

DIA : GRAM



Dr Rattaphon Triamwichanon

The role of policymaking in the elimination of HIV

Humanising Healthcare

Enabling patients to become equal partners in their care journeys

Engaging patients to truly evolve healthcare

Lessons learned from one of the world's most populous nations

Ending Tuberculosis (TB)

Roadmap to improving standard of care for patients

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Note from the Editor



Dear Readers,

Imagine a world where an individual’s specific needs and desired health outcomes are the driving force behind all healthcare decisions. Where care transforms from the existing episodic and need-based approach to a proactive, intuitive and personalised experience. Where the patient is no longer the end receiver but an equal partner in shared decision-making.







We speak to **Dr Ratna Devi**, CEO and Co-founder of DakshamA Health, and Immediate Past Chair of the International Alliance of Patients' Organizations (IAPO), on how the overall philosophy of value-based healthcare needs to pivot to patient-centred care. Hear from **Dr Rattaphon Triamwichanon**, Senior Expert of the National Health Security Office (NHSO), on the shifts that countries like Thailand are making to existing healthcare delivery mechanisms and the way it is designed, managed, and reimbursed. As **Dr KS Sachdeva**, the Regional Director at The UNION South East Asia puts it, *Partnering Patients* mandates a behavioural and cultural shift that encourages preventive care, irrespective of the traditional hierarchies where providers or clinicians are seen as the lone authority.

Through impactful storytelling, this volume of **Diagram** redresses the balance of power among healthcare systems, doctors and clinicians by emphasising a different perspective on the needs of those who matter most - the patient.

For these stories and more, dive into the latest issue of **Diagram**.

Shruti Bose

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Humanising Healthcare

Where Patients Come First



Considering the shifting landscape of healthcare in Asia Pacific, health literacy and equitable access to care are emerging as essential factors in patient-centric care. Diagram draws attention to what can enable patients to be active partners in their care journey.

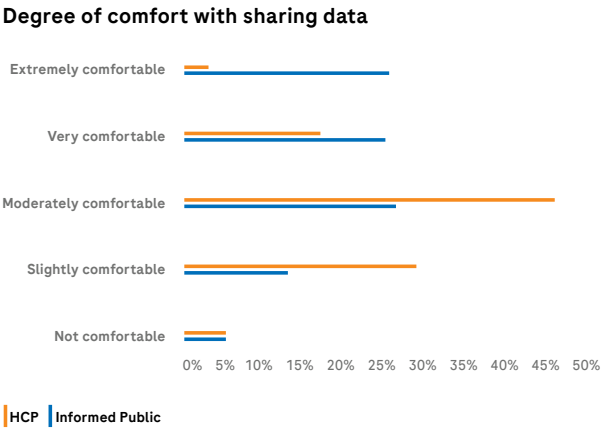
Covid-19 has ushered in its wake the urgent need to course correct ailing healthcare systems, and also highlighted a more critical concern - the care people receive has largely depended on where they live. This inequity suggests an urgent need to redesign care in order to meet the needs of those who matter - the patients.

The centrality of diagnostics has been well established. And while the pandemic has emphasised the importance of diagnostics access, implementing access through a myopic view of attaining Universal Health Coverage (UHC) without addressing broader social determinants will not serve long-term goals. Achieving UHC means better health outcomes and effective allocation of resources by ensuring

equitable access for all populations. Similarly, ensuring health literacy and awareness as a crucial link to UHC drives patient willingness to being a part of their own care journeys. All of this, when done in a healthcare model that is designed to proactively meet the needs of people, supports patients and their caregivers to better manage chronic diseases, and in turn reduces the pressure on an entire health system.

Another area where such a complementary approach can be effective is in the adoption of digital technology. According to recent findings from a Roche Value of Diagnostics Global Stakeholder Survey, about 96%¹ of healthcare professionals believe digitalisation will bring improvements within the healthcare system. Additionally, patients who are informed and comfortable in sharing health data are likely to value diagnostics for personalised treatment or care¹. While many health systems have already adopted digital tools to overcome challenges brought on by the Covid-19 pandemic, sustainable implementation is more likely to be achieved in countries that have digital health policies and infrastructure in place, and where patients are better informed.

Healthcare Professionals (HCPs) are likely to have a conservative view of patients' comfort with sharing data while 23% informed public are extremely comfortable in sharing data¹






Roche Value of Diagnostics Global Stakeholder Survey

Digitalisation not only enables personalised healthcare, it empowers patients and their doctors with more individualised data that allows them to make informed decisions



3 trends in Asia Pacific:²

		
Good overall performances in health data and infrastructure	Asia-Pacific region trails in Personalised Technologies	Potential for progress in Policy Context
The majority of the region scores well for the Health Information Vital Sign, with three very strong performers: Singapore, Australia and Taiwan, which are far ahead of their peers.	This Vital Sign has the lowest average score, particularly due to poor implementation of decision support systems and uptake of artificial intelligence in healthcare. More positively, most locations cover and reimburse some companion diagnostics.	This Vital Sign shows that there are significant disparities across the region in how well-prepared health systems are to facilitate personalised health, though high scores are commonly noted for social mobility, access to data for research, and the regulatory landscape for companion diagnostics.



For more information on the 'Vital Signs' please scan this QR code.

Health Information Vital Signs' are key performance indicators for health systems in Asia Pacific as part of the FutureProofing Healthcare Indices

Digital transformation

Digitalisation not only enables personalised healthcare, it empowers patients and their doctors with more individualised data that allows them to make informed decisions and gives patients a voice in formulating their care and treatment plans. This encourages patients to get involved, and stay involved. What it ultimately means is - better adherence to the treatment, higher engagement throughout their health journey, and better outcomes.

Insights from the Personalised Health Index², developed by leading public health experts and Roche, show that access to, and use of, personalised technologies and health services can strengthen healthcare systems in Asia Pacific. The region could further build on its ambition in digital transformation by exploring possibilities for “regional data interoperability, develop strategies to combat inequities in access to care and health literacy, and develop stronger policies and regulations for personalised healthcare.”

Humanising care

Better health outcomes will be hard to achieve unless healthcare providers also consider patient needs, aspirations and challenges – and how these enhance or impact each patient's health journey and experience. Cultural, social, and economic barriers such as beliefs about the sources of illness, phobia, illiteracy, or lack of understanding about the value of diagnostics all impede patient centricity. Although technological advances will continue to disrupt the traditional primary-care model, countries should observe these areas holistically and through a human lens.

The region can improve public health by simplifying the patient journey such that patients are more at ease and comfortable discussing their health concerns. The idea is to create integrated continuums of care sans traditional hierarchy by empowering patients themselves.

Ultimately, where you live should not determine if you live. Access to testing is vital, so innovations like cervical cancer self-sampling tests can increase access to screening and offer women an effective alternative to clinic-based procedures.

Similarly, plasma separation cards allow for reliable quantitative testing of patients with HIV living in remote areas – even areas of extreme heat and humidity – while meeting the World Health Organization's sensitivity requirement for determining HIV treatment efficacy.

Such life-changing innovations are only meaningful if it reaches those who need it. This is where collaborations with global and local stakeholders are pivotal to supporting governments' efforts to build strong and resilient healthcare systems, particularly for people in Low- and Middle-Income Countries (LMICs) where 80% of the world's population live⁴.

Road Ahead

As we transition from the concept of delivering care beyond a physical setting, with incredible advances made in diagnosing and treating diseases, healthcare decisions around a patient's specific needs and desired outcomes is the way forward.

Every year, about 1.1 million premature deaths in LMICs could be prevented by increasing access to diagnostics alone.³ With improved technology and enhanced diagnostic testing, we have the potential to now shift from a volume-based, 'one size fits all' approach to putting the needs of people and communities at the heart of care.⁵ All stakeholders must work together to bring the voice of patients to the decision making table to truly reshape the healthcare landscape. It will require close collaboration and cross-sector partnerships between policymakers, healthcare professionals, and patients to evoke much-needed change towards humanising care - one where the patient comes first.



A partnership of equals:

Engaging patients to revolutionise healthcare

For more than 30 years, **Dr Ratna Devi** has been championing the cause of patients. In this interview, she sheds light on her experience as Director, Patient Academy for Innovation and Research, and Immediate Past Chair of the International Alliance of Patients' Organizations (IAPO). As she sums it up, "Higher patient engagement leads to better outcomes, better experience and consequently a reduction in healthcare costs."

Increasingly, healthcare systems in Asia are adopting value-based models of care. But how empowered are patients in their healthcare journey?

Traditionally, healthcare systems in Asia Pacific can be best described as paternalistic, where doctors are treated with reverence and patients don't question their decision-making process. In Low - and Middle-Income Countries (LMICs) like India, we perceive patient engagement as the patient being compliant to follow their doctor's advice. However, true patient engagement goes beyond compliance. It includes the patient becoming knowledgeable and informed about their health and voicing their options for treatment. We see more and more patients forming groups and driving conversations by challenging existing models of care. This is bringing about a positive change in the healthcare environment.

According to you, what are some concerns patients in India have with regard to healthcare in general? And how could they be addressed?

India is a large and complex country with a diverse set of languages, beliefs, and cultures. We struggle with uneven healthcare access, a focus shifting toward speciality care, poor affordability and low literacy. Lack of awareness and education about managing illnesses force patients to adopt medicine-centric care. This vicious cycle of treating the sick can lead to negative health outcomes, more chronic illnesses and a poor overall patient experience. Governments, policymakers and healthcare providers are beginning to realise that healthcare decision making, founded on diagnostic evidence for preventative healthcare is gathering momentum and has a huge role to play in providing patients the best treatment outcomes. Doctors can lean on evidence-based judgment while factoring patients' needs and values.

To what extent would treatment be made easier if individuals who are at risk were more engaged with their healthcare process?

For many people in this region, healthcare has always taken a backseat. Lack of awareness coupled with stressful and unhealthy lifestyles have led to a significant increase in the incidence of diseases like hypertension and diabetes. Given how skewed the doctor-patient ratio is in the

region, the need to take charge of one's health has become even more relevant. Higher patient engagement leads to better outcomes, better experience and consequently a reduction in healthcare costs. Currently, we don't have systems in place for regular check-ups or continuous monitoring. This puts added burden on the existing healthcare system. We have to shift mindsets from what has traditionally been sick-care and instead focus on preventative care. There needs to be a collective effort to accelerate timely screenings and diagnostics.

How would an increase in access to early diagnostics drive interest in proactive screening?

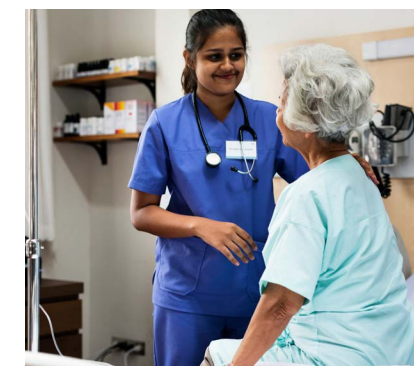
A lack of diagnostic testing culture as a part of preventative healthcare has led to an increase in the number of young Indians having chronic cardiovascular diseases, hypertension and diabetes. Considering our healthcare system will never be able to catch up with the rising demand of care, we need to take necessary measures to reduce our chances of a health catastrophe.

There is a saying, good health is true wealth. And being healthy means you are constantly monitoring yourself. It's like taking your car for annual checks, which helps reduce maintenance costs in the long term. The same analogy applies to humans. If prevention is better than a cure, then we should urge people to pursue regular screenings as a way to prevent or slow down the course of an illness. By detecting health disorders early on, we are able to tackle the risk factors and improve our quality of life. Diagnostics is the bedrock of a resilient healthcare system and we need to make accessible diagnostics a reality.

What recommendations would you have for policymakers and stakeholders in the healthcare sector to improve the quality of care?

Our healthcare system is extremely fragmented. With a population of over 1.3 billion scattered across urban and rural India, the country has a unique healthcare challenge. Indians face many obstacles from the moment they are diagnosed until they seek treatment and even after. Even after an initial diagnosis, challenges persist. There is a big disparity in urban and rural healthcare infrastructure, with more doctors and healthcare providers present in urban areas while the majority of the population live in rural parts of the country and suffer from a

lack of primary health care facilities. Delivering quality care is a social responsibility that every country must take into consideration. At a policy level, we need to design our healthcare delivery model such that it is more integrated, accessible, and easy for a patient to seek treatment when necessary. There is also a need to adopt technology, wherever possible, to streamline processes and reduce the patient-load burden. If we implement some of these measures, we have a positive outlook in the future. It's better to start today, than never.



True patient engagement goes beyond compliance. We see more and more patients forming groups and driving conversations by challenging existing models of care

- Dr. Ratna Devi

Q&A

on the critical role of policymaking

Dr Rattaphon Triamwichanon, senior expert of the National Health Security Office (NHSO) highlights the lessons learned and the critical role of policymaking in the elimination of HIV/AIDS.

In the global fight against the spread of HIV/AIDS, there are few success stories. Thailand is one of them. The country's ability to avert an epidemic through a nationwide prevention campaign, launched in the early 90s, has dramatically cut the spread of the disease. Awareness campaigns along with civil society initiatives, and preventative measures reduced the annual number of new HIV infections from 115,000 in 1992 to 6,600 cases in 2021.^{1,2}

As progress against HIV continues to be uneven in Asia and the Pacific, Thailand has emerged as a learning centre for developing nations in the region. Dr Rattaphon Triamwichanon, senior expert of the National Health Security Office (NHSO) shares the lessons and challenges in Thailand's public policy on HIV/AIDS.

Thailand has made significant efforts to reduce HIV/AIDS transmission and deaths. In your view, how has diagnostics aided Thailand's strategy to eliminate HIV by 2030?

Thailand has been a pioneer in reducing the incidence of new infections significantly over the last two decades. Building upon this remarkable success, Thailand has set an ambitious goal to stop the HIV/AIDS epidemic in the country by 2030. A key component is the scale-up of HIV screening programs to facilitate early diagnosis.

HIV diagnosis is not as difficult as it used to be. Although it's still expensive, we now have HIV self-test kits, making it easier for people to know their own HIV status and seek protection by using a preventative HIV drug, Pre-exposure prophylaxis (PrEP). What Thailand needs now is to increase the support for self-testing. The Covid-19 crisis made us aware that people are more welcoming to the use of self-test kits. It's easy and many are not afraid to test themselves. The government's budgeting support for free diagnostic tests, especially for the section of the community most at risk, would be a major strategy in eliminating HIV in Thailand.

Are policy interventions critical to eliminating this disease? How important is the role of policymakers and health administrators?

Policymaking is key to disease elimination. Policymakers, especially in the government sector like the National AIDS committee are of utmost importance. They establish the framework and policies for all relevant parties to work together seamlessly. In Thailand, there aren't enough public health personnel so having knowledgeable lay providers to manage services for target groups is required. The policy, however, has to be clear and practical to allow civil society organisations to be service providers as well. These organisations, known as the Key Population-Led Health Services (KPLHS), are accredited and have direct access to the target population. They are supported by our Universal Health Coverage (UHC) in the same way as hospitals and clinics. So we can say that Thailand is leading the way in tangibly turning civil society groups into service co-providers.

Thailand is leading the way in tangibly turning civil society groups into service co-providers.

- Dr Rattaphon Triamwichanon

A key component of our goal to stop the HIV epidemic in Thailand is to scale up HIV screening programs to facilitate early diagnosis.

- Dr. Rattaphon Triamwichanon

A one-size-fits-all model does not work with all HIV patients. What steps have been taken to redesign the healthcare delivery model so it's more patient-centric?

Studies show that each target group has different behaviors with different service needs. For instance, the HIV drug, PrEP, that is designed to be taken daily may not be practical for everyone. Similarly, condoms may not be accessible in some areas. Therefore, we have to develop practices that fit and cater to the real needs of each target group. Having different guidelines for different target groups is necessary. This can be achieved through on ground research and observation, including studying the online behaviors of the target groups. Accordingly, we then adjust the executive policy and design a proper budget and compensation scheme.

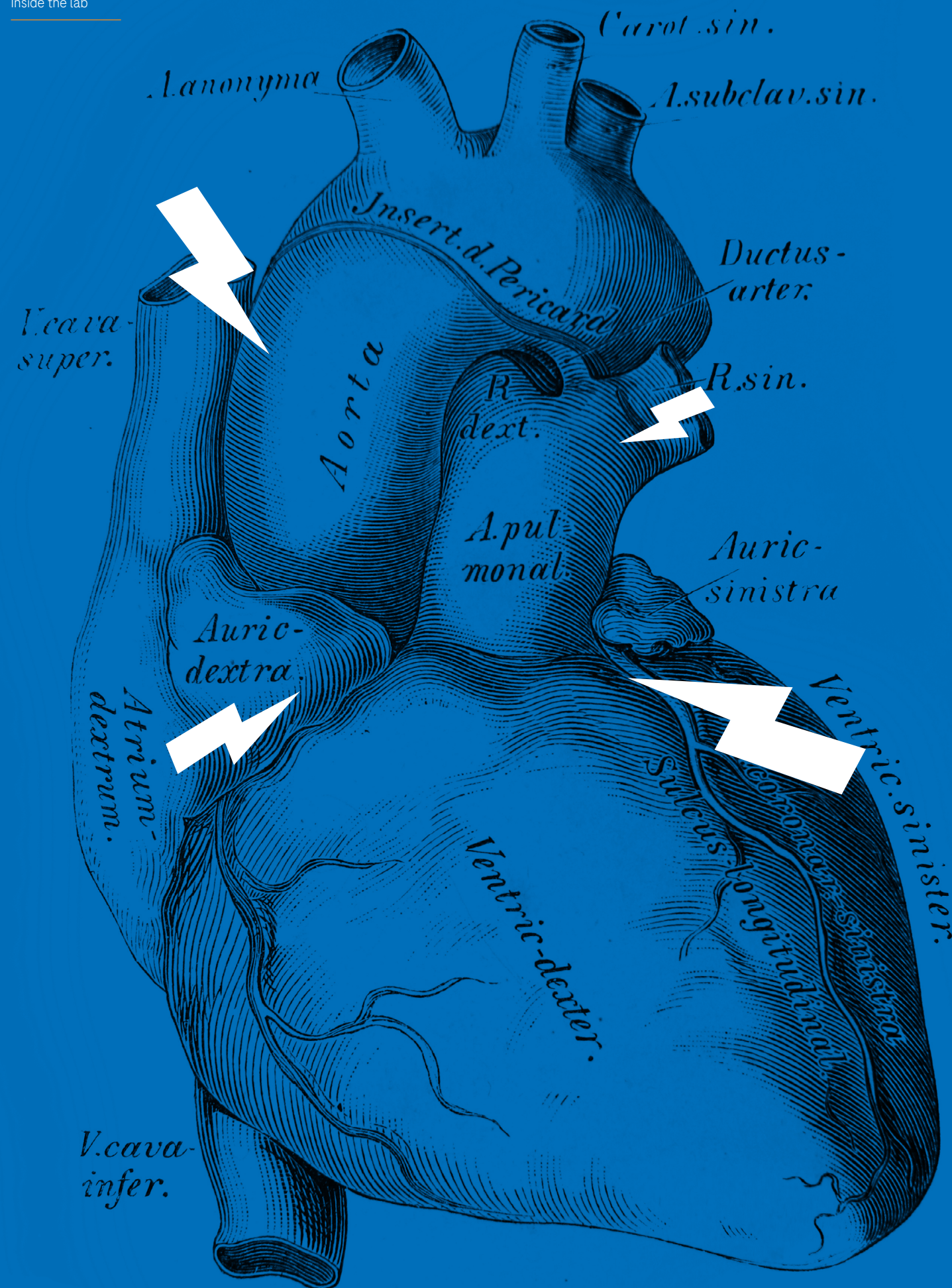
Are there any government initiatives or programs to address the problem of stigma and discrimination?

People living with HIV in Thailand still face stigma and discrimination to some degree. However, the social context in Thailand can be regarded as an opportunity to manage this issue as we tend to stigmatise LGBTQ individuals less than other societies. This is a good opportunity for the LGBTQ community to join forces and provide HIV support and services. It should be backed by a strong

message that people living with HIV can live normally, just like many others with chronic diseases.

What is Thailand's roadmap to eliminate HIV by 2030?

As we aim to achieve the 95-95-95 goals, strong and inclusive Universal Health Coverage (UHC) governance with a resilient health system greatly accelerates our progress. The Department of Disease Control, as the Secretary of the National AIDS Prevention and Alleviation Committee, oversee the policy development while UHC ensures these policies translate into practical solutions including the provision of condoms, preventative drugs, and treatment medicine. We also have a National AIDS Program for individual record collection with privacy protection, and a centralised purchasing scheme for the best possible bargaining power. Through our intervention programs and health benefit schemes, we want to provide free and affordable healthcare access to all Thai citizens.



Clinical labs take on heart failure with gold standard testing

As with many types of cardiovascular disease, heart failure is a major challenge for healthcare systems everywhere. Here, we take a look at how clinical labs are contributing to better patient care in heart failure.



Dr David Sim,
President of the
Heart Failure Society
Singapore

Shortness of breath, nausea, fatigue—the symptoms of heart failure can easily be confused for other ailments that are much less serious. This is one of the key reasons why 16.1% of heart failure cases are misdiagnosed in hospitals.¹

Heart failure is most commonly caused by damage to the heart muscle, potentially as a result of a heart attack or cardiomyopathy (disease of the heart).² The disease afflicts roughly 26 million people around the world. Because heart failure diagnosis is a challenge as symptoms are non-specific, and at early stages can even be silent, it can add to a patient's physical and emotional stress. Data on the direct and indirect economic impacts of ischemic heart disease - a major risk factor for heart failure - suggest that the inadequate management of these conditions can impose billions of dollars of costs on healthcare systems, as well as affect patients in countries where they have to bear significant out of pocket expenses.

Biomarkers tell a more complete patient story

To achieve better patient care, clinicians have turned to biomarkers to tell a better and more complete story. Increasing innovation and advances within diagnostics allow for simple tests to capture data on these biomarkers and in turn provide clinicians more confidence in diagnosing patients effectively and efficiently.³

Laboratory tests not only help to diagnose people with heart failure but also helps screen Type 2 Diabetes Mellitus (T2DM), atrial fibrillation patients at high risk, as well as track disease progression which is key to reducing hospital re-admissions.



Key facts about HEART FAILURE



25,000,000

patients are suffering from heart failure worldwide¹



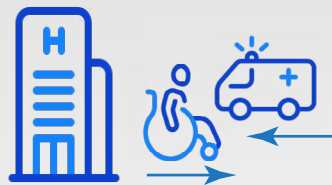
>65 years old

Heart failure is the major cause of hospitalisation for patients over 65 years of age³



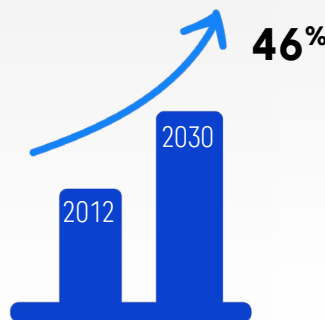
5-10 Days

Patients with heart failure stay in hospital for 5-10 days depending on the country³



30 Days

25% of patients return to hospital for worsening progression one month after having left the hospital^{3,4}



The number of heart failure patients is expected to increase by 46% between 2012 - 2030 and the related costs of care will double⁵

Without laboratory testing for NT-proBNP, clinicians will be unable to accurately diagnose and treat their heart failure patients

- Dr David Sim

In heart failure specifically, natriuretic peptides are important for the diagnosis and monitoring of patients. The biomarker of choice is N-terminal prohormone of BNP (NT-proBNP), which is a biological molecule secreted with the movement of cardiac muscles. It is widely considered a gold standard tool in diagnosing and monitoring heart failure.

Biomarker usage in acute and chronic heart failure

Heart failure symptoms require significant clinical background to accurately diagnose - information that often isn't available in an emergency department setting. Even with the extensive patient history available in chronic care settings, the accurate interpretation of clinical symptoms may still prove difficult.

"In the emergency department, we are unable to diagnose about one-third of patients that present with shortness of breath," says Dr David Sim, President of the Heart Failure Society Singapore.⁴ Yet biomarkers are now being deployed to overcome this uncertainty. For acute heart failure patients in the emergency department, NT-proBNP was able to accurately triage close to 60% of patients with a final diagnosis, according to the ICON study.⁵

Another benefit of NT-proBNP is that it can be measured through a point-of-care test, enabling quick turnaround for patients in the emergency department who require rapid results. Other confirmatory methods such

as the use of an electrocardiogram, which are not on hand at every medical facility, can be time consuming, resource intensive, and come at a great financial expense to patients, according to Dr Sim.

NT-proBNP also serves as a predictive tool for a patient's long-term health in a chronic heart failure setting. Changes in NT-proBNP levels, captured through clinical lab diagnostics, allow clinicians to better understand the risks a patient may face in the future and tailor treatments accordingly. For these reasons, NT-proBNP is recommended as the first one to be performed under the guidelines of the American Heart Association, regardless of the acute or chronic setting, with researchers concurring with this recommendation for an Asian population⁴.

Putting labs at the heart of it

Without laboratory testing for NT-proBNP, clinicians will be unable to accurately diagnose and treat their heart failure patients. As health systems continue to evolve, the management of diseases like heart failure is critical to ensuring the sustainability of our care delivery models.

By including clinical labs as part of effective chronic disease management strategies, health systems can avoid the inevitable strain this growing disease burden will have.

Risk stratification in high-risk populations

The incidence of heart failure is particularly high in Type 2 Diabetes Mellitus (T2DM) patients. Also known as adult-onset diabetes, the incidence of T2DM is increasing rapidly in many countries due to ageing populations, more sedentary lifestyles and other risk factors. Studies show that T2DM patients have two to eight times the risk of developing chronic heart failure than non-diabetics, with risks increasing as patients get older.⁶

NT-proBNP can be used to determine the level of risk that a T2DM patient has in developing heart failure. In the CANVAS study, diabetic patients who showed a rising risk for heart failure demonstrated higher NT-proBNP values over a placebo group.⁷ With the incorporation of a pharmaceutical agent, results showed a clear correlation between early intervention and overall risk reduction.

The Asian Diabetes Outcomes Prevention Trial (ADOPT), which is currently underway, aims to evaluate if intensive prevention therapies can predict patient outcomes in Asian populations. If so, this reinforces the value of using NT-proBNP as an indicator of heart failure risk, highlighting the importance of clinical lab diagnostics in heart failure management.

*Every three seconds, someone
around the world develops
Alzheimer's Disease or a Related
Dementia (ADRD)¹*



Early Diagnosis is Key to Tackle the Growing Alzheimer's Crisis

The number of Alzheimer's patients is on the rise in Asia Pacific. In the absence of a cure, new innovations and research is changing the way we tackle the looming crisis.

The greatest pleasures in life are often the simplest - memories of our childhood, singing the lyrics to a favourite song or recounting fond adventures with an old friend many years later. But these cherished moments are also the very things that Alzheimer's disease erases, forever.

Slowly affecting memory and thinking skills, Alzheimer's disease is the most common form of dementia.¹ Symptoms eventually grow severe enough to interfere with the ability to carry out the simplest tasks. Like no other illness, it's an attack on a person's identity, profoundly changing who they are, or once were. It fades away their past and future, stealing memories and turning loved ones into strangers.

Worldwide, more than 55 million people are living with some form of dementia.¹ In Asia Pacific, the increasing prevalence of Alzheimer's disease presents an enormous challenge for health systems, now and in the future. According to Alzheimer's Disease International (ADI), a global federation of Alzheimer's associations around the world, 60% of dementia patients live in Low - and Middle-Income Countries (LMICs)². Because of a lack of awareness and misconceptions, a majority of dementia cases continue to remain undiagnosed, placing immense burden - directly and indirectly - on individuals, their families and society at large.³

The burden of love

Watching a once mentally sharp loved one decline before our very eyes is heartbreaking. Alzheimer's disease is not only life-changing for the person diagnosed, but also for those around them. Caring for someone with Alzheimer's disease involves physical, mental, emotional, and financial commitment. With high levels of dependency as well as morbidity in its later stages, dementia requires a range of care services from both within and outside the health sector.

In Asia Pacific, dementia care cost is estimated at US\$180 billion, burdening the health systems of emerging economies with large populations.⁴ Additionally, 65% of the costs in LMICs are attributable to informal care⁵, which is primarily provided by family members, making caregiver burnout a pressing public health issue. On average, caregivers spend five hours a day providing support for daily living; 70% of that care is provided by women. Given the financial, social, and psychological stress faced by carers, access to information, training and services, as well as social and financial support is particularly important.



Growing our understanding of the global impact of Alzheimer's disease

Alzheimer's disease (AD) is the most common type of dementia,¹ affecting > 50 million people worldwide.²

In recent years, our knowledge of AD has grown - we now know more than ever before.³ However, the impact of AD remains significant, and continuous and collaborative research is needed to fully understand the disease.

The exact cause is still unknown, however key characteristics include the build up of specific proteins in the brain, forming clumps called 'plaques' and 'tangles', which gradually kill brain cells.⁵

There are 2 types of AD, and risk factors can differ for each type of AD.⁶⁻⁸

Early onset

30 - 65 years

5%

of all cases

Risk factors

Early onset is also known as 'Familial AD' and is linked with genetic mutations

Late onset

65+ years

Majority of cases

Risk factors

- Older age
- Chromosome 19 mutation
- Family history of AD



70% of all risks are linked with genetics,¹⁰ but certain health and lifestyle factors may also increase risk.⁶ Most cases of AD develop due to a combination of risk factors.⁸

Diagnosis: the increasing importance of biomarkers

AD-associated biological changes may occur
20+ years
before typical onset⁸

An estimated
75%
of people living with dementia are undiagnosed¹⁴

Currently, it can take many months of appointments and multiple tests before AD is diagnosed.¹³



AD biomarkers are currently being used to support diagnosis include analysis of cerebrospinal fluid (CSF)^{15,16}



Other AD biomarkers including blood-based, are under investigation for the diagnosis and management of AD¹⁵

Wider use of biomarkers could provide a quicker, cheaper, non-invasive test for AD - potentially allowing treatment to start before symptoms do^{15,16}

Impact on society and people's lives

The economic impact of dementia is a growing global challenge and AD is acknowledged to be one of the most expensive diseases; with a cost to individuals and the wider society¹⁸

There is a
25%
higher personal spend in direct healthcare costs for people with dementia¹⁸

The cost of dementia has increased by
35%
from 2010 - 2019¹⁸

Global collaborations have formed to accelerate the development of diagnostics and treatment for AD, in the order to address the challenge¹⁸

Hope for the future

Partnerships, new potential treatments and diagnostics are key to the mission to uncover the brain's secrets.

While diagnosis is the first step to accessing any dementia care and support, limited access to diagnostic services along with other barriers impede care progress. The World Health Organization's (WHO) report on the 'Public health response to dementia' calls for strengthening care and support, not only for people with dementia but also for those providing care, in both formal and informal settings. Dr Tedros Adhanom Ghebreyesus, Director-General of the World Health Organization says, "Building the services and systems to prevent, delay, and mitigate the effects of dementia and providing quality care for people with dementia and their families is essential now, and for the future in our ageing world."

A national priority

Rising to the challenge, some countries in Asia Pacific have already developed national dementia strategies.⁶ High-income nations like Australia have allocated \$229 million to

expand and strengthen its dementia support program as part of its annual 2021-2022 budget.⁷ Similarly, South Korea is making dementia a public health priority by setting up a dedicated task force and creating policies and legislation for dementia.⁸ With a burgeoning elderly population⁹, Japan too is at the forefront of driving change to tackle the dementia crisis.¹⁰ Towns and cities across the country are attempting to move away from a medicine-based, institutional approach towards care that involves the entire community. The government's 'Orange Plan' is a comprehensive package of measures to tackle dementia and ranges from more specialised medical staff to regular home visits and support for family caregivers.¹¹

Following their footsteps, emerging economies have also begun to take positive steps towards tackling the war against dementia. As part of a two-year project funded by WHO's Kobe Centre for Health Development (WKC), Laos¹², the youngest of

the 10-member ASEAN¹³ bloc with a median age of 22.7 years, launched its first national survey to assess adults over 60 with low cognitive function. This initiative will not only help the country gather evidence-based data but will also provide authentic information to revise outdated policies for the elderly.

Improving care through early detection

If breakthroughs in Alzheimer's disease through research and clinical trials are not discovered¹⁴, the numbers worldwide could exceed 152 million by 2050.¹⁵ Nevertheless, as the search for a cure continues, the rising burden of Alzheimer's disease has led to a growing demand for technological advancements in the treatment and early intervention of dementia. Timely diagnosis using biomarkers can detect physiological changes years before symptoms appear. Research to date has shown scientists that, for any potential treatment to be successful, the disease needs to be detected and diagnosed as early as possible. The earlier

treatment starts, the more impact it will have on how the disease progresses.

Two of the earliest signs of Alzheimer's disease are the 'plaques' and 'tangles' that develop in the brain, caused by the build-up of certain proteins. By accurately measuring these proteins, we can gain a better understanding of how the disease unfolds¹⁶ and extend the quality of life. This gives caregivers and patients more time to prepare for what is to come, and creates support for them within their communities and the health system.

