

Annual Report FY2025

Safeguarding Tomorrow

Singapore's Defence Against Communicable Diseases



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A New Agency,
A New Beginning

Vision

A Singapore that is resilient against communicable disease challenges.

Mission

To protect Singapore from communicable diseases through excellence in public health expertise and capabilities.

Values

Professionalism

We strive to be skilled and technically competent to be a world-class agency.

Respect

We treat everyone with courtesy, consideration and esteem regardless of background.

Integrity

We conduct ourselves ethically and morally even in the absence of oversight, and take responsibility for the outcomes of our actions.

Dynamic Collaboration

We harness our collective strengths and support one another in overcoming challenges.

Excellence

We pursue high standards and innovative improvements in our work, seeking always to grow and to learn from the best.

About Us

Prepare, Prevent, Protect

The Communicable Diseases Agency (CDA), established in April 2025, is a statutory board under the Ministry of Health. CDA is Singapore's public health authority for communicable diseases, with a mission to protect Singapore from infectious diseases through excellence in public health expertise and capabilities.

CDA's formation marks a pivotal step in Singapore's forward-looking approach to public health — consolidating command, control, and coordination of public health responses under one dedicated agency. This strategic integration strengthens our nation's infectious disease management and preparedness capabilities, enabling rapid responses to outbreaks and robust readiness for future pandemics.

To achieve our vision for a Singapore that is resilient against communicable disease challenges, CDA's capabilities encompass comprehensive policy development and implementation; integrated disease epidemiology, surveillance, and investigation; proactive

outbreak preparedness and response; collaborative research and partnerships; and advanced laboratory capabilities.

Recognising that everyone has a part to play in Singapore's collective preparedness, CDA empowers individuals through targeted public education initiatives. Beyond our shores, CDA also works with international partners to enable Singapore to respond swiftly to evolving global health threats.

As CDA prepares, prevents, and protects the nation from communicable diseases, our officers stand at the forefront—embodying the values of Professionalism, Respect, Integrity, Dynamic Collaboration, and Excellence (PRIDE). Their expertise and steadfast commitment are integral to CDA's pivotal role in safeguarding Singapore from infectious disease threats.



Chairman's Message

Foundations for the Future

The strength of a nation's response to communicable diseases is determined long before the next outbreak begins. It depends on sustained investment in science, surveillance, preparedness, forward planning capabilities, and the people and institutions that bring them together.

The establishment of the Communicable Diseases Agency (CDA) on 1 April 2025 marks an important milestone in Singapore's continued commitment to public health security. Building on the lessons of past outbreaks such as SARS and COVID-19, CDA brings together complementary strengths to build an integrated national capability for communicable disease preparedness and management. In an increasingly interconnected world where infectious disease risks continue to evolve, this will strengthen Singapore's ability to anticipate, prevent, and respond to emerging health threats while safeguarding our long-term resilience.

CDA's first year of operations has set the foundations for its future capabilities. During this time, we strengthened core capabilities across the continuum of communicable disease preparedness, from surveillance and prevention to research and operational readiness. We also developed the systems, processes, and partnerships needed for a public health response that is coordinated and evidence based. CDA now provides the national leadership to safeguard Singapore against infectious disease threats.

As Chairman, I have had the privilege of witnessing the professionalism, adaptability, and commitment of CDA's leaders and officers as they navigated the demands of building a new agency. Collectively, they have demonstrated remarkable resilience and a willingness to embrace new ways of working during this transition. On behalf of the Board, I extend my sincere appreciation to them for their dedication and professionalism.

Throughout this transition, the Board's priority has been to support our officers, preserve critical institutional knowledge, and ensure continuity as CDA took shape. Building capable public institutions requires sustained stewardship grounded in scientific excellence and public trust. As CDA grows, the Board will uphold these principles through sound governance, while ensuring the transparency, rigour, and accountability expected of Singapore's public institutions.

I thank my fellow Board members for their guidance, commitment, and stewardship during CDA's founding year. I also thank our partners across the Ministry of Health, Health Promotion Board, and National Centre for Infectious Diseases for their steadfast support. My appreciation also extends to our whole-of-government partners, the healthcare community, academia, and our international collaborators, whose partnership has been integral to CDA's work.

While much has been accomplished, institution-building is a long-term endeavour. I am confident that the foundations we have laid will continue to strengthen Singapore's preparedness for future outbreaks and safeguard the health of our population.

“ In an increasingly interconnected world where infectious disease risks continue to evolve, CDA will strengthen Singapore's ability to anticipate, prevent, and respond to emerging health threats while safeguarding our long-term resilience. ”

Professor Kenneth Mak

Chairman
Communicable Diseases Agency
Director-General of Health
Ministry of Health



“ While we cannot always predict the next communicable disease threat, we can ensure that Singapore is ready to respond when it arrives. ”

Professor Vernon Lee

Chief Executive Officer
Communicable Diseases Agency

CEO's Message

Building Readiness Together

CDA's journey from the establishment of the CDA Planning Office through its inaugural year has been a demanding yet critical and meaningful undertaking. Even as we established new structures, teams and ways of working, we had to continue safeguarding Singapore's public health without pause. The experience reinforced a fundamental principle of CDA's ongoing work: while we cannot always predict the next communicable disease threat, we can ensure that Singapore is ready to respond when it arrives. That commitment to preparedness remains central to how we protect the health of our population.

Building CDA required us to bring together people, expertise, and systems from the Ministry of Health, Health Promotion Board, and National Centre for Infectious Diseases into one agency with a collective mission. Along the way, we developed new ways of working, built a shared organisational culture, and strengthened the coordination that underpins Singapore's communicable disease response. The past year has shown what is possible when Singapore's communicable disease capabilities work together as one integrated public health system.

Readiness depends not simply on having plans in place, but on our ability to act quickly and decisively under pressure. We have advanced this integrated approach by improving preparedness, expanding our surveillance and response capabilities, and deepening collaboration across the public health ecosystem. This is reflected in key initiatives over the past year, including the launch of the Singapore Pandemic Preparedness and Response Framework, Singapore's One Health Master Plan, and the second National Strategic Action Plan on Antimicrobial Resistance. We have also included new vaccines in the National Adult Immunisation Schedule, as well as enhanced the Communicable Disease Live & Enhanced Surveillance (CDLENS) System. These efforts have been made possible through close collaboration with public healthcare institutions, whole-of-government partners, academic institutions, community partners, and international collaborators.

