

Strategic Plan 2022-2027

Microbiological Diagnostic Unit Public Health Laboratory (MDU PHL)

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10 November 2022

Foreword

On behalf of the Microbiological Diagnostic Unit Public Health Laboratory (MDU PHL), it is my great pleasure to present to you our 5-year Strategic Plan (2022-2027).

It has been an honour to be Director of MDU PHL since 2014 and over this time I have come to understand and appreciate the critical, adaptable, and highly valued nature of MDU PHL's work and the commitment of its staff.

This is a great time to deliver the inaugural Strategic Plan for MDU PHL as we capture the opportunities and respond to the consequences of the COVID-19 pandemic within the organisation and with our key partners locally, nationally and internationally.

Our strategic plan incorporates an updated vision for MDU PHL:

"MDU PHL leads infectious diseases policy and practice through public health excellence, research and innovation."

This vision highlights our intent to achieve and maintain global leadership of our key focus areas in public health microbiology. Our vision aligns with the strategy and mission of the Doherty Institute and the University of Melbourne, and we plan to further contribute to and enhance opportunities for collaborations as part of the Doherty Institute and the future Australian Institute for Infectious Diseases (AIID).

Successful implementation of our Strategic Plan will mean that by 2027:

- We will have advanced our public health services using innovative approaches and system improvements
- Our excellence in research and development will have shaped infectious disease policy and practice
- Our approach to infectious disease and antimicrobial resistance surveillance and response will become One Health focused
- We will have strengthened and broadened our capacity to support teaching and training and capability building locally, nationally, and globally
- Our team will be supported to develop and thrive, keeping MDU PHL as an exciting, collaborative and highly productive workplace of choice
- We will be working towards achieving financial sustainability; and

- We will be recognised as a national and global leader in, and contributor to, public health microbiology

We have identified three key “ways of working” that will enhance our opportunities and contributions, and these will underpin our strategies. These are:

1. Leverage and create opportunities associated with being part of the Doherty Institute, University of Melbourne and future AIID
2. Bring a mindset of continuous preparedness and improvement across our services, research, capability building and internal operations
3. Actively connect and collaborate to maximise our impact for the communities we serve

We consulted extensively with key stakeholders in developing this Strategic Plan, including staff at all levels across MDU PHL, leadership at the Doherty Institute and the University of Melbourne, Victorian and Commonwealth Departments of Health, Department of Foreign Affairs and Trade, and other agencies. We greatly appreciate the time and effort that everyone committed to this consultation process, and are confident that their input has helped to develop a strategy that is most aligned with the needs of our partners.

I look forward to working with you on this exciting next chapter of MDU PHL’s activities over the next five years.

Sincerely,



Professor Benjamin Howden
Director, MDU PHL

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1 Strategic Context

MDU PHL is an internationally recognised Public Health Laboratory

Established in 1897, MDU PHL is the longest continuously serving public health laboratory in Australia. We provide the Victorian Government with public health laboratory services focusing on invasive and vaccine preventable bacterial diseases, emerging infectious diseases, antimicrobial resistance, food and waterborne diseases and sexually transmitted infections. MDU PHL plays a critical role in public health surveillance, outbreak detection and response, reference testing, global health and biothreat detection. We hold accreditation with NATA under ISO15189 (Human Pathology) and ISO/IEC 17025 (Food, Beverage, Environmental, Animal Health and Forensic modules) standards.

MDU PHL is part of the University of Melbourne's Department of Microbiology and Immunology (DMI) in the School of Biomedical Sciences, and the Doherty Institute for Infection and Immunity (the Doherty Institute), a joint venture between the Royal Melbourne Hospital and the University of Melbourne (the University). Our inaugural Strategic Plan aligns with the strategy and mission of the Doherty Institute and the University of Melbourne.

MDU PHL has strong partnerships with key stakeholders including the Victorian Department of Health, hospitals, diagnostic and public health laboratories, the Commonwealth Department of Health, the World Health Organization and leading Australian and international research institutes. Our multidisciplinary public health expertise and strong partnerships mean that we are uniquely positioned to provide a comprehensive program of work at the nexus of translational research and public health implementation.

Looking forward, MDU PHL will also play a critical role within the Australian Institute for Infectious Disease (AIID), providing an exciting opportunity to work collaboratively with a broader range of stakeholders. The AIID will be the largest centre of infectious disease expertise in the Southern Hemisphere. It will be tasked with accelerating research into the prevention of future pandemics and rapidly developing treatments for emerging pathogens. The AIID will bring together experts from the Doherty Institute, Burnet Institute, the University of Melbourne, Monash University, Walter and Eliza Hall Institute for Medical Research, the Murdoch Children's Research Institute, and the global biotechnology company CSL to provide a dynamic and collaborative research group within the Parkville precinct.

We are clear on our core areas of focus

MDU PHL delivers a range of services and functions for multiple stakeholders. As part of our strategic planning process, we have clearly defined our areas of focus for the next five years. Core capabilities include delivering excellence in emerging technologies including pathogen genomics for surveillance, outbreak response, global health, capacity building and training.

Our key focus areas include invasive and vaccine preventable bacterial diseases, emerging infectious diseases, antimicrobial resistance, biothreat agents, food and waterborne diseases, and sexually transmitted infections.

We play a key leadership role in responding to infectious disease threats and emerging public health challenges

During the COVID-19 pandemic, MDU PHL was instrumental in bolstering Victoria's testing and surveillance capacity. We scaled-up a dedicated SARS-CoV-2 multidisciplinary pathogen genomics team, which provided vital data to inform public health decisions, and created surge capacity in mobile and laboratory diagnostic testing. We also worked closely with organisations in Victoria and across the country to develop capability and, as part of our work with the Communicable Diseases Genomics Network (CDGN), with support from the Commonwealth and Victorian Department of Health created AusTrakka – a nationally recognised genomics surveillance platform.

We co-lead the Centre for Pathogen Genomics (CPG) and the WHO Collaborating Centre for Antimicrobial Resistance at the Doherty Institute. MDU PHL is a designated WHO Regional Reference Laboratory for Invasive Bacterial-Vaccine Preventable Diseases (IB-VPD) and coordinator of the Doherty Institute's UK Government supported Fleming Fund Fellowship Program. Our partnerships throughout the Asia-Pacific region include Singapore, Cambodia, The Philippines, Nepal, Bangladesh, Bhutan, Fiji, Timor Leste, Papua New Guinea and Samoa. We support our international partners as a public health reference laboratory, and provide capacity building to bolster global health surveillance and response. Our critical focus via these efforts is on antimicrobial resistance, pathogen genomics and pandemic preparedness and response.

Growing global public health challenges and the need for capability building in pathogen genomics have increased the demand for our expertise. We are witnessing increasing geopolitical instability, the impacts of climate change and a growing population, which have compounded to increase the likelihood and impact of disease outbreaks. In this context, there is a need for a 'One Health' approach across human, animal and

environmental health. Given our mix of capabilities, relationships and accreditations, MDU PHL is uniquely placed to adopt a One Health approach to our work.

Our inaugural Strategic Plan will provide the roadmap to reach our goals

Despite the growing need for MDU PHL's expertise and services, our resources are finite and securing adequate and sustainable funding is an ongoing challenge. Other challenges identified through the strategic planning process include workforce shortages while meeting the expectations of our different stakeholders and collaborative partners. We must also ensure that our work is adaptable and efficient within the context of public health and pathology system reforms already underway within the state of Victoria (such as Local Public Health Units and Pathology Networks), nationally and globally.

Our inaugural strategic plan provides an exciting opportunity to strengthen our relationships with our partners and enhance communication and engagement internally and with other key stakeholders and funders. We can continue to pursue excellence and innovation through our research. There are also ways we can streamline systems and processes to increase efficiency. And finally, we will benefit from a focus on staff training and development, both internally and with partner organisations, to build a vibrant culture of mutual support and purpose. We have articulated measures to track the success of our plan and are carefully considering how best to implement it over the coming years.

2 Our Strategic Plan

Our Strategic Plan 2022-2027 provides a clear focus and direction for the next five years. It is responsive to our strategic context, outlined above, and articulates what matters most for MDU PHL.

The overview of our Strategic Plan – summarised overleaf – comprises MDU's **mission** and **vision**, the **strategic priorities** that will enable us to realise our vision, and the **initiatives** or actions we will take. Each of the strategic priorities is described in Section 3, with underpinning initiatives and measures. Implementation of our Strategic Plan will be supported by our underpinning **ways of working** (Section 4).

Our Strategy on a Page

Mission

MDU PHL aligns with the strategy and mission of the Doherty Institute and the University of Melbourne.

MDU PHL is a leading Australian public health laboratory providing microbiology services to the Victorian Department of Health, delivering excellence in emerging technologies including pathogen genomics for surveillance, outbreak response, global health, capacity building and training.

Key focus areas for MDU PHL include invasive and vaccine preventable bacterial diseases, emerging infectious diseases, antimicrobial resistance, biothreat agents, food and waterborne diseases, and sexually transmitted infections.

Strategic Priorities



Initiatives



Deliver and advance excellent and efficient public health functions.

- 1.1** Critically examine and define our services to meet our stakeholder needs, maximise value and sustainability.
- 1.2** Integrate innovative technologies, methods and emerging best practice into our work.
- 1.3** Optimise workflows, data and quality management systems for efficient and high-quality delivery of public health microbiology.



Shape policy and practice through innovation, strategic relationships and research.

- 2.1** Participate in key communities to remain at the forefront of emerging practice.
- 2.2** Define and plan an integrated One Health approach.
- 2.3** Formalise and strengthen strategic partnerships within the Doherty Institute and externally.
- 2.4** Develop communications and engagement strategy.



Build the capability of tomorrow, locally and globally.

- 3.1** Optimise operational structure, delivery models and partnerships for capacity building.
- 3.2** Define and implement our teaching and training role within the University.
- 3.3** Embed knowledge transfer in the way we work with partners.
- 3.4** Monitor and evaluate to build sustainability of program delivery.



Support our people to develop and thrive.

- 4.1** Foster an exciting, collaborative and highly productive workplace of choice.
- 4.2** Invest in development opportunities and pathways for all staff.
- 4.3** Enhance connectivity through improved communication, information sharing and cross-functional activity.

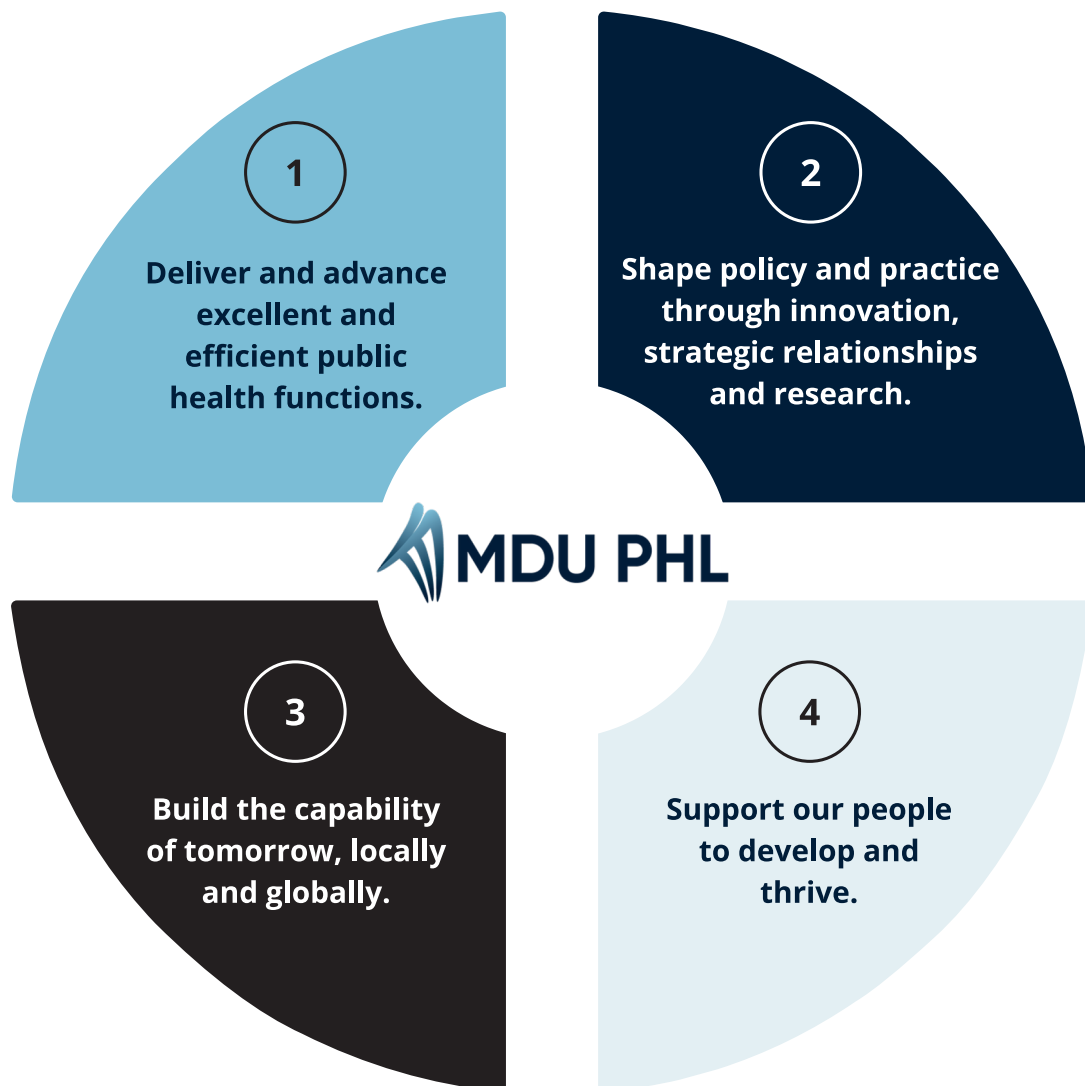
How We Work



3 Our Strategic Priorities

Our strategic priorities will drive decisions about where to allocate resources to enable us to maximise impact and achieve our goals. They are ambitious, but achievable and are a combination of new and ongoing efforts across the organisation.

Our four strategic priorities are:



Each priority is underpinned by several initiatives, which are the practical actions that we will take between now and 2027 to deliver on the priorities. Careful planning will

ensure that implementation of these initiatives is appropriately sequenced and coordinated across the organisation.

It is essential that we can measure and report progress against our Strategic Plan. For this reason, each priority identifies high-level success measures that will enable us to:

- Analyse our progress against achieving the strategic priorities and vision for MDU PHL
- Demonstrate and communicate achievements internally and externally
- Understand areas that require more investment or capability-uplift in order to deliver on the Strategy.

The measures presented in this Strategic Plan will be reported at a whole of organisation level. It is expected that section-specific targets and key performance indicators will continue to be monitored by relevant teams and contribute to whole of organisation measures.



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Strategic Priority 1 | Deliver and advance excellent and efficient public health functions.

This priority is about critically examining our fundamental functions and delivering these as efficiently (including cost-efficiently) and effectively as possible. At the same time, we will maintain a focus on developing and integrating cutting-edge methods and approaches into our work, as we have done recently with pathogen genomics. This focus on advancing practice is closely tied to our second strategic priority.

1.1 Critically examine and define our services to meet our stakeholders needs, maximise value and sustainability

This initiative will see us continually review our scope of work and scientific practice to ensure that our services meet our stakeholders needs, can deliver the greatest value and maintain sustainability. This means thinking holistically about our role and remit in relation to the Victorian Infectious Diseases Reference Laboratory (VIDRL) and other public and private laboratories, particularly in Victoria to minimise duplication and optimise our practice. For example, further consolidating pathogen genomics work into business-as-usual workflows with partners. Critically examining our services will also help to ensure we have the resources we need to dedicate to public health priorities, such as outbreak preparedness.

1.2 Integrate innovative technologies, methods and emerging best practice into our work

We are recognised as a public health leader and strive to continue to advance best practice through our work. Through our strategic research partnerships, and participation in national and international forums and communities of practice (discussed in Priority 2), we will continue to learn and develop. It is equally critical that we then integrate our translational research, innovative practices and technologies across the functions we deliver, taking a more deliberate and structured approach to ensure we best utilise our limited resources.

We will also share and co-develop emerging best practice from our laboratory with our national and international partners, helping to sustain a positive feedback loop of advancement in public health practice.

1.3 Optimise workflows, data and quality management systems for efficient and high-quality delivery of public health microbiology

Our current systems and processes – including the workflows, data and quality management systems – could be made more efficient, freeing up resources to apply to other focus areas. We need to find ways to make our internal workflows as efficient as possible: to streamline our systems and processes, minimise administrative burden and clarify roles. Improved data management will also help us to better collect, extract and share data and collaborate with our partners, as well as generate insights from our routine surveillance to contribute at a national level.

Measures of success

- Improved testing quality and efficiency considering reduced staff burden, turnaround time and throughput
- Number of new methods and technologies implemented
- Retirement of superseded methods
- Improved stakeholder satisfaction

Strategic Priority 2 | Shape policy and practice through innovation, strategic relationships and research.

This priority is about growing and leveraging our expertise in innovative technologies, methods, research, and One Health to influence public health policy and practice. It will also see us better communicate and engage with key stakeholders on the work we do.

2.1 Participate in key communities to remain at the forefront of emerging practice

Influencing policy and practice requires us to stay at the forefront of emerging technologies and approaches. We already participate in key networks at a local, national and global level and will continue to build this presence, including through opportunities with the Centre of Pathogen Genomics and WHO collaborations. We will also use these forums to share our expertise and gain knowledge from other leaders in this space. Given the constraints on our time and resources, we will ensure the networks we participate in are strategically aligned and reflect where MDU PHL can both contribute and gain the greatest value.

2.2 Define and plan an integrated One Health approach

Going forward, MDU PHL will work towards integrating a One Health approach to deliver insights across multiple sectors and jurisdictions. We know that this approach is increasingly important to our key stakeholders and to our programs of work. For example, both the Victorian and Commonwealth governments have an identified need for a One Health approach to genomics, public health surveillance and antimicrobial resistance. With our NATA accreditation to work across human, forensic, animal, water, and environmental testing, MDU PHL is optimally placed to respond to this need. Through this initiative, we will define what a One Health approach means for us – including how we will leverage our unique capabilities, as well as define, build and mobilise the relationships needed to implement a One Health approach in practice.

2.3 Formalise and strengthen strategic partnerships within the Doherty and externally

Within the context of the Doherty Institute, our strategic partnerships encompass jointly led initiatives that include public health service delivery, high impact translational research, teaching and training and professional development opportunities for our staff. While our relationships within the Doherty Institute are broad, we will benefit from

a dedicated focus to strengthen and maximise their potential in alignment with this strategy.

Through this initiative we will also seek to further strengthen the partnerships we built with our external partners (government, academic institutions, other organisations) before and during the COVID-19 response, with the aim of becoming a more strategic advisor. We will do this by sharing our data and using translational research to drive public health policy and outbreak response. These relationships will be underpinned by clear accountabilities within MDU PHL and alignment with our other initiatives.

2.4 Develop a communications and engagement strategy

Delivering our Strategy will require clear communication and active, two-way engagement both internally and with our partners. Our Strategy articulates our ambition to be part of important decisions about public health policy and practice, and high-impact research collaborations. We understand that our stakeholders can only 'invite us to the table' for these opportunities to the extent that they are aware of the breadth and depth of MDU PHL's capabilities and expertise. With the establishment of the AIID, it is even more critical to clarify and communicate how MDU PHL fits within the broader operating environment and to understand what it means at all levels of the organisation.

Measures of success

- Greater representation of MDU PHL in strategically aligned public health communities and forums
- Increased number of strategic research and public health partnerships across sectors (human, environmental and animal)
- Increased research impact and reach
- Increased awareness of the breadth and depth of MDU PHLs capabilities and expertise internally and externally.

Strategic Priority 3 | Build the capability of tomorrow, locally and globally.

This priority is about building the capacity of others to meet current and emerging public health threats. Our focus will be on continuing to deliver high-quality capacity building in a manner that is sustainable for us as an organisation, while evaluating our impact with a view to continuous improvement and excellence in program delivery.

3.1 Optimise operational structures, delivery models and partnerships for capacity building

This initiative will see us formalise roles and responsibilities within existing arrangements for capacity building, review and confirm the geographic and public health areas of priority, and determine the most appropriate modes of delivery. A critical early task will be to develop program toolkits, both to clarify the objectives of each program for MDU PHL staff supporting delivery, and to minimise duplication of work between programs. We will also review our approach to internally resourcing this work to ensure it is sustainable financially within our resourcing constraints.

3.2 Define and implement our teaching and training role within the University and the Doherty Institute

Our broad technical expertise and practical experience in public health laboratory functions, teaching and training are greatly valued by our key partners. To maximise our impact in this area we will clarify and document ways of working with the University and the Doherty Institute, including the principles that underpin our working relationship. We will aim to identify the education and training roles that are most aligned with our strategy and capacity – for example, via formal contribution to undergraduate and postgraduate courses.

3.3 Embed knowledge transfer in the way we work with partners

Knowledge transfer between MDU PHL and our collaborative partners – such as the Victorian Department of Health and the Australian Department of Health and Aged Care – is critical to the continuous improvement of public health approaches and responses. This initiative provides an opportunity for us to review our models of working with key partners to enhance collaboration and facilitate knowledge transfer between teams. For example, secondments of staff between MDU PHL and the department can provide opportunities for cross training to develop capability across teams. Another important aspect of this work is to ensure that our translational research and leading-edge

practices are embedded across the sector and sustained, and that our outputs (where meaningful to public health activities) are shared. See initiative 2.3 above.

3.4 Monitor and evaluate to build sustainability of program delivery

This initiative will help us to ensure that our range of capability building activities are well coordinated and achieve the impact we desire. This means ensuring that our staff and partners understand the purpose of each capability building program, and dedicating time and resources to delivery. In the first instance, we will develop a framework for monitoring and evaluation, to better understand the effectiveness and efficiency of our training programs and support continuous improvement with a view to ensuring both sustainability and excellence.

Measures of success

- Increased capability of training participants in the region and their organisations
- Increased participation of MDU PHL in teaching and training programs across the University and the Doherty Institute
- Strong positive feedback from training program recipients
- Greater efficiency in training program delivery (reduced cost per program) – without impacting quality.

Strategic Priority 4 | Support our people to develop and thrive.

Ensuring that our internal ways of working set us up to succeed, including enhancing development opportunities and communications while reducing silos is critical the success of this strategic plan. It recognises that our people are critical to our ability to deliver on our first three strategic priorities. This priority will help us to reset and redefine our organisational culture to one of collaboration, connection, support, and growth.

4.1 **Foster an exciting, collaborative and highly productive workplace of choice**

MDU PHL is committed to being a highly sought-after workplace. Our staff appreciate that MDU PHL is a 'centre for excellence' in its role as a public health reference laboratory, with a strong reputation in Australia and internationally. However, the COVID-19 pandemic has put our people under substantial pressure, and this has impacted the extent to which staff feel connected to each other and to the organisation. Through this initiative, we will improve onboarding experiences, dedicate resources to monitor staff sentiment and implement measures to enhance staff experience and engagement. This might include informal gatherings and networking opportunities and other approaches suggested by staff.

4.2 **Invest in development opportunities and pathways for all staff**

We want our people to see their future at MDU PHL, which requires clear opportunities for professional development. Through this initiative, we will clarify and communicate the development pathways available to staff, implement new approaches (such as mentoring), evolve performance review processes and identify further ways to manage and grow internal capability for our critical functions. Doing so will ensure that our people can continue to evolve their skills and partake in interesting, meaningful, and challenging work. We will also actively consider our position within the Doherty Institute and the University, and the ways they could provide unique development opportunities for our people – for example by establishing rotations or secondments.

4.3 **Enhance connectivity through improved communication, information sharing and cross-functional activity**

This initiative is about reducing silos and building connection internally within MDU PHL. Space constraints combined with the exponential growth of our work has made

it difficult to maintain the level of communication and connection between sections and across settings.

Through this initiative we will establish frameworks for communication and information sharing across physical sites and between teams and programs - for example, through platforms such as newsletters, forums, formal and informal gatherings.

Measures of success

- Increased staff satisfaction and engagement
- Increased number of cross-sectional placements and professional development opportunities within MDU PHL and the Doherty Institute
- Increase in frequency of internal communications and information sharing
- Increases awareness of the range of MDU PHL activities among staff.

4 How we work



Cross-cutting all our strategic priorities and initiatives are three underpinning 'ways of working'. These ways of working are critical enablers for us to implement our strategy and realise our ambitions.

The three principles that articulate the essence of how we work are to:

1. **Leverage and create new opportunities associated with being part of the Doherty Institute and the future AIID.**

Our positioning within Doherty Institute now, and the AIID in the future, is unique because of our leadership in several key areas including pathogen genomics and AMR. It brings with it opportunities for new partnerships, access to innovative methods and technologies and complementary expertise. Some of these opportunities will be led by MDU PHL, some will be led by others. We are committed to working strategically and collaboratively alongside our colleagues to achieve our shared strategic visions.

2. **Bring a mindset of continuous preparedness and improvement across our services, research, capability building and internal operations.**

As part of our commitment to excellence and leadership, we are always looking for ways to improve the delivery and outcomes of all our functions. Further, as a public health laboratory, we are expected to be prepared for a new outbreak or emerging pathogen and therefore must be adaptable and strategic in our approaches, actively forecasting and horizon scanning for emerging threats.

3. **Actively connect and collaborate to maximise our impact for the communities we serve.**

We operate within a complex environment and work closely with many partners locally, nationally and globally. We are open and attuned to opportunities to build connections and collaborations both informally and formally. This involves thinking about ways in which we can share knowledge, data, technology and expertise. This approach should be mutually beneficial and enhance our collective impact to the benefit of the communities we serve.

Our commitment to these ways of working underpins all our work to deliver on our Strategic Plan.

**Find out
more**



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