



Access to Medicines Update 2024

INTEGRATED ACCESS, SUSTAINED IMPACT

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President and CEO message



Patients are at the heart of everything we do at Takeda.

Driven by our values and commitment to innovation, we are racing against disease to discover and deliver medicines and vaccines that transform the lives of patients worldwide.

However, innovation lacks meaning if those medicines and vaccines don't reach the people who need them most.

The importance of equitable and sustainable access to medicines is more important now than ever before. Economic uncertainty is straining health care budgets, which limits access to necessary treatments. New and ongoing geopolitical volatility and changes are threatening supply chains, compromising health care infrastructure and undermining already fragile systems. These factors disproportionately affect low- and middle-income countries.

The effects of climate change on health are also increasingly clear. The frequency and severity of heat-related illnesses and many chronic conditions are rising, while extreme weather events are impacting lifestyles and disrupting food security.

One indisputable impact of climate change is the growing prevalence of mosquito-borne illnesses, including dengue. In addition to factors such as travel and urbanization, climate change has expanded the habitats of dengue-carrying mosquitoes. This has led to higher transmission rates and outbreaks in new parts of the world. True to our values, we've taken a holistic and access-first approach to the rollout of our dengue vaccine. We've prioritized areas of the world such as Brazil and Indonesia, where the burden of disease is highest. And we're working to make sure that patients can both afford and access the vaccine around the world. Less than two years after our first approval, our dengue vaccine is now approved in 40 countries.

“Access to medicines is not only integrated into our global business strategy – it's a driving force.”

Access to medicines is not only integrated into our global business strategy – it's a driving force. Access considerations are fully incorporated in the early stages of drug discovery, continuing through clinical development and commercialization.

Our access to medicines strategy is focused to have meaningful and sustained impact. Providing sustained access in underserved communities requires an integrated approach that mobilizes partners, breaks down barriers to care and strengthens entire health systems. Our contributions in the global fight against dengue are an example of this approach in action.

Creating lasting change is not something we can do alone, of course. It requires deep and trusted partnerships with health care professionals, nonprofits, nongovernmental organizations and patients.

In this report, you'll hear directly from a few of our partners on the impact of our work. You'll learn more about our efforts to combat dengue, strengthen health care systems and address the local barriers to care that affect patient care. These initiatives are not possible without the whole team at Takeda, committed to pushing for better health and a brighter future.

I hope that our report on our commitment to accelerating progress toward sustained and equitable access will spark new ideas and conversations. We are on a journey, and I look forward to making further progress in the months and years ahead.

CHRISTOPHE WEBER
President and CEO, Takeda

President and CEO
message

**Our access to
medicines approach**

Bridging the
affordability gap

Strengthening
health care systems

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forward

OUR ACCESS TO MEDICINES APPROACH


Our approach: Patient-centric, holistic and collaborative


Access to medicines is not only about ensuring that our innovