The Atlantic Philanthropies', matched by \$10 million in private philanthropic gifts and \$20 million each from the federal government, state government and UNSW that supported the pivotal relocation.

With our researchers now under one roof, the Kirby Institute's propensity for cross-disciplinary collaboration was sharpened and new opportunities for expansion of our research agenda were unlocked. The move also brought us closer to our UNSW colleagues, strengthening our place within one of Australia's leading research communities.

Top: (L-R) Neal Blewett, Michael Kirby, Jillian Skinner, David Cooper, Fred Hilmer, David Gonski and Peter Baume at the official opening of the Kirby Institute's new UNSW facilities.
Bottom: Guests at the opening event.
Credit: Sarah Rhodes / UNSW.



moment 20

2014

Building a world-class infectious diseases laboratory

Our Level 3 Physical Containment (PC3) laboratory at UNSW, also known as The Glendonbrook Laboratory, is a facility of special significance to the Kirby Institute and UNSW Sydney. Access to a PC3 has been critical to much of the HIV immunovirology conducted by our researchers since our inception. Philanthropic support from the Glendonbrook Foundation was critical to establish the PC3 laboratory with state-of-the-art equipment, much of it unique among Australian laboratories at the time when the Kirby Institute moved into its purpose-built facility at UNSW Sydney in 2014.

As the highest containment laboratory on the UNSW campus, PC3 provides a secure lab environment for sophisticated infectious diseases research, enabling our experts to investigate high-risk pathogens, immune responses and potential therapeutic interventions. Its importance skyrocketed in 2020, when the Kirby Institute rapidly repurposed the facility so it could study live SARS-CoV-2 virus at a time when the world was desperate for answers amidst a spiralling pandemic.

The lab was officially named at its opening in 2014 in honour of Lord Glendonbrook CBE AM whose philanthropic contributions helped make the construction of our world-class facilities possible. He has continued to support the Kirby Institute with multiple generous donations that have enabled our anal cancer research.

Kirby Institute researchers working on the SARS-CoV-2 virus in the PC3 laboratory, 2021.
Credit: Richard Freeman / UNSW.



moment 21

Transforming STI testing with First Nations communities

For many remote First Nations communities, vast distances between health services and diagnostic laboratories are a substantial barrier to the control of sexually transmissible infections (STIs). Kirby Institute researchers and community partners set out to bridge that gap by launching TTANGO (Test, Treat and Go) in 2013. The world-first trial implemented molecular point-of-care testing for STIs in remote Australian communities, bringing testing closer to where it was needed most.

TTANGO demonstrated how new molecular testing technology used by Aboriginal health workers, practitioners and nurses in remote communities at the ‘point of care’ was effective and acceptable, cutting the time between STI diagnosis, treatment and cure. TTANGO led to the TTANGO2 Program, which showed that this impact was sustained in the real world, and modelling estimated the new approach would reduce the risk of onward transmission as well as reducing pelvic inflammatory disease and preterm births among pregnant First Nations women.

The program expanded nationally to become the First Nations Molecular Point-of-Care Program, which includes 11 infectious diseases (STIs, respiratory viruses, tuberculosis, Strep A and hepatitis C) and continues today across more than 100 remote Australian communities. The success sits alongside complementary point-of-care research at the Kirby Institute conducted in partnership with the National Aboriginal Community Controlled Health Organisation, including the Rapid Applied Research Translation initiative which evaluates the impact, acceptability and cost-effectiveness of a range



Study poster at a remote clinic part of the TTANGO trial, 2016.

of new tests in remote communities. Another initiative, the RAPID 2.0 Centre for Research Excellence, evaluates the scale-up of infectious disease point-of-care testing programs in Australia and across the Asia-Pacific region.

Conducted in collaboration with local health services, community organisations, government and other researchers, TTANGO embodied the partnership model that has guided the Kirby Institute since the establishment of our Aboriginal and Torres Strait Islander Health Research Program in 2008. It underscores the importance of innovative healthcare and research that is designed and delivered in partnership with the communities it serves.

moment 22

Taking hepatitis C research into Australian prisons

Prisoners experience some of the poorest health outcomes of any population group and are one of the most marginalised and stigmatised groups in Australia. In 2014, Kirby Institute researchers set out to disrupt the disproportionately high rates of hepatitis C transmission in Australian prisons, launching the Surveillance and Treatment of Prisoners with hepatitis C (SToP-C) trial.

The world-first study enrolled over 3,600 people incarcerated in four Australian prisons, administering treatments to those living with hepatitis C. Ultimately, the study was evaluating the effectiveness of a ‘treatment as prevention’ strategy.

The findings provided compelling evidence that hepatitis C treatment can prevent transmission in prisons, with infection rates halving following the scale-up of direct-acting antiviral treatments across participating facilities.

The significance of SToP-C in our history extends beyond its findings. The logistical limitations on access to prisons and the incredibly unique physical and organisational structures within prisons and prisoner communities were just a few significant challenges our researchers had to navigate. Along with the stigma experienced by incarcerated people, the challenges reinforce a recurring theme throughout our history: that we strive to eliminate diseases disproportionately affecting communities too often consigned to the too-hard basket of mainstream public health.

Hepatitis C testing and treatment across Australia’s prison system, 2024.
Credit: Conor Ashleigh.





Pamela Toliman (centre), a Kirby Institute PhD student at the time, explaining HPV self-collection test to women in community, 2015.

moment 23

World-first point-of-care HPV self-collection trials in PNG

Confronted with the highest cervical cancer rates in the Asia-Pacific and some of the most remote communities in the world, Papua New Guinea (PNG) became the setting for an innovative new approach to cervical cancer prevention.

From 2015, the Kirby Institute conducted the first field trials in the world demonstrating the clinical effectiveness, safety, acceptability, scalability, and cost-effectiveness of point-of-care human papillomavirus (HPV) self-collection, testing, and same-day treatment for cervical cancer prevention.

Researchers developed a new ‘test and treat’ screening model. It comprised HPV testing of self-collected vaginal specimens followed by same-day treatment using a new battery-operated, portable thermal ablation device. Proving highly effective, acceptable and cost-effective, this approach became a key component of the World Health Organization global cervical cancer elimination strategy.

In close collaboration with in-country partners in PNG and across the Pacific, we then secured major philanthropic and development partner support that has allowed us to accelerate the translation of this evidence into policy and clinical practice through the Elimination of Cervical Cancer across the Western Pacific, the Elimination Partnership in the Indo-Pacific for Cervical Cancer, and the Advancing Cervical Cancer Elimination in the Pacific programs. Together, these programs are providing screening to over 200,000 women in PNG and 12 countries across our region (more on this on page 45).

moment 24

An EPIC chapter in HIV treatment research

By 2015, the number of HIV notifications in NSW had been stable for almost a decade. Internationally, pre-exposure prophylaxis (PrEP) had been proven as an effective means of HIV prevention at the individual level, but it was yet to be widely implemented anywhere in the world.

Kirby Institute statisticians performed modelling which indicated that rapid, targeted PrEP scale-up could lead to substantial declines in HIV diagnoses. Armed with these data and with the support of community partners, Kirby Institute researchers proposed a large-scale roll-out of PrEP in NSW. With NSW Health supplying much-needed funding and enthusiastic support, the EPIC-NSW study was born.

The study recruited almost 10,000 participants in NSW, and became the first study to demonstrate the population-level impact of PrEP with a significant reduction in HIV diagnoses in NSW after just three years.

Participants were dispensed PrEP between 1 March 2016 and 30 April 2018 and follow-up continued until 31 March 2019.

Statewide HIV surveillance data revealed that the number of recent HIV infections among gay and bisexual men in NSW during the first half of 2017 was 39% lower than the average number for the same period during 2011–2016.

To put it simply, EPIC-NSW led to a rapid decline in HIV diagnoses in NSW – the study finding that rapid scale-up of PrEP to those at highest risk of HIV was highly effective at reducing new HIV infections. The study preceded the historic juncture in HIV history when PrEP was added to the Pharmaceutical Benefits Scheme in 2018.

The impact of EPIC-NSW can be credited to the research participants and incredible research partnerships. We worked hand-in-hand with NSW Health to ensure more than 30 research clinics could join the study. ACON and Positive Life NSW had an essential role in PrEP promotion and were central to the study’s success in recruitment.

L-R: Former NSW Health Minister Jillian Skinner, Kirby Institute’s Andrew Grulich, EPIC-NSW participant Tom Spillane, NSW Chief Health Officer Kerry Chant, ACON CEO Nicholas Parkhill and ACON President Justin Koonin, marking the study’s 1,000th participant, 2016.
Credit: ACON.



moment 25

Bringing mathematics to infectious diseases

The emergence of a new disease brings with it numerous questions. Some of these can be answered through wet-lab experiments or via a clinical trial, but many require information from multiple different sources before they can be answered. In addition, they require scientists with the capacity to synthesise, analyse and make sense of cross-disciplinary information.

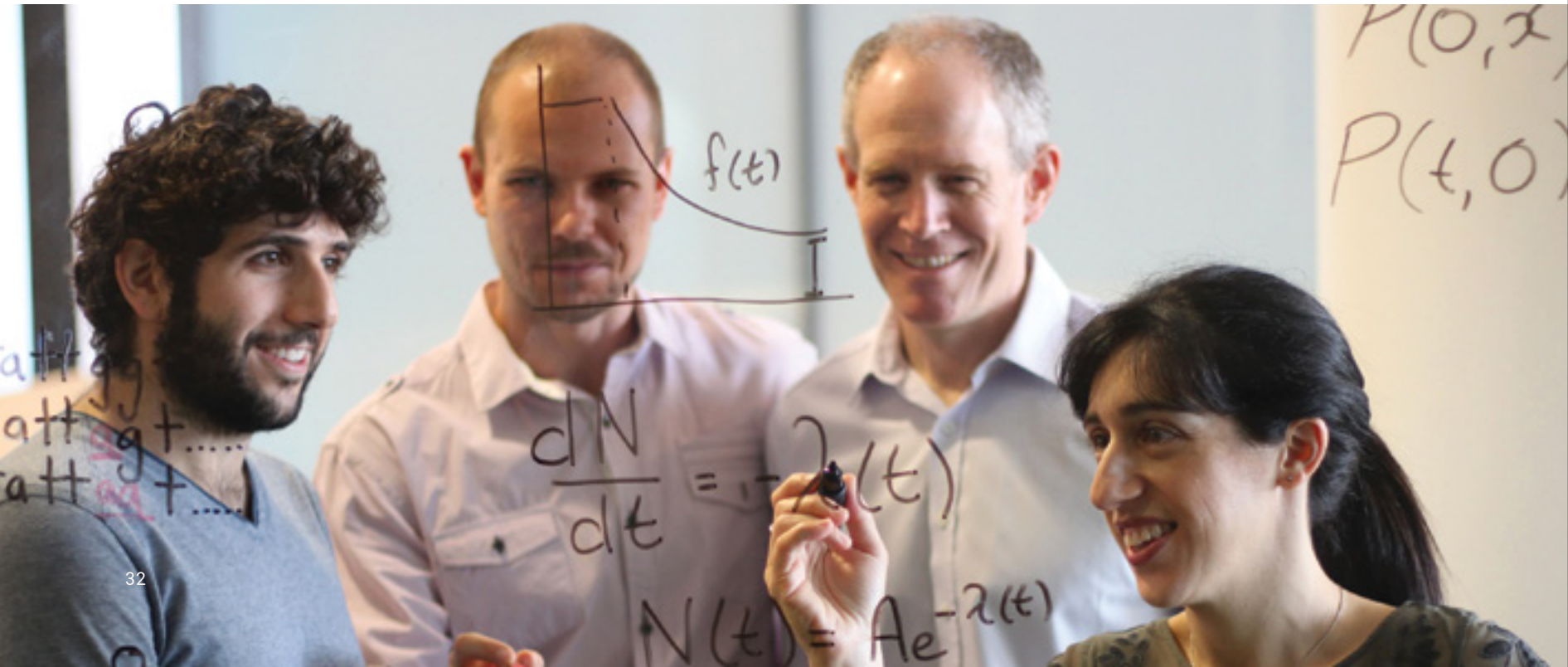
The mathematicians and evidence synthesis experts at the Kirby Institute’s Infection Analytics Program are able to do just that. The establishment of the Program in 2015 brought significantly enhanced and dedicated expertise in

mathematical modelling and evidence synthesis to the Kirby Institute. By applying analytical modelling approaches to complex data, they have been able to turn large volumes of previously disparate information into useful, actionable insights.

The Kirby Institute now hosts a world-class team of mathematicians and evidence specialists. They collaborate with experimental scientists and clinicians from around the world to aggregate and analyse the available data to inform evidence-based decision making.

Their work has helped researchers uncover the timing of reactivation from HIV latency and has informed COVID-19, mpox, human papillomavirus and respiratory syncytial virus vaccination policy nationally and internationally. Their world-first identification of a correlate of protection for COVID-19 has been instrumental in the approval of numerous prophylactic and therapeutic products as well as guiding ongoing decisions regarding booster vaccination.

Members of the Infection Analytics Program, 2016. L-R: David Khoury, Mykola Pinkevych, Miles Davenport and Deborah Cromer.



moment 26

Adding health economics to our toolkit

Just as our research has always focused on marginalised communities and under-represented public health issues, our health economics and health systems research applies a financial equity lens to public health. It seeks to maximise the value of public health resources, ensuring interventions are cost-effective, affordable, and able to protect people from the financial consequences of disease.

Our team of health economists and modellers grew from 2016 and now collaborate across the public health spectrum and with affected communities to improve how health care is delivered and financed in Australia and the Asia-Pacific region. This research includes economic evaluations and trials of interventions to support health system scale-up of interventions targeting a range of infectious challenges including HIV and bacterial sexually transmissible infections, malaria, tuberculosis, antimicrobial resistance (AMR), and more recently COVID-19.

A crucial project aimed to combat AMR in Indonesia, The Protecting Indonesia from the Threat of Antimicrobial Resistance (PINTAR) study, launched in 2018 in collaboration with several research institutions and Indonesian government agencies, found significant rates of inappropriate antibiotic dispensing by private drug sellers, amplifying the risk of AMR.



A community pharmacy in Indonesia, 2019.

The PINTAR project demonstrated the need for a multifaceted response to inappropriate prescribing and contributed to the Indonesian Ministry of Health’s recognition of the private sector as a key partner in its AMR Action Plans. In 2026, this work expanded into online healthcare services and e-pharmacies, including online antibiotic dispensing, a rapidly expanding sector where evidence on quality, governance and financing remains limited.

In Australia, our health economists generate the economic evidence needed to support the Therapeutic Goods Administration and government decisions on infectious disease technologies. They also develop investment cases that drive the national expansion of testing programs for sexually transmissible infections, COVID-19 and hepatitis C. In 2024, we established Australia’s first NHMRC Centre for Stronger Investments in Infectious Diseases (STRIDE).

moment 27

Challenging global barriers to hepatitis C treatment

Australians’ access to curative hepatitis C treatments was expanded through the national Pharmaceutical Benefits Scheme in 2016, leading to dramatic reductions in hepatitis C among people who inject drugs over the next several years.

The global picture was far more bleak. In 2018, more than one in three people globally who had injected drugs in the last year were living with hepatitis C. At the time, we knew that the latest therapies could cure the virus in 95% of people, but a range of healthcare system, provider and patient-related barriers to care were making treatments inaccessible to people who inject drugs. Their access to treatment reimbursement was heavily restricted due to recent drug use status, while many clinicians were hesitant to prescribe therapies due to concerns about adherence and the chance of reinfection.

It was clear that policies denying hepatitis C treatments were driven by discrimination, not evidence. Kirby Institute researchers conducted a globally focused systematic review of the existing evidence in 2018. They found that across almost 40 studies worldwide, involving more than 3,500 people with recent or ongoing drug use, hepatitis C was cured in almost nine out of 10 people. It was the strongest evidence base to date to support the removal of restrictions to accessing hepatitis C therapy based on recent drug use.



Maryam Alavi (left) with an ENHANCE study participant, 2019. The study aimed to improve hepatitis C testing, linkage to care and treatment among people who use drugs. Credit: Conor Ashleigh.

The systematic review built on years of Kirby Institute research demonstrating that hepatitis C treatment is safe and highly effective in people who inject drugs. That research began with the development of an international network in 2012 spanning 11 countries, laying the foundation for four clinical trials of hepatitis C therapy for people who inject drugs.

The evidence presented by those trials and the systematic review has been reflected in clinical guidelines across the globe, significantly reshaping how care is delivered for people who inject drugs. High cure rates demonstrated via the CO-STAR and SIMPLIFY trials have been used to support unrestricted hepatitis C therapy for people who inject drugs in all major international guidelines. In addition, governments globally have removed reimbursement restrictions based on recent drug use status. Drug manufacturers and the US Food and Drug Administration have used the findings to include people who inject drugs in medication indications, ultimately endorsing the drugs as appropriate treatment for the group.

moment 28

Opposites Attract confirms Undetectable = Untransmittable

In the 2010s, international research with heterosexual serodiscordant couples (where one partner in the couple is HIV-positive and the other partner is HIV-negative) showed that early antiretroviral treatment of the HIV-positive partner reduced the risk of transmitting the virus to their partner by 96%.

There was much less evidence available for male-male couples, the group most affected by HIV in Australia. From 2012 to 2016, Kirby Institute researchers recruited 358 gay male serodiscordant couples across several Australian cities, as well as from Rio de Janeiro and Bangkok for the Opposites Attract study.

Across the entire study, with almost 17,000 acts of condomless anal sex recorded, not one HIV-negative partner contracted the virus from their partner who was receiving antiretroviral treatment.

The final results of the Opposites Attract study were reported at the International AIDS Society Conference on HIV Science in Paris, France in July 2017 and published in *The Lancet HIV* in July 2018. The evidence from Opposites Attract further elevated the status of treatment as prevention as an effective method of preventing HIV transmission. The study provided solid confirmation that Undetectable = Untransmittable (U=U), meaning people living with HIV whose viral load is undetectable cannot transmit the virus to others.

The study’s findings received international recognition, going on to influence HIV policies and strategies by bodies such as the United States Centers for Disease Control and Prevention, the World Health Organization, UNAIDS, and the Australasian Society for HIV, Viral Hepatitis and Sexual Health Medicine.



Left: Green HIV+ and blue HIV- models on stage with drag queens at Sydney Mardi Gras Fair Day, 2013. They were crowned Mr Fair Day for best costume design. Image courtesy of City of Sydney Archives, photographer: C.Moore Hardy, A-01188372. Below: Blue HIV- and green HIV+ models used to promote the Opposites Attract study. Credit: John McRae.



moment 29

2018

Vale Professor David Cooper

2018 was marked by the loss of our inaugural Director, Professor David Cooper AC who passed away after a short illness.

One only needs to consider the earliest moments of our history as described in this booklet to understand the profound impact David Cooper had on so many lives. For David, research and care were inseparable. He treated and cared for those living with the frightening reality of HIV and AIDS in the wards of St Vincent's Hospital, Darlinghurst, during the earliest days of the epidemic. He collaborated with those same communities to build the evidence that transformed our understanding and treatment of HIV and AIDS.

At a time when stigma and discrimination surrounded HIV and AIDS, David Cooper instead chose compassion, scientific excellence and a commitment to partnership with those most affected. Those values became the foundation of the institute he built.

His legacy lives on every day at the Kirby Institute through the people, partnerships and research he is responsible for assembling.

Since 2018, the Kirby Institute has hosted the annual David Cooper Memorial Lecture, bringing together leaders in infectious disease research and public health to honour his enduring commitment to scientific excellence and improving the lives of others. Speakers have included Professor Anthony Fauci, The Hon. Julia Gillard and this year, Professor Peter Doherty.



Above: David Cooper on holiday in Scotland, 2012.
Below: David Cooper (centre) at the launch of the Kirby Institute and University of Medicine 2 (UM2) research collaboration in Yangon, Myanmar, 2017.



moment 30

Combatting neglected tropical diseases

Scabies is a skin disease affecting over 200 million people globally, particularly children in low-income countries. It can be incredibly debilitating and lead to severe, even deadly complications and other diseases. Tropical environments are particularly impacted and in 2015, one quarter of the Fijian population was affected.

Starting in 2012, Kirby Institute researchers worked alongside the Murdoch Children's Research Institute and the Fiji Ministry of Health to examine the effectiveness of mass drug administration for scabies control. The findings published in 2015 showed that treatment of a whole community with ivermectin virtually eliminated scabies, reducing prevalence by 94%. The research transformed the global approach to combatting neglected tropical diseases (NTDs) and delivered new hope in the fight to control these diseases.

NTDs are a diverse group of serious health conditions caused by parasites, protozoa, bacteria, and viruses. They impact more than one billion people worldwide, primarily the poorest and most vulnerable populations globally.

Our success in Fiji with scabies, as well as our work in Australia on trachoma, grew into an expanding body of research into NTDs. Today, our NTD researchers lead and collaborate on projects across the globe, working alongside local health authorities and international academic partners to improve disease control and elimination strategies. They lead large-scale community-based intervention studies as well as epidemiological surveys and monitoring and evaluation.



Lucia Romani inspecting a child's hand for scabies and impetigo in Choiseul, Solomon Islands, 2016.

Since 2018, our focus has expanded to include soil-transmitted helminths, yaws and onchocerciasis. The program is currently leading and collaborating on projects in the Asia-Pacific region (Vietnam, Timor-Leste, Solomon Islands, Fiji, Nauru and Vanuatu) and Australia.

In Vietnam, our researchers led the first cluster randomised controlled trial outside Africa to demonstrate that community-wide deworming programs are more effective than school-based approaches alone.

These studies continue a shared goal: developing practical, evidence-based solutions for some of the world's most overlooked diseases.

moment 31

Harnessing a global epidemic warning system

Before the onset of COVID-19, Kirby Institute researchers recognised that emerging epidemics and pandemics had the potential to reshape societies, overwhelm health systems and threaten lives on a global scale. Anticipating and responding to these threats became the focus of the Biosecurity Program.

The Kirby Institute’s Biosecurity Program was established in 2018, combining for the first time researchers and students with expertise spanning global health, field epidemiology, emergency response and world-leading research and expertise in face masks and personal protective equipment for preventing infection.

One of the program’s first projects was establishing an aerosol lab at the Kirby Institute and beginning a long collaboration with UNSW Engineering scientists. Next was a pandemic exercise in the United States, which simulated most of the scenarios that would come to pass during COVID-19.

The Biosecurity Program has commercialised its innovative output, EPIWATCH®, a real-time, fully automated epidemic early warning system. Developed at UNSW since 2016, the powerful AI system has developed continually, adopting new

technologies such as large language models. It works by scanning millions of items of publicly available online data, such as news reports, for early signals of epidemics. While it does not replace formal surveillance systems, it can detect early warning signs that can be investigated by health authorities.

From 2022–2025, the future development of EPIWATCH® was turbocharged by an \$8.3 million donation from Vitalik Buterin, co-founder of the cryptocurrency Ethereum. The gift enabled the Biosecurity Program’s team to advance the AI and make EPIWATCH® accessible to low- and middle-income countries by broadening its scope of languages, making it available in more local settings around the world. It was selected by the US Military for a pandemic wargame in 2024 and 2025, with increasing global demand resulting in UNSW supporting a spin-out company in 2025. This is the first company to arise from the Kirby Institute.

The EPIWATCH® dashboard highlights areas of infection concern across the globe.



moment 32

Understanding and responding to the Australian syphilis outbreak

A concerning outbreak of syphilis began spreading across the country in 2011, primarily affecting young First Nations people living in remote areas, particularly northern Australia. The rising rates of cases combined with the severity of the disease if left untreated prompted a national cross-jurisdictional and interdisciplinary response.

In 2018, Kirby Institute researchers joined that response via the Multijurisdictional Syphilis Outbreak Working Group. Our researchers conducted mathematical modelling to evaluate the previous and future impact of the outbreak response and to assess the potential impact of expanded testing programs on the epidemic.



Point-of-care testing at a clinic in Kempsey, NSW, 2022.

They developed a model incorporating all available demographic, epidemiological, sexual behaviour and clinical data. Their analysis showed that the outbreak response had likely prevented a far worse epidemic and helped stabilise transmission, but continued vigilance was vital and further efforts were needed to reduce infections. The modelling demonstrated the different levels of annual testing coverage and community-wide screening needed to maintain control of the outbreak and return rates to pre-pandemic levels.

While the syphilis outbreak remains a significant public health challenge, our research helped shape a coordinated, evidence-based response and offered a roadmap for changing the course of the epidemic. Our outbreak modelling work is continuing in close partnership with the National Aboriginal Community Controlled Health Organisation (NACCHO) and the Australian Centre for Disease Control (CDC) to inform the ongoing national response.



moment 33

2019

Professor Anthony Kelleher appointed Director

Following the loss of our longstanding inaugural director, Professor David Cooper, a new leader was appointed for the first time in 2019.

Professor Anthony (Tony) Kelleher joined the Kirby Institute in 2001 already well recognised for his work as a clinician, scientist and HIV researcher. He had completed his Honours year in Immunology at St Vincent's Hospital, Darlinghurst, supervised by David Cooper's mentor Professor Ron Penny, the year after the first Australian AIDS case was described at St Vincent's Hospital.

After graduating from Medicine at UNSW in 1986, he trained in clinical immunology and pathology at St Vincent's Hospital at the height of the HIV epidemic. He completed his PhD with David Cooper and his postdoctoral studies in Oxford on the immunovirology of HIV, looking for solutions to the immense clinical problem presented by the virus. His work in HIV has always been based around solving the current clinical challenges. After his postdoctoral studies, he returned to the Kirby Institute because of the extraordinary opportunities to do sophisticated laboratory investigations in the context of clinically based research.

Tony had been involved with every HIV vaccine trial conducted in Australia, and multiple phase I–IV clinical trials, particularly those involving patients with primary infection. He has developed a range of widely used immunological assays and has applied this approach to SARS-CoV-2 (the virus that causes COVID-19) and human papillomavirus.

Before his appointment, Tony was the Head of the Kirby Institute's Immunovirology and Pathogenesis Program from 2005 to 2025. He was pivotal in embedding the Kirby Institute in the Faculty of Medicine and Health when it moved to UNSW's Kensington campus as Principal of the Infection Immunology and Inflammation Theme at UNSW Medicine from 2015 to 2024, Acting Dean 2017–2018 and Senior Vice Dean Research 2018–2019. He is the current Clinical Theme Lead of the RNA Institute at UNSW. As a staff specialist at St Vincent's Hospital, Tony is responsible for clinical care of patients with HIV infection and autoimmune diseases as well as oversight of the NSW State HIV Reference laboratory.

A close friend, colleague and mentee of David Cooper, Tony was well placed to bring both continuity and his own vision to the future of the Kirby Institute.

moment 34

Building research capacity across the region with CHART

Our inaugural Director Professor David Cooper knew that HIV responses were best led by people who closely understood the epidemics in their countries, and he had a vision to build up research capacity in the Asia-Pacific region. In 2019, with the support of an unconditional grant from ViiV Healthcare, the Kirby Institute launched a new research capacity building initiative and named it in David's honour: the Cooper HIV/AIDS Research Training (CHART) Program.

The CHART Program is a hands-on education and training initiative, developed by the Kirby Institute, that is expanding the number of skilled and experienced HIV researchers in the Asia-Pacific region. Each intake of the program operates over 12 months and includes three intensive skill-based residential workshops conducted at the Kirby Institute with individual research projects conducted in home countries.

Importantly, the participants only spend three weeks at the Kirby Institute. They then return to their home countries and their day jobs while being mentored by Kirby Institute staff with relevant expertise.

Since its inception, the program has supported 36 participants from Cambodia, Fiji, Indonesia, Malaysia, Mongolia, Myanmar, Papua New Guinea, the Philippines, Singapore, South Korea and Thailand. Alumni have collectively produced six peer-reviewed publications, presented their work at leading international HIV conferences, and contributed to policy, clinical practice and HIV program implementation across the region. Several graduates have also progressed to higher degree research, including master's and PhD studies.

Beyond the skills and knowledge participants gain, the program has strengthened the Kirby Institute's relationships and partnership opportunities across the region. Many alumni have gone on to become research collaborators, helping to build a regional network of HIV researchers.

The CHART Program built upon the highly successful Field Research Training Program run by the Kirby Institute since the 2000s. It is just one example of our many commitments to regional capacity building.

The first CHART Program participants attending a workshop at the Kirby Institute, 2019.



moment 35

2020

Joining the fight against COVID-19

We all remember the chaotic uncertainty incited by the onset of the COVID-19 pandemic. While Australia adjusted to a challenging new way of life, many of the Kirby Institute's researchers answered the call to join the fight against COVID-19.

In March 2020, and over the following two years, 15 Kirby Institute experts were seconded to support the NSW Health COVID-19 response, contributing to contact tracing, modelling and critical research. Meanwhile, many of our researchers pursued a variety of research projects from the Kirby Institute's facilities. Our physical containment (PC3) lab previously used for HIV transmission and gene therapy vector research was retrofitted to enable researchers to safely study the live SARS-CoV-2 virus and support urgently needed research into the disease.

Within months, researchers had developed a TGA-accredited assay for assessing neutralising antibody responses using live virus. This was important in assessing early immunotherapies and was rapidly adapted to include not only viral changes in immune evasion but also transmissibility and pathogenicity. This was particularly important with the advent of the Omicron variant when these critical data were shared directly with government agencies to support their response within weeks of the variant being discovered.

Later that year, researchers from the Kirby Institute working with the Garvan Institute had developed the most rapid coronavirus genome sequencing strategy in Australia at that time. This breakthrough came at a time in 2020 when the efficiency of contact tracing meant the difference between preventing the next 'super-spreader' event.

From early 2020, Kirby Institute researchers collaborating with the National Centre for Immunisation Research and Surveillance, the Doherty Institute, Lifeblood and other partners were co-leading national SARS-CoV-2 serosurveys, using blood donor samples to accurately estimate community infection rates and provide critical data to inform Australia's public health response. They were making observations that shed new light on the scale of the pandemic.

Vaccination was the key to getting our society back on its feet. Not only did our researchers aid vaccine development by identifying new ways to predict vaccine efficacy, but they made world-first discoveries about how well vaccines would perform against emerging strains. This directly informed national and international guidelines on COVID-19 vaccine schedules and booster policies. The Kirby Institute's COVID-19 immune correlate findings published in *Nature Medicine* became the most accessed article for both UNSW Sydney and the journal in 2021.

The Kirby Institute was part of and eventually led a global clinical trial network, derived from its HIV network, sponsored by the US Government's Operation Warp Speed. It rapidly designed, developed and completed eight phase 3 clinical trials of drugs designed for COVID-19. This was only possible due to our track record in clinical trials and the networks we had developed.

The work produced by the Kirby Institute during this period was special because of the remarkable scale of cross-disciplinary research and collaboration, both internal and external. Our immune correlate findings revealing the most needed types of immunity for protecting against and reducing the severity of COVID-19 were made as a result of collaboration between Kirby Institute and Doherty Institute researchers. Early research published within the first six months of the pandemic about the effectiveness of infection prevention methods within the family home was a joint effort between the Kirby Institute and several Chinese and American universities and research institutes.

Still relevant for public health research and policy today, our researchers in 2021 conducted the first study to describe the immunological footprint of the post-infection syndrome 'long COVID'. This was done through analysis of a unique prospectively collected cohort with sophisticated laboratory and bioinformatic techniques. Commencing in early 2020, the ADAPT study followed people diagnosed with SARS-CoV-2 in the community for two years following infection. The work continues today.

Researchers also conducted a landmark evaluation of Australia's COVIDSafe contact-tracing app, finding it added little value to conventional contact tracing in NSW. The findings provided important real-world evidence about the strengths and limitations of digital contact tracing technologies, helping inform future outbreak preparedness and response efforts.

Stuart Turville worked with live SARS-CoV-2 in the Kirby Institute's PC3 laboratory in 2021, wearing the required protective equipment including a hazmat suit and HALO full-face mask.
Credit: Richard Freeman / UNSW.



moment 36

Strengthening Australia's lifesaving blood supply

In 2022, Australian Red Cross Lifeblood removed a long-standing deferral prohibiting people who lived in the United Kingdom between 1980 and 1996 from donating blood, because of the risk of transmitting variant Creutzfeldt-Jakob disease, or 'mad cow disease'. The decision was informed by Kirby Institute modelling conducted in partnership with Australian Red Cross Lifeblood, which estimated the risk of a blood recipient acquiring the disease to be extraordinarily low (1 in 1.4 billion). Within six months, the change had resulted in almost 68,000 extra donations, an incredible number even exceeding our modelling and boosting the nation's lifesaving blood resources.



A few years later, further research collaboration between the Kirby Institute and Lifeblood informed changes to blood, plasma and platelet donation eligibility criteria. The changes included a world-first 'plasma pathway' policy allowing most people, including gay and bisexual men, to donate plasma immediately, regardless of sexual activity. This led to an estimated increase of around 626,500 newly eligible plasma donors according to our modelling. Meanwhile, a gender-neutral risk assessment was established for blood and platelet donations that came into force in early 2026, removing restrictions on the ability of gay and bisexual men and others to donate.

These milestones are just some recent highlights from a partnership that spans several decades. Our collaboration goes back to the early 1990s when we partnered with the Red Cross blood transfusion service that provided valuable insights for our national HIV surveillance by providing data from HIV screening of 'general population' groups.

The relationship has contributed to strengthening safety and supply of blood in Australia, enhancing surveillance of infectious diseases and ensuring donation policies are guided by solid evidence.

Left: Matthew Law, from the United Kingdom, led the Kirby Institute's modelling on vCJD. Shown here donating for the first time at the Lifeblood Town Hall Donor Centre, 2022.
Right: A health worker (right) discussing cervical cancer screening with a community member in Mele Village, Vanuatu, 2025.
Credit: Nathan Price, Saltbush Media.



moment 37

Record \$25.9 million donation to advance cervical cancer elimination in the Pacific

The Kirby Institute's long track record of impactful research and local partnerships addressing one of the deadliest preventable cancers in the Pacific received a record-breaking endorsement in 2024.

Rates of cervical cancer in the Pacific are among the highest in the world. Pacific women were up to 14 times more likely to die from cervical cancer than women in Australia in 2024. Our researchers have been on the ground in the Pacific for well over a decade co-designing sustainable cervical cancer elimination strategies, starting in Papua New Guinea in 2010 before expanding into collaborative programs across the region.

In 2024, the Swire Group donated \$25.9 million to the Kirby Institute to advance the elimination of cervical cancer in the Pacific. The landmark gift enabled us to work with partners across Australia and the region to support vital cervical screening and treatment services for over 130,000 women in Fiji, Kiribati, Republic of the Marshall Islands, Samoa, Solomon Islands, Tonga and Vanuatu.

The diverse geography of Pacific nations creates unique barriers to establishing and sustaining population-based cervical screening and vaccination programs. We are fortunate and proud of our connections that we can draw on across the region and our ability to adapt our past success in working towards elimination.



moment 38

Yandamanjang: walking together

The naming of the Yandamanjang First Nations Health Research Program in 2024 marked a significant milestone in the Kirby Institute’s commitment to First Nations health research and leadership.

Yandamanjang, meaning ‘we are all walking together’ in Dharawal, the language of First Nations people on the Bidjigal lands where the Kirby Institute is located, reflects the partnership approach that underpins our work.

The milestone built on more than a decade of investment in First Nations research leadership at the Kirby Institute. Since 2014, four First Nations researchers have completed their PhDs with us, alongside many others undertaking master’s programs and other qualifications. We are proud to have played a part in their research journeys and value the cultural knowledge and leadership they have brought to our work and the communities we serve.

Today, the Kirby Institute has 12 First Nations staff. Their leadership is vital to addressing the disproportionate burden of infectious diseases experienced by First Nations communities. While these milestones are important markers of progress, they also remind us that our journey of walking together is ongoing.

Left: Members of the Yandamanjang First Nations Health Research Program, 2025. L-R: Glen Duncan, Stacey Foster-Rampant, Melinda Moore, Mel Fernando, Ashton Williams, Jackie Thomas and Robert Monaghan.
Below: *Connection through unity*, artwork created in 2024 for Yandamanjang by Daniel Evans.



moment 39

Building the evidence to guide trachoma elimination

Despite being entirely preventable, trachoma is the leading infectious cause of blindness in the world. Although it was eliminated from most parts of Australia by the mid-20th century, it remained a serious public health problem in some remote First Nations communities in northern, central and western Australia.

The Kirby Institute began publishing the annual *Australian Trachoma Surveillance Report* in 2011. Similar to our other work in rural and remote communities, the reports are built on extensive collaboration between government agencies, First Nations health services and research partners. By providing a clear picture of trachoma’s presence in Australian communities, surveillance reporting became a fundamental tool for targeting screening, treatment and prevention efforts towards eliminating trachoma as a threat.

The reports documented Australia’s progress over the next decade, eventually culminating in a submission to the World Health Organization, which then officially validated Australia as having eliminated trachoma as a public health problem in April 2026.

The remarkable public health achievement reflects the enduring commitment of First Nations communities, health workers and organisations working alongside our researchers.



Above: John Kaldor addressing guests at a photographic exhibition on trachoma at the Museum of Contemporary Art, Sydney, held alongside the 20th meeting of the World Health Organization Alliance for the Global Elimination of Trachoma, 2016.
Centre: Photographs displayed at the exhibition.
Right: Cover of the first *Australian Trachoma Surveillance Report 2010*.



moment 40

2026

Supporting Fiji's HIV response

In 2026, Fiji has declared a national HIV emergency. UNAIDS estimates that between 2010 and 2025, there was a more than 12-fold increase in new HIV infections in Fiji. In 2025, only 39% of the estimated number of people living with HIV in Fiji were aware of their HIV status and only half of these people were receiving HIV treatment. The experience of Fiji shows that the global work to end HIV as a public health threat is not over.

Kirby Institute staff have been working to support the Fiji Ministry of Health and community partners to address this health crisis. Our researchers, in collaboration with the Australian Injecting and Illicit Drug Users League (AIVL), Fiji National University and communities of people who inject drugs in Fiji conducted the first rapid assessment of injecting drug use in Fiji. The assessment reported that unsafe injecting practices, driven by an absence of needle and syringe programs, dramatically increase HIV transmission risk. We were proud to support the formation of the first peer outreach program for people who inject drugs in Fiji with our partner, AIVL.

Our partnership with Fiji spans technical advice related to surveillance, monitoring and evaluation, prevention, elimination of vertical transmission of HIV, hepatitis B and syphilis, governance and leadership. Support from the Department of Foreign Affairs and Trade through the Australasian Society for HIV Medicine-led consortium of the Australian Support for Pacific HIV Action enables Kirby Institute staff to continue to support our colleagues in Fiji and other Pacific Island countries.

Like many other crises, it has brought together major research and community organisations in a concerted effort to offer assistance where it is needed most.

The Fijian government is committed to an urgent public health response, declaring an HIV emergency, mobilising resources and forming a dedicated response team. It continues to work towards increased coverage of HIV prevention, testing and treatment services, improving access to prevention for mothers and their babies, strengthening outreach to key populations, and fast-tracking the introduction of needle and syringe programs and HIV PrEP. The Kirby Institute is proud to be supporting our Fijian partners during this public health challenge.

This present moment in our 40-year history is a reminder of why we need to continue our work to innovate and collaborate. The Kirby Institute was born out of an HIV crisis unfolding across our nation. Four decades later, our researchers are supporting Fiji as it responds to its own.

The setting continues to evolve, but the same values that shaped us continue to guide us.

Justine Marshall and Jonathan King in Fiji, deployed through the World Health Organization’s Global Outbreak Alert and Response Network to support the HIV response, 2025.



Four decades, four core values

At the Kirby Institute, our vision is a world free of infectious disease.

For 40 years, our purpose has been ensuring that no infectious disease goes unchallenged.

Our values of Equity, Impact, Excellence and Collaboration set the standard for how we deliver that purpose and realise that vision.

These values have been the foundations of our success for four decades. Over time, they have become increasingly embedded in our identity and synonymous with the way we work. They shape what we do and how we do it.



Equity

We are driven by a belief that all people have a right to high-quality, accessible, and appropriate health care. That right should be irrespective of who they are, where they were born, or which communities they belong to.

There is a strong association between poorer health outcomes and the unequal distribution of resources and power across society. While all of us are potentially susceptible to infectious diseases, they disproportionately affect individuals and communities who are already marginalised. This particularly includes those who are geographically or socially isolated, or whose behaviours or professions are culturally stigmatised.

The impacts of climate change, population growth and inequitable health systems threaten to further widen these gaps, making an equity-focused approach to our work more important than ever.

Focusing on equity means ensuring that everyone can reap the benefits of scientific progress, regardless of geographical location or access to resources. That is why our researchers are on the ground in some of the most remote communities, whether in Australia or across the world. Working alongside these communities ensures that advances in science and public health innovation reach beyond the places where they are developed. It engenders trust in the process and the results of research as well as building local and regional capacity to respond to infectious diseases, now and into the future.

Impact

We work with people, for people. Our research is translatable by design, meaning it is conducted in such a way as to have the strongest possible impact on real-world healthcare practice and policy. We believe research is most valuable when its impact is considered all the way from design to delivery.

Our team of world-class experts prioritise understanding and collaborating with the communities most impacted by an infectious disease. By starting there, and continuing to work with those communities, our research responds to real-world needs. It can cut through to where it will have the most impact on people’s lives.

Our work takes many forms. We dissect how microbes can cause disease, track and understand the spread of infectious diseases, investigate how they affect individuals and populations, and test and assess new ways to prevent and treat them. Whatever form it takes, we ask the same question: how will this make a difference to the health and safety of the people who need it most?

Making meaningful impact requires taking our research beyond findings and into action. It requires translating knowledge into change: reshaping public health policy, informing clinical practice and strengthening health systems where it is most needed.

Impact is not the final step of the process for us. It is why we do what we do.



Excellence

We are committed to producing research that is innovative, rigorous, reliable, adaptive, and responsive. Our excellence in research not only serves to inform the best possible solutions; it elevates our work to the global stage where it can transform health and save lives. We hold ourselves to the highest standards because the challenges we seek to solve demand nothing less.

Infectious diseases are extraordinarily complex. They are shaped by biological, environmental and social conditions, as well as our health systems. They evolve, spread and continually present new challenges. Responding to that complexity requires us to think differently and pursue new approaches to problems that have no simple solutions.

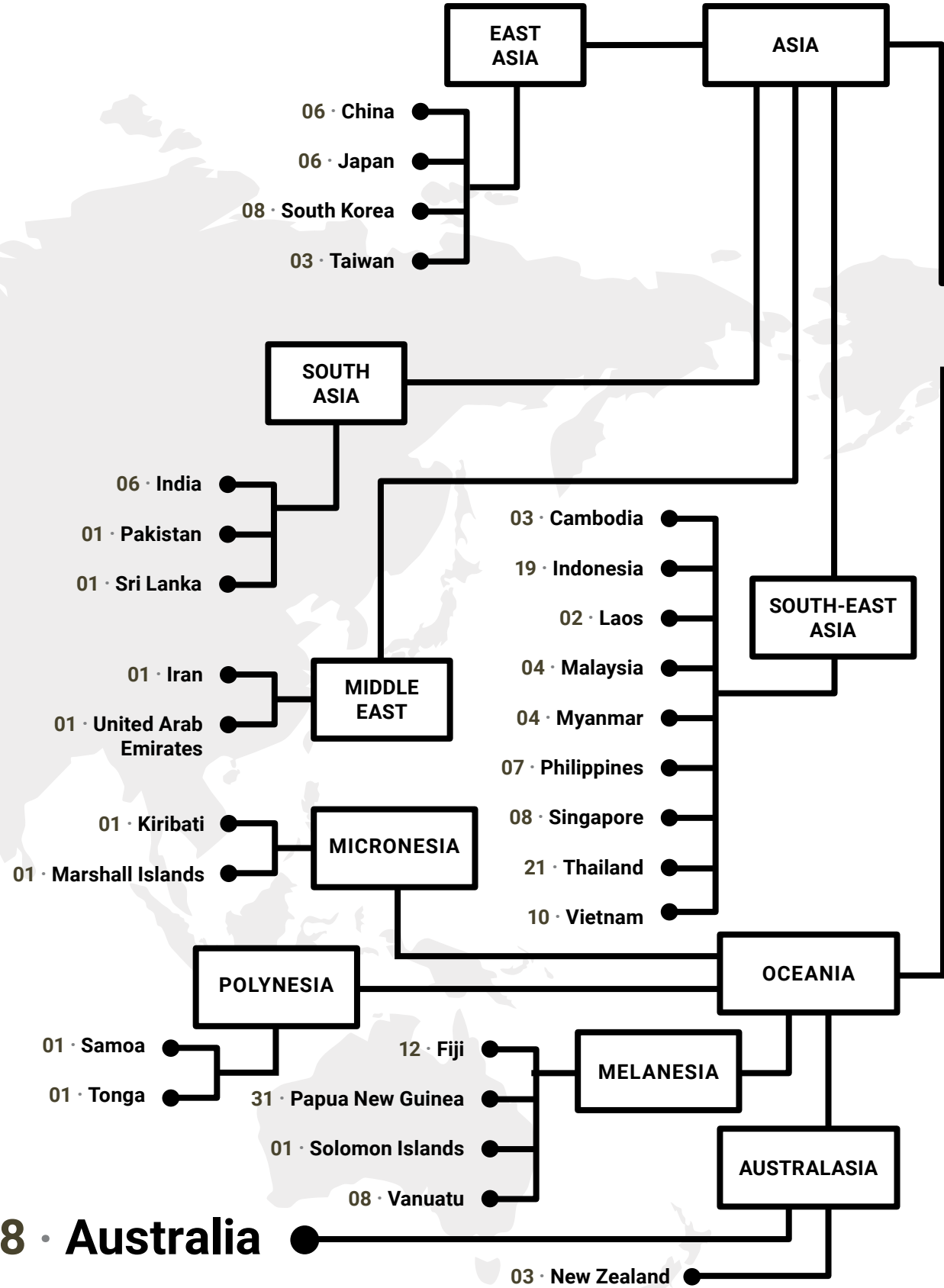
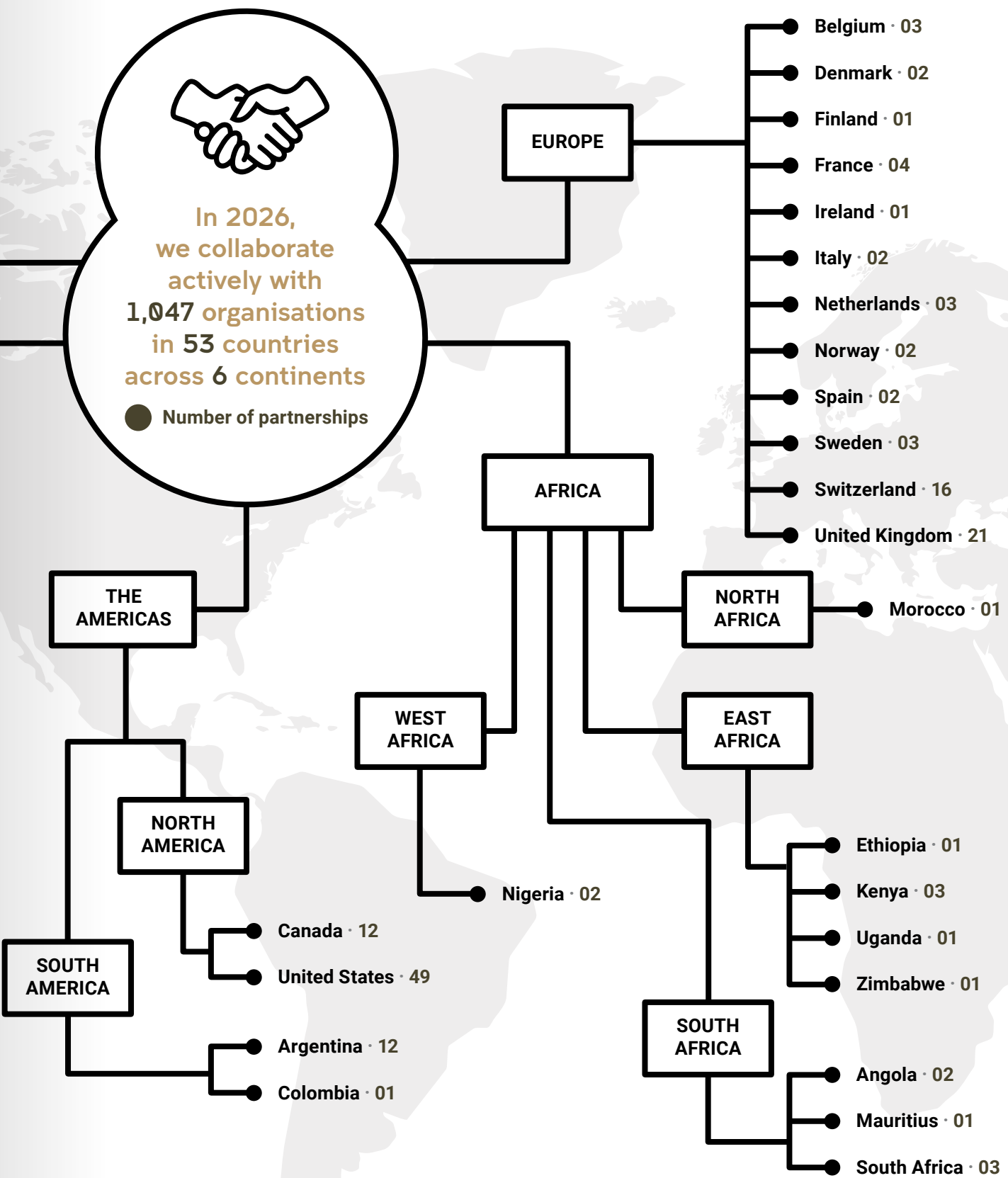
Our research is driven by a determination to find unique and more effective ways to understand, prevent and treat infectious diseases. That means combining scientific rigour with curiosity, creativity and a willingness to challenge established thinking. Research that is innovative, rigorous and conducted in collaboration with affected communities can improve health, deliver equity and save lives.

It is easy to associate scientific excellence with a landmark research paper or the work of an impressive individual, of which there are many. But excellence is also found in the processes which transform research into practice, and in the interdisciplinary teams who support that journey. Excellence can be fostered through mentoring the next generation of researchers, engaging meaningfully with our community partners, and cultivating an environment where people can do their best work. We believe in excellence at every level of our research.

Collaboration

We work with a diverse range of partners, including people most affected by infectious diseases, governments, healthcare professionals, research organisations and industry, across Australia and around the world. This strong collaborative approach leads to better-informed research and more effective solutions. Collaboration is fundamental to our impact.

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Countless cups of coffee

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