Central to this progress are the people of CDA. Our officers have carried the demands of transition with professionalism, commitment, and a strong sense of purpose. Every member of CDA – whether on the frontlines of public health or in our corporate functions – has played an important role in advancing our shared mission. As CDA grows, we will continue to invest in attracting, developing, and retaining the talent we need for the future.

Our first full year of operations marks an important milestone, but the work of building a resilient public health agency and nation against infectious diseases has only just begun. We recognise that some capabilities are still being developed, some gaps are still being closed, and new systems will take time to mature. What matters is that we keep learning, improving, and moving forward. With our people, our shared purpose, and the direction we have set together, I am confident that CDA will continue to safeguard Singapore's public health and strengthen our nation's preparedness and readiness for the years ahead.



“ The launch of CDA builds on the strong foundations laid over decades. It represents a bold step forward, a clear statement of our commitment and resolve to safeguard Singapore from the ever-present threat of infectious diseases. ”

Mr Lawrence Wong
Prime Minister

Our Year in Numbers

April 2025 to March 2026

67% uptake

Increased pneumococcal vaccination uptake among adults aged 65 years and above from 23 per cent in 2020 to more than 67 per cent in 2025

95% coverage

Maintained more than 95 per cent coverage for measles (Dose 1) and diphtheria (primary series) vaccines in children aged two years

1st human challenge study

Launched Singapore's 1st human challenge control study

88,000 tests

Completed over 88,000 laboratory tests on more than 52,000 specimens to identify or further characterise pathogens

56,500 samples

Maintained more than 56,500 samples in the National Infectious Disease Biorepository as of March 2026

6,300 professionals

Engaged over 6,300 medical professionals to improve infectious disease prevention and management in Singapore

445 staff

CDA's total staff strength as of 31 Mar 2026: 445

Board of Directors



Professor Kenneth Mak

Chairman
Communicable Diseases Agency
Director-General of Health
Ministry of Health



Professor Ho Teck Hua

President
Nanyang Technological University



Mr Gerard Koh

Vice President, People
Experience and Culture, Group
People and Sustainability
Singtel



Dr Asok Kurup

Infectious Diseases Physician
Infectious Diseases Care Pte Ltd



Ms Lin Diaan Yi

Managing Director
Shangri-La Hotels (Malaysia) Berhad



Mr Max Loh Khum Whai

Chairman
Competition & Consumer Commission of Singapore



Mr Mohd Nazry Mokhtar

Editor, Berita Harian
SPH Media



Ms Ong Ai Hua

Independent Director



Professor Joe Sim

Group Chief Executive Officer
NHG Health



Mr Ervin Yeo

Group Chief Strategy Officer and
Chief Executive Officer,
Commercial Management
CapitaLand Investment



Ms Yiong Yim Ming

Group Chief Financial Officer
City Developments Limited



01 *Preparing in Advance*

Every effective response begins with years of preparation

When an infectious disease emerges, the public sees the response. Less visible is the work that takes place long before an outbreak begins – developing the systems, capabilities and governance structures that enable Singapore to respond quickly and decisively when public health threats arise.

In its inaugural year, the Communicable Diseases Agency (CDA) strengthened these foundations. From pandemic preparedness planning and operational readiness to research governance and emerging technologies, the agency invested in the capabilities and resources needed to anticipate, detect and respond to infectious disease threats.

Rather than prescribing responses to specific diseases, it provides a common architecture for preparedness – one that enables public health measures to be adapted and scaled according to the characteristics of each emerging threat.

Adopting a whole-of-society approach, the Framework provides a common foundation for coordinated national preparedness. It is organised around five domains: detection, surveillance and sense-making, point of entry measures, healthcare provision, medical countermeasures such as vaccines and population-based measures.

The Architecture of Readiness

Every outbreak brings new lessons. The challenge is ensuring the knowledge does not remain institutional memory but is translated into enduring institutional capability.

A Framework for Preparedness

A key milestone in CDA's inaugural year was the launch of the Singapore Pandemic Preparedness and Response Framework. Introduced in July 2025, the Framework represents a shift from disease-specific planning towards a disease-agnostic approach that can be adapted to a wide range of outbreak scenarios.

Drawing on Singapore's decades of experience in responding to infectious disease outbreaks, the Framework translates lessons from past outbreaks into a structured, modular system that can be activated regardless of the pathogen involved.

Safeguarding our Borders

The same philosophy guides CDA's work across other areas of preparedness. As Singapore enhances its cross-border infrastructure, public health considerations must be incorporated from the outset.

In FY2025, CDA supported the drafting of the Supplementary Agreement to the Johor Bahru–Singapore Rapid Transit System Link Bilateral Agreement and Cross-Border Railways (Border Control Co-location) Act 2026. These establish the legal and operational framework for implementing public health measures within the cross-border rail system. Working closely with partners across the whole of government, CDA sought to ensure that Singapore's public health interests are embedded within the legal and operational frameworks governing the co-located immigration facilities, addressing current public health needs while remaining flexible to respond to future infectious disease threats.

Governance for Public Health Research

Comprehensive strategy and strong governance for research and innovation are another cornerstone of long-term preparedness. In September 2025, CDA established the National Infectious Disease Research Strategy Committee, bringing together perspectives from researchers across basic science, clinical research, social science and artificial intelligence (AI) to shape Singapore's future infectious disease research strategy through to its completion in 2027.

At the same time, CDA strengthened research governance through two complementary initiatives. It established standards to support the proper and ethical conduct of research across different research types, while advancing a national governance framework for public health research under the Infectious Diseases Act. The latter included developing common processes for research proposals, quality assurance, governance reporting, and the management of research data and biological samples. Together, these initiatives lay the institutional foundations for a coordinated, rigorous and accountable public health research ecosystem, ensuring that future policy decisions and outbreak responses continue to be guided by robust scientific evidence.

Building Future Capabilities

Looking ahead also means investing in new ways of working. CDA is exploring the use of new technologies including AI to strengthen infectious disease preparedness and response. These efforts span data literacy, process automation and future operational applications, to enhance operational efficiency, while strengthening disease detection and public health capabilities over time.

Complementing these efforts, new multi-disease surveillance dashboards automated previously manual processes, significantly reducing processing time, while delivering faster insights to support public health decision-making. This improved the consistency and reliability of the data that underpins CDA's disease surveillance and reporting.

Together, these investments strengthen CDA's analytical capabilities, enabling officers to devote more time to higher-value analysis and decision-making, while improving the speed, consistency and quality of disease intelligence.

From Plans to Practice

Frameworks and infrastructure are only effective when they can be translated into coordinated action. Preparedness therefore depends not only on sound planning, but also operational systems, trained people, and organisational discipline that enable a rapid and coordinated response when circumstances demand.

In FY2025, CDA strengthened these operational capabilities through the establishment of the CDA Operations and Coordination Centre, which has integrated its surveillance duty functions by coordinating the monitoring and management of disease notifications and public health incidents across the agency.

Alongside this, CDA developed modular, disease-agnostic operational plans for key public health functions including contact tracing, in collaboration with partners such as the Ministry of Health (MOH) and National Centre for Infectious Diseases. These scalable plans are designed to be adapted quickly across a range of outbreak scenarios, enabling CDA to mount swift operational responses regardless of the disease threat.

Readiness must be measurable. To this end, CDA established a structured approach to assess, monitor and strengthen its operational readiness over time. By systematically identifying strengths and potential gaps before they become operational risks, continuous improvement is embedded into CDA's preparedness cycle, to provide greater visibility of the agency's readiness posture.

Operational plans must also be validated under realistic conditions. To support this, CDA developed a multi-year readiness exercise roadmap with MOH and the Ministry of Manpower. The first exercise conducted under this roadmap, successfully mobilised all designated personnel within target

timelines, demonstrating CDA's ability to rapidly scale up operations when required.

Operational readiness ultimately depends on people. In FY2025, CDA began developing a competency framework for contact tracing, providing a structured and scalable approach to building and sustaining contact tracing capabilities during peacetime. When fully developed, the framework will ensure that trained personnel, tested systems and coordinated processes can be mobilised quickly whenever Singapore faces its next public health emergency.

Through these investments in people, systems and partnerships, CDA is strengthening the foundations of national preparedness – building the capabilities that will enable Singapore to respond with confidence to current and future infectious disease threats.

Ready Before it is Needed

Singapore's ability to respond safely to dangerous pathogens depends on a capability most people will never see. As one of the few high-containment laboratory facilities of its kind in the region, CDA's National Public Health Laboratory's (NPHL) High Containment Facility stands ready to safely receive, diagnose and characterise high-consequence biological agents whenever they emerge.

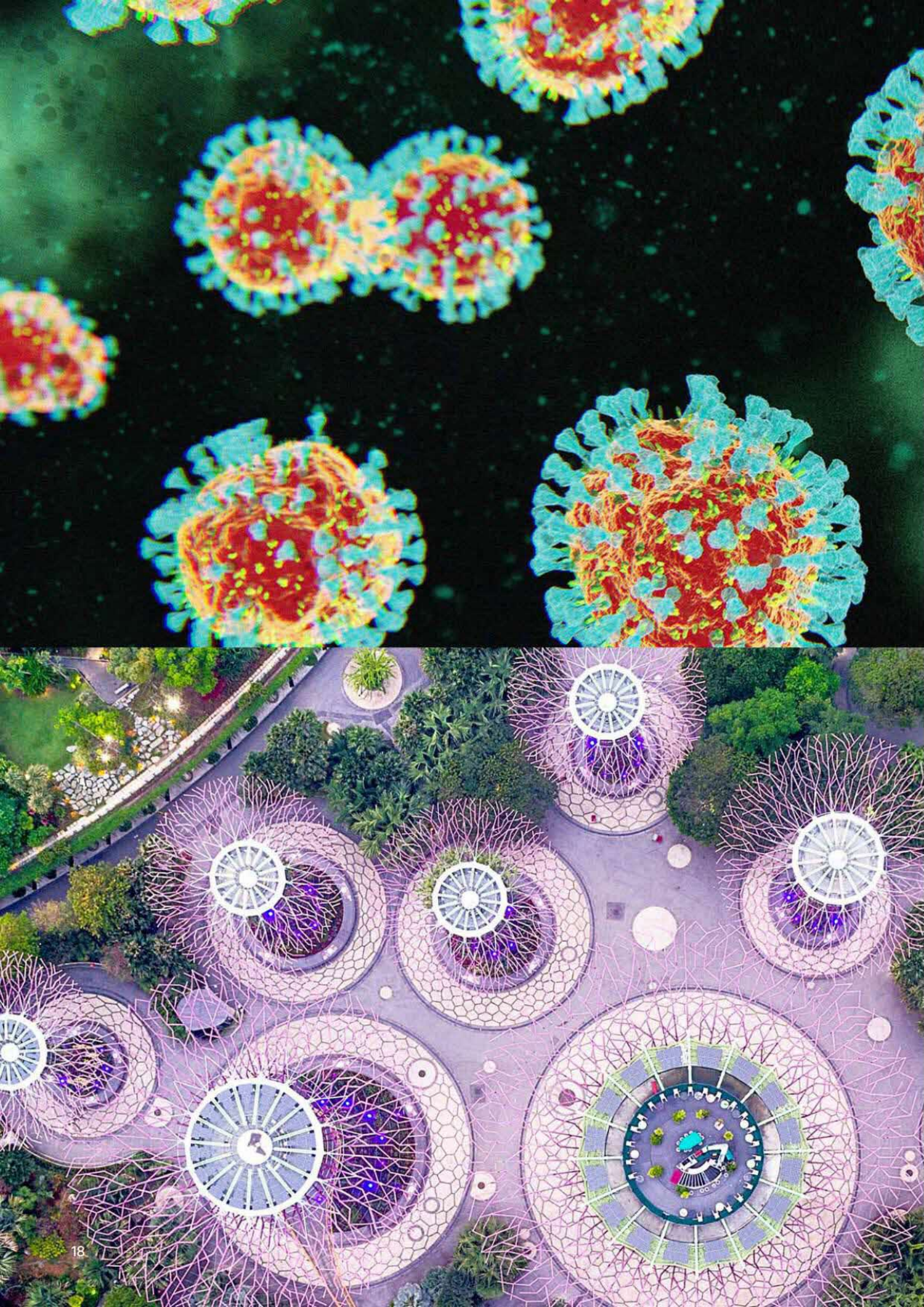
Keeping it ready is Siew Chern Chiang's everyday work. As a Biosafety Coordinator, Chern Chiang understands that biosafety measures must work not only on paper, but also in practice. His role is to ensure that these measures not only comply with regulatory requirements and international standards, but are also practical and effective for the people working in the laboratory every day.

Working alongside the Facility Manager and a team of specially trained laboratory users, Chern Chiang helps maintain that readiness through regular simulation exercises, competency assessments, equipment validation, and routine checks of the laboratory's critical containment systems. Together, these ensure that people, processes, and engineering controls function as a single, integrated safety system.

The greatest challenge is maintaining that same level of discipline even when there is no immediate crisis. Every drill, training session, review, and equipment check is carried out with the understanding that a dangerous pathogen could emerge without warning. When it does, there will be little time for uncertainty. Procedures and equipment must already have been tested and proven. That quiet discipline was recognised in 2025 when NPHL's High Containment Facility was re-certified under the new Singapore Standard SS 696:2023 for bio-risk management. This reaffirmed that the laboratory continued to meet stringent biosafety and biosecurity standards.

For Chern Chiang, success is measured not by dramatic moments, but by the confidence that everything is ready before it is needed. The public may never see the countless drills, reviews and checks that make Singapore's high-containment laboratory ready. But when the next biological threat emerges, that quiet commitment to preparedness would already have done its job.





02 *Always on the Lookout*

Detecting emerging infectious disease threats early

Every infectious disease outbreak begins with signals. Some appear as subtle shifts in disease patterns within our communities; while others emerge as sudden developments beyond Singapore's shores. Detecting these signals early requires more than routine monitoring. It depends on robust surveillance systems, timely intelligence, and the ability to translate data into meaningful public health action.

Throughout FY2025, CDA invested in the systems and expertise needed to detect emerging threats earlier and assess their public health significance. Spanning laboratory science, digital technologies, epidemiological surveillance, and international collaboration, this work has built a more comprehensive and connected understanding of infectious disease risks within Singapore and beyond our shores.

Keeping a Tireless Watch

Effective surveillance begins with clear and robust strategies. In FY2025, CDA embarked on the development of a five-year National Surveillance Strategy for Communicable Diseases. The Strategy defines Singapore's core surveillance priorities, aligns surveillance efforts across sectors, and identifies opportunities to harness advances in technology. To ensure it reflects operational realities, CDA worked closely with more than 20 partner agencies and healthcare institutions to assess existing surveillance capabilities, identify gaps, and build consensus on future surveillance priorities.

A wide surveillance network improves the ability to detect changes in disease activity early. In FY2025, CDA expanded the sentinel National Surveillance Programme for Acute Respiratory Infection (ARI). More than 30 additional primary care clinics joined the programme in FY2025, bringing the network to over 270 clinics nationwide. The expanded network enhances CDA's community surveillance capabilities by capturing data from a broader cross-section of Singapore's population, including better representation of adult and elderly populations, to provide a more robust picture of respiratory disease activity across age groups.

Together, these efforts strengthen Singapore's ability to identify emerging public health risks before they develop into wider public health threats.

From Sample to Signal

Disease notifications provide an early warning of potential public health threats. CDA transforms laboratory findings from notified cases, surveillance programmes and outbreak investigations into actionable public health intelligence that supports timely risk assessment and public health interventions.

In FY2025, CDA performed approximately 88,000 laboratory tests to identify or further characterise pathogens on more than 52,000 specimens submitted through its laboratory-based surveillance programmes and outbreak investigations.

Respiratory surveillance, including the ARI surveillance programme, enables CDA to monitor how respiratory viruses are circulating and evolving within the community. In FY2025, more than 15,000 respiratory specimens were tested through the programme.

Through its role as Singapore's National Influenza Centre and World Health Organization (WHO) Coronavirus Network (CoViNet) Reference Laboratory, CDA submitted over 320 influenza isolates and specimens to the WHO Collaborating

Centre, and more than 5,000 viral sequences to GISAID, including approximately 1,000 influenza and 4,000 SARS-CoV-2 sequences. The surveillance supported global influenza vaccine strain selection and SARS-CoV-2 vaccine composition updates, while informing vaccination recommendations and broader public health risk assessment. The value of routine genomic surveillance was demonstrated in November 2025, when the emerging SARS-CoV-2 BA.3.2.2 variant – genetically distinct from locally circulating strains – was detected. The finding triggered

Finding the Right Balance

Every public health response begins with sharing of information.

Since 2006, the Communicable Disease Live & Enhanced Surveillance (CDLENS) System, Singapore's key platform for the electronic notification of notifiable diseases, has enabled medical practitioners, laboratories, and educational institutions to report infectious disease cases and significant public health events. In developing the enhanced CDLENS launched by CDA in April 2025, Ms Hazel Koh, Lead Public Health Officer (Informatics), faced a defining challenge – how to make disease reporting simple and effective.

More information could strengthen disease investigations and future analysis, but increases the reporting burden on users. Working with public health teams across CDA, Hazel and her colleagues reviewed the information required, weighing its public health value against the effort required of users. Only information that served a clear purpose made the cut.

That philosophy shaped the enhanced CDLENS. Notification forms now adapt to the reported disease and the person doing the reporting, while real-time validation improves data accuracy and reduces manual checks. Medical practitioners and laboratories can submit notifications directly through clinic management systems that interface with CDLENS.

In July 2025, the Severe Illness and Death from Possibly Infectious Causes (SIDPIC) Programme was integrated onto CDLENS, further consolidating infectious disease reporting on a single platform. The improved interface makes it easier for SIDPIC coordinators to report cases for sentinel surveillance of new or emerging pathogens.

Hazel's team also led change management efforts. In the six months before launch, they rolled out user guides, familiarisation sessions, and dedicated support channels – ensuring a smooth transition to the enhanced platform without disrupting ongoing notifications.

For Hazel, the project reinforced a lesson: building an effective public health system is not about collecting as much data as possible, but collecting the right information in an efficient and timely manner. Making reporting easier while improving the quality of information strengthens Singapore's ability to detect outbreaks early and respond promptly. What happens next – from disease investigations to public health action – depends on getting that balance right.



a coordinated risk assessment and enhanced surveillance, enabling CDA to assess its potential public health impact and respond appropriately.

Beyond respiratory viruses, CDA tested approximately 5,500 specimens through laboratory surveillance programmes for a range of bacterial diseases in FY2025, including salmonellosis, invasive pneumococcal disease, Group B streptococcal disease and tuberculosis. These programmes provide insights into disease transmission and epidemiology, to support evidence-based public health decision-making.

Alongside these broad-based surveillance programmes, targeted surveillance focuses on settings where early detection can yield the greatest public health impact. In FY2025, CDA tested more than 9,600 respiratory specimens collected from Singapore's migrant worker dormitories as part of its enhanced respiratory surveillance. The findings informed targeted public health measures, including vaccination efforts for dormitory residents, so that emerging risks could be addressed early.

Looking Beyond our Shores

Effective surveillance depends not only on understanding what is happening in Singapore, but also on recognising emerging threats beyond our shores. In an interconnected world, disease intelligence must extend across borders, enabling countries to anticipate risks before they arrive.

International surveillance networks enable countries to identify emerging health threats before they reach their borders. In FY2025, Singapore continued to serve a second term on the WHO Epidemic Intelligence from Open Sources (EIOS) Coordination Group. The EIOS initiative enables participating countries to share timely intelligence that supports preparedness, response and recovery from public health emergencies. Through this role, Singapore contributes to the development of international public health intelligence practices, while gaining earlier visibility of emerging health threats worldwide.

Beyond disease intelligence, international laboratory networks also play a key role in global surveillance. In FY2025, CDA's National Public Health Laboratory was accepted into the WHO CoViNet, a global surveillance network for SARS-CoV-2, Middle East Respiratory Syndrome Coronavirus and other emerging coronaviruses. This enables Singapore to exchange expertise, share emerging findings, and contribute to international coronavirus surveillance.

Alongside multilateral networks, bilateral partnerships create additional opportunities to deepen surveillance cooperation. Memoranda of Understanding signed earlier with the Chinese Center for Disease Control and Prevention, and Germany's Robert Koch Institute enhanced Singapore's access to international expertise, real-time disease intelligence, and surveillance best practices. Reciprocal personnel exchanges in FY2025 deepened these partnerships, and laid the foundation for future collaboration.

Global surveillance extends to antimicrobial resistance and utilisation. CDA's Antimicrobial Resistance Coordinating Office serves as Singapore's national coordinating centre for the WHO Global Antimicrobial Resistance and Use Surveillance System, and the Western Pacific Region Antimicrobial Consumption Surveillance System. It provides national data on antimicrobial resistance and use, supporting regional and global surveillance efforts.

Through investments in surveillance, international collaboration, and laboratory capability, CDA is strengthening Singapore's ability to detect emerging infectious disease threats early, enabling faster and more informed public health action whenever new risks emerge.



03 *Prevention, by Design*

Protecting Singapore before diseases spread

The most effective way to stop an outbreak is to prevent it from happening in the first place.

Preventing diseases from spreading requires sustained action long before outbreaks emerge. Throughout FY2025, CDA strengthened Singapore's prevention ecosystem by reinforcing multiple layers of protection – from vaccination and infection prevention control to coordinated national strategies that reduce the risk of future infectious disease threats.

The Best Defence

Vaccination remains one of the most effective ways to prevent infectious diseases, protect individuals from severe illness, and reduce transmission in the community. As scientific evidence and Singapore's population health needs evolve, our national immunisation programmes must adapt to keep Singaporeans safe throughout every stage of life.

Protection begins early in life. Through the National Childhood Immunisation Schedule, Singapore maintained more than 95 per cent vaccination coverage for measles (Dose 1) and diphtheria (primary series) among children aged two years, helping to sustain population immunity against both diseases.

In September 2025, CDA updated the National Adult Immunisation Schedule (NAIS) to include the recombinant herpes zoster vaccine (Shingrix) and the 20-valent pneumococcal conjugate vaccine (PCV20). This involved developing clinical guidelines, establishing policies to facilitate vaccine access, and enhancing IT systems to enable smooth implementation. The update builds on Singapore's broader adult immunisation

strategy, which has strengthened protection against vaccine-preventable diseases over time. Locally, among adults aged 65 years and above, pneumococcal vaccination uptake has increased from 23 per cent in 2020 to more than 67 per cent in 2025.

CDA also continued building the evidence needed to inform future immunisation policies. In FY2025, the agency collaborated on two seroprevalence studies involving healthcare workers, with the findings published in March 2026. The studies validated existing vaccination requirements for healthcare workers under the Healthcare Services Act, while identifying areas for further review. These findings will inform future vaccination recommendations for healthcare workers and help shape broader immunisation policies over time.

Keeping Communities Safe

Vaccination is one key layer of protection. But preventing infectious diseases also depends on maintaining high standards of infection prevention and control (IPC), as well as engaging professional communities and the wider public.

Maintaining consistently high IPC standards across Singapore's healthcare system is the foundation of effective infection prevention. A key priority for CDA in FY2025 was strengthening infection prevention practices across healthcare institutions through common standards, surveillance and practical guidance.

The second cycle of the national IPC Peer Review Programme was completed across all 11 public acute hospitals. It identified opportunities for system-wide improvement, while strengthening alignment with the 10 core components of the

National IPC Standards for Acute Healthcare Facilities, to build overall resilience to future infectious disease threats. The programme will progressively expand to include private hospitals from 2027.

Building on these common standards, CDA worked with the National Infection Prevention and Control Committee (NIPC) to introduce the National IPC Guidelines for Water Management in Acute Healthcare Facilities in March 2026. The guidelines establish a structured, risk-based approach to managing water systems, helping healthcare institutions minimise the risk of healthcare-associated waterborne infections.

Alongside these measures, CDA expanded the Healthcare-Associated Infection Point Prevalence Survey (HAI-PPS) programme to include community

hospitals, providing a more comprehensive picture of infection patterns across Singapore's healthcare landscape. With this, healthcare institutions are better able to benchmark their performance against national data and identify opportunities for targeted IPC interventions. CDA has also completed the third national HAI-PPS programme in acute care hospitals in FY2025, with the findings reported to the NIPC to inform national IPC priorities and policies.