While biomarkers increase the certainty of an Alzheimer's diagnosis¹⁷, there remains a pressing need to look to the future and continue investing in research and innovations that can tackle this growing public health issue. Data has revealed that people are more scared of dementia than of other top causes of death, like heart disease.¹⁸ Concerns over the impact on their daily lives - particularly their jobs, social

engagement, and ability to drive - stop them from seeking an early diagnosis. However, the benefits of an early diagnosis far outweigh such fears.

The WHO states that "increasing public awareness, acceptance, understanding of dementia, and making the society environment friendly will enable people with dementia to participate in the community and maximise their autonomy through improved social participation".¹⁹ The focus needs to be on the caregivers and models for person-centered care²⁰ as it can be an effective way forward to prevent and manage behavioural and psychological symptoms that are an integral part of Alzheimer's Disease.

Dementia is so often viewed as an inevitable symptom of ageing, but with foresight and preparation, it can be steered towards a gentler course.





Ending Tuberculosis by 2025

Can India accelerate its progress?

As the government aims to eliminate the disease by 2025, **Dr KS Sachdeva**, the Regional Director at The UNION South East Asia, takes a closer look at the policy interventions that raise standards of care for Tuberculosis (TB) patients.

The days 50-year-old Dulari Devi coughs up blood, her family try to feed her a portion of dal or lentil curry with some rice. It's the only protein-rich food they can afford, but Devi refuses to eat. "My weight has dropped but I have no appetite. I feel so weak," she says, clasping her pale, scrawny hands.

A classic case of misdiagnosis and incorrect treatment, eight months ago, when her fever and chills worsened, she went to many doctors, each of whom treated her for seasonal cough and chest infection. "I saw no improvement so my daughter insisted we visit a private hospital. That's when I found out I had TB."

India is the TB capital of the world. According to the World Health Organization (WHO), the country records 2.5 million new TB cases annually.¹ Accounting for nearly one fourth of all incidence globally, TB is the country's most fatal infectious disease, killing an estimated 504,000 Indians every year.² That's one person, every minute.

As TB is airborne, many Indians are easily exposed to it. Like Devi, they live in small quarters with large families, where the houses lack ventilation and are a hotbed for transmission. "No one knows about this disease. We are a family of 12 confined to two rooms so it spreads quickly. Outside, there is open sewage and the water is unfiltered." Poor living conditions, malnutrition, overcrowding, and air pollution are some factors that increase the risk of TB in the country.

Having said that, to reduce its burden, India has set an ambitious target to eliminate the bacterial infection by 2025, five years ahead of the global Sustainable Development Goal target of 2030. To achieve it, the government is looking at several strategies, including early diagnosis and detection of latent TB, analysing whether vaccination can prevent the spread of the disease, shorter courses of treatment, and community involvement to help spread awareness.

The fight against TB

Although India is ramping up its efforts, it still faces some major challenges. Lack of disease awareness coupled with incorrect or delayed diagnosis, suboptimal quality of care, and the absence of patient support systems deter Indians from seeking treatment.

Dr KS Sachdeva, the Regional Director at The UNION South East Asia believes India must formulate a TB Bill at a national level to navigate its fragmented healthcare system.

"In the last five years, the Ministry of Health and Family Welfare (MoHFW) and National TB Elimination program (NTEP) have taken bold steps to increase awareness, improve healthcare-seeking behaviour and reduce stigma. The current challenge is to consolidate these initiatives and strengthen healthcare systems," says Dr Sachdeva.

In 2020, India launched a "Jan Andolan" or people's movement against TB. This initiative

An early and accurate diagnosis is the best tool to treat TB and prevent any emergence of drug resistance due to wrong or delayed diagnosis

- Dr. K S Sachdeva



aims to further build awareness about TB, address the deep-seated stigma around the disease in the community, raise awareness about the available TB services and generate demand for TB services in the community. Efforts are put together to involve people from all walks of life including elected representatives and state government leaderships to create a mass movement and drive community ownership of the government's efforts. It's also providing state-of-the-art diagnostics and treatment services for all. However, Dr Sachdeva emphasises that the policies need to be "more effective on ground" in order to reach every TB patient.

"An early and accurate diagnosis during the course of the disease is the best tool to treat it rationally and prevent emergence of drug resistance due to wrong or delayed diagnosis. By enabling care at an early stage, we can improve therapy outcomes. Current molecular diagnostics are not only highly sensitive and specific, they also have the capability to diagnose the disease very early on when the bacterial counts are low," adds Dr Sachdeva.

Patient-centric stakeholder mobilisation to tackle TB

Recognising that 70% of out-patient care is serviced by private providers, the government has engaged the private sector and initiated a number of measures to improve the quality of care.³ Apart from legislative policies like mandatory TB notification and Schedule H1 surveillance that prevent over-the-counter sale of anti-TB drugs without prescription,

Dr Sachdeva says the government is also providing "financial incentives for notification and declaration of treatment outcomes and state-of-the-art diagnostic and treatment facilities." Nikshay, a homegrown and government-enabled platform is one such example. Holding health records of over 15 million people, it was developed to capture TB data from both the public and private sectors.⁴ By functioning as a comprehensive, integrated system to digitise TB treatment workflows in real-time, health providers can reach out to patients through various virtual care mechanisms, and discuss treatment outcomes. According to Dr Sachdeva, such aggregated reports and dashboards inform policymakers where action or intervention is needed and is critical in the fight against TB.

"Disease eradication requires continuous and sustained surveillance. Anytime the intensity of such programmes are not optimal, the disease has a potential to resurface. Sustained funding and keeping elimination on the radar at all times while ensuring the delivery of services to match the demand needs unwavering focus." Dr Sachdeva says an 80% reduction in TB incidence by 2025 is ambitious but says "a bold target is needed to push the nation into putting all possible efforts."

Part of that endeavour is to tackle social stigma in the country. Beyond the physical suffering, TB has enormous mental and social consequences that remain ignored. Often, the isolation and feelings of guilt and shame lead to depression and anxiety in TB affected persons. While Devi was open to talking about her experience with TB, she was uncomfortable sharing photos of herself,

fearing the consequences should people recognise who she is.

"I stay within these four walls, keeping away from family and covering my face all the time. It's a very lonely journey," says Dulari Devi. While Devi's children are empathetic to their mother's battle, many women live with fear and discrimination when infected with TB. A study that examined TB-related stigma in India found that 40% of women were uncertain if their spouses would support them after a positive tuberculosis diagnosis.⁵

Where stigma persists, TB thrives. Policy observers believe that if India plans to accelerate progress toward TB elimination, it needs to put patients at the centre of its healthcare delivery model. "The general and educated Indian population has to take ownership of government healthcare policies. Often they are on the fringes of policy making and do not take an active role in holding the government accountable to the policy decisions taken," says Dr Sachdeva.

Public health programmes and policies worldwide have taught us an important lesson - that meeting targets, reducing health inequalities and disease prevalence remain an unattainable goal if communities are left out of the response mechanism. India is vigorously adopting novel strategies and steadily taking steps to end TB. However, its policies must go beyond medical interventions by addressing the social determinants and minimising barriers to diagnosis and treatment.

Cycling for change

Man on a mission



Hearts full of love.
Noel, Brenda, and their children on a family holiday in Nagasaki, Japan.

Noel Tan, a People & Organisational Growth consultant at Roche has always had a passion for teaching. Not only because he began his career as a teacher, but also because of the positive impact helping others understand and learn can create. "It might have started, back in the day, with what I could teach my students, but I follow this same philosophy in my work as an organisational consultant. What binds people together is shared understanding and a common purpose."

This is perhaps why, he feels, it was only natural for him to consider writing a book about his wife's experience as a gastric cancer patient so that he could educate others about the importance of diagnostics, the role of community care, and the need for ongoing research. He wants to capture key elements of his own caregiver story, even as he processes the events of the last seven years.

Noel's wife Brenda, a fellow teacher and business partner in their own independent consulting business before he joined Roche, had her first cancer diagnosis in 2016 and later suffered a relapse in 2018. "An experience like this is emotionally devastating for any family," he says recalling the helplessness he and his three children felt, noting that it is not uncommon for caregivers of advanced cancer patients to experience such emotions.

A real turning point for Noel was visits to the National University Cancer Institute, Singapore (NCIS) for Brenda's treatment during the peak of Covid-19. "I heard of and saw many patients and caregivers struggling to cope as a result of the economic downturn caused by the pandemic."

"I couldn't do much to ease my wife's pain except offer her my unwavering support. This however, felt like a cause I could contribute to, and make a difference." That thought spurred him to act in the best way he knew.

An avid cycling enthusiast, Noel decided to channel his passion for cycling into a fundraising effort in Dec 2020. "I covered 500 kilometers on my bicycle over 2 days to raise \$51,000 for financially disadvantaged patients and families, in a campaign called "Cyclist vs Cancer 2020."

The overwhelming support from various quarters meant Noel was able to raise over \$72,000. He brushes this off as any kind of achievement, "I have always enjoyed cycling but in many ways during Brenda's treatment, cycling became therapeutic for me. It was a release from the stress I felt as a caregiver while also juggling my responsibilities as a father and as a professional. The time on my bike gave me the space and capacity to be most grounded, off the bike."

Caregivers often maintain a facade of strength even when they deal with extreme emotional upheavals when caring for loved ones, especially those who need end-of-life care. "You don't want people to feel guilty for putting you through this, because it is no one's fault. Allowing myself to work through my whirlwind of emotions and thoughts helped me to be fully present to support my children and my wife."

After Brenda's passing in January 2021, Noel pondered over how he would process his experience. At the same time, he was clear



Finding joy
Brenda choosing happiness amidst her treatment.



Support from friends and family.
Noel and Brenda spending time with their close friends.



Putting a positive spin on chemotherapy.
Noel and family reframed chemo sessions as picnics and craftwork to pass the time with a bit more joy.



Moving forward, one step at a time.
The cycling crew at the Lim Chu Kang Jetty, Singapore.

that there was a need to support caregivers who were on parallel paths as the one he had to walk as husband and father. For caregivers of terminally-ill patients, the caregiving continues even after the

patients pass on. That duty of care then extends to those who live on such as his children and also for the caregiver himself.

Life can only be understood backwards; but it must be lived forwards', it's something I truly believe
- Noel Tan



Creating memories with family.
Outside the Ashmolean in Oxford. The Tan's last family trip together.

As Noel likes to journal, he welcomed the ideas of writing a book for all the purposes mentioned above. Kierkegaard, the existentialist philosopher once wrote, “‘Life can only be understood backwards; but it must be lived forwards’, it’s something I truly believe.” He hopes to complete the book by the end of the year and take it to publication as a gift to all caregivers who are doing their best daily for the patients close to their hearts.

That’s not all, he says. “This year, I am training to repeat the same distance of 500 km in Dec 2022. Due to my own nerve compression issues in my C5-C7 vertebrae, I have changed my original plan of the participating in the London-Edinburgh-London race (1500km over 5 days) to a shorter effort locally. And I am once again doing this to raise funds for NCIS.”

The National Cancer Institute Singapore aims to promote medical research and development as well as provide health related services for patients in Singapore. A key priority is to support patients and families in need of financial assistance, fund cancer research, as well as the education and training of healthcare professionals.



Cycling with a mission.
Distance covered during one of Noel's bike rides to raise funds.



Building connections through a common goal.
Noel with his new found friends from NCIS.



Teamwork makes the dream work.
Noel with his cycling crew at a stopover in Tioman, Malaysia.

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