



Government Response to the Report from the Prime Minister's Chief Science Advisor

Kotahitanga: Uniting Aotearoa
against infectious disease and
antimicrobial resistance

2025

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Background

In March 2022, the Office of the Prime Minister's Chief Science Advisor released *Kotahitanga: Uniting Aotearoa against infectious disease and antimicrobial resistance*.¹

This report notes that infectious diseases, including drug-resistant organisms, are a present and growing threat across human, animal, plant and environmental health. The report also notes that we already know what needs to be done to unite against infectious disease and antimicrobial resistance (AMR) but considered that there is a need to act with more urgency and purpose.

The report made 102 recommendations grouped under 6 themes:

- elevate and expand antimicrobial stewardship
- develop an integrated surveillance and outbreak response system
- strengthen infection prevention and control
- grow Aotearoa New Zealand's infectious disease capability and engage internationally
- enhance health literacy
- reimagine primary care.

The report was designed to facilitate a 'One Health' approach to mitigate the risks of antimicrobial resistance in humans, animals, plants and the environment within New Zealand.

Many of the report's themes and recommendations aligned with, and built on, the New Zealand Antimicrobial Resistance Action Plan² published in 2017. The vision of the action plan is that New Zealand manages antimicrobials as a valuable, shared resource and strives to maintain their efficacy so they can be used to treat infections in humans and manage disease in animals and plants.

¹ pmcsa.ac.nz/topics/antimicrobial-resistance-and-infectious-disease

² health.govt.nz/publications/new-zealand-antimicrobial-resistance-action-plan

Progress has been made on a number of the recommendations

The tables below provide a summary of progress and action against some of the key recommendations in the Kotahitanga report.

Theme 1: Elevate and expand antimicrobial stewardship (AMS)

Recommendation	Activity
1(a) Develop a coordinated national approach to AMS to provide overarching governance and leadership.	<p>A One Health approach that recognises the linkages and interdependence of the health of humans, animals, plants and the environment is critical to managing infectious disease and AMR. The Ministry of Health, Health New Zealand Te Whatu Ora (Health NZ) and the Ministry for Primary Industries (MPI) are working collaboratively to support a coordinated national approach.</p> <p>In March 2023, Health NZ hosted a national multidisciplinary infectious disease services hui to bring together key leaders in infectious services. As a result, an Infectious Services Clinical Network was established which includes the AMS portfolio. Health NZ has set up national clinical networks to drive unified healthcare standards, reduce variations and enhance equitable access.</p>
1(a)(vii) Develop and maintain national antimicrobial prescribing guidance for human health.	<p>A project to develop national antibiotic prescribing guidelines and strengthen antimicrobial stewardship is being funded through the Te Niwha research platform.³ The national guidelines are expected to be launched in 2025.</p>

³ teniwha.com/research-projects/addressing-inequity-in-antibiotic-use-strengthening-antimicrobial-stewardship-throughout-aotearoa-to-improve-the-health-of-new-zealanders

Recommendation	Activity
1(c)(vii) Develop a system to enable collection of antimicrobial use data in animals and plants. This could be first implemented as sentinel surveillance at selected veterinary practices before being rolled out more widely.	<p>MPI outsourced an operational research project to investigate how antibiotic use data from animals could be collected. The project was to identify and recommend an effective and efficient method for collecting antibiotic use data in food-producing and companion animals within New Zealand. Food-producing animals included cattle, sheep, goats, pigs, chickens and horses and home companion animals included cats and dogs.</p> <p>MPI received the project report in March 2023 and is reviewing the report's options to inform the feasibility of collecting such data in the future.</p> <p>MPI currently collects sales data for antibiotic trade name products used on animals and plants. Once it has established capability for collecting antibiotic use data, MPI may report on both sales and use data for comprehensive monitoring of trends.</p>
1(d)(v) Ban direct-to-consumer advertising of antimicrobial medicines.	<p>The role of direct-to-consumer advertising of prescription medicines (DTCA-PM) was considered as part of the development of the Therapeutic Products Act 2023 (the TPA). With the TPA repealed in December 2024, it is likely DTCA-PM will be considered as part of further work on the future direction of regulating therapeutic products.</p> <p>MPI implemented a ban on the advertising of all registered veterinary medicine antibiotics in 2019.</p>

Theme 2: Develop an integrated surveillance and outbreak response system

Recommendation	Activity
2(a)(i) Ensure the Institute of Environmental Science and Research (ESR) is resourced to coordinate an integrated surveillance system and diagnostic laboratories are supported to contribute, including retaining culturing capability and boosting whole	<p>Public health intelligence, surveillance and knowledge is one of the main functions of the Public Health Agency (PHA), which was established within the Ministry of Health as part of the 2022 health and disability reforms. The PHA is working with the Institute of Environmental Science and Research (ESR) to ensure a sustainable and integrated surveillance system, including the role of laboratories. Extra operational capacity for whole genome sequencing (WGS) and capital</p>

Recommendation	Activity
genome sequencing (WGS) capability.	<p>investment in a new purpose-built laboratory was initiated during the COVID-19 response. We continue to have robust annual reporting, monitoring of emerging threats and outbreaks, and point prevalence surveys to further help characterise trends.</p> <p>The Public Health Surveillance Strategy 2025-2030 was published in February 2025⁴. The Strategy identifies four strategic directions to drive progressive action over the next five years. By strengthening the public health surveillance system this will enable improved national surveillance of AMR in the future.</p> <p>MPI also works with ESR on AMR surveillance in animals and genetic analyses of AMR in zoonotic pathogens associated with these species.</p>
2(b) Enhance outbreak response	<p>Building on lessons from the COVID-19 response and improving the planning and response to infectious disease outbreaks is a main focus for the reformed health system. It is also a key role for the Public Health Agency and the National Public Health Service (NPHS) within Health NZ. The NPHS unites the former public health units into a single operational service to enable better coordination of public health services and responses to threats and hazards including communicable disease outbreaks. The NPHS has a dedicated National Protection Directorate responsible for protecting populations against health threats and communicable disease, and responding to national and regional public health emergencies.</p> <p>MPI is working with the Ministry of Health on updating existing systems to include potential AMR threats to human health when it needs to inform the Ministry of Health of these.</p>

⁴ health.govt.nz/publications/public-health-surveillance-strategy-2025-2030

Theme 3: Strengthen infection prevention and control

Recommendation	Activity
3(a) Develop a coordinated national approach to IPC to provide overarching governance and leadership.	<p>The Infectious Services Clinical Network established by Health NZ will support national initiatives and leadership in infection prevention and control (IPC).</p> <p>Examples of national approaches implemented by Health NZ include the development of guidance for multidrug resistant organism admission screening and hospital placement; and an IPC assessment tool for multidrug resistant organism outbreak readiness.</p>
3(b) Strengthen and expand standards related to IPC.	<p>After an extensive review and update process, the Ngā Paerewa Health and Disability Services Standards took effect in February 2022. The new standards included revised standards for Infection Prevention and Antimicrobial Stewardship.</p> <p>In response to a localised rise in Vancomycin-resistant Enterococci (VRE) cases, Health NZ published infection prevention and control guidelines for VRE in April 2024.</p>
3(c)(viii) Support farmers to implement alternatives to antimicrobials, such as for dry cow therapy and treatment of necrotic enteritis in poultry.	<p>MPI has acquired technical expertise and outreach and training resources on the use of existing antibiotic alternatives to prevent and treat bacterial diseases. These new resources will inform and educate veterinarians, farmers and industry in the use of antibiotic alternatives.</p> <p>Support is likely to include information sharing on infection prevention and control, given that a limited number of antibiotic alternatives are currently available.</p> <p>To date, MPI has promoted these activities through its Antimicrobial Resistance Coordination Group (AMRCG) and the Mastitis Advisory Council. MPI provides the secretariat and experts from various business units for the Mastitis Advisory Council, with best practice recommendations for mastitis management promoted via experts and industry groups.</p>

Recommendation	Activity
3(c)(x) Review current animal husbandry practices and investigate ways these could be improved to reduce infection.	<p>MPI is continuing to work with appropriate industry bodies and stakeholders to review and improve husbandry practices to reduce infection rates in animals.</p> <p>It has recently set up an endemic diseases forum which includes relevant industries, laboratories and research facilities. The forum is focused on preventing and controlling infection and investigates how to improve animal husbandry practices to reduce or even eradicate infection. The AMR team will take an active role in the forum in future.</p>
3(d)(i) Standardise national reporting for surgical site infections (SSIs) and (ii) Build on and expand existing point prevalence surveys and ensure these are carried out regularly.	<p>Te Tāhū Hauora - Health Quality & Safety Commission is an independent Crown entity which is responsible for helping the health and disability sector to improve service safety and quality.</p> <p>Under its Infection Prevention and Control programme, Te Tāhū Hauora has a Surgical Site Infection (SSI) Improvement Programme. As part of this programme, it has developed and implemented a consistent, evidence-based approach for collecting and reporting data about SSIs for orthopaedic (hip and knee) and cardiac surgery.</p> <p>In 2021, the Infection Prevention and Control programme also conducted Aotearoa New Zealand's first national point prevalence survey of healthcare-associated infections across all former district health boards (DHBs).</p>
3(e) Enhance vaccine use.	<p>Achieving high rates of immunisation for priority populations is a key goal of Te Pae Tata (the interim New Zealand Health Plan 2022).</p> <p>A national immunisation taskforce delivered 54 recommendations to Health NZ in response to falling rates of childhood immunisation and challenges arising from the COVID-19 pandemic⁵. The taskforce's priorities include more pro-active outreach immunisation services, a focus on catch-up and antenatal immunisations and increasing the vaccinator workforce.</p> <p>A strategic framework is being developed to guide the overall direction of the immunisation programme. In the meantime, the National Public</p>

⁵ [tewhatauora.govt.nz/publications/initial-priorities-for-the-national-immunisation-programme-in-aotearoa](https://www.tewhatauora.govt.nz/publications/initial-priorities-for-the-national-immunisation-programme-in-aotearoa)

Recommendation	Activity
	Health Service continues to prioritise and progress key work areas to address the taskforce's priorities.
3(e)(v) Prioritise the development and acquisition of a vaccine for group A Streptococcus (GAS).	<p>A \$10 million investment into the development of a vaccine against group A Streptococcus (GAS) was announced in November 2021. The University of Auckland is leading this work, leveraging off existing relationships with ESR and Australian colleagues involved in the vaccine's pre-development.</p> <p>Work began in late 2021, with a contract in place until 30 June 2025.</p>
3(e)(vii) Investigate barriers to vaccine use in animal husbandry and implement strategies to increase vaccine coverage. This may involve subsidising animal vaccine for zoonotic diseases.	MPI's AMR outreach and training staff will work alongside veterinarians, industry groups (such as the New Zealand Veterinary Association) and end-users to investigate barriers to use of available vaccines. This action will be incorporated with communication on disease prevention and control.

Theme 4: Grow Aotearoa Zealand's infectious diseases capability and engage internationally

Recommendation	Activity
4(a) Build on the newly announced Strategic Science Investment Fund to establish an inclusive infectious diseases network with diverse representation from academia and frontline practitioners, focused on both capacity building and research.	<p>Te Niwha: the Infectious Disease Research Platform, funded through the Ministry of Business, Innovation and Employment's Strategic Science Investment Fund, was announced in September 2021. It is co-hosted by ESR and the University of Otago. The aims of the platform are to:</p> <ul style="list-style-type: none"> • build and coordinate domestic research capability in infectious diseases • continue to address COVID-19 and other serious infectious diseases in Aotearoa New Zealand • improve preparedness for future pandemics • support Aotearoa New Zealand's Health Research Strategy and infectious diseases of key stakeholders and Māori as Treaty partners • link with international research.

Recommendation	Activity
	<p>A range of research spanning biomedical, public health and community-based research approaches is currently underway.</p> <p>Examples of building an infectious diseases network include:</p> <ul style="list-style-type: none"> • a comprehensive report on what are the likely pathogens that will cause future pandemics in New Zealand, and how to prepare for and respond effectively to these pandemics, so as to inform health agency preparations for pandemics⁶ • a project on surveillance and modelling for high pathogenicity avian influenza (HPAI H5N1) to support the Ministry of Health, Health New Zealand, MPI and the Department of Conservation in their response to the current global spread of that pathogen.
<p>4(e)(ii) Support researchers, practitioners and policymakers to connect and engage internationally to inform best practice.</p>	<p>One Health Aotearoa,⁷ a three-way alliance between the University of Otago's medical school, Massey University's veterinary school and ESR, was set up to bring together leading researchers to support infectious disease research, education and advocacy. It is also intended to provide a main point of contact in Aotearoa New Zealand for international engagement and collaboration in One Health.</p>
<p>4(f)(i) Investigate the costs and benefits of developing onshore capability to manufacture biomedical products under an emerging scenario of a globally distributed model (e.g. to manufacture mRNA vaccines under license for local use).</p>	<p>The Ribonucleic Acid (RNA) Development Platform, also funded through the Strategic Science Investment Fund, was announced in May 2022. It seeks to build on the research expertise and industry connections in this area. Co-hosted by Te Herenga Waka - Victoria University of Wellington and Waipapa Taumata Rau – the University of Auckland, its mission is to ensure Aotearoa New Zealand has well-connected and world-class research capability to strengthen the use and commercialisation of RNA technology.</p> <p>Initial research funded through the platform includes:</p> <ul style="list-style-type: none"> • developing mRNA vaccines • exploring disease drivers • formulating non-mRNA therapeutics

⁶ teniwha.com/assets/Uploads/Te-Niwha_Full-Report_Likely-future-pandemic-agents-and-scenarios_Web.pdf

⁷ onehealth.org.nz

Recommendation	Activity
	<ul style="list-style-type: none"> improving technologies in the RNA manufacturing chain synthesising critical reagents for the platform. <p>The platform will develop a full programme of research by the end of 2024.</p>

Theme 5: Enhance health literacy

Recommendation	Activity
5(a)(iii) Increase support for primary, intermediate, and secondary school teachers to access resources on AMR and infectious diseases for teaching science, and to utilise them in integrated, student-centred pedagogies.	<p>Agencies participate in and promote World AMR Awareness Week which runs from 18-24 November each year.</p> <p>For World AMR Awareness Week 2023, the Ministry of Health and MPI collaborated to develop a number of resources to support schools and teachers with educating and engaging rangatahi and tamariki on infectious disease and the meaning of AMR, including how we can all become good antimicrobial stewards.</p> <p>This included:</p> <ul style="list-style-type: none"> updating resources on the government-funded Science Learning Hub, which provides peer-reviewed teaching resources to make science, technology and engineering more accessible and visible publishing an article in Starters & Strategies, the New Zealand teachers' magazine (including its online version) which is distributed to 27,000 teachers of students aged 5 to 14 conducting a webinar with Associate Professor Siouxsie Wiles which gave participants an understanding of AMR and teaching resources available on the Science Learning Hub website (with a recording of the webinar published on the hub also) promoting engagement with rangatahi, including releasing an animated video on the use of antibiotics in pets; and engagement with primary and secondary school teachers to encourage participation through classroom activities.

Recommendation	Activity
5(b) Strengthen communications: animal health and agriculture.	<p>MPI's AMR outreach and training staff and AMR auditors have been communicating with veterinarians and other animal health care professionals (including farmers) to help increase knowledge of AMR, antimicrobial use and stewardship, and IPC.</p> <p>MPI is investigating options to collect antibiotic use data and collecting continual AMR monitoring data which will help inform what communication is needed and for what audience.</p>

Theme 6: Reimagining primary care

Recommendation	Activity
6(a) Enhance equity and remove barriers to accessing healthcare and appropriate antimicrobial therapies.	<p>In general, this recommendation aligns with the objectives of the health and disability reforms and activity already underway which build on the learnings from the Covid-19 response – for example, supporting increased use of virtual consultations and ensuring services are accessible and convenient for all New Zealanders.</p> <p>Virtual consultations continue to be used in primary and secondary health settings where care can be adequately delivered this way. Ensuring equity of access and cultural safety are considerations that need to be factored in.</p>
6(a)(iv) Investigate mechanisms for removing financial barriers to prescription antimicrobials.	From 1 July 2024, prescriptions are free for people with Community Services Cards, people under 14 and people aged 65 and over.

There is more work to do

The World Health Organization (WHO) has declared AMR one of the top 10 global public health threats facing humanity.

Published by the WHO in June 2023, *Health and Economic Impacts of Antimicrobial Resistance in the Western Pacific Region, 2020–2030* estimates that:

- 5.2 million people in the Western Pacific Region will die as a result of drug-resistant bacterial infections between now and the end of 2030
- AMR will cost the Western Pacific Region a total of US\$148 billion (NZ\$248b) between 2020 and 2030 – nearly 10% of the region's total health expenditure in 2019 – due to lost productivity and additional health-care expenses
- by the end of 2030, patients with antimicrobial-resistant infections in the region will spend an estimated 172 million extra days in hospital.

COVID-19 highlighted the need for a regional, national, global and cross-species approach when fighting disease. It also emphasised the same social and economic effects and inequities that occur with AMR. These effects will increase greatly unless we work together to fight AMR.

An ongoing, localised outbreak of VRE (Vancomycin-resistant Enterococcus) demonstrates the need for New Zealand to not be complacent and act proactively to minimise the risk of AMR and ensure the appropriate use of antimicrobials.

The last few years have also seen MRSA (Methicillin-resistant Staphylococcus aureus) infections in dairy herds, where genetic analysis suggests the infection spread from humans to cattle. This highlights the need for a One Health approach to AMR, as well as the need for further education in infection prevention and control.

In addition to the actions noted in this report, the Kotahitanga report will inform and be a key input to developing future AMR strategies and action plans. The Kotahitanga report also emphasised the increasing recognition of the role and impact of the environment on AMR. We anticipate that being an increasing part of our One Health approach.

Finally, future work on AMR will also reflect the significant changes to New Zealand's health and disability system since the publication of the first Action Plan and the Kotahitanga report. Health NZ now leads the day-to-day running of the health system across New Zealand and manages all health services, including hospital and specialist services, and primary and community care. The Ministry of Health advises the Government on policy, sets direction, and regulates and monitors the health system to ensure it performs well and delivers better health outcomes for everyone.