



Roche Diagnostics Asia Pacific Sustainability Report 2020/21

The Frontlines
of Healthcare



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Overview

“ *Sustainable healthcare is high quality healthcare, made affordable and accessible to everybody.* ”

Lance Little

Managing Director,
Roche Diagnostics Asia Pacific



Home to 60% of the world's people, Asia Pacific (APAC) is a large and diverse region with a mix of markets at different stages of their healthcare journey. But hearteningly, the region is making progress toward providing greater health coverage to citizens, improving public infrastructure and services, and making healthcare more affordable and accessible to all, particularly the marginalised communities.

While the healthcare challenges facing the APAC region are myriad, so are its opportunities. Developed, high income markets are seeing rapidly ageing populations, with rising costs increasingly becoming core concerns. Yet this can be a catalyst for the healthcare industry to innovate, adopt new and more efficient technologies, and boost preventive health programmes. For developing or low-income markets that face rapid population growth and low access to essential health services, programmes to build capacity and establish basic healthcare access, particularly in rural areas, is the first step forward. Meanwhile, in medium-income markets, their unique

circumstances call for a targeted approach to tackle high burden diseases and underserved communities to plug potential gaps in a maturing healthcare system.

The impact of COVID-19 in 2020 and 2021 on healthcare systems across APAC cannot be underscoring enough. The devastating effect of the pandemic not only cost nations thousands of lives but placed immense stress on hospitals and infrastructure. Overwhelmed and struggling with limited funds, many healthcare systems restricted or postponed access to essential services for patients, creating a shadow healthcare crisis that may plague the region in the years to come.

To overcome these challenges and create truly sustainable healthcare, APAC's healthcare systems must embrace both diagnosis and testing, as well as equitable access to these services. As COVID-19 has shown, identifying infections early and preventing them from spreading is the best way to protect the health of a population. These key preventive tools

raise people's overall health awareness, improve treatment outcomes, and reduce the strain on healthcare resources. In our partnerships with governments across APAC to strengthen healthcare systems, we worked to show how diagnostics can both be a powerful tool in creating better healthcare systems, as well as how it should be inclusive and accessible to all patients, including the poor, rural communities, and those at risk.

Roche Diagnostics works closely with its pharmaceuticals division to search for better ways to prevent, diagnose and treat diseases and make a sustainable contribution to society and improve patient access to medical innovations through partnerships with key stakeholders.

Health is the bedrock for societies and economies to thrive and prosper. In advocating for sustainable healthcare, we are collectively strengthening the foundation of socioeconomic growth and development, while ensuring that no patient gets left behind.

Our Commitment to Sustainability



Sustainability has been an integral part of the Roche business for 125 years. We are now moving towards simpler, more focused sustainability goals that align with both business objectives as well as environmental, social, and governmental imperatives shared by the international community.

We have built up trust and repute among our customers and successfully reached patients through total regulatory compliance. We can – and are – going far beyond simple compliance to proactively embrace and pursue greater impact in economic, societal and environmental areas.

We mapped our desired impacts of the business’ four key pillars of sustainability – patients, society, environment, and people – to the United Nations’ Sustainable Development Goals to ensure these objectives are fully integrated into our business strategy. Given our status as a global healthcare company, we resonate strongly with the goal of ensuring healthy lives and promoting wellbeing for all.



PATIENTS

We are always innovating for patients, ensuring quality products, increasing accessibility to healthcare with improved distribution of our solutions, furthering scientific discovery with clinical trials, and operating at the forefront of personalised healthcare.



SOCIETY

We want to improve the societies in which we operate, meeting the highest standards of business ethics and compliance, protecting human rights, supporting communities in need with humanitarian and social projects, and being a responsible and trustworthy partner.



ENVIRONMENT

Environmental sustainability is central to humanity’s future. We seek to minimise our carbon footprint in all our operations and products, protect the climate through recycling and waste reductions initiatives, and deliver robust corporate responsibility reporting.



PEOPLE

Making Roche a great place to work is our goal. We strive to build up our people, ensure diversity and inclusion in our workforce, champion employee wellbeing, encourage open dialogue, cultivate leadership skills and promote women in leadership roles.

APAC: Our Impact In The Fight Against COVID-19

“ *The COVID-19 pandemic has exacerbated the need for public and private sectors across the globe to work together. In these unprecedented times, we are more than ever committed to work in close collaboration with all global health actors to ensure that medicines and diagnostics reach the people who need them.* ”

Since the global outbreak of Covid-19 in January 2020, Roche has been at the forefront of Asia Pacific's battle against the coronavirus, working shoulder to shoulder with governments, frontliners and researchers to test, trace and contain the spread of infections.

As a partner to governments, we stepped up as a pillar of support, doing everything we could to support testing capacity by delivering a full portfolio of reliable diagnostic solutions and instruments in record time to meet urgent national needs. Together with other global pharmaceutical and diagnostics companies, we pledged to ensure that poorer countries could afford

the COVID-19 diagnostic products they need through donations and the distribution of products.

We worked tirelessly to obtain solutions approvals within days, moved quickly to obtain assay shipments ahead of official requests, supported research around efficacy testing, rapidly installed testing instruments in public healthcare facilities, and shared expertise with the industry and government officials. Combined, these efforts contributed significantly to the creation of an effective pandemic response and timely scale up and rollout of testing, ultimately bringing the COVID spread under control and preserving the lives of thousands.

Severin Schwan
CEO, Roche



Our Approach to Sustainability

PATIENTS

While COVID-19 efforts were front and centre from 2020 to 2021, we did not let up on our commitment to improve the lives of patients amid these challenging times. In particular, our sustainability initiatives continued to address the most pressing non communicable diseases plaguing the Asia Pacific region, particularly cancer and cardiovascular disease, often the leading causes of death in nearly every APAC market.

With our systemic approach to raising awareness of these pressing diseases and establishing partnerships with government bodies to deliver medicines and diagnostics, we helped our affiliates create stronger, more sustainable healthcare systems where patients benefit from improved testing, treatment and care.

SOCIETY

We believe in supporting the communities in which we operate, especially the most vulnerable groups, to strengthen our connection to local communities. In 2020 and 2021 our initiatives concentrated on women, children, and the elderly, with our people rallying as OneRoche to raise funds and marshall assistance for these groups in need.

Together, these philanthropic donations and humanitarian projects helped those most in need across Asia Pacific better tide through the turbulent changes wrought by COVID-19 and emerge stronger.

ENVIRONMENT

At Roche, environmental commitments are at the centre of our sustainability goals for the coming decades. Across the region, our offices are working to minimise waste, reduce energy intensity, and slash our carbon footprint in ways large and small.

Our offices are migrating to paperless operations, promoting waste recycling with designated waste bins, switching to sustainable catering, and eliminating single-use plastics. As climate change and environmental pollution continue to be the world's most pressing concerns, we remain determined to responsibly operate green offices and supply chains through the entire product life cycle to be a truly zero emissions company by 2050.

PEOPLE

At Roche, we view diversity and inclusion as an engine of innovation and key to our success. As one of the first major corporations in Europe to state our diversity and inclusion goals publicly, we have made substantial progress in achieving them – particularly around female representation, which is a notable achievement for the APAC region.

To look after the wellbeing of our people, the majority of our APAC offices rolled out wellness programmes amid COVID to protect their mental and physical health. This is part of our commitment to create a workplace where each individual is given the support they need to fully contribute their skills, experiences and perspectives.

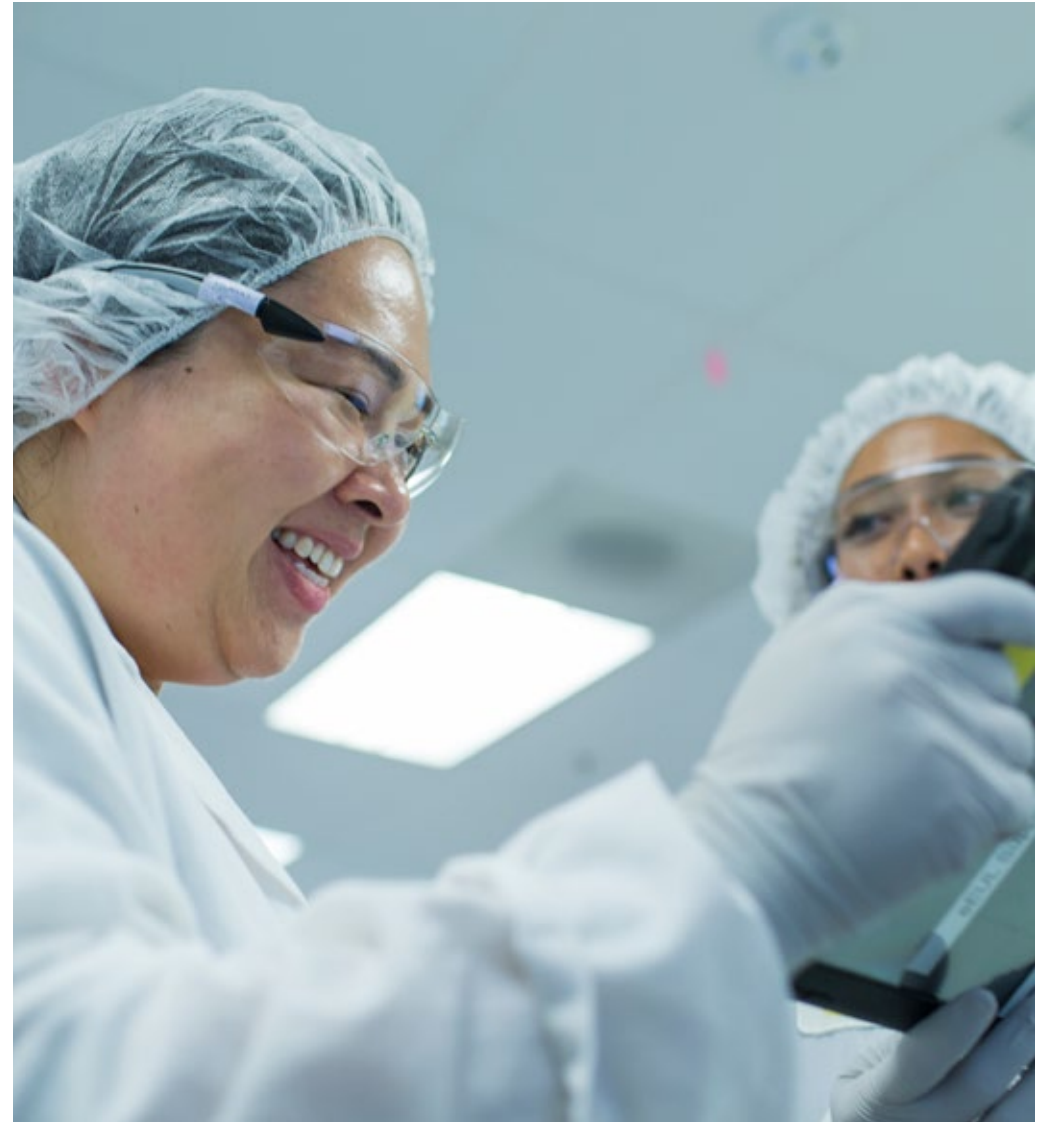
What's Next

There is still much more that can be done before sustainable healthcare becomes a reality for each APAC citizen. We know this is a huge undertaking that cannot be achieved alone. That is why we have always partnered with stakeholders and engaged in open, constructive dialogue with industry and peers to collectively advance innovation, refine processes, and make progress.

Partnership is at the heart of our sustainability strategy. Our strong and deep relationships with governments, public healthcare institutions, industry associations, research partners, and non-governmental organisations have seen us co-create frameworks for sustainable healthcare and strengthen national health systems. As the world emerges from COVID-19, now more than ever do we need public and private stakeholders to work together to ensure healthcare access for all, and good health and wellbeing for every person a reality, both now and in the future.

Together, we can craft solutions crucial to closing inherent gaps in the standard of care in the APAC region, and help it address its most pressing challenges, without sacrificing the interests of the planet or people.

*Join us in doing
now what patients
need next.*



Our Impact in Australia

Spearheading our climate commitment



AUSTRALIA IN 2020/2021

Australia is home to 25.7 million people that generally enjoy good health and long lives, thanks to a world-class healthcare system. But with nearly half the population suffering at least one chronic condition the nation's healthcare spend has been rising exponentially.

Climate change is a major threat to Australians' health and wellbeing. Over the past two years, the continent has been ravaged by a series of extreme weather events, from the massive "Black Summer" and bushfires, to the storms, cyclones and floods rampaging across the nation in 2021. These calamities not only have the potential to cause illness, they also exacerbate health conditions and cause rippling socioeconomic effects such as food shortages.

OUR COVID-19 CONTRIBUTIONS

Australia has been a global leader in its response to the COVID-19 pandemic, employing a targeted containment strategy that resulted in a low prevalence of infections. Effective and widespread testing were key to this success. We played a leading role in the scaling of national COVID-19 testing capacity, launching Australia's first automated commercial real time PCR test in March 2020 and utilising our large base of instruments to rapidly develop testing solutions for the country and providing laboratories instant capacity for testing.

LAUNCHING THE ONEROCHE CLIMATE CHANGE TASKFORCE FOR A MORE SUSTAINABLE AUSTRALIA

Following the grievous natural disasters that ravaged Australia in 2020, we set up the OneRoche Climate Change Taskforce, spanning the Diagnostics, Diabetes Care and Pharmaceutical divisions, to supercharge our commitment to environmental protection. We also worked

collaboratively with our core customers to develop improved supply chain and logistics initiatives to reduce waste in support of our shared sustainability goals.

