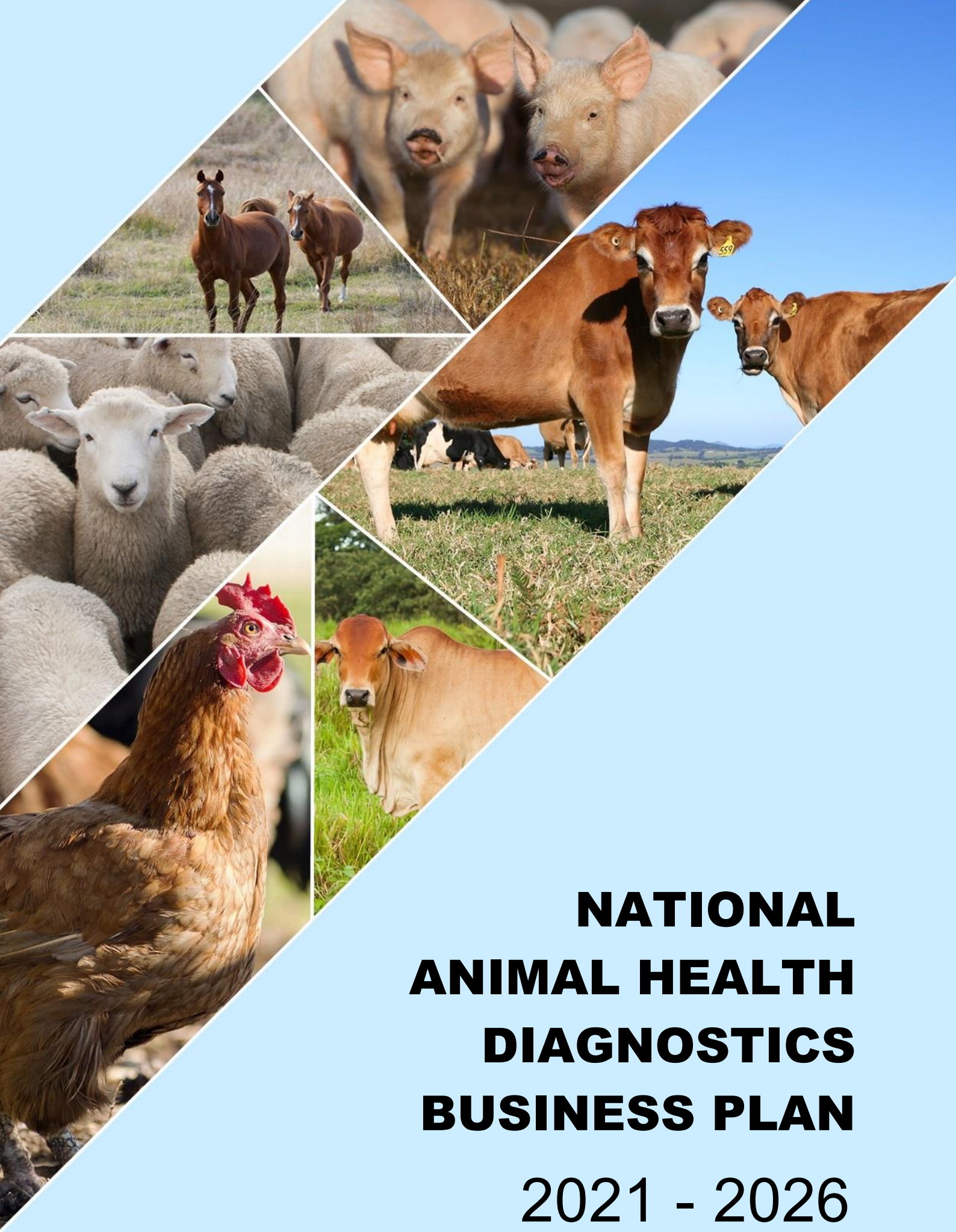

NATIONAL ANIMAL HEALTH DIAGNOSTICS BUSINESS PLAN

2021 - 2026

Cataloguing data

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The Business Plan was submitted to the Animal Health Committee in October 2021 and endorsed by the Committee in January 2022.