Effective infection prevention extends beyond hospitals. CDA established a national infection prevention and outbreak management protocol to cover nursing homes and social welfare homes, providing practical guidance on infection prevention and outbreak management. Meanwhile, the National Infection Control and Healthcare Epidemiology-Agency for Integrated

Behind Every Seamless Rollout

Getting vaccinated should be simple. For most people, it begins with straightforward questions: Which vaccination should I get? Where can I receive the vaccine? How much will it cost? Behind the answers lies a complex chain of work that begins long before the first appointment is booked.

When the NAIS was updated in September 2025, CDA's policy, digital and communications teams worked closely together to ensure that accurate, consistent and accessible information was available from day one. Their work extended well beyond announcing the new recommendations. Every piece of public-facing information, including vaccination recommendations and cost information, had to be reviewed, updated and aligned across multiple platforms so that members of the public received consistent and clear information.

CDA also collaborated with various partners to enhance the Health Appointment System for shingles and

pneumococcal vaccinations. The new booking function for shingles vaccination facilitates appointments at Community Health Assist Scheme clinics with available vaccine stock. With improved access to information on vaccines, subsidies and appointment bookings, residents benefit from a more seamless experience.

When this work is done well, most people will never notice it. They simply find the information they need, book their appointments, and move forward with confidence. The experience feels seamless – not because it is simple, but because countless details have been carefully coordinated behind the scenes.



Care Collaborative Engagement for Nursing Homes programme established a model for structured inter-agency partnerships that can be replicated across healthcare and social care sectors, deepening sector engagement and continuous improvement in infection prevention and control practices.

Informed healthcare professionals play a critical role in preventing infectious diseases. During the year, CDA launched a webinar series for medical practitioners, providing timely updates on rapidly evolving communicable disease threats. The first two sessions, covering Nipah virus and measles, reached more than 1,600 medical practitioners in total during periods of heightened public concern.

Preventing infectious diseases also requires engaging the wider community. In partnership with International SOS and the Singapore National Employers Federation, CDA conducted the HIV Workplace Outreach Programme, engaging more than 60,000 working adults and 10,000 companies to address HIV-related stigma and promote prevention awareness.

Building a culture of prevention also means reaching out to future generations. Organised with Republic Polytechnic and Compassvale Secondary School, the Antimicrobial Resistance (AMR) Youth Hackathon held in October 2025 brought together 80 students from 24 teams to deepen their understanding of antimicrobial resistance and develop new ways to communicate AMR messages more effectively to their peers. By strengthening prevention across healthcare settings and the wider community, CDA is helping to reduce infectious disease risks before they develop into larger public health threats.

Thinking in Systems

Infectious disease risks cannot be managed by any single agency or sector alone. Many emerge through the interaction between people, animals and the environment, making coordinated action across sectors essential.

A shared national framework provides the foundation for sustained coordination. In FY2025, CDA advanced Singapore's One Health agenda

by launching the first One Health Master Plan. The five- to ten-year roadmap was developed jointly with the National Environment Agency (NEA), National Parks Board (NParks), PUB, Singapore's National Water Agency, and Singapore Food Agency (SFA). It provides a shared strategic direction for cross-sector collaboration, built around four guiding principles of collaboration, coordination, communication and capacity building.

By establishing common priorities and a shared framework for action, the Master Plan enables agencies to better align their efforts, which strengthens pandemic preparedness, improves disease detection mechanisms, and bolsters collective response capabilities.

Staying Ahead of AMR

Few public health challenges illustrate the importance of coordinated action more clearly than AMR. Preserving the effectiveness of antimicrobial medicines depends on sustained action across healthcare, agriculture, environmental management, and research, supported by strong national coordination.

In FY2025, CDA launched Singapore's Second National Strategic Action Plan on Antimicrobial Resistance, jointly developed with NEA, NParks, PUB and SFA. Setting out eight national targets to be achieved by 2030, the action plan establishes a clear national roadmap for coordinated action across the human, animal and environmental health sectors.

To support the action plan's implementation, CDA also put in place a Monitoring and Evaluation Framework to track its progress against the goals established. By measuring outcomes, identifying gaps, and monitoring implementation over time, the framework helps ensure that Singapore's long-term efforts to prevent and control infectious diseases remain on track.

Taken as a whole, these complementary efforts strengthen Singapore's prevention ecosystem, helping to reduce infectious disease risks before they develop into larger public health threats.



04 *When it Matters Most*

Responding decisively when every moment counts

Preparedness and surveillance serve a common purpose: enabling Singapore to respond swiftly and effectively when infectious disease threats emerge. When every decision has the potential to influence the course of an outbreak, response capabilities must be ready to operate at speed, supported by timely surveillance, strong scientific expertise and coordinated operations.

Throughout FY2025, CDA responded to a wide range of infectious disease threats. From investigating outbreaks, coordinating multi-agency responses, and providing laboratory and clinical expertise, the agency translated preparedness into decisive public health action whenever it mattered most.

A System to Tackle Every Threat

No two infectious diseases are exactly alike. Some are transmitted through the air, while others spread through contaminated food, vectors, close contact or other routes. Each presents distinct public health challenges and requires different surveillance, investigation, and control measures. Responding effectively requires an agile public health system that can rapidly adapt its investigations and control measures, while maintaining a coordinated national approach.

Airborne Diseases

Tuberculosis remains a public health concern despite being both preventable and treatable. To address this, CDA adopted a more flexible and patient-centred approach to tuberculosis control in FY2025.

A risk-based Directly Observed Therapy model was introduced for patients with drug-sensitive tuberculosis, allowing care to be better tailored according to individual patient needs. Patients who are assessed to have lower risk may receive treatment through Video Observed Therapy or Self-Administered Therapy, while closer supervision is maintained for patients with more complex care needs. The model has been progressively rolled out in collaboration with the National Tuberculosis Care Centre and selected polyclinics, enabling more efficient use of healthcare resources while maintaining high standards of patient care.

CDA also strengthened tuberculosis cluster investigations through expanded use of Whole Genome Sequencing. Combined with epidemiological investigations and geospatial analysis, genomic findings help identify potential transmission settings more precisely. This supports more targeted screening and effective outbreak management.

Beyond tuberculosis, CDA investigated more than 35 respiratory cluster outbreaks in nursing homes in FY2025. The findings informed targeted infection prevention and control measures and vaccination efforts, helping to reduce the risk of further transmission among the vulnerable residents.

Food- and Vector-Borne Diseases

Effective control of food- and vector-borne diseases requires close coordination across epidemiology, laboratory science and One Health

The Right Response

Every contact matters—but not every contact requires the same response.

As measles resurged globally, this judgement was put to the test. Between January and March 2026, CDA investigated 109 suspected measles notifications, confirmed 28 infections through Polymerase Chain Reaction testing, and managed more than 4,200 contacts. Every investigation called for careful assessment about who had been exposed, who was most at risk, and what public health action was needed.

For Public Health Officer Audrey Leong, a member of CDA's measles response team, no two investigations began with the same picture. Each case arrived as a series of disconnected details – when symptoms began, where the person had travelled, who they had met, whether they had been vaccinated, and the settings where exposure may have occurred. Individually, these details revealed little. Together, they came to form the picture that guided the team's response. But understanding the situation was only the first step. The next challenge Audrey and her team had to face was deciding what that response should be.

Not every contact carried the same level of risk. Some contacts required immediate follow-up. These included people who were not immune, those who were more vulnerable, and individuals who might benefit from post-exposure prophylaxis. Others could be managed through public health advice and symptom monitoring. As investigations progressed and new information emerged, the team's assessment evolved too, ensuring that every response remained proportionate to the level of risk.

Growing case numbers also demanded sound judgement in how public health resources were deployed. Public health officers continually assessed each situation, directing their expertise to more complex cases while ensuring that every contact remained proportionate to the level of risk. Ultimately, the strength of the response lay in knowing how and when contacts should be treated appropriately.



partner agencies to identify sources of infection and interrupt transmission.

In 2025, CDA investigated 49 gastroenteritis outbreaks, enabling timely, targeted interventions to contain outbreaks, and worked closely with key stakeholders to address public health risks. These collaborative efforts helped to keep Singapore's foodborne illness rate at 16.8 cases per 100,000 population in 2025, compared to 22.8 in the previous year. CDA also worked closely with key stakeholders to manage the cereulide contamination incident in infant milk products between January and March 2026.

Following the detection of local Zika cases in June 2025, CDA and the National Environment Agency jointly implemented a coordinated, tiered response under Singapore's One Health approach. Human case notifications were integrated with wastewater and mosquito

surveillance data to guide targeted public health response measures, including vector control operations and public communications.

Zoonotic Diseases

Responding to zoonotic threats requires close coordination with partner agencies.

Following reports of Nipah virus infection in South Asia in January 2026, CDA implemented risk-stratified border health measures along with the Ministry of Health, Civil Aviation Authority of Singapore, Immigration & Checkpoints Authority, and Maritime and Port Authority of Singapore. Healthcare institutions were also reminded to maintain heightened vigilance and notify CDA immediately of any suspected and confirmed Nipah virus infections. The measures were progressively adjusted as the regional situation evolved, ensuring that Singapore's response

remained proportionate to the assessed level of risk.

Rapid laboratory capabilities proved equally critical when CDA detected Singapore's first two cases of mpox clade 1b in March 2026, confirming the first case within 24 hours after laboratory findings suggested an unusual Orthopoxvirus infection, which was not detected by routine mpox-specific assays. The speed of confirmation enabled public health measures to be implemented promptly even as further investigations continued.

HIV, Hepatitis, and Sexually Transmitted Infections

Not every public health response involves containing an outbreak. For diseases such as human immunodeficiency virus (HIV), hepatitis B and C, and other sexually transmitted infections (STIs), sustained prevention, early diagnosis and access to treatment are essential in reducing transmission and improving long-term health outcomes.

CDA continued to strengthen long-term programmes in these areas in FY2025. Singapore remains on track to achieve the Joint United Nations Programme on HIV/AIDS 95-95-95 targets. Close to 90 per cent of people living with HIV know their diagnosis, 96 per cent of those diagnosed are receiving treatment, and 94 per cent of those on treatment have achieved viral suppression.

Access to HIV testing was further expanded in FY2025 through the rollout of self-testing kits to more than 100 sites nationwide, including selected retail pharmacies and community partners, with average monthly demand exceeding 800 kits. CDA also updated the Primary Care Recommendations for People Living with HIV to raise standards of clinical practice and support patient-centred care.

To strengthen Singapore's response to viral hepatitis, CDA established the National Hepatitis C Programme Steering Committee in FY2025. Bringing together experts from relevant ministries alongside specialists in gastroenterology and hepatology, the Committee laid the foundations for a coordinated National Hepatitis C Programme to improve hepatitis C prevention, diagnosis and care.

The Science Behind Every Response

A good public health response depends on timely scientific and clinical advice. As infectious disease threats evolve, decision-makers require expert guidance to inform policy decisions, outbreak prevention and management, clinical protocol and treatment recommendations, and national preparedness planning.

To bolster preparedness, readiness and response for infectious diseases threats, CDA convened the Infectious Diseases Clinical Advisory Committee (IDCAC) in FY2025, bringing together heads of infectious disease departments across Singapore's public healthcare institutions and clinicians from the private sector. Together they have expertise in a wide range of infectious diseases, including paediatric infectious diseases, infection prevention and control, antimicrobial resistance, vaccines, outbreak preparedness and epidemiology. The Committee provides expert clinical advice on infectious diseases matters of national importance, ensuring that response measures remain informed by the latest evidence.

CDA, in consultation with the IDCAC, completed 60 clinical review requests during the year. These include informing CDA's approach on clinical protocols, guidelines and recommendations, advisories, circulars, vaccine and infection prevention and control recommendations, pandemic preparedness, therapeutics, stockpiling, research proposals, and other professional and public health communications.

CDA also established a rigorous clinical guidance development framework which includes having a structured topic prioritisation framework, systematic review processes and using validated methodologies and tools for developing evidence-based guidance and recommendations.

Together with Singapore's laboratory, epidemiological and operational capabilities, this clinical expertise enables CDA to act decisively when infectious disease threats emerge. These integrated capabilities help ensure that every response is timely, evidence-based, and proportionate, protecting public health while strengthening national resilience against future outbreaks.



05 *In for the Long Run*

Investing today for tomorrow's health security

Tomorrow's health security depends on the investments made today. Sustained investment in research, partnerships and scientific capabilities builds the knowledge, evidence and expertise needed to prepare Singapore for future infectious disease threats.

Throughout FY2025, CDA continued strengthening these foundations through international collaborations, scientific research and clinical studies, building the evidence and expertise that will safeguard Singapore's long-term health security.

Partnerships Beyond our Shores

Infectious diseases do not respect borders. Strengthening Singapore's health security therefore depends not only on national capabilities, but also on trusted international partnerships that enable countries to share expertise, exchange timely intelligence, and advance scientific collaboration.

In FY2025, CDA hosted delegations from the World Health Organization, Chinese Center for Disease Control and Prevention, Beijing Health Commission, and the Robert Koch Institute. These exchanges covered outbreak intelligence, professional training, and the use of emerging technologies such as artificial intelligence and big data in communicable disease surveillance.

International engagement extends beyond building partnerships—it also enables Singapore to contribute to the development of global public health policy and practice. In FY2025, CDA represented Singapore at key international forums, including the World Health Assembly, World Health Summit, and International Association of National Public Health Institutes Annual Meeting. Through these platforms, CDA shared Singapore's experience, exchanged expertise with international counterparts, and contributed to discussions on global public health policy and preparedness.

Singapore continues to play a leadership role in advancing regional collaboration on infectious diseases. In FY2025, CDA secured commitments for Singapore to lead as the head of the Singapore delegation at the 2026 ASEAN One Health Network meeting and will co-chair and host the 2027 gathering. The appointments reinforce Singapore's and CDA's leadership in advancing regional collaboration on infectious disease prevention and control.

These international engagements reinforce the importance of global collaboration in preparing for future infectious disease threats, while enabling Singapore to contribute its expertise to the shared effort.



Advancing Research to Inform Public Health Decisions

Sound public health decisions depend on robust scientific evidence. Building that evidence requires sustained investment in research infrastructure, clinical studies, funding, and scientific expertise to generate the knowledge needed to tackle future public health challenges.

Sustainable long-term infectious disease research depends on robust national research infrastructure. The National Infectious Disease Biorepository came under the strategic governance of CDA in FY2025 and serves as Singapore's first national infrastructure for the systematic collection, preservation, and

management of microbial specimens, streamlining access to these biological resources. As of March 2026, the Biorepository maintains a total of 56,514 specimens.

Scientific progress depends not only on infrastructure, but also on sustained investment in researchers and innovative ideas. As Singapore's national coordinating body for infectious disease research funding, CDA awarded eight Catalyst Grants and 10 Short-Term Fellowships, supporting S\$500,000 in research across a range of infectious disease priorities. The grants and fellowships build national research capability while supporting the next generation of infectious disease researchers.

Behind Every Milestone

Volunteering to be infected for science is something most people would instinctively avoid.

For the Singapore Platform for Controlled Human Infections with SARS-CoV-2 (Sing-CoV), Singapore's first controlled human infection study, the challenge was therefore never simply scientific. Before volunteers could be enrolled, the team had to establish that the study could be conducted safely, ethically and responsibly in Singapore. Although controlled human infection studies had been carried out internationally, there was no local precedent.

Senior Principal Scientific Officer Dr Conrad Chan and Scientific Officer Dr Poh Xuan Ying, took on this novel challenge. Working with collaborators, including Imperial College London, the National University Hospital, Singapore General Hospital and National Centre for Infectious Diseases, the team adapted international practices to Singapore's regulatory and clinical environment.

The uncertainties extended beyond the science itself. What safeguards were needed to protect the participants and staff? How could participants be fully informed of the risks? What would it take for the study to earn the confidence

of clinicians, regulators and the public? Through rigorous review by the IRB and IBC which cover more areas than ethics and laboratory safety respectively, robust informed consent, and carefully designed participant selection, the team established the conditions needed to conduct controlled human infection studies safely and responsibly in Singapore.

When Sing-CoV concluded, it represented more than Singapore's first controlled human infection study. It demonstrated that such studies could be conducted safely and responsibly within Singapore's ethical, regulatory, legal, and operational frameworks. That foundation is already being applied to subsequent SARS-CoV-2 studies and the dengue challenge study DEN-CHIM-01 – demonstrating that what began as an unprecedented undertaking has become an enduring national capability that strengthens Singapore's preparedness for future outbreaks.



Clinical research generates the evidence needed to improve patient care and inform future treatment. During the year, CDA continued to support the management and coordination of the INVEST randomised clinical trial until recruitment completion, where 720 participants were enrolled across 24 hospital sites in 10 countries. The INVEST trial aimed to evaluate whether switching to oral antibiotics early is as effective and safe as continuing intravenous antibiotics for simple blood infection caused by a group of bacteria known as Gram-negative bacteria. If the clinical outcomes of the study intervention are positive, the study would generate evidence to support an earlier switch to oral antibiotics, which would help improve patients' quality of life, while reducing healthcare costs.

CDA has also established its research laboratory, the CDA Research Laboratory, which serves as a unified platform for infectious disease research encompassing bacteriology, virology, immunology, and diagnostic evaluation. Four research projects were approved in FY2025, covering infectious disease surveillance, vaccine effectiveness, and emerging zoonotic diseases. Two key initiatives, the COVID-19 Vaccine Immunity Initiative and the Rodent-Borne

Diseases Initiative, are currently underway. The former assesses how well COVID-19 vaccines perform against locally circulating SARS-CoV-2 variants and the latter addresses a longstanding gap in local data on rodent-borne diseases such as murine typhus and leptospirosis.

Research achieves its greatest impact when new knowledge is shared with the wider scientific community. In FY2025, CDA researchers published 86 publications and completed 33 research projects, spanning topics such as antimicrobial resistance, respiratory tract infections, sexually transmitted infections, vector-borne diseases, and tuberculosis. The research informs global health policy, strengthens national public health operations, and supports evidence-based clinical practices and the delivery of health services.

Together, these investments are building the knowledge, evidence and scientific capability needed to strengthen Singapore's long-term health security. By investing in research, partnerships, and innovation today, CDA is ensuring that Singapore is not only ready for the next infectious disease threat – but better equipped for those that follow.



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