One-fifth of our local energy consumption now stems from renewable sources, a figure that is expected to rise to 75% by June 2023 on the back of fresh changes implemented as part of our transformation goal for Roche workplaces to run completely on renewable energy. We are well on track to meet our 100% Green Energy Target by 2025, supporting the group's progress toward our target of bringing Scope 1 and 2 greenhouse emissions, which are direct emissions and indirect emissions from downstream activities, down to zero by 2050.

More on-the-ground initiatives also recorded significant progress, among them the push for a paperless workplace, with digital collaboration tools and electronic signature software now the norm. We boosted the use of environmentally friendly bathroom supplies, installed dedicated recycling bins, and introduced a sustainable catering initiative across all sites, helping us identify and remove single-use plastics from catering and rationalised ordering processes, ultimately reducing food waste. Working with our waste and recycling providers to minimise end-of-life instrument and packaging recycling options, we successfully diverted 92% of our waste

across 2020 and 2021 away from landfills. To further complement these efforts, we are working with suppliers to increase the recycled content of our local packaging, per our commitments under the Australian Packaging Covenant.

Tightened borders amid the COVID-19 pandemic helped us significantly exceed our target of a 20% reduction in air travel. With our global project team, dubbed "Operation Small Foot", we fully expect to continue this progress in slashing our travel footprint post-pandemic through service models that encourage remote technical support options, minimising carbon-intensive air and road travel. We have also revamped our Roche vehicle policy to reflect a preference for energy-efficient vehicles, such as eco-friendly electric and hybrid options.

Beyond policy-led initiatives, our people stepped up in a big way to protect our Earth. In both 2020 and 2021, we marked World Environment Day as OneRoche, with employees launching grassroots initiatives to reduce carbon emissions around flights, packaging, and recycling, and continuing to volunteer – albeit virtually – at climate change and conservation charities amid the pandemic during our OneRoche Volunteer Week.

RAISING A\$12,000 AT THE ROCHE CHILDREN'S WALK 2021

Due to stay-at-home orders amid the



COVID-19 pandemic, our annual Roche Children’s Walk was adapted in 2020 to be conducted individually and at home, where we encouraged employees to fundraise and hold staff competitions. In 2021, with the easing of restrictions, we managed to hold the walk at our Sydney head office to great success, raising over A\$12,000 in employee contributions. Proceeds went to Camp Quality, a non-profit Australian charity that helps children aged 15 and under cope with a cancer diagnosis, or the diagnosis of a sibling or parent.

The funds will support Camp Quality’s services and programs, including therapy, hospital entertainment, funeral support, school cancer education.

Our 2021 walk, which saw the participation of many new joiners for the first time, allowed colleagues to connect and witness from Camp Quality representatives how their efforts would contribute to improving the lives of families and children affected by cancer.

LEADING ASSESSMENTS OF DIABETES PATIENTS AT RISK OF STROKE, HEART DISEASE

Diabetes accounts for 2.2% of Australia’s overall disease burden, and cardiovascular diseases like heart disease and stroke are among the leading causes of death among diabetes patients, with some 1.2 million patients hospitalised each year due to cardiovascular disease.

Yet existing risk assessment tools remain at the population and not individual level, contributing to an urgent need for earlier identification of diabetes patients at significantly higher risk of cardiovascular issues. In response, our Diagnostics and Diabetes Care divisions launched a project to identify patients at risk earlier and prevent their re-hospitalisation through better disease management.

We partnered with organisations including Diabetes Australia, NSW Health, AstraZeneca, Heart Foundation, Hunter Medical Research Institute and CSIRO to develop new treatments and funding

model proposals and are working to build awareness of the risks with the support of healthcare advocates, guideline writers, and key opinion leaders. Our commitment to creating better outcomes for everyone in Australia, including the communities within which we work and live, is demonstrated by our support for some key healthcare and charitable organisations. This includes our support for the 22q Foundation to raise awareness for 22q11.2 deletion syndrome, as well as our Conquering Cancer partnership with Moonlight, working towards the noble goal of eliminating cervical cancer in Australia by 2030.

Roche Diagnostics has played a critical role in aiding Australia’s response to the COVID-19 pandemic by partnering with businesses, advocacy, and the State and Federal Governments to keep everyone safe and healthy.



Highlights *in Numbers*

SOCIETY

> A\$12,000
raised at Roche’s Children’s Walk 2021

ENVIRONMENT

92%
of waste diverted from landfills to alternate fuel sources

20%
of local energy consumption from renewable sources

PEOPLE

42%
women employees

37.5%
women in leadership team, including the Managing Director

Our Impact in China

Conducting COVID research at the heart of the epidemic



CHINA IN 2020/2021

China is home to 1.4 billion people and a rapidly developing public healthcare system in the midst of structural reform. Medical infrastructure and disease prevention have been China's healthcare focuses since 2019, to counter the growing incidence of chronic diseases related to lifestyle habits. As of 2019, chronic diseases such as cardiovascular disease, cancer, and diabetes accounted for 88% of all deaths, and over 70% of the nation's overall disease burden. From October 2019 onward, the nation became the global epicentre of the coronavirus pandemic and its borders remain sealed for the foreseeable future as it continues aiming for COVID-zero. A positive effect of the coronavirus on China's health industry was the improvement of in-vitro diagnostics

development, with many local manufacturers launching nucleic acid tests, serology tests, and point-of-care tests.

OUR COVID-19 CONTRIBUTIONS

We supported the nation's COVID battle by contributing resources and medical equipment for clinical studies to better understand the nature of the virus and how to detect and contain it. At the onset of the pandemic, there was an urgent need for widespread testing. We played an integral role in helping China understand how diagnostics could be the first line of defense against infections, and supported multiple stakeholders, from the authorities to labs and healthcare providers, to trial testing solutions and conduct epidemiologic investigations around the virus to better shape China's pandemic containment strategy.

USING RESEARCH TO BATTLE COVID-19

The prevention of the pandemic required scientific research to be conducted, and valuable clinical data to be generated. We responded quickly to the urgent need by collaborating with medical associations and key opinion leaders to provide the knowledge and data required to combat COVID-19. Through participation in various research programs, we integrated internal and external expert resources to develop the clinical studies necessary to create solutions to the medical challenges China faced. These include a Remdesivir COVID-19 China clinical research project, led by professor Cao Bin from the China-Japan Friendship Hospital, which was the first research effort to investigate the efficacy of the antiviral medication Remdesivir in the treatment of COVID-19, and research into the immunological characteristics of convalescent COVID-19 patients led by professor Wang Feng from Wuhan's Tongji Hospital.

Furthermore, we participated in a research with Peking Union Medical College's Chinese Academy of Medical Sciences, collecting over 20,000 community samples from two cities to analyse the prevalence and immunity status of COVID-19 in the population, and supported the Chinese Center for Disease Control and Prevention and hospitals across the nation with testing by our molecular diagnostics arm,

TIB Molbiol, and testing capacity and instruments for COVID-19 research.

We also participated in evaluating SARS-CoV-2 screening strategies with pooling. To expand the capacity of polymerase chain reaction tests used to detect the presence of the virus, many countries were exploring a pooling strategy at the time, and we supported the nation in assessing the pooled testing performance of nucleic acid testing.

Together, these studies generated a great amount of clinical patient data that uncovered the impact of the SARS-CoV-2 virus on patient immunity and helped the nation develop treatments and vaccines for the disease, providing leaders with valuable insights that shaped an effective response to combat the COVID-19 spread. Moreover, these collaborations impressed Chinese experts with the high-quality of Roche's SARS-CoV-2 related assays and instruments and supported our leadership position in the diagnostics industry.

SLASHING WAIT TIMES FOR HEART ATTACK PATIENTS WITH MYLAB+ER

One in five Chinese adults suffers from cardiovascular disease¹, due to unhealthy lifestyle choices prevalent among the population, including as tobacco use, poor nutrition, lack of physical activity and excessive alcohol². As a result, Chinese hospitals see relatively high incidences



¹ https://world-heart-federation.org/wp-content/uploads/2017/05/Cardiovascular_diseases_in_China.pdf

² <https://www.cdc.gov/chronicdisease/about/index.htm#:~:text=Many%20chronic%20diseases%20are%20caused,Lack%20of%20physical%20activity.>



of emergency department admissions for cardiovascular disease-related complaints. But compared to the 0-hour/1-hour emergency department protocol common among other developed nations, China's comparatively longer 0-hour/6-hour rule-out protocol for heart attacks in patients with chest pain complaints has led to overcrowded emergency departments and longer waits for medical attention and test results, potentially increasing patients' risk of mortality and causing stress to patients and their families. To bring down the wait times for patients with chest pain

and increase the survival rates of those suffering a heart attack, we launched the MyLab+ER campaign to implement more efficient diagnosis and treatment of ER patients, slashing the turnaround time from 3-4 hours to 1-2 hours. Already, 353 chest pain centres in top hospitals have adopted our proposed workflow and are using the 0-hour/1-hour protocol to triage patients.

PROMOTING SAFER LUNG CANCER TREATMENT WITH TUMOR MARKER TESTS

For a nation prevalent with smokers, lung cancer is unsurprisingly the leading cause of cancer deaths in China. Once lung cancer has been diagnosed in a patient, common tools to manage the condition include routine CT scans held every three to six months. To fill the gap for simple, convenient monitoring tools, we equipped healthcare professionals with the knowledge of using tumor marker tests for cancer management and relapse monitoring. Over a three-year period, we educated over 1,000 healthcare professionals in top class "3A" hospitals on the use of tumor marker tests. Moving forward, we plan to educate an additional 500 healthcare practitioners each year on the use of these tests and cultivate more key opinion leaders for greater influence on the topic, in the hopes that adoption of these tests can offer more lung cancer patients easier and better management of their condition.

Highlights *in Numbers*

SOCIETY



RMB 81,030
raised from Roche Children's Walk 2021

ENVIRONMENT



7,000
saplings planted under China's "Million Tree Planting Project"

PATIENTS



353
chest pain centres in top hospitals adopted improved workflow for heart failure diagnosis

1,000
healthcare professionals educated in use of tumor marker tests

PEOPLE

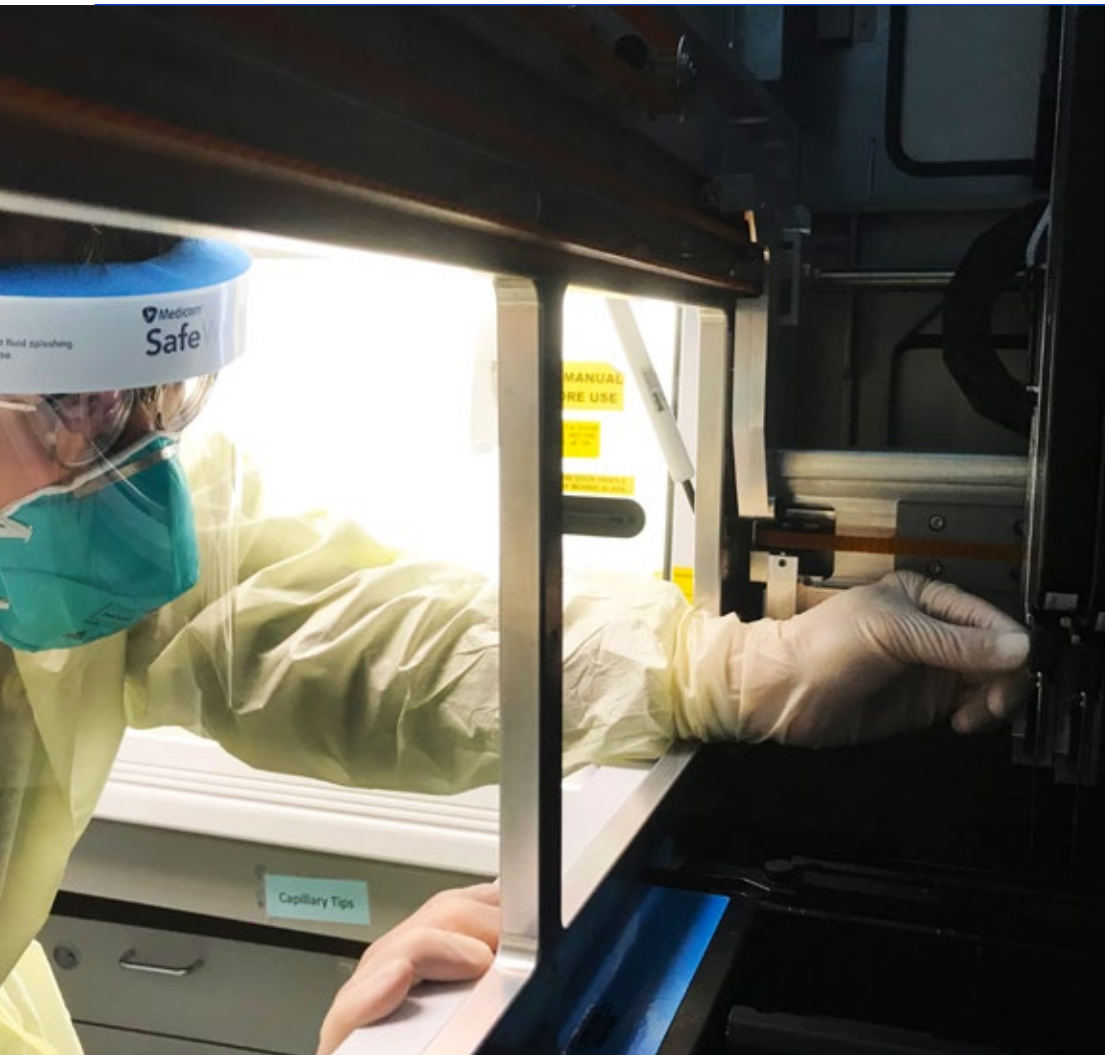


42%
women employees

37.5%
women in leadership team, including the Managing Director

Our Impact in Hong Kong

Boosting screening and diagnosis of diseases



HONG KONG IN 2020/2021

With a rapidly ageing population and low birth rates, Hong Kong is one of many developed cities working to combat rises in healthcare burdens on an expected leap in the number of seniors. By 2044, over a third of Hong Kongers are projected to be over 65 years old; combined with the increasing prevalence of chronic diseases, this looming super-aged society raises concerns about the long-term sustainability of the healthcare system. To alleviate the burden on the public healthcare system, efforts are underway to improve disease awareness and shift public mindsets from reliance on treatment to preventive healthcare.

ADVANCING CERVICAL CANCER TESTING FOR DISADVANTAGED WOMEN WITH PROJECT TEAL

For the past decade, cervical cancer has been one of the top 10 cancers among

women in Hong Kong. Yet it is one of the truly preventable cancers, and can be combated with a combination of regular screening and vaccination.

One of the factors contributing to the relatively high cervical cancer rate in Hong Kong is low motivation for women to get tested for the cancer; as of 2020, a whopping 57% of women have never gone for a cervical cancer screening. With the clear and urgent need to step up coverage and access to testing in the public sector, we launched project TEAL in 2017 to help eradicate cervical cancer and provide treatment advice in line with the latest medical guidelines.

To date, project TEAL has benefited more than 300 women between the ages of 30 and 60. The first two phases of the project in 2017 and 2018 were focused on active outreach, with hundreds of women screened and educated on the prevention of cervical cancer.

The third phase of the project in 2021 saw the introduction of self-testing, which is not yet part of the standard screening process in Hong Kong, but widely adopted as part of routine cervical cancer screening in nations including Australia and the Netherlands. Together with charity organisation Christian Action, the Karen Leung Foundation, the University of Hong Kong and the Family Planning Association of Hong Kong, our initiative provides underprivileged women who do not attend regular screenings with free access to PAP smears and our HPV DNA tests.

The administration of screening tests is simple. Women receive a self-sampling kit in the mail and take their own cervical sample at home. They can then bring this sample to be processed at one of five clinics under the Family Planning Association of Hong Kong, or have the sample sent to the lab for testing through a free courier service.

The third phase of the project will potentially benefit up to 500 women and so far 80 foreign domestic workers have successfully self-administered the test. We also supplied them with information and resources around how to better protect themselves against cervical cancer in the future.

By addressing the gaps in education and access to screening, we are spearheading efforts in Hong Kong to lower the incidence of highly-preventable cervical cancer and protect the lives of women, particularly

those in underserved communities, so they can continue to live healthy, fulfilling lives.

RAMPING UP HONG KONG'S COVID-19 TESTING CAPACITY

Roche Diagnostics has been a cornerstone of Hong Kong's COVID-19 response. At the outset of the pandemic in January 2020, we supplied Hong Kong with its first batch of test kits for emergency screening and worked closely with the Department of Health and 7 Hospital Authority (HA) clusters to kick start their COVID-19 surveillance programme, delivering reagent supplies within 2 weeks. As Hong Kong further ascertained its testing volume needs, our tests supported large-scale testing, and aided in criteria-based screening and early isolation of patients. Despite large order volumes and tight allocations for both testing instruments and reagents globally, we rose to the challenge of delivering installation, training, and service support to meet intense demand from customers, working with urgency, passion, and purpose to protect Hong Kong's population. In all, we have been a key player in supporting professional testing sites and home testing, in the process forging long-term partnerships with the government sectors and buttressing the city's COVID-19 testing service.

A GREEN OFFICE OVERHAUL

To take proactive steps toward truly carbon-free operations, we overhauled our Hong





Kong office in 2020 to drive more sustainable practices. Core to the renovations was the installation of energy efficient features that reduced our electricity consumption in 2020 by 35%. We installed LED lights, motion-sensor light switches, and energy-saving light sensors that conserve light use in the day. A new layout eliminated individual offices, placing meeting rooms in the centre of spaces and employing glass partitions to allow more sunlight into shared workspaces to save energy.

Within the office itself, new practices helped us realise a 60% reduction in paper consumption. These include the use of e-signatures for most process approvals, the installation of recycling bins in common areas, and the elimination of paper letters and notifications to customers, which were replaced with their digital counterparts.

Our overhaul marks an important milestone in our endeavours to reduce the consumption of materials and energy, and contribute positively to sustainable development.

Highlights *in Numbers*

SOCIETY



HK\$ 1 million

donated to 5 charities from 2020 to 2021 to help the underprivileged

300

women screened for cervical cancer

PATIENTS



1,000

healthcare professionals trained in areas such as high-medical value marker

60,000

patients benefitted from novel heart failure diagnosis solution in public hospitals

ENVIRONMENT



35%

reduction in office electricity consumption in 2020

60%

decrease in office paper consumption in 2020

PEOPLE



55%

of women employees

72

employees engaged in 6 workshops on agile transformation, creative leadership

Our Impact in India

Enhancing healthcare access for rural women



INDIA IN 2020/2021

With a population of around 1.4 billion, a high non-communicable disease mortality rate of over 60%, and a public healthcare programme still in its formative stages, opportunities are abundant in India to improve healthcare delivery and help millions of patients live longer, better lives. India's public spend on healthcare stood at 1.2% of GDP in 2021, a figure the government aims to increase to 2.5% by 2025. In its 2021 Budget, India pledged to double its current healthcare spend by the next fiscal year to boost a sector besieged by COVID-19.

This represents a major boost in access to healthcare for people in rural areas, with visits to government health facilities among this group on the rise.

OUR COVID-19 CONTRIBUTIONS

With over 33 million infections, India ranks second in the world for COVID-19 cases, behind the US. India's second wave saw a devastating rise in cases in April and May 2021. As the leader in in-vitro diagnostics, Roche Diagnostics India worked with the Prime Minister's Office and government bodies to support overburdened hospitals and clinicians with biomarkers that would accurately determine infection, severity levels, and the future course of treatment in order to optimise limited resources. We expedited access to biomarkers critical for severe hospitalisation, working with global colleagues to ship stocks from warehouses in Brazil and South Africa via special chartered flights to India. We also worked with customs officials to secure same-day clearance and transport these biomarkers to hospitals and labs across the country, and supplied 2 million PCR tests to India within just 3 months to expedite COVID testing across the country.

FOR TRIBAL WOMEN AND CHILDREN, PROJECT ROSHNI SHINES A RAY OF HOPE

Roshni, meaning ‘Ray of Hope’ in Hindi, is our acclaimed community development project in India, bringing greater healthcare access to underserved anaemic women in Saphale’s tribal villages in the Palghar district of Maharashtra, the nation’s second-most populous state.

Despite making some progress with national initiatives, India has battled an anaemic crisis for decades, due in part to diets low in iron and vitamin B12. Furthermore, one-third of women in rural areas lack the finances to pay for medical treatment, as they do not have the ability to earn a stable wage.

To bring down anaemic levels in India’s villages, we launched Project Roshni in 2015, partnering with the Society for Human and Environmental Development to provide greater access to healthcare, better sanitation and improve the livelihoods of rural women.

Even with the additional challenges of COVID lockdowns, we did not let up on efforts to counter anaemic. On the healthcare front, we supplied 480 women from 14 clusters in Saphale with free blood tests, medical consultations and nutritional supplements. To boost their finances, we delivered financial knowledge and social awareness seminars to help improve their earning potential, tapping on over 40

community self-help groups to enhance their financial literacy, raise awareness of government aid schemes, provide assistance in obtaining identity cards and bank accounts, and impart vocational skills to help them create brand-new livelihoods for themselves.

Critical to combating anaemic and improving the general health of both women and children is sanitation and access to clean water. We installed 162 rainwater collection units across Saphale’s villages and launched a rooftop water collection initiative in Zilla Parishad Tribal School in the rural village of Borichapada, supplying its 200-odd students with a safe water supply to reduce disease and keep them in school to maximise their lifelong potential.

For 2020 and 2021, we also expanded the project scope to address the devastating impact of COVID-19 lockdowns on tribal communities, who endured challenges that significantly reduced access to necessities and a noticeable drop in quality of life. Apart from providing some 300 families in severe need with COVID-19 assistance, we helped maintain access to education for village children, supplying eight audio/visual learning system units to two district-run schools in Sonave village to facilitate online learning.

BOOSTING CERVICAL CANCER SCREENING WITH #ISUPPORTTEAL

After breast cancer, cervical cancer is



the second most common cancer among women in India, with 122,844 diagnosed and 67,477 deaths every year. What is particularly sorrowful about each of these deaths is that cervical cancer is fully treatable if diagnosed early.

To raise awareness around cervical cancer screening, we launched a month-long education campaign centred around the hashtag #ISupportTeal with a custom-designed social media frame to spark interactions among the wider audience on the importance of regular screening. The results of the campaign were incredibly encouraging: over 100,000 people applied the custom frame on their profile pictures on Facebook, LinkedIn, and YouTube, and we recorded well over 9,000 conversations on social media, representing a significant benchmark of interest. Having generated this initial boost in awareness, our outreach continues in the coming years to educate more women and save precious lives from being needlessly lost to the disease.

A NEW LEASE OF LIFE FOR OFFICE WASTE

Protecting the environment is a top priority at Roche Diagnostics. Part of our commitment to sustainability is the minimisation of waste across all operations by giving potentially useful material, including paper, plastic and metal, a new lease of life.

In 2021, we partnered with recycling and waste management firm RUR Greenlife to recycle over 2,000 used tetra paks from our Mumbai office into recycled composite sheets that were then made into durable, weatherproof tables, chairs, and garden benches. These were subsequently donated to less privileged communities and schools, benefiting the community and slashing our overall environmental footprint.

Moving forward, we set processes for 100% of the tetra pak waste generated from our Mumbai office to be recycled by RUR Greenlife, which will also recycle all our offices' paper, plastic and metal waste with its eco-friendly waste management solution, marking a milestone in our journey toward a fully green workplace.

Highlights *in Numbers*

SOCIETY



480
anaemic women in rural villages reached through Project Roshni

295
families supported with COVID-19 assistance amid lockdowns

PATIENTS



1,151
sessions conducted in 2020 to train India's lab, hospital and blood bank employees on advanced diagnostic solutions

600,000
patient goal for HIV program, now in its fourth year

ENVIRONMENT



40%
reduction in electrical energy consumption

800kg
of paper, plastic and metal waste recycled in 2020

PEOPLE



50%
increase in medical insurance for each employee, their spouse and up to 2 kids

83%
of roles filled with internal employees

Our Impact in Indonesia

Strengthening Indonesia's healthcare industry and access



INDONESIA IN 2020/2021

Indonesia, home to 273.5 million people in 2020, was growing fast before COVID-19. However, the pandemic has hammered the 10th-largest economy in the world. Healthcare, particularly in remote areas, is difficult to access for many Indonesians due to limited infrastructure, while the death of some 950 doctors and nurses during the pandemic due to limited quantities of personal protective equipment for healthcare providers has created a shortage of medical personnel. Nevertheless, COVID-19 saw the acceleration of telemedicine as the government simplified regulations and kickstarted local manufacturing of products to allow services to reach the population faster.

OUR COVID-19 CONTRIBUTIONS

We took the initiative to bring in COVID-19 tests before the government announced the pandemic in March 2020, to ensure

adequate supplies were available ahead of time. As a result, we supplied the nation with its first batch of tests immediately and have delivered some 9 million tests in all since the beginning of the pandemic.

Our contributions also included building industry testing capability. We worked with the Ministry of Health, Ministry of State-owned Enterprises, COVID-19 National Task Force, and molecular biology research centre Eijkman Institute to provide COVID-19 testing in national COVID-19 management sites, expanding our testing radius from Sabang to Merauke.

STRENGTHENING INDONESIA'S MEDTECH SCENE THROUGH ASSOCIATION INVOLVEMENT

In Indonesia, we are consistently working to collaborate and engage in active dialogue with the rest of industry to further our collective understanding of the medical device landscape and drive regulatory and policy advocacy around medical device

strategies tailored for the nation's unique needs. Across 2020 and 2021, we actively participated and took up key roles in medtech associations, including the Asia Pacific Medical Technology Association (APACMed) and Gakeslab Indonesia.

APACMed represents the manufacturers and suppliers of medical equipment, devices and in-vitro diagnostics, industry associations and other key stakeholders associated with the medical technology industry in Asia Pacific. Together, its 140 members put forward recommendations that ensure optimal care pathways for patients, from diagnosis to treatment. Roche Diagnostics was appointed country chairman of Indonesia for APACMed's Regulatory Central of Excellence workstream, and a working group member of its In-vitro Diagnostics Centre of Excellence and Government Affairs & Market Access Centre of Excellence, where we organised joint events with the Indonesian health ministry around regulatory capacity building for new technology products.

Meanwhile, Gakeslab Indonesia is a national association established in 1977 whose approximately 1,000 members are firms involved in the medical device, in-vitro diagnostics and laboratory equipment businesses. In 2020 and 2021, we proactively worked on strengthening our participation in the association as part of our efforts to increase engagement

with Indonesia's government and key stakeholders. We took up a position as head of the Regulation, Industry and International Relationship Division, where our contributions helped drive strategic initiatives around regulatory advocacy, including capacity building programmes to benefit Indonesian patients.

Beyond this, we also advocated for industry-wide digitalisation and simplification of procurement systems to improve Indonesia's overall healthcare scene, and ran key events to benefit the industry, such as pre market training for Indonesian researchers and universities, a webinar on the online, single submission risk-based approach and its implication on the medical device and in-vitro diagnostics business environment, and a socialisation initiative for the new Ministry of Health Decree No. 14 in June 2021. Together, these efforts ramped up our involvement in Indonesia's medtech industry and saw our increased contribution to building up its medtech capacity to give patients a better healthcare experience.

RAISING 246 MILLION RUPIAH FOR CRITICALLY ILL CHILDREN

To increase access to healthcare for children in need, we have since 2019 been funding Rumah Harapan Indonesia, a shelter for underprivileged children with critical illnesses. It provides temporary housing and facilities in five Indonesian cities – Jakarta, Bali, Makassar, Bandung, and Semarang





– for young patients under 17 living in small cities who need to constantly shuttle between their homes and hospitals in larger cities for treatment, ensuring they can not only access healthcare services, but also have the opportunity to play and learn. In 2020, 100 Roche Diagnostics Indonesia employees and their families walked virtually together at the Roche Children’s Walk, raising over 246 million rupiah – 76% more than the previous year – to fund the shelter’s daily operations. This sum enabled Rumah Harapan Indonesia to provide lodging, transport for hospital visits, food, entertainment, and even burial services for some 150 children.

BOOSTING INDONESIA’S PUSH FOR GREATER HEALTHCARE ACCESS

To support Indonesia’s goal for greater access to healthcare and quicker procurement of good quality medical products, we conducted a slate of training

programs with healthcare stakeholders in 2020 and 2021. In 2021, we conducted a market access talk with expert practitioner professor Dr Hasbullah Thabrany on the role of diagnostics in Indonesia’s healthcare strategy, unique hurdles, and market opportunities for its particular healthcare context. We also launched talks around COVID-19 mitigation, invested in research and education programmes and took an active role in national association talks around the critical role of diagnostics in COVID-19 management. Our regulatory-centric talks touched on topics including pre and post-market issues such as barriers to access of advanced treatments and good products, the importance of open access to obtaining innovative digital health products, and the support required to simplify regulatory processes. All these aimed to increase access to affordable, safe, and high-quality products for Indonesians to improve their health.

Highlights *in Numbers*

SOCIETY

> 246 million
rupiah raised for critically ill children

ENVIRONMENT

0
single-use plastic utensils in offices

PATIENTS

140
diagnostics solutions approved in 2021

200,000
blood donations screened across 40 blood banks

PEOPLE

26%
increase in GEOS score to 74%

14
employee initiatives between 2020 and 2021

Our Impact in Japan

Bringing hope to children with intractable disease



JAPAN IN 2020/2021

Japan is well known for having a super-aged society. Due to the proportion of elderly, Japan's healthcare and pharmaceutical markets have one of the world's highest per capita expenditures. Healthcare spend in 2020 stood at 42.2 trillion yen, mainly on hospitalisation and out-of-hospital care.

Japan's vaccine rollout and COVID measures have seen 1% of cases leading to deaths, or some 18,000 of the 1.7 million infected patients. After postponing the Tokyo Olympic Games in 2020, the nation held the sporting event in 2021, leaning heavily on testing and social distancing restrictions to avoid triggering a new wave of infections. Thanks to these measures, it successfully kept both visiting athletes and its citizens safe.

OUR COVID-19 CONTRIBUTIONS

We supported Japan's COVID-19 containment strategy through the supply of diagnostics products to a variety of stakeholders, including local governments, hospitals, public health institutes, sports and entertainment events organisers. As early as 4 February 2020 – when the total number of confirmed cases was just 16 – we had already begun to deliver our PCR assays to Japanese laboratories and hospitals. These assays were evaluated by the National Institute of Infectious Diseases, listed in its “Manual for the Detection of Pathogens”, and covered by public medical insurance as early as Mar 6.

YUMEIRO SHOES PROJECT: SPECIAL SHOES FOR CHILDREN WITH INTRACTABLE DISEASE

We regularly support sick children through various charity initiatives, particularly our

annual global Roche Children's Walk. With the 2020 theme of "helping children walk on their own", our Japan office wanted to do more for children in need amid COVID, particularly for those suffering from intractable diseases who require long-term care.

To uplift the lives of these children, we launched a new initiative, named Yumeiro (meaning "dreamy colours") Shoes Project to encourage children undergoing treatment for intractable diseases and give them hope for the future. The project, executed in collaboration with Yokohama Children's Hospice in 2020 and then Tsurumi Children's Hospice in 2021, gave young patients the opportunity to design original shoes

for themselves on paper, which were then replicated onto actual shoes.

Tsurumi Children's Hospice is Japan's first community-type children's hospice that supports children and their families living with life-threatening illnesses, while the Yokohama Children's Hospice has just opened a home support facility, named "Yokohama Children's Hospice - Umi to Sora no Ouchi (a home of sea and sky)", offering sick children a place to stay beyond their homes or the hospital. Both these hospices support the growth and dreams of sick young patients, offering them experiences in education, music, and art even as they cannot go out due to their illness.



“ *This is a wonderful event consisting of many layers of happiness, including the joy of colouring, the joy of waiting for the shoes to be made, the joy of putting on the shoes, and the joy of going out to play in them.* ”

Hisato Tagawa

Representative director, Yokoyama Children's Hospice
(quote from *The Mainichi*)

We envisioned the Yumeiro Shoes Project bringing positivity and hope to children suffering from physical and psychological burdens. In 2020, 35 children participated in the project. To prevent the spread of COVID-19 to this at-risk group, staff from our Japan office participated virtually. At the class, children coloured in shoe designs on paper boards with colouring pens, and selected patterns including flowers, dinosaurs and fruits. These designs were then hand painted on actual shoes by a professional shoe writer. Two months later, the children received the final product. In 2021, we continued the Yumeiro Shoes Project with the two hospices, with doubled participation. In all, 114 children received these special shoes across the last two years.

Empowering Japanese women to better manage their health As part of our work to impact vulnerable groups including women, we focused on women's health in 2021, rolling out a slate of initiatives to encourage Japanese women to proactively take control of their health through two initiatives.

The first, called the Blue Star Project, aimed to raise awareness among Japanese women about the preventability of cervical

cancer and promote the importance of early screening. Cervical cancer is curable if detected in its early stages, yet the screening rate for cervical cancer in Japan is only around 42%, the lowest among the OECD countries, due to a lack of awareness. Since 2019, we have been actively educating women on the importance of early screening, and from 2020 to 2021 ran social media campaigns to deepen engagement with younger women in their 20s – the age group with the lowest screening rate – through initiatives such as an Instagram Live session with a gynaecologist and influencer to talk about women's health.

The second initiative, W Society, was launched in September 2021 and will in its initial stages focus on raising awareness about the Anti-Müllerian Hormone test, a fertility test for egg count. We organised hybrid online and offline events to encourage more women to proactively get tested, and provided health information via two talks in Oct 2021 with womens' health ambassadors, such as Japanese influencers and a famous athlete. Our efforts in this area will continue with more events.

Highlights *in Numbers*

SOCIETY



114
children benefitted from Yumeiro Shoes Project

16,267
women reached at cervical cancer screening talk

PATIENTS



33
diagnostic solutions approved

22
diagnostic solutions secured public reimbursements

ENVIRONMENT



318
petrol vehicles switched to hybrid vehicles in 2020

PEOPLE



71%
employee satisfaction rate in GEOS Pulse Survey

1,080
employees and their families vaccinated under workplace vaccination programme in Tokyo headquarters

Our Impact in Malaysia

Tackling low cancer survival rates



MALAYSIA IN 2020/2021

Non-communicable diseases such as cardiovascular disease, cancer, diabetes, mental health disorders and obesity, have emerged as leading causes of death among Malaysia's population of 32.6 million. As part of a plan to improve its healthcare system, the Ministry of Health in 2020 launched its Strategic Framework of the Medical Programme 2021 - 2025 as a guide to achieving universal health coverage, with a particular focus on tackling mental health and cancer treatment.

By 2040, the nation will have transitioned into an ageing population, which is expected to further tax its public healthcare infrastructure as demand for resources to treat chronic diseases rises.

OUR COVID-19 CONTRIBUTIONS

Misinformation and low testing levels in 2020 contributed to the spread of COVID-19 on Malaysia's shores. The country has recorded 2.4 million infections and over 28,000 coronavirus-related deaths.

Before the World Health Organisation declared COVID-19 a global health emergency, our Malaysia office recognised the potential threat the virus posed and began procuring test supplies from as early as January 2020. Since the start of the pandemic, Roche Diagnostics tested more than 500,000 patients with our tests, including supplying rapid antigen tests for regular screening of workers in high-risk areas such as factories. We also set up more than 10 testing labs in the public and private sector, and supplemented labs with more than a million COVID tests as demand soared.

EXPANDING SUSTAINABLE CANCER CARE WITH THE CITY CANCER CHALLENGE

Despite its status as an upper-middle-income country and the existence of a well-structured health system, Malaysia suffers from lower cancer survival rates. Cancer is the second leading cause of death in Malaysia as of 2018, and contributed to 16,000 deaths. With reductions in the healthcare budget for oncology and pathology, Malaysia also lags behind other countries in the region in the adoption of personalised healthcare. As such, personalised healthcare services such as genomic testing and key companion diagnostics tests are often unavailable in most public hospitals.

Part of our goal for Malaysia was to develop innovative solutions for cancer care to help tackle the growing cancer burden, reduce deaths, and ensure sustainable healthcare infrastructure.

Following Malaysia's hosting of the 2018 World Cancer Congress in Kuala Lumpur, our Malaysia Office supported the University of Malaya (UM) and the National Cancer Society of Malaysia (NCSM) in their effort to win the city's bid to join the City Cancer Challenge in late 2019.

The City Cancer Challenge (C/Can) Foundation established by the Union for International Cancer Control in

2017 supports cities in the design, planning and implementation of cancer treatment solutions¹. It is a concrete response to political commitments to battle cancer, such as the United Nations Sustainable Development Goal target of reducing premature mortality from non-communicable diseases, such as cancer, by one-third by 2030, and will see us working with 20 cities to develop and pilot a globally scalable model of cancer engagement².

The Greater Petaling area comprises Petaling Jaya, Subang Jaya, and Shah Alam in Selangor, Malaysia's most developed state. The City provides cancer care services to a population of just over 1.4 million.

As a strategic partner, Roche aspires to strengthen the City Cancer Challenge by collaborating with the initiative and all the stakeholders involved – Greater Petaling Committee, UM, NCSM, the City Councils of Petaling Jaya, Subang Jaya, and Shah Alam; as well as other key stakeholders to close the gaps in cancer care services, improve access to sustainable cancer treatments and deliver locally-led, sustainable care solutions.

PROGRAM ROSE REMOVES OBSTACLES TO CERVICAL CANCER SCREENING

Cervical cancer is one of the three most common cancers among Malaysian women.

The main barriers discouraging women from getting tested are fear, embarrassment and inconvenience. To expand testing access to more eligible women, we supported Program ROSE with studies and the execution of a pilot project for HPV DNA testing, named "Give a ROSE", to educate women about the need for HPV testing, and the importance of early detection and regular testing. ROSE (Removing Obstacles to Cervical Screening) is an international collaboration between Australia and Malaysia that has increased cervical cancer screening rates in Malaysian women, with the aim to reach women in both urban and rural settings.

Our initiative saw us supplying the ROSE lab with a HPV testing system, and the women with self-sampling kits. This self sampling made collection of samples easier, and saved women the embarrassment or inconvenience of seeing a doctor. In all, we tested 5,000 women for HPV.

“ We hope to streamline the parallel public and private health systems already in place in Greater Petaling to provide better solutions in terms of early diagnosis and treatment, which will finally result in better patient outcomes³. ”

Dr Nur Aishah Taib

Director, University of Malaya Cancer Research Institute

¹ <https://citycancerchallenge.org/>

² <https://www.roche.com/about/sustainability/access-to-healthcare/city-cancer-challenge>

³ <https://citycancerchallenge.org/malaysias-greater-petaling-joins-city-cancer-challenge/>

FASTER DIAGNOSIS, BETTER EDUCATION TO TACKLE HEART FAILURE

Cardiovascular disease is the leading cause of death in Malaysia, with over 18,000 deaths each year due to heart failure alone. Despite this, many major hospitals are not equipped with cardiology services, and their resource-starved emergency departments may not stock the tests required to diagnose heart failure. To reduce the incidence of late diagnosis and improve the patient experience, we conducted a series of educational events in 2020 and 2021, reaching over 300 healthcare professionals on topics including heart condition diagnosis tests, clinical practice guidelines on congestive heart failure and internal medicine.

To improve heart failure diagnosis rates, we also ran a patient access programme in collaboration with partner pharmaceutical companies to increase the access to natriuretic peptide tests at clinics, primary care facilities, and hospitals, benefitting over 400 patients. Furthermore, we supported an APAC multicentre study in collaboration with the National Heart Institute, National Emergency Department, and a university hospital to generate local data on the feasibility and efficacy of accelerated diagnosis algorithms in acute coronary syndrome management, with the outcome being that over 70% of patients will be diagnosed within an hour in the emergency department.



Highlights *in Numbers*

SOCIETY

34,100 ringgit
raised for Rumah Solehah in 2020,
benefitting 60 children with HIV

5,000
women screened for cervical cancer
with Program ROSE

PEOPLE

51%
women employees

55%
female leaders

PATIENTS

11
healthcare education initiatives,
benefitting 600 healthcare providers

30,00 ringgit
invested into patient initiatives,
double of 2018/2019

Our Impact in New Zealand

Enabling better access to disease monitoring and screenings



NEW ZEALAND IN 2020/2021

New Zealand's 5.1 million people enjoy free or subsidised healthcare under its publicly-funded universal healthcare system. For 2020/2021, New Zealand earmarked some NZ\$20.3 billion for healthcare, with efforts centred around disability support services, and bowel, breast, and cervical cancer.

New Zealand has achieved one of the world's best results around COVID-19 containment, with just 28 deaths and under 5,000 total cases since the pandemic started. With little community transmission, New Zealand's healthcare system has been able to withstand the increased demand for services, even as the pandemic hammers other sectors like business and tourism.

OUR COVID-19 CONTRIBUTIONS

In 2021, we were recognised as the best performing organisation in a health partnerships supplier report around how well healthcare suppliers performed during COVID-19.

We met demand for semi-automated PCR testing from the very outset of the pandemic in March 2020, delivered the nation's first fully-automated testing platform in May 2020, and supplied 570,000 PCR tests to the nation's pathology market, which combined with pooled testing accounts for about 38% of the national testing conducted to date.

Amid the wave of Delta infections in 2021, we were selected as the provider of choice to the Ministry of Health's nominated COVID-19 saliva testing provider.

BOOSTING NEW ZEALAND'S CPAMS SERVICE AT COMMUNITY PHARMACIES

Cardiovascular disease is one of New Zealand's largest disease burdens, accounting for an estimated 40 percent of deaths. With advances in prevention and treatment solutions, and more people surviving acute cardiac events, the health ministry is spearheading both population-wide and risk-based strategies to better manage patients with the condition.

To combat New Zealand's high cardiovascular disease rates, we worked with the Pharmaceutical Society of New Zealand, University of Auckland School of Pharmacy, and anticoagulant management service INR Online to roll out CoaguChek test systems to bolster the nation's Community Pharmacy Anticoagulation Monitoring Service (CPAMS). The CPAMS service allows New Zealanders to have their warfarin treatments monitored at a local pharmacy. Warfarin is a type of anticoagulant used to treat patients with heart-related conditions, and prevent the formation or worsening of blood clots. With CPAMS, accredited community pharmacists can perform tests with a point-of-care device, counsel patients, and adjust their warfarin dosage with help from an online decision support system, making the management of cardiovascular disease quicker and more convenient for thousands.

CPAMS has since been implemented in over 160 pharmacies. In particular, the service benefits patients suffering from venous access and mobility issues, have poor health literacy or poor medication compliance, show poor attendance at clinics and hospitals, or who are uncontactable by clinics and hospitals to receive their test results.

In all, over 6,000 patients now enjoy better accessibility to warfarin management, a lower risk of warfarin-related adverse medication events, and a better understanding of their medication. For the healthcare sector, CPAMS also reduces the burden on medical practitioners, and fosters improved collaboration between pharmacists and medical practitioners.

ADVANCING LIVER SCREENING BEST PRACTICES AMONG HEALTHCARE PROFESSIONALS

Liver cancer is one of the ten most commonly diagnosed cancers among New Zealand's Maori people. The most common type of primary liver cancer is hepatocellular carcinoma, which is often caused by chronic hepatitis B, a viral liver infection. Efforts to reduce liver cancer therefore include screening in patients with chronic hepatitis, which can result in early detection of the cancer and improved survival rates.



We currently screen patients at risk of liver cancer with a variety of tests. Standard of care currently is an AFP test and Ultrasound to estimate the likelihood of hepatocellular carcinoma. As part of our Roche OneLiver initiative, we will be publishing an article for primary healthcare professionals to increase their knowledge and understanding of the use and interpretation of liver function tests. The piece will be published by Best Practice Advocacy Centre New Zealand, which advocates for best practices in healthcare treatments across a range of service delivery areas. In addition, we are proposing a prospective study using PIVKA and GALAD usage to generate robust evidence in the

New Zealand patient population for liver function tests, in the hopes of improving early discovery and better treatment outcomes for all, particularly the Māori community.

SUPPORTING OUR PEOPLE THROUGH COVID AND WFH

To exercise our responsibility as an employer to care for staff, we launched a slate of wellbeing initiatives amid the pandemic.

For physical wellbeing, we offered our people online gym memberships and activities like high-intensity interval training. In the emotional area, we provided mental health support, including talks

around emotional wellbeing and free and confidential consulting.

Around financial support, we educated employees on how to manage their finances at various life stages, while our community support built on our current CSR efforts to give back to society. As for career wellbeing, we rolled out a slate of learning and development initiatives and provided resources for employees to cultivate greater fulfillment, personal accountability, and productivity.

In the first two quarters of 2021, we focused on mental resilience, supporting our team in their transformation and adaptation to

new ways of working through dedicated workshops with external facilitators. For the final two quarters of 2020, we held workshops introducing staff to the concept and execution of agile ways of working, with more workshops to follow in 2022.



Highlights *in Numbers*

ENVIRONMENT

10 tonnes
of landfill space saved with the introduction of reusable chilled packaging made of natural materials

86%
packaging reuse rate, with > 80% of customers now using this packaging

PATIENTS

6,000
patients benefitted from community pharmacy anticoagulant monitoring service

PEOPLE

45
permanent employees reached with wellbeing initiatives

Our Impact in Pakistan

Championing the nation's Hepatitis C elimination plan



PAKISTAN IN 2020/2021

For Pakistan, with a population of 215.3 million in 2020, improving its healthcare infrastructure has been a priority as a signatory to the United Nations Millennium Development Goals. For 2019-2020, Pakistan's spending on health accounted for about 1% of GDP. The government is aiming to improve public health services, focusing on upgrading and strengthening primary and secondary healthcare facilities in the country by increasing the number of Basic Health Units and Rural Health Clinics with essential services. With a non-communicable disease mortality rate of 60%, the health authorities are also exploring ways to curb the rising burden of such diseases.

OUR COVID-19 CONTRIBUTIONS

Pakistan has come under pressure to ramp up its COVID-19 testing. To aid the nation in quickly scaling up testing capacity, we contributed 2.1 million tests to help the

nation craft a pandemic control strategy. We significantly boosted Pakistan's testing capacity by installing seven new testing instruments – in addition to six existing ones – and making seven different assays available immediately, and shared knowledge around COVID-19 diagnostic testing, critical care parameters and biosafety lab standards with the key medical organisations such as the World Health Organization's Pakistan chapter.

SUPPORTING THE PRIME MINISTER'S PLAN TO ELIMINATE HEPATITIS C

Viral hepatitis represents a major healthcare burden to Pakistan, which has one of the world's highest rates of Hepatitis C infections. Most patients are unaware they have the condition, as the infection can remain asymptomatic for decades.

Chronic Hepatitis carriers are at risk of developing cirrhosis and liver cancer, which contribute to 96% of the deaths associated with these diseases. To curb the heavy

burden on the national healthcare system, Pakistan's Prime Minister has launched a hepatitis elimination programme that aims to screen the nation's entire adult population of about 138 million by 2030 and treat an estimated 10 million positive cases.

To encourage dialogue among clinicians and the Pakistani public around the need for screening, we published a series of interviews around the Hepatitis C situation in Pakistan with key opinion leaders involved in the government's programme to eliminate Hepatitis B and C.

On World Hepatitis Day on July 15, we held a panel discussion around Pakistan's strategies and challenges in the journey to eliminating hepatitis, featuring industry experts as panelists. Around education, we supported the Working Women Welfare Trust in Karachi & Hub in holding hepatitis awareness sessions for the public to share information around disease management and timely diagnosis. We also on boarded The Health Foundation, a Pakistani organisation working to raise awareness of Hepatitis B and C and supply vaccines and medicines to the patients and offer free screenings for participants of these awareness sessions.

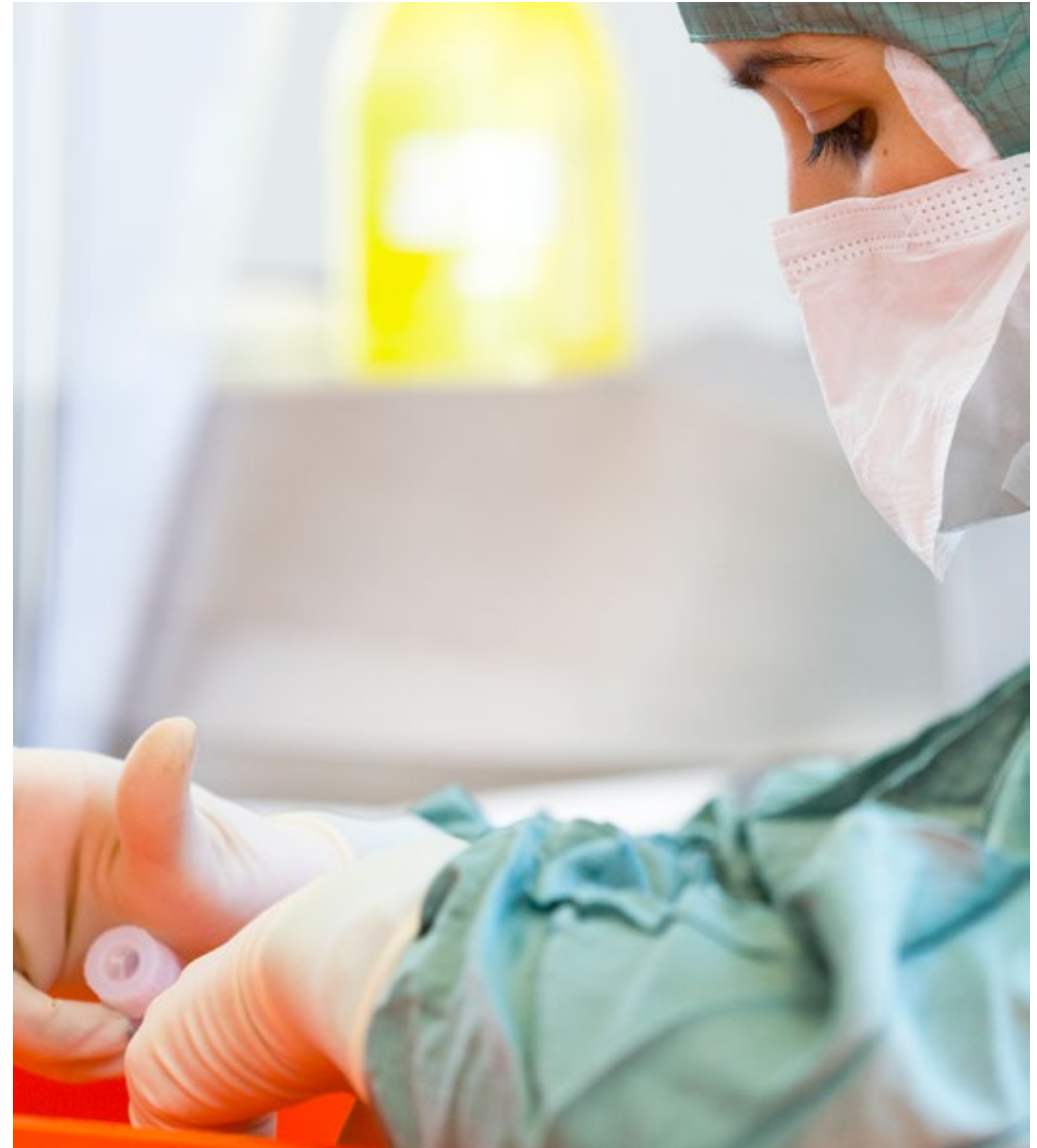
Apart from education, we directly supported the battle against hepatitis by partnering with the Aga Khan University Hospital and The Health Foundation in 2021 to implement

the Roche Global Access Programme in Pakistan. Together, these partnerships are expected to benefit 36,000 Pakistani patients in the next two years.

As part of the government efforts under the Hepatitis Control Programme, we ran a first-of-its-kind training programme in 2021 on Plasma Separation Cards for the teams in the Balochistan & Punjab provinces. These were conducted in Quetta & Lahore city, under the banner of the Chief Minister's Program for Hepatitis-free Balochistan & Punjab Hepatitis Control Programme, respectively.

Attendees were introduced to the role of Plasma Separation Cards in the elimination of hepatitis, and comprehensive training was conducted to strengthen the capacity of healthcare professionals to screen for hepatitis, thereby helping the nation achieve its ambitious hepatitis elimination goals.

By using Plasma Separation Cards, we are exploring means for the safe transportation of blood samples from remote areas to central labs without compromising their integrity. This will allow Pakistan to effectively extend testing to the rural communities most in need of healthcare services. In addition, our ongoing Health Economics Study for Hepatitis in Pakistan is evaluating low-cost diagnostic solutions for the disease, with the aim of offering these solutions to the nation at optimised costs.



MANAGING DIABETES THROUGH HOLISTIC GLYCEMIC SURVEILLANCE

Pakistan has one of the highest rates of diabetes in the world. As of 2019, over 19 million adults in Pakistan are estimated to be living with diabetes. To offer patients better management of their condition, Roche Diabetes and Roche Diagnostics Pakistan joined hands to introduce the holistic glyceemic surveillance concept to the nation’s healthcare community in 2021. Holistic glyceemic surveillance is a structured approach to real time patient self-monitoring of blood glucose and longer-term monitoring of HbA1c levels. We aimed to raise awareness among clinicians and diabetes patients about this surveillance approach, supported by integrated personalised diabetes management tools. In 2021, we conducted our first session on hyperglycemia in pregnancy, attended by leading gynaecologists and consultants, in collaboration with the Society of Obstetricians and Gynaecologists of Pakistan on the back of their recently published guidelines on hyperglycemia in pregnancy, which were endorsed by the Diabetes in Asia Study Group and supported by the Pakistan Endocrine Society.

CELEBRATING WORLD BLOOD DONOR DAY WITH EDUCATION AND BLOOD DONATIONS

Safe blood and blood products for transfusion are critical aspects of care in public health. Blood transfusions, so often

needed in hospitals, save millions of lives, and improve the health of many patients every day, yet diseases like Hepatitis B and C, as well as HIV can be easily passed from person to person due to poor practices, such as the sharing of syringes.