Acknowledgement of Country

We acknowledge the Traditional Custodians of Australia and their continuing connection to land and sea, waters, environment and community. We pay our respects to the Traditional Custodians of the lands we live and work on, their culture, and their Elders past and present.

Foreword

Laboratory diagnostics forms a key component of Australia's animal health system. A robust national laboratory diagnostic system and network is crucial to supporting surveillance for exotic, emerging and significant endemic animal diseases and managing their biosecurity, socio-economic and other impacts. The Subcommittee on Animal Health Laboratory Standards provides scientific and policy advice to the Animal Health Committee on terrestrial animal health laboratory issues. It also provides national leadership for networked diagnostic capacity coordination, standardisation/harmonisation of testing methodologies, diagnostics training initiatives and other essential quality assurance functions. These functions underpin national and international trade and market access for animals and animal products and help to safeguard and improve animal and public health in Australia.

The *National Animal Health Diagnostics Business Plan 2021–2026* represents the commitment of Australian governments, universities, private laboratories and the livestock industry to maintaining and improving a national diagnostic capability and capacity for terrestrial animals through coordination and collaboration at various levels. The business plan was developed collaboratively by key animal health laboratories, governments, universities and industry stakeholders. Its focus areas include the further implementation of high-throughput sequencing as a diagnostic tool for disease investigations and surveillance activities, increasing surge capacity, improving capacity to detect emergency animal diseases, point of care test validation and the standardisation of antimicrobial resistance testing. Cross-sectoral leadership and support will ensure the effective implementation and ongoing integrity of Australia's national animal health laboratory system.

Contents

Introduction

The *National Animal Health Diagnostics Business Plan 2021–2026* (NAHDBP), is a national plan to further develop and strengthen the animal health diagnostics component of Australia's animal health system and was developed through collaboration between animal health professionals and diagnostic experts from governments, private laboratories, and the university sector.

The NAHDBP will guide the efficient and effective delivery of nationally coordinated activities to maintain and continually improve our national diagnostic capability and capacity. Its development is consistent with nationally agreed principles and objectives for biosecurity as defined under Australia's Intergovernmental Agreement on Biosecurity (IGAB), and importantly it complements *Animalplan 2022–2027*.

Responsibility for implementing elements within the NAHDBP resides with the Subcommittee on Animal Health Laboratory Standards (SCAHLS), with guidance and oversight from the Animal Health Committee (AHC), support from livestock industries through Animal Health Australia (AHA) and funding identified through various sources.

1 Background

Australia is free from many of the socio-economically important animal diseases that occur in other parts of the world. Assurance of this favourable animal health status underpins the competitiveness of Australia's animal industries in international markets and supports domestic consumer confidence in Australian livestock products. However, as COVID-19 has so clearly demonstrated, Australia is not immune to the threats posed by exotic and emerging infectious diseases. International trade and travel, intensification of livestock production, new technologies, climate change, land-use change, loss of biodiversity and other related factors are contributing to the increasing risk of disease emergence and spread. With the current COVID-19 pandemic, the world is now experiencing the major social and economic costs of a transboundary zoonotic disease. Accordingly, there has been a rapid increase in operationalising the 'One Health' approach across the globe via a range of international and national organisations and institutions[1]. At the same time, the demands by trading partners for robust evidence in support of claims of disease freedom status consistent with the World Organisation for Animal Health (OIE) guidelines continue to grow. For this reason, we need to ensure our national diagnostic capacity continues to meet the needs and expectations of both Australian citizens and our overseas trading partners.

Australia has nationally coordinated disease surveillance activities that aim to effectively identify exotic, emerging and nationally significant endemic animal diseases. We also provide robust science-based evidence to support disease freedom claims and disease management policies and programs. Crucial to the success of surveillance activities is confidence in our national animal health laboratory system to deliver quality-assured testing and other diagnostic services that are 'fit-for-purpose' at all times. The ability to rapidly scale up

[1] https://www.unep.org/news-and-stories/story/unep-joins-three-international-organizations-expert-panel-improve-one-health

relevant service capacity and/or mitigate risks arising from response capacity gaps, especially for a major disease incursion or emergency, are also important components of an effective and efficient animal health system.

Much of Australia's diagnostic capacity for exotic, emerging and significant endemic animal diseases is located within government animal health laboratories. University, private and industry laboratories also hold a mix of diagnostic or testing capabilities for many economically important endemic and emerging animal diseases; and play key roles in training and research activities that can support the advancement of testing capabilities for infectious animal diseases. They also play an important role in the detection of microbial contamination of food and feed products as well as in the detection of antimicrobial susceptibility and resistance during disease investigations and for routine surveillance. How services are structured varies by jurisdiction and is dependent upon the relevant state or territory legislation and agreements they may have in place with private industry. The standardisation and/or harmonisation of diagnostic services and capability for the detection of emergency animal diseases (EADs) nationally is led or coordinated largely through SCAHLS, the Laboratories for Emergency Animal Disease Diagnosis and Response (LEADDR) network, and relevant national policies and programs. AHC and the National Biosecurity Committee (NBC) provide high-level national oversight.

The integrity of our national diagnostic networks and programs affords a strong foundation for Australia's animal health system and hence supports our favourable animal health status. Australia's laudable history of providing quality animal health laboratory services has been underpinned by various internationally and/or nationally recognised quality management and assurance programs and cost-effective training initiatives. Ensuring the ongoing development of capability within diagnostic networks, training and skill development is crucial to maintaining and improving our quality laboratory services.

There have been several national reviews of Australia's animal health laboratory services that aimed to identify and address specific issues important to sustaining diagnostic services for the Australian animal industries into the future. These reviews, which have taken place during the past 20 years, have all contributed to the current thinking and planning about how to better develop and deliver a national animal health laboratory service capability for the effective diagnosis, surveillance, and control of animal diseases of major importance to Australia.

The current COVID-19 pandemic has led to a much more interested and invested 'public' in terms of disease detection and control, with flow on effects to the animal health sector. Indeed, in several jurisdictions, animal health personnel and facilities have been directly involved in the COVID-19 response in Australia. At the same time, jurisdictions have still had to manage animal disease outbreaks and other issues (for example, the avian influenza outbreaks in Victoria during 2020 which were managed under the constraints of COVID-19 restrictions). In addition, there are very real threats such as African swine fever (ASF) and lumpy skin disease (LSD) that are currently 'on our doorstep' risks for Australian livestock industries. In short, this is a period of both intensifying likelihood of threat/risk, and increased expectations with respect to animal health diagnostics in the biosecurity realm.

The NAHDBP continues to address the policy principles of Australia's Intergovernmental Agreement on Biosecurity (IGAB) framework and will work within the overarching framework

of *Animalplan 2022-2027*. It targets priority areas that will continue to underpin surveillance and diagnostic capacity during the period 2021–2026 as well as further into the future.

The benefits of an effective and documented animal health diagnostics plan for animal biosecurity interests, including disease surveillance, are wide-ranging. With common interests and diverse stakeholders and opportunities for maximisation of resources utilisation, it is recognised that a coordinated, cohesive and networked approach will continue to be the cornerstone of maintaining and strengthening our national animal health diagnostic laboratory system. *Animalplan 2022-2027* has laid out 7 specific objectives and three of these are clearly supported by the NAHDBP. Specifically, these are to:

- improve Australia's ability to prepare and respond to EADs
- improve Australia's surveillance and diagnostic capacity and capability for animal diseases
- promote a collaborative approach on antimicrobial resistance.

2 Scope

In principle, biosecurity is a shared responsibility involving governments, industries, businesses, universities/research organisations and the general public within the context of Australia's IGAB. The scope of this NAHDBP is however limited to the legitimate domain of providers and users of animal health laboratory services. Responsibility for implementing this plan resides chiefly with the principal providers and users of these services, which largely involves governments, universities, private and industry-based veterinary laboratories, veterinarians, animal health workers, animal owners/producers and their respective organisations.

The scope of this plan primarily covers laboratory diagnostics for infectious diseases considered to be of national and/or international significance in terrestrial domestic animals and wildlife species, as well as antimicrobial resistance (AMR) with the interest of supporting surveillance and response capability being the primary driver. Relevant animal health issues can include exotic, endemic or re-emerging diseases or issues that may pose public health risks, including zoonoses and contributions to the development of AMR. It does not include diagnostics for aquatic animal diseases, as this area is detailed in Australia's National Strategic Plan for Aquatic Animal Health (*AQUAPLAN 2021-2026*).

Laboratory diagnostics for non-infectious diseases, environmental toxins and microorganisms that may affect food safety (other than AMR), chemical pollutants affecting animal health, and invasive animal species are considered to be beyond the scope of this NAHDBP. For completeness, this NAHDBP may refer to ongoing functions and programs, as well as new initiatives to strengthen priority areas and add value to the existing activities, data and practices.

3 Objectives and activities

The NAHDBP identifies five key objectives covering the areas of developing national high throughput sequencing (HTS) capacity and quality assurance (QA) programs, improving AMR diagnostics, improving surge capacity for EAD outbreaks, implementing a pilot template validation process for point of care (POC) testing and improving national laboratory networks for EAD outbreaks. The scope of work for the 2021-2026 time period varies considerably between the objectives, and this is detailed further below.

A range of highest priority activities to support and guide the approach towards achieving each of the five objectives are described below.

3.1 To enable HTS usage and the application of HTS data to enhance animal disease investigations

Background and rationale

HTS is a foundational technology that is becoming an important part of all disease investigations and surveillance across human, animal and plant health domains in the broadest sense. Within the animal health domain, HTS is at the cutting edge of a fundamental shift in disease diagnostics and will be used increasingly in the future as the costs of the technology decrease and the acceptance of the approach grows. Within the 2021–2026 time period, it is anticipated that HTS will be more commonly used for the detection and characterisation of both novel and known pathogens. Importantly, HTS will also be used for the sequencing of known pathogens which will support both surveillance and disease control activities. Finally, the increased familiarity with the use of HTS in a diagnostic setting coupled with an improved understanding of the significance of diagnostic findings will transform the base level of diagnostic capacity and capability across the sector. Improving our animal health laboratory capacity and capability for HTS will be a requirement to work at a level consistent with international best practice in animal health diagnostics.

Activities to achieve objective

To encourage the use and application of HTS to enhance animal disease investigations, a common approach should be developed and implemented. Specifically, a set of minimum standards and approaches need to be described. This is a new area of activity and requires some fundamental work to establish a solid platform for the future of animal health diagnostics. A considerable amount of activity and investment is required within this area of focus as described in the following objectives.

This work will entail:

- developing nationally agreed minimum standards and further requirements such as a reporting framework
- developing standard (bioinformatics) pipelines for the determination of (a) pathogenicity, (b) AMR, (c) anthelminthic resistance, and (d) notifiable pathogens

- specifying networking bioinformatic workflows and genomic sequence analysis to standardise and simplify comparative analyses
- increasing operator proficiency through upskilling by mentoring and lab twinning
- developing proficiency testing (PT) pilots for (a) wet lab (extraction, processing and sequencing) PT and (b) bioinformatics PT
- standardising a quality-assured database for pathogens of interest and making it accessible to relevant Australian animal health laboratories so data such as current pathogens of interest can be shared freely, easily and in a timely manner.

Processes to deliver activities

- Establishing a QA working group for the development of standards which would apply to each pathogen type (virus/bacteria/fungi) and which will consider discovery and characterisation functions. This should ensure representation from all relevant expert areas. Note possible support from existing entities include
  - the NBC HTS Implementation Working Group for assistance with the establishment
  - LEADDR to provide representatives from virology and bacteriology (including AMR experts).
- Establishing a bioinformatics working group with at least one dedicated bioinformatician to lead the activities, including assessing existing resources and leading the bioinformatics pipeline component.
- Designing and conducting PT pilots for wet lab activities and bioinformatics. Note possible support from the Australian Centre for Disease Preparedness (ACDP) PT team could be sought given their existing PT role for LEADDR.
- Developing and implementing a HTS mentoring and/or twinning program for individuals and laboratories seeking assistance with HTS issues. Note possible support from ACDP or relevant jurisdictional laboratories could be sought given their relevant national and/or international experience.

Benefits

The direct benefits will include:

- established national standards for the appropriate use of the technology within a defined laboratory and non-laboratory framework
- increased confidence to relevant authorities regarding HTS data and results (through the use of national standards)
- improved and broadened diagnostic capability with better understanding of yielding data such as characterisation of pathogens, AMR, anthelmintic resistance, and provenance of pathogens
- enhanced surveillance data and interpretation
- enhanced opportunity to inform the need for modification of existing detection tests or development of new tests for novel pathogens and variants, including through established standards for HTS in non-laboratory settings.

3.2 To scope and improve the national surge capacity of laboratory networks, including both government and non-government laboratories, during EAD responses

Background and rationale

Previous EAD responses and exercises have identified bottlenecks such as sample accession and reporting; and resource constraints such as availability of test reagents, consumables and PPE, and other areas that are important to ensuring optimal surge capacity for EAD outbreaks. Improved preparedness can contribute to more efficient and effective EAD responses that minimise impacts on all resources, including human resources, during a surge EAD response. As demonstrated by the COVID-19 pandemic response, there is potential for non-government laboratories to support certain parts of an EAD response. As required and appropriate, they can also help deliver some 'business as usual' (BAU) activities, allowing government laboratories to focus on EAD response activities. Ensuring full compatibility and interoperability between jurisdictional laboratory information management systems (LIMS) and the national Sample Tracking and Reporting System (STARS) would also improve the effectiveness and efficiency of EAD responses. The recent Queensland white spot disease outbreak clearly demonstrated the value of STARS. Confidentiality concerns will need to be addressed however achieving compatibility with jurisdictional and national biosecurity incident management systems will add further value to managing responses to major disease outbreaks.

Activities and processes to achieve objective

This work will entail:

- undertaking national laboratory-specific simulation exercise(s) to identify bottlenecks and resource constraints and document them, along with those learned from previous EAD responses and simulation exercises. This should include identifying novel technologies, platforms and/or infrastructure that may assist in surge responses, such as POC testing, mobile laboratories and support from non-government laboratories
- scoping and developing barcoding system(s) for data and sample tracking from the field to be compatible with both LIMS and incident management systems such as the MAX platform. This should apply to both government and non-government processing of samples, wherever appropriate and feasible
- enhancing and extending STARS framework, including the fullest possible implementation of STARS capabilities in each jurisdiction and the development and trialling of clear national data standards and security (confidentiality) to encourage uptake across the sector and increase interoperability (e.g. with surveillance systems)
- creating a list of laboratory consumables and equipment common to major EAD responses and scope a business case for a national stockpile, including a method and appropriate skill sets to maintain and rapidly deploy them, noting that this may be decentralised and/or 'virtual' stockpile. Non-government laboratories should be included, wherever feasible
- establishing a list of essential skills and capabilities (including accreditation) common to EAD responses and a fundable training framework to support them, which should include cross-training of technical personnel to enable rapid deployment (i.e. can be signed-off

immediately) related to specific components of laboratory activities when surge capacity is required in an interstate laboratory. Possible approaches could include developing an interstate laboratory twinning program and the use of appropriate training facilities and arrangements of non-government laboratories

- developing criteria (e.g. levels of biosecurity, biosafety procedures, accreditation) necessary for non-government laboratories to assist in performing components of EAD responses, and an options paper for AHC, including risks and benefits, for endorsement
- developing a (national) template for activating laboratory surge capacity, i.e. for switching from BAU mode to surge capacity mode (e.g. a checklist), especially for use by non-government laboratories (all government laboratories should have this in place). This should include criteria that can help determine the viability of engaging particular laboratories in responses (e.g. lessons learned from pandemic response to COVID-19) and identifying how other laboratories can help support certain BAU in government labs.

Benefits

The direct benefits will include:

- the implementation of a national barcoding system will increase the efficiency (i.e. speed and accuracy) of EAD response activities, including reporting
- improved ability to share data and make and implement timely surge capacity decisions leading to more effective and efficient EAD responses
- increased range of options for diagnostic pathways and resource use to support both disease investigation and proof of freedom phases of EAD responses
- reduced bottlenecks and time delays during an EAD response, supporting a rapid return to normal function.

3.3 Introduce a suite of validated diagnostic assays to LEADDR laboratories targeting priority disease threats to Australian animal species

Background and rationale

The LEADDR network is a group of government laboratories that work to implement testing capacity for specific biosecurity threats of particular concern to our production animal industries. The network ensures jurisdictional detection capability for a number of targeted, AHC-endorsed EADs to keep our animal industries safe.

To ensure we continue maintaining Australia's enviable animal health status, we must ensure our network laboratories are capable of detecting and responding to emerging biosecurity threats. The spread of EADs in the region like ASF, LSD and even African horse sickness (AHS), highlight our need to monitor emerging threats and be ready to respond appropriately. Rolling out quality-assured and accredited testing capability to laboratory networks, which can be time-consuming and costly, is therefore a vital part of our national laboratory strategy and approach for managing EAD threats. Testing capacity at the jurisdictional level for ongoing surveillance activities also contributes to improved surveillance for early detection of incursions.

Activities and processes to achieve objective

This work will entail:

- identifying up to five EADs of highest national priority where the development of validated and quality assured jurisdictional testing capability is needed and seek AHC's endorsement via SCAHLS as per the operating rules of LEADDR
- identifying, validating and rolling out appropriate tests (including agent and/or host response detection as appropriate) for each of the agreed diseases through a networked (LEADDR) approach, including their initial QA programs (for example, PT panels, Network Quality Controls) and sourcing latest reference materials and pathogens if needed
- verifying and harmonising the rolled-out assays suitable for NATA accreditation purpose through a networked approach where possible. This will include development of dossiers to enable network validation of diagnostic testing undertaken by jurisdictional laboratories
- funding will be required from the Commonwealth with in-kind contributions from participating laboratories and ACDP.

Benefits

The direct benefits will include:

- increased confidence in capability and national response capacity across jurisdictions regarding test results
- increased surge capacity for the nominated priority diseases in the jurisdictional laboratories
- compliance with the OIE Terrestrial Manual concerning test accreditation and validation
- NATA accreditation in jurisdictional laboratories for a suite of diagnostic tests

- increased surveillance capacity for emerging threats of trade importance.

3.4 Pilot the validation template process for POC tests used for specific purposes

Background and rationale

As the number and availability of POC tests are increasing, there is an ongoing shift towards the use of the technology, even in laboratory settings. There is however no national approval and/or accreditation system to address the manufacturer claimed performance characteristics for commercial POC tests. Nor is there a system to ensure the competency of those using most POC tests in the field. The differing jurisdictional legal and policy frameworks for the use of POC tests adds to the challenge of using them as a diagnostic tool.

The NAHDBP does not intend to cover legislative or policy issues relating to the use of POC tests as they are being addressed through AHC directly. Instead it is explicitly focused on technical activities that will assist in promoting the appropriate application of POC testing for specific purposes. Purposes of use may range from disease detection through to supporting proof of freedom processes. For example, POC tests to support proof of disease freedom would have very different test characteristics compared to POC tests used as screening tools for endemic diseases, either in the laboratory or in the field.

A validation template has recently been developed by ACDP and Agriculture Victoria through SCAHLS. This template needs further refinement and is likely to inform OIE standards around POC test validation in the future. To address the objective, POC tests for a range of exotic and endemic diseases for specific purposes will be piloted using the SCAHLS validation template.

Activities and processes to achieve objective

This work will entail:

- establishing a working group under SCAHLS to determine which available POC tests (ideally including agent and host response detection) and main purpose(s) of use to be trialled. This should ensure representation from all relevant expert areas, including NATA representation. There may also be support possible through existing entities such as LEADDR and interested POC test developer(s) or manufacturer(s)
- developing and implementing project(s) to trial the existing validation template for the selected POC tests and the intended purpose of the tests
- reviewing outcomes of the trial(s) and refining the validation template accordingly and suitable for SCAHLS/AHC review
- reviewing and/or developing national technical guidelines for the use of POC tests for EADs. Note this should reflect and/or complement the existing POC testing principles previously developed by SCAHLS.

Benefits

The direct benefits will include:

- established validation template(s) for assessing specific POC tests for diagnostic and detection purposes
- increased confidence to relevant authorities regarding the use of POC tests and their results (through established validation template for assessment)
- enhanced opportunity to broaden and improve surveillance and diagnostic capability through the appropriate use of validated POC tests
- improved or new national user guidelines for POC tests and/or testing technologies, including how to interpret results.

3.5 Establish processes to develop and harmonise antimicrobial susceptibility-related diagnostic procedures across all relevant animal health laboratories

Background and rationale

The world is facing an increasing threat arising from the use of antimicrobials across the human, animal and plant health domains. The human health implications from AMR have been well publicised in recent years and all stakeholders—including veterinarians, farmers and companion animal owners—are being challenged to use antimicrobials more wisely. In Australia, 'The One Health Master Action Plan (OHMAP)' provides guidance on implementing *Australia's National Antimicrobial Resistance Strategy – 2020 and beyond*. Within this plan, one of the objectives is to ensure national alignment of laboratory testing practices and reporting for AMR. This encompasses the activities to develop, promote, harmonise and monitor national consistency in antimicrobial susceptibility testing and reporting to improve data comparability within and between animal, wildlife and human sectors.

Animal health laboratories in Australia currently undertake a range of activities that support this endeavour; however, a large amount of ongoing development activity is required to work towards meeting world's best practice. To this end, a SCAHLS AMR working group has been established to support the delivery of AMR laboratory activities and provide linkages to the Animal Health AMR Surveillance Task Group. The activities within this plan focused on AMR are therefore shaped by these needs that can be delivered across all relevant animal health diagnostic laboratories in Australia.

As this is the start of a long process, the activities listed here are at a high level and will require considerable investment during the 2021–2026 period of the NAHDBP.

Activities and processes to achieve objective

This work will entail:

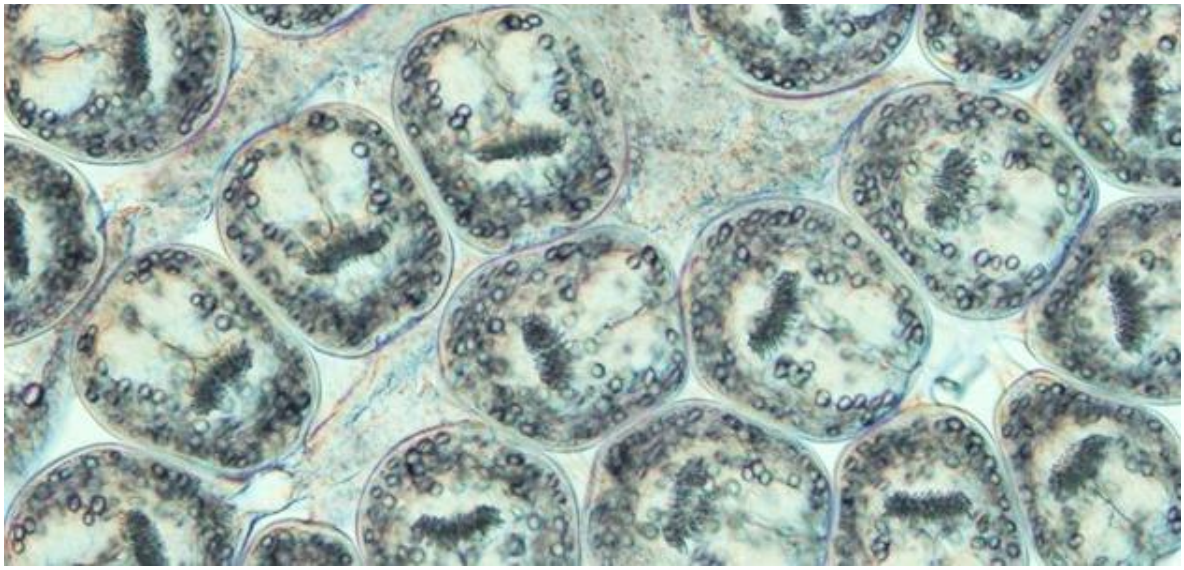
- establishing a framework for state and territory laboratories to either have, or have access to, NATA accredited minimum inhibitory concentration testing capacity for a range of organisms to support Australia's AMR surveillance program and food safety issues

- developing a business case for establishing a national veterinary AMR reference laboratory, to develop a PT program for roll out of standardised antimicrobial susceptibility testing, and explore whole genome sequencing for AMR One Health surveillance and food safety purposes
- develop national laboratory AMR surveillance and reporting guidelines with considerations of real-time database collation and reporting of AMR animal health data
- developing, assessing, and/or further refining innovative, high quality and comparable veterinary AMR testing techniques and diagnostic procedures (including rapid diagnostic tests) to support national AMR strategic objectives.

Benefits

The direct benefits will include a markedly improved national veterinary diagnostic capability and capacity for antimicrobial susceptibility testing in priority animal pathogens and indicator species, through:

- antimicrobial susceptibility testing requirements are identified, understood and implemented in state and territory government veterinary diagnostic laboratories with the capability of expanding to other veterinary diagnostic laboratories nationally
- capability of delivering innovative, high quality and comparable veterinary AMR testing and reporting in Australia through effective allocation of resources and consideration of One Health
- improved communication and collaboration between AMR experts, researchers, veterinary microbiologists and veterinary antimicrobial end users
- established links between research, development and extension bodies, testing laboratories, policy and industry (for example, government, university and industry) which can be strengthened over time.



4 Project management

5.1 Governance

AHC and the Animalplan Steering Committee will jointly provide high-level leadership and oversight to ensure that the NAHDBP remains relevant and aligned with the priorities of government, university, industry, and other key stakeholders. AHC will endorse major revisions to the NAHDBP and advocate to garner support for activities as needed.

SCAHLS will support AHC in monitoring the implementation and progress of the NAHDBP and as needed, identify opportunities or problems. SCAHLS will provide regular reports on the status of the plan's priorities to AHC. For the interest of the NAHDBP, SCAHLS may form/lead working groups and invite sectoral representation such as universities and the private animal health laboratory sector to strengthen collaboration and ensure joint ownership and shared responsibility in the implementation of the NAHDBP key objectives.

The nominated champions or project leads for each activity will be responsible for planning, working group development, coordination, stakeholder engagement, implementation and reporting to SCAHLS.

5.2 Resources

Resources to implement the NAHDBP activities will be sought independently for each activity through the lead agency or agencies identified, as there is no overarching budget for implementation of the plan. It is noted that some of the activities are ongoing and may have existing funding arrangements.

For other (new or not currently funded) activities, funding support may be sought from the Commonwealth and state/territory governments and relevant industries as appropriate. This may be either through the Animalplan Steering Committee or independently. However, it is acknowledged that implementation in many areas will largely rely on in-kind contributions (of human resources in particular) from governments and animal health laboratories of various sectors.

5.3 Communication

The nominated champions or project leads for each activity will report progress updates to SCAHLS, who in turn reports to AHC. AHC is responsible for communicating activities to the Animalplan Steering Committee.

5.4 Monitoring and evaluation

Appropriate measures of success and a simple framework for monitoring and evaluation will be developed for each of the identified priorities in the NAHDBP. This includes periodic reporting on progress and outcomes to stakeholders as per the communication mentioned above.

Abbreviations

Term	Definition
ACDP	Australian Centre for Disease Preparedness
AHS	African horse sickness
AHA	Animal Health Australia
AHC	Animal Health Committee
AMR	Antimicrobial Resistance
AQUAPLAN	Australia's National Strategic Plan for Aquatic Animal Health
ASF	African swine fever
AVA	Australian Veterinary Association
BAU	Business as usual
EAD	Emergency Animal Disease
HTS	High throughput sequencing
IGAB	Intergovernmental Agreement on Biosecurity
LEADDR	Laboratories for Emergency Animal Disease Diagnosis and Response
LIMS	Laboratory Information Management Systems
LSD	Lumpy skin disease
MAX	Maximum Disease and Pest Management System
NAHDBP	National Animal Health Diagnostics Business Plan
NATA	National Association of Testing Authorities
NBC	National Biosecurity Committee
OIE	World Organisation for Animal Health
PIIMS	Primary Industries Information Management System
POC	Point of care
PPE	Personal protective equipment
PT	Proficiency testing
QA	Quality assurance
SCAHLS	Subcommittee on Animal Health Laboratory Standards
STARS	Sample Tracking and Reporting System
WHA	Wildlife Health Australia