Pakistan’s Ministry of Health, in collaboration with the German government, has established a Safe Blood Transfusion Services Programme to restructure the blood transfusion system, replacing the existing system with an internationally recommended centralised model with the aim of preventing and controlling the

spread of communicable diseases through blood transfusions.

In 2021, we celebrated World Blood Donor Day 2021 by using the opportunity to educate Pakistanis about safe blood and blood products for transfusion. Our webinar on safe blood transfusions was attended by key opinion leaders, clinicians and pathologists across Pakistan. In addition, we held a blood donation drive in collaboration with the Indus Hospital, which saw 16 employees donate blood to aid 48 patients in need.



Highlights *in Numbers*

SOCIETY



48
patients benefitted from blood donations

36,000
patients to benefit from Hepatitis C initiatives in the next two years

ENVIRONMENT



33,697kg
of CO2 emissions saved per year in 2020 and 2021

313 kg
of paper saved in 2020 with use of e-signatures and e-statements

PATIENTS



15
systems installed nationwide for easier access to Hepatitis C testing

1,500
healthcare practitioners engaged across 32 educational events

Our Impact in Philippines

Stepping up to spearhead the fight against COVID-19



PHILIPPINES IN 2020/2021

Recent years have seen the Philippines make significant strides toward implementing universal health coverage, signing universal healthcare into law, and dedicating more resources to strengthening the country's health care system. The national health budget, which has increased an average of 9% in the past five years, was 176 billion pesos in 2020, the bulk of which went to the Philippine Health Insurance Corporation, which received 40%, or 71 billion pesos. As of June 2020, the National Health Insurance Program covered 93.4 million Filipinos.

A nation with a relatively young population, the top causes of death in the Philippines in 2020 were heart disease, cancer, diseases of the cerebrovascular system, pneumonia and diabetes. Rapid increases in healthcare costs are a major

challenge the nation is looking to tackle, as medical costs are expected to outpace general inflation by six times. Patients' overall healthcare spend has consistently grown in recent years, with over 50% of the increase financed by households through out-of-pocket payments.

OUR COVID-19 CONTRIBUTIONS

The pandemic has caused the Philippines to suffer its first recession in nearly three decades, increased mortality and morbidity among healthcare workers, and delayed healthcare access for patients requiring specialist care. Nevertheless, the control of the spread of COVID-19 in the Philippines was made possible in part through accurate diagnosis and testing with our COVID-19 solutions.

Our solutions were used in community surveillance studies and seroprevalence initiatives by the Department of Health, the Philippine Council for Health Research

and Development, the Department of Science and Technology, and the Philippine Hospital Infection Control Society to aid the nation in researching and responding to infectious outbreaks. In addition, we leveraged our brand equity to engage healthcare organizations, including the Philippine Society for Microbiology and Infectious Diseases, Philippine College of Physicians, the advisory board of the COVID-19 Inter-Agency Task Force and infectious disease experts, to shape health policies and national testing guidelines that enabled the nation to fight back quicker against the pandemic.

EXPANDING TESTING CAPACITY TO AID THE PHILIPPINES IN COMBATING COVID-19

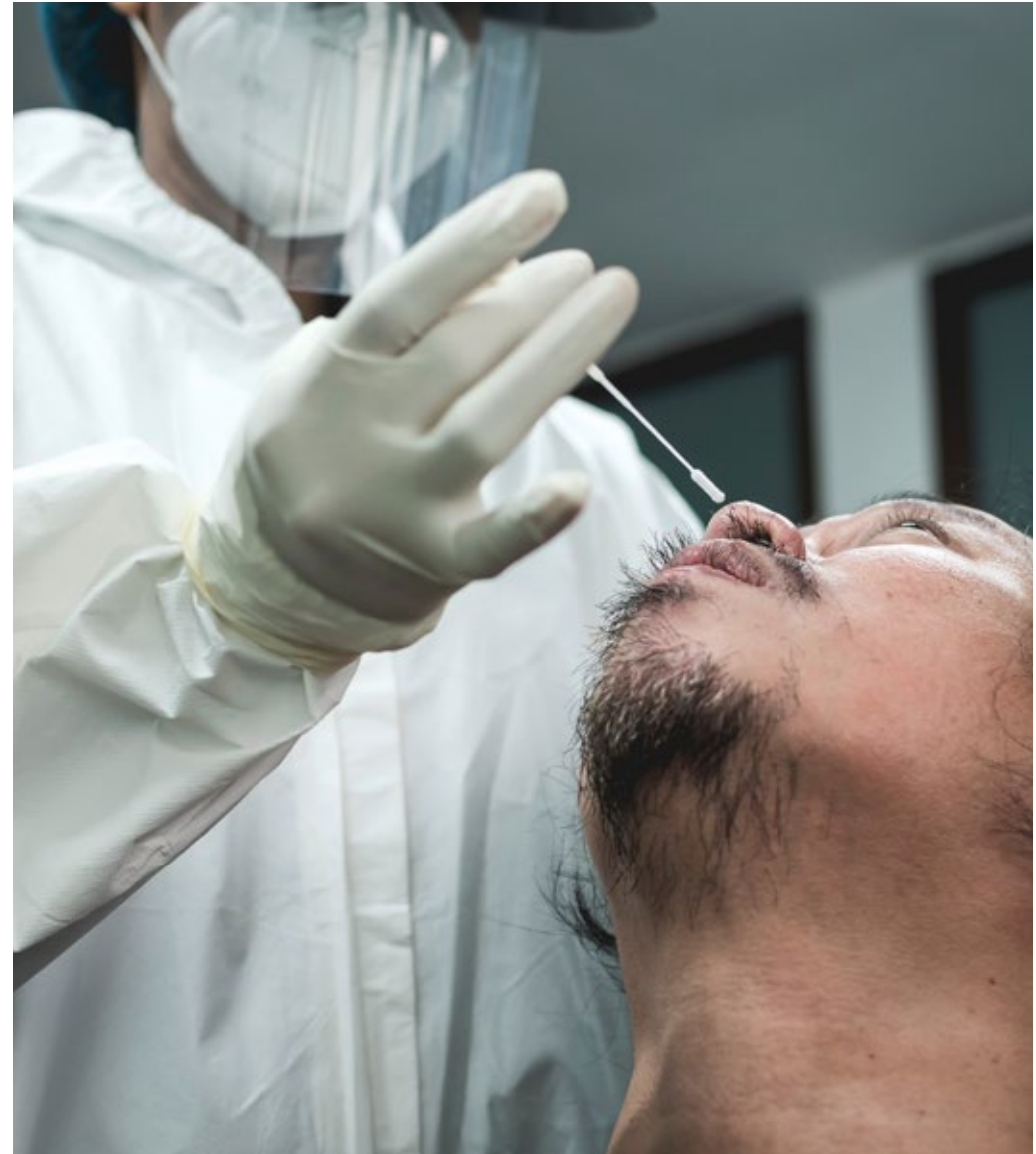
Our people were actively involved in helping the Philippines contain its COVID-19 outbreak, particularly early on in the pandemic when information and resources were nonexistent. The Philippines recorded its first COVID case on January 30, 2020, which was also the world's first confirmed COVID case outside of China, while the first locally-transmitted case was reported on March 7, prompting the government to impose lockdowns a week later to prevent the spread of the virus and allow time for it to build testing capabilities.

However, obtaining a supply of test kits was a challenge for authorities, who had yet to establish testing capacity; in the early

days of the fight against the coronavirus, samples from the Philippines even had to be sent to Australia's Victorian Infectious Disease Reference Laboratory for testing. As demand for local COVID-19 testing soared alongside infection counts, our team of seven from Roche's Diagnostics and Pharmaceuticals divisions banded together in a race against time to obtain and supply adequate tests to meet national demand.

With COVID regulations not yet fully established at the time, we met with government and private stakeholders and worked relentlessly to supply documentation for approvals for the use of our COVID-19 tests in a record two week timeframe – a process that normally takes years. This saw Roche become the first credible diagnostics company to launch COVID-19 tests in the Philippines market in March 2020, as well as an expansion in the nation's testing capacity from one national reference laboratory (the Research Institute of Tropical Medicine) to several licensed testing laboratories across the country.

To create access, we also assisted the Philippines in expanding testing to rural areas by enabling Hi-Precision Diagnostics – one of the country's largest free-standing private laboratories – to deliver diagnostic test results in one to two days, compared to the previous timeline of five days. Our cobas connection modules, which allow the connection of standalone automation





systems to analytics and post-analytics through a fast transportation system, allowed Hi-Precision Diagnostics to increase its efficiency and provide test results of 21,972 a day in 2021, compared to an average of 18,416 a day at the start of the pandemic, allowing the lab to roll out diagnostics services to patients in rural areas, which previously could not access these services.

Our efforts went beyond the provision of tests. In an admirable display of our value of “Be Caring” and the Filipino spirit of “bayanihan” (communal unity), our people took the initiative to prepare and distribute basic essentials and meals to frontline medical workers and families in need across various provinces following enhanced community quarantines. Their caring hearts ensured frontliners could focus on keeping

fellow Filipinos safe, while those who had lost their incomes from the quarantine and could not support their family would have enough to eat during this difficult time.

ACCURATE, TIMELY TESTING OF CARDIAC DISEASE WITH “BEAT MATTERS” CAMPAIGN

Ischaemic heart disease was the leading cause of mortality in the Philippines in 2020. Combined with other types of heart diseases, which were also among the top 10 causes of mortality, heart diseases accounted for 20.7% of all deaths in the nation in 2020, or nearly 119,000 deaths.

To obtain better outcomes for patients with cardiology-related diseases, we launched the “Beat Matters” campaign to drive awareness on diagnostic solutions and the value of accurate and timely testing for

cardiac patients. In collaboration with the Cardiology and Emergency Medicine Training Institutions, symposiums were conducted on Post Graduate Courses of Makati Medical Center and St. Luke’s Medical Center. These scientific events further enriched their knowledge on the value of NTproBNP and HS Troponin T on the diagnosis of heart failure and acute myocardial infarction enabling us to reach almost 2000 Cardiologists and ER Physicians nationwide. Together with our Key Opinion Leaders, we continue to drive the value of faster triaging of chest pain patients at the ER because every 30-minute delay between symptoms and treatment increases mortality by 7.5%.

As of June 2021, 53,670 patients have been diagnosed with our cardiac testing solutions, enabling us to expand our reach to 105,875 patients by end 2021, a 15% increase from 2020. Moving forward, we will collaborate with patient groups to increase awareness of cardiac diseases and the value of regular doctor visits for early diagnosis. As the government empowers the Primary Care Physicians as frontliners in its rollout of Universal Healthcare Law, we will build partnership with their group to fully equip our Primary Care Physicians on the available diagnostic tests for Heart Failure and Acute Myocardial Infarction.

Highlights *in Numbers*

PATIENTS



37.5 million

tests conducted with Roche products from Jan 2020 to Jun 2021

5.3 million

pesos donated to healthcare causes

PEOPLE



5,313

new jobs created

51%

female employees, 44% female leaders

Our Impact in Singapore

Rallying as OneRoche to uplift the community



SINGAPORE IN 2020/2021

The city-state of Singapore, with a population of 5.7 million people, is home to a rapidly ageing population, with about 15% being seniors over the age of 65. The nation's healthcare concerns centre around managing rising medical costs and increased demand for public healthcare services. In 2020, there were 3.7 million policyholders of Medisave, the nation's compulsory medical savings scheme, and 1.4 million policyholders of ElderShield, a severe disability insurance scheme mainly for the elderly. Government health expenditure in 2020 was \$16.65 billion on factors including COVID-19 containment measures; for 2021 it is estimated to rise further to S\$18.8 billion as the population continues to age.

OUR COVID-19 CONTRIBUTIONS

Thanks to strict and early border closures and tight social distancing curbs, the

republic endured the pandemic relatively unscathed. We worked closely with the government to help the nation ringfence the spread of COVID-19 in its first wave, when the virus spread like wildfire in foreign worker dormitories. We reacted quickly to roll out PCR and serology testing and set up instruments to support increased testing capabilities. In 2021, we worked with pharmacies, online retailers and corporates to support regular testing for the broader population through the launch of rapid antigen tests for self-testing.

RAISING S\$290,000 TO HELP VULNERABLE ELDERLY AND CHILDREN

Singapore's COVID-19 strategy, lauded early on in the pandemic as one of the world's most successful at stamping out the coronavirus, involved strict curbs during the nation's two month "Circuit Breaker" lockdown. While this approach contributed to Singapore's extremely low death toll, it also put elderly at risk of social isolation,

“ *As employees working in the healthcare sector, we felt compelled to step up and lend support in any way we can during this pandemic.* ”

Thiam Huat Low

Head of Safety, Health and Environment, Roche Singapore

and impacted the incomes of many financially disadvantaged families, posing risks to their children's education.

To mitigate the effects of COVID-19 on elderly and children, we partnered with Lions Befrienders Service Association and New Life Community Services, rallying as OneRoche to raise over S\$80,000 from some 500 employees via an online donation drive between May and June 2020. We not only matched staff donations dollar for dollar; in addition, our organisations were able to direct additional funding to these charities, culminating in an impressive total of S\$290,690 raised.

The funds we raised went toward programmes and initiatives run by both charities. Our contribution of over S\$150,000 to the Overcoming COVID-19: 6000 At-Risk Elderly Fund enabled

Lions Befrienders Service Association to provide 6,000 socially isolated seniors with desperately-needed food rations, essential items and social activities. The charity's efforts, which are centred around providing elderly with friendship and care, helped prevent social isolation and allowed seniors to continue engaging safely with the wider community.

Meanwhile, another sum of about S\$130,000 went toward New Life Community Services' financial assistance scheme, Project Love: Overcoming COVID-19 for Families in Crisis. The scheme provided monetary support to low-income families suffering a significant loss of income to ensure children from financially disadvantaged families receive educational support and can continue learning well amid the pandemic even as schools closed and ran online classes.



With close to S\$300,000 raised in the short span of two weeks, the charities – and ourselves – were overwhelmed by the generosity of our people and what we can achieve by working together as OneRoche. Our efforts helped Singapore’s vulnerable emerge from the crisis stronger.

RAMPING UP COVID TESTING IN MIGRANT WORKER DORMS

Early on in the pandemic, the vast majority of Singapore’s first wave of cases came from coronavirus outbreaks in migrant worker dormitories, where the virus rapidly spread to create massive infection clusters of up to 2,800 people. As of December 2020, migrant workers accounted for over 90% of all COVID-19 cases in the nation.

To aid in containing the coronavirus outbreak in dormitories, we partnered with the Ministry of Health and worked together with our laboratory partners to rapidly roll out PCR and serology tests to support testing of workers from migrant worker dormitories and step up testing to ringfence the spread. Working closely with the government and our laboratory partners, we also installed testing instruments and offered 24/7 support across all COVID-19 and critical care testing sites, enabling the nation to contain infections and quickly ride out its first wave.

SPEARHEADING PERSONALISED CANCER TREATMENTS WITH DATA



Cancer is the single leading cause of death in Singapore. To unlock the full potential of personalised care and diagnosis, we signed a Memorandum of Understanding in 2021 for a three-year partnership with the Singapore Translational Cancer Consortium, National Cancer Centre Singapore, and National University Cancer Institute, Singapore to establish critical infrastructure to advance the adoption of personalised healthcare – including cancer care – in the republic. Our contributions include access to comprehensive genomic profiling by Foundation Medicine, a molecular information company that is part

of the Roche Group, and advice on the design and implementation of a clinico-genomic database that can be used to ultimately increase the chances of survival of cancer patients.

When applied to cancer, molecular profiling can give patients more options to receive personalised care, based on the genetic profile of the tumour. Our joint efforts will expand access to molecular profiling for more Singaporeans, enable clinicians to identify the best available treatment options, and ultimately, improve cancer treatments for everybody.

Highlights *in Numbers*

SOCIETY

S\$290,000
raised from 498 employees for charity

6,000
socially-isolated seniors supplied with meals, care and social activities

PATIENTS

138
assays registered with local regulatory authorities, providing patients access to quality diagnostic tests

90
foreign domestic workers reached with free HPV tests

PEOPLE

3.3%
attrition rate, down from 8.6% in 2018/2019

Our Impact in South Korea

Addressing Korea's shadow healthcare crisis amid COVID-19



SOUTH KOREA IN 2020/2021

South Korea has a rapidly ageing population that is exerting increasing pressure on its healthcare system due to a rise in chronic diseases. In 2019, there were 295,110 deaths, over half of which were attributed to the three leading causes of death: cancer, heart disease and pneumonia. Apart from boosting its birth rate, the nation's healthcare strategy is now focused on promoting and investing in preventive health.

Korea's budget for its Health, Welfare, and Employment area was 180.5 trillion won in 2020 and 199.9 trillion won in 2021, or 12.1% and 10.7% of GDP respectively. These sums were spent on various initiatives including expanded senior healthcare insurance support.

OUR COVID-19 CONTRIBUTIONS

Our high throughput instruments for nucleic acid purification made routine screening in Korea possible from the beginning of

pandemic's spread. From January 2020 to April 2021, the nation performed about 8 million COVID-19 PCR tests, over half of which we supplied. In collaboration with the Korea Disease Control and Prevention Agency, other government agencies and societies of lab medicine, we provided thousands of test kits to help execute prevalence surveys, determine vaccine efficacy, conduct screenings and perform automated molecular testing at central labs, contributing to Korea's success and subsequent recognition as one of countries with the best COVID-19 response worldwide.

PROACTIVELY ADDRESSING KOREA'S SHADOW HEALTHCARE CRISIS WITH BIOMARKER TESTING

As the coronavirus spread, many Koreans missed their health and cancer screenings, delayed preventive procedures, and received fewer prescriptions. To address this shadow healthcare crisis, our efforts for Korea's healthcare system involved advocating for the use of biomarkers for

quicker diagnosis of leading diseases. We focused in particular on cancer and heart disease, which are Korea's leading causes of death and are the nation's greatest healthcare burdens.

Early detection of cancer is important to boost patients' chances of treatment and recovery, yet the importance of cancer surveillance, including through biomarker testing, tends to be underestimated in Korea due to limited reimbursements during the surveillance period. We aimed to educate the healthcare community on the value of biomarkers to detect hepatocellular carcinoma (HCC) – the most common type of primary liver cancer – more efficiently. In particular, we aimed to boost the use of PIVKA II, a biomarker particularly useful for diagnosing HCC in patients with large tumors.

We appointed and developed six key opinion leaders around HCC surveillance to drive new patient guidelines involving the use of PIVKA II tests, as well as to understand the barriers to adoption. In 2021 we started several activities to register specific guides on the use of our Elecsys PIVKA-II tests during HCC surveillance in the revised version of the Korea Liver Cancer Association guidelines, so as to supply healthcare practitioners with more information on the biomarker's cost efficiency, sensitivity, and specificity, enabling them to make better patient decisions.

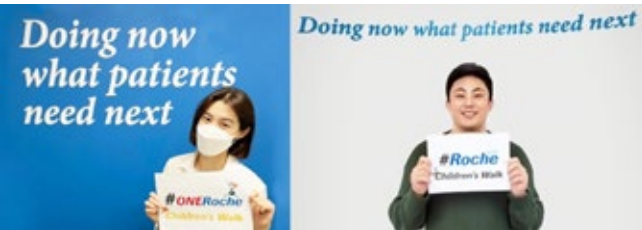
Similar to these efforts to counter cancer, we also sought to boost the use of biomarker testing to promote earlier and more accurate diagnosis and surveillance of heart disease. Previously, it was possible to add more value to predictive prediction of heart failure patients. Now, a new biomarker GDF-15 has been launched on the back of our studies with the Korean Society of Heart Failure.

We held an Experts Meeting with nine key opinion leaders from the organization to define the patient's unmet needs and engage them on the value of biomarkers in predicting risk and improving patient outcomes. As part of the meeting, the society launched a study in 2020 to generate localised data from the Korean population on the clinical utility of GDF-15 in hospitalised patients. The results of the study is expected to build confidence in policymakers for the reimbursement of GDF-15, making it more accessible to patients.

Furthermore, we also sought to improve cardiac healthcare by improving awareness of the value of the European Society of Cardiology 0/1-hour algorithm for rule-out and rule-in of heart attacks using, which benefits patients with quicker treatment decision-making at hospital emergency departments.

In 2021, we ran a digital masterclass for cardiologists and laboratories to increase awareness of the 1-hour algorithm, which





is not commonly used in Korea due to low awareness of the practice, to address the knowledge hurdles around clinical application and help clinicians better interpret results.

TRAINING PATHOLOGISTS TO BETTER DIAGNOSE TRIPLE NEGATIVE BREAST CANCER

In Korea, breast cancer is the most common among all cancers in women, accounting for 23.7% of all new cases in 2020, or 25,814 women. Among the different types of breast cancer, one of the most aggressive types is triple-negative breast cancer, which does not respond to medicines that can be used to target more typical types of breast cancer. To improve awareness of triple-negative breast cancer and enable pathologists to more accurately diagnose the disease, we conducted a pathologist training session with MDS Medical, to increase awareness of the utility and value of the PD-L1 (SP142) assay for triple negative breast cancer as a companion



diagnostic. PPD-L1(Programmed Death-Ligand 1), is a protein that controls the body's immune response. In all, we reached out to 114 pathologists on triple negative breast cancer via a training session on how to accurately interpret the results of triple negative breast cancer tissue samples with PD-L1 (SP142) assays. Moving forward, we plan to train 70% of the pathologists in the Breast Pathology Research Community of the Korean Society of Pathologists (KST) on triple negative breast cancer, and advocate for the use of the PD-L1 (SP142) assay as a diagnostic tool to aid earlier and more accurate detection, ensuring timely treatment for more women in the nation.

Highlights *in Numbers*

SOCIETY



US\$22,900

raised for Roche Children's Walk from 259 participants

ENVIRONMENT



4.5 tonnes

of waste recycled in 2021

PATIENTS



800

blood glucose screening devices donated to patients with diabetes

PEOPLE



14

young engineers trained under Young Meister's programme

4 million won

worth of self-monitoring glucose strips donated to Seoul National University Hospital

Our Impact in Taiwan

Going the extra mile for our partners and people



TAIWAN IN 2020/2021

For Taiwan's ageing population of 23.4 million, the National Health Insurance system and social assistance for the poor, ill, and those in urgent need provide the people with easy access to healthcare. With rising incomes, better nutrition and advances in medicine, Taiwan's increased life expectancy has given rise to a rapidly ageing populace, with over 15% of its people aged 65 and up.

Taiwan's top causes of death in 2019 were cancer, heart disease and pneumonia. To combat its silver wave, Taiwan is accelerating the development of long-term care, and installing policies to boost the birth rate.

OUR COVID-19 CONTRIBUTIONS

Taiwan, being one of the first in the world to tighten borders, enjoyed early success in containing COVID-19 infections. We assisted

with COVID-19 assay development and supply of tests to Taiwan from as early as January 2020, helping it successfully avoid the global supply challenges that arose in the months following.

In March 2020, our cobas 6800 SARS-CoV-2 Tests went live at the Taipei Veterans General Hospital. And as Taiwan battles its second wave of infections in 2021, we continue to be its key supplier of COVID-19 assays, supporting the community with timely and customised implementation of 145 testing sites.

A SPECIAL LUNAR NEW YEAR DELIVERY FOR TAIWAN

From the start of 2020, while the coronavirus was still new to the world, our Taiwan office had already begun to strategically evaluate the potential impact of COVID-19 should it arrive on local shores.

In collaboration with the CDC, we worked to preemptively validate assays for the

identification of SARS-CoV-2 variants offered by Roche Diagnostics-owned test-making firm TIB Molbiol in January 2020. The TIB Molbiol test, the world's first research-use-only SARS-CoV-2 detection test, was rolled out at the onset of the pandemic, just days after the coronavirus was first sequenced.

Just two weeks after the assays had been validated, COVID-19 had begun to take hold of Taiwan. With the number of early cases rapidly rising, demand for tests saw a sudden and continued surge as community transmission began. As COVID-19 began to creep into the borders of nations around the world, CDC sought to place an order of TIB Molbiol reagents – which are a key component of tests – ahead of the Lunar New Year holiday to ensure adequate national stocks in case of emergency.

Despite advance planning, the shipment was stuck in Guangzhou, leaving a panicked CDC fearful of running out of tests in the face of burgeoning patient numbers. Jumping into action, our Taiwan team, including staff from the commercial and logistics divisions, did their utmost to release the shipment, but failed to make contact with delivery firm FedEx as businesses across much of the region were closed ahead of the holiday.

Thinking fast, the team crafted a contingency plan to deliver a backup batch of reagents via another firm – DHL. This

second shipment arrived safely at Taipei Airport a mere two days before Taiwan's COVID-19 test stocks were completely depleted. But at the airport, another roadblock awaited: none of the official courier services were running during the break. Stepping up to the plate, Roche Marketing Manager and Diagnostics Value Lead Charlie Chang made arrangements with Taiwan customs to collect and hand-deliver the tests to the CDC.

Our efforts in navigating difficulties to ensure the successful and timely delivery of precious reagent supplies earned glowing thanks from Taiwan's government. For us, being powerful regionally starts from being strong locally, and core to that is walking in our customers' shoes. From supporting the validation of assays to the collection and delivery of reagents, we are proud to have gone above and beyond so that Taiwan's healthcare system could fight COVID-19 in the best possible shape.

SPONSORING MEALS FOR INDIGENOUS CHILDREN

Since 2016, our core contributions to supporting Taiwan's vulnerable centre around our efforts to uplift aboriginal children. Through our nonprofit partner Socio-Medical Service & Education Association, we sponsor the food and education of hundreds of children attending the Little Sun Tribe Hualian of Socio-Medical Service & Education Association.

“*From Lunar New Year's Eve, we had been busy trying to find any possible way to get the reagents delivered to Taiwan. When we had finally overcome the shipping issue, a logistics colleague called me in the early morning saying there was no transportation service available from customs. Knowing the value of our tests and the urgency of delivering accurate results, we have to ensure our customers receive our reagents with no delay.*”

Charlie Chang
Diagnostics Value Lead,
Roche Diagnostics Taiwan



“ *This is the first time in history that a vendor has gone this far to support us. Roche is a true partner for infection control in Taiwan.* ”

Taiwan Centers for Disease Control

Already disadvantaged due to their cultural and educational differences from mainstream society, the finances of aboriginal people living in remote villages were hit especially hard by COVID-19, with many families entering severe financial difficulty. To urgently address the needs of underprivileged children from these families, we donated over NT\$208,000 to sponsor the meal allowances of 130 students for two months, including the provision of utilities and supplies such as rice, cooking oil, hand sanitizer, and thermometers. By financially supporting these children, we are protecting the most vulnerable





among Taiwan's next generation from the pandemic's impacts, enabling them to continue their education for a better future.

CARING FOR EMPLOYEE WELLNESS AMID COVID-19

Over the past two years, COVID-19 has made life challenging not just for patients but also workers around the globe, including our own people.

To keep our staff and their loved ones safe amid COVID-19, we launched several initiatives to make life safer for them amid the pandemic. Every fortnight, we distributed personal protective equipment to our staff and their families, and rolled out COVID-19 insurance and flu vaccination

subsidies of NT\$1,000 to as well as free COVID-19 vaccinations, PCR tests, and self-test kits.

As the pandemic escalated and social curbs were implemented, we sent each employee four boxes of food supplies to help tide them through lockdowns. During this time of isolation, we also offered work-from-home subsidies of NT\$8,000 to each staff member. To recognise the contributions of our frontline employees in particular, we offered double overtime pay, special allowances to field service drivers working additional night shifts due to increased workloads, and fully subsidised hotel stays for staff to recuperate after their shifts.

Highlights *in Numbers*

SOCIETY



NT\$309,767

employee donations to Saint Joseph Social Welfare Foundation (Roche Children's Walk 2021)

NT\$977,000

donated to Little Sun Tribe Hualian of Socio-Medical Service & Education Association and the Food Bank of Christian Relief Association from 2020 to 2021

PATIENTS



7,000

women to be studied to understand better ways of screening for cervical cancer

ENVIRONMENT



2.08

metric tons of carbon dioxide reduced

1,993

GJ reduction in overall energy consumption

PEOPLE



51%

of women employees in 2020

44%

of women in management positions

Our Impact in Thailand

Taking national cervical cancer screening to the next level



THAILAND IN 2020/2021

Thailand has implemented a universal healthcare system since 2002 that successfully improved the health of its people over the past decade. In 2021, the nation increased its universal healthcare budget for 2022 by 4.4% to 205 billion baht, which will afford health coverage to three quarters of the nation's 69.8 million people. Thailand's rapidly improving healthcare system has improved its mortality trends. The major cause of mortality was noncommunicable diseases, with the top causes of death in 2019 being heart disease, stroke and lower respiratory infections.

OUR COVID-19 CONTRIBUTIONS

We partnered with Thai authorities to bolster every stage of the nation's COVID-19 strategy, beginning in March 2020 when we were the first healthcare provider to install test instruments to detect COVID-19 within

a record four days to meet the nation's urgent need for screening and diagnosis.

In all, we supplied over a million test kits to five hospitals, public institutes, and corporations, working with key partners including the National Health Security Office, Chulalongkorn University's Department of Microbiology, and the Bamrasnaradura Infectious Diseases Institute to conduct community testing, set up testing sites and support COVID-19 research.

COLLABORATING WITH THE GOVERNMENT TO ELIMINATE CERVICAL CANCER

Cervical cancer is the third most common cancer among Thai women, with some 9,000 women diagnosed every year and about 4,700 deaths from the disease. In past years, only women from higher socioeconomic backgrounds could access cervical cancer screening, and patients often visited the doctor only when their

cancer was at an advanced stage, making treatment difficult and their recovery prospects poor.

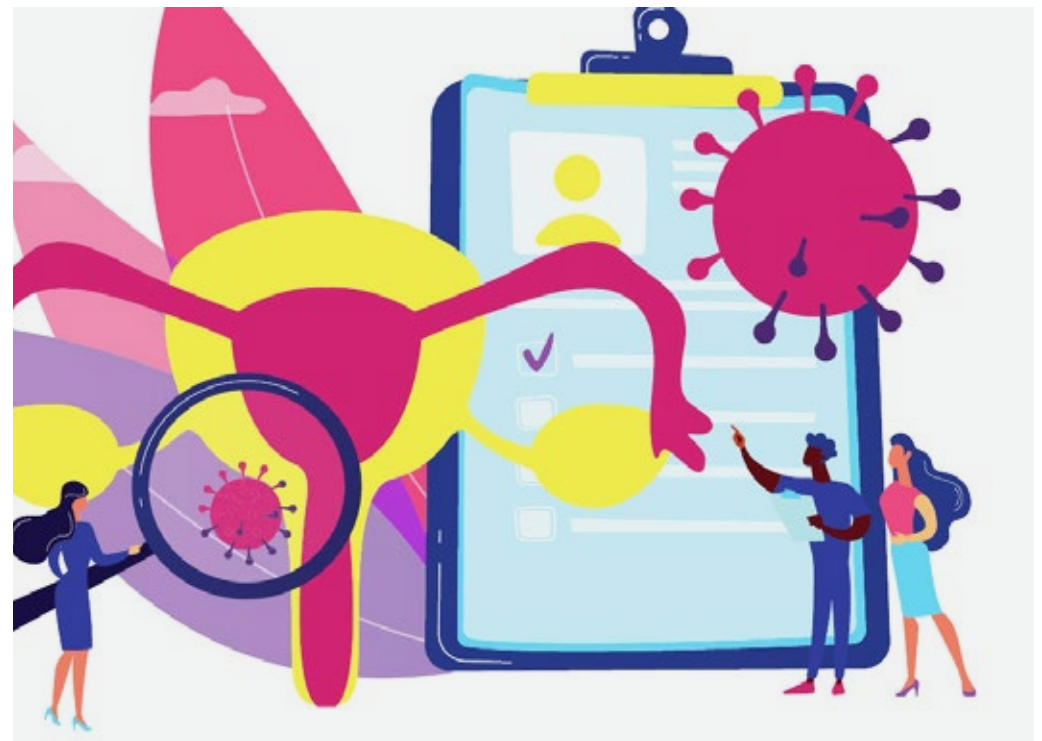
Thailand aims to eradicate cervical cancer, a goal it has been pursuing since 2017.

To support the Thai government's efforts to advance the national cervical cancer screening programme, we partnered the Thai Gynecology Cancer Society to raise greater awareness among local obstetrics and gynecology doctors about the use of the HPV DNA test for nationwide primary screening of cervical cancer. This type of test is a molecular biology technique for the detection of HPV in cervical and vaginal cells. HPV, or human papillomavirus, is the virus responsible for the majority of cervical cancer cases. In 2020, in partnership with the epidemiology section of the National Cancer Institute, we ran a webinar educating gynecologists about the implementation of the HPV DNA test at our annual Roche Scientific Day, a scientific seminar Roche Diagnostics Thailand has held for the past two decades to update the medtech community on the latest innovative diagnostic technologies. About 1,100 medical technologists from across the nation – including lab users, managers, directors and healthcare professionals – attended the webinar, where we discussed Thailand's strategic direction and policies in the implementation of the HPV DNA test.

Our efforts to drive adoption of HPV DNA testing saw us collaborate with our regional and global teams to obtain and disseminate key data in support of HPV testing to key stakeholders and establish active engagement with expert consultants of the National Health Security Office (NHSO)'s Clinical Practice Guidelines team. Furthermore, we partnered with Chulalongkorn University Hospital on a local study that showed the test was cost-effective for full scale implementation of HPV testing as the means for primary cervical cancer screening in the country. As a result, the NHSO extended coverage under the National Health Security Act to include primary HPV screening in its reimbursement list, increasing access to better cervical cancer detection for Thai women, and from 2020 also began providing free HPV DNA tests to women.

PROMOTING WELLBEING AMONG OUR PEOPLE WITH THE ONEROCHE HEALTH CHALLENGE

At Roche, our workplace vision is to foster a culture of health and wellbeing. Our OneRoche Health Challenge initiative in 2020 and 2021 aimed to promote physical activity and encourage healthier lifestyle behaviors and diet among our people. In collaboration with the Network of Fatless Belly Thais (started by The Royal College of Physicians of Thailand), our 290 Thai staff participated in a 12-week campaign





comprising weekly group assignments by nutrition specialists and health coaches from the ThaiHealth Promotion Foundation around steps walked, exercise levels, and diet. In 2020, the average steps walked by the participants was 7,205 steps per person per day, and the total was over 162 million steps, or 113,906 kilometres.

EQUIPPING THAILAND TO TACKLE DIABETES

Diabetes is among the top 10 causes of mortality in Thailand. In 2019, an estimated 4.2 million Thais had diabetes, of which 1.7 million were undiagnosed cases.

On World Diabetes Day on 14 November 2020, we renewed our efforts to educate the public and healthcare professionals on the best methods for monitoring and long-term management of diabetes. Partnering with public and private hospitals and drugstores around the nation, we organised a roadshow to raise awareness about

diabetes management and emphasise the importance of blood glucose monitoring as a preventive tool.

Patients were taught the importance of monitoring their blood glucose levels before and after meals, as well as how to pay attention to their nutrition and exercise, as these directly influence blood sugar levels over time. In addition, we ran free diabetes screenings and introduced our diabetes management application to empower patients to manage their condition, and conducted virtual training for pharmacists around diabetes management care.



Highlights *in Numbers*

SOCIETY

>1.5 million baht
raised for underprivileged children in developing countries from 2020 to 2021

10,000
heart failure patients and caregivers reached with educational materials

PATIENTS

1,000
healthcare professionals reached through HPV screening initiative

30 million
people benefitted from diagnostic tools

PEOPLE

314
staff benefitted from wellbeing initiatives

162 million
steps walked by 290 staff in 2020 under the OneRoche Health Challenge

Our Impact in Vietnam

Enhancing heart attack diagnosis and response time



VIETNAM IN 2020/2021

With 90% of Vietnam's population of 97.3 million covered under its Social Health Insurance scheme, the nation's main focus in recent years has been to shore up its healthcare budget and upgrade and expand its facilities to meet the needs of a growing middle class. The nation's healthcare budget is expected to hit an estimated 530 trillion dong by end 2021. Noncommunicable diseases are an increasing burden on the system, accounting for 73% of all deaths in Vietnam in 2020; the top causes of death were stroke, heart disease and lung cancer.

CRAFTING TECH SOLUTIONS TO ASSESS HEART ATTACKS IN HOSPITAL EMERGENCY DEPARTMENTS

Heart disease is one of Vietnam's top three causes of death. Hanoi Medical University Hospital, for example, sees about 100 patients a day in its Department of Emergency and Intensive Care, including

for symptoms suggestive of acute coronary syndrome, which includes life-threatening conditions such as heart attacks.

One of the most important priorities of the emergency department is to triage patients with heart attack symptoms as soon as possible, and make the appropriate clinical decision whether to rule-in a heart attack and send patients for treatment, or rule it out and simply monitor them further. The European Society of Cardiology recommends the use of the 0/1-hour algorithm to rule out heart attacks in emergency department patients by testing for high-sensitivity cardiac troponin (hs-cTn), a cardiac enzyme, and obtain results within 1 hour. However, this algorithm is still relatively new to Vietnam's medical industry and not yet widely adopted in hospitals.

To improve diagnostic accuracy of heart attacks and obtain critical information for clinical decision-making for patients with heart attack symptoms, Hanoi Medical University Hospital sought to adopt the

0/1-hour algorithm in its emergency department. To tackle the potential challenges of managing a new workflow for staff, we worked with the hospital to build a customised integrated tech solution connecting the emergency department with the lab for smoother implementation of the algorithm. Blood samples from the emergency department and hs-cTn testing were prioritised in order to obtain the test results in the shortest time possible – often well under 30 minutes. An algorithm enabled monitoring of patient results via color coding (red for rule in, or blue for rule out), with twin screens in both the lab and emergency department. To further assist the hospital in deploying the algorithm into clinical

practice, we also organised a workshop to align hospital staff with the new workflow.

“Moving away from manual workflow to systematic solutions provides support to connect two departments into a single workflow – which enables the lab and clinicians to have reliable and useful information for better patient management and outcomes,” said Hanoi Medical University Hospital Department of Emergency and Intensive Care head Hoang Bui Hai.

BOOSTING CERVICAL CANCER SCREENING RATES POST-COVID

Cervical cancer is among the top 10 cancers among women in Vietnam. During



“ *This lab IT solution plays a pivotal role in saving patient lives especially in the department of emergency and intensive care. These patients can now receive a rapid and accurate diagnosis with the appropriate treatment in a timely manner.* ”

Hoang Bui Hai

Hanoi Medical University Hospital



2008-2016, the nation's cervical screening rate hovered at around 2% due to the shortage of financial support, manpower and follow-up schedules.

We launched several initiatives in 2020 to increase awareness of the disease, promote screenings, and educate healthcare professionals about cervical cancer tests available. First, we reached out to reputable obstetrics and gynaecology hospitals in Vietnam with a high volume of patients to engage their clinicians to encourage women to get screened early.

Beyond patients, we established partnerships with healthcare organisations to educate clinicians about the use of HPV testing to screen for cervical cancer. HPV, or the human papillomavirus, is responsible for the majority of cervical cancer cases, and HPV tests are sensitive and effective in detecting precancerous lesions. We engaged with the Ho Chi Minh City Obstetric and Gynecological Association and the Vietnam Association of Gynecology and Obstetrics about the scientific value

of HPV testing, and our efforts saw the adoption of HPV tests at four obstetrics and gynaecology hospitals.

BUILDING A SUSTAINABLE PLANET THROUGH GREENER OFFICES

At Roche, we are committed to protecting the planet and making conscious business decisions for more sustainable outcomes, including limiting the environmental impact of our operations. Our efficient and green Ho Chi Minh office, for example, obtained the gold standard certification in 2017 from Leadership in Energy and Environmental Design (LEED), the most widely used green building rating system in the world.

Between 2020 and 2021, our sustainability efforts focused around reductions in plastic waste. We slashed the use of water bottles in our three Vietnam offices, and replaced all plastic water bottles with refillable glass bottles, recording savings of 15,624 plastic bottles in 2021. We also worked with food and beverage service providers to use only recyclable materials, such as cutlery and plates, for catering services.

Highlights *in Numbers*

SOCIETY



100 million dong
donated to health check programmes for typhoon victims

ENVIRONMENT



15,624
plastic bottles avoided with the use of glass bottles in our offices

PATIENTS



2,050
approvals for diagnostic products

110.5 million
tests conducted

PEOPLE



244
employees benefitted from virtual Live Well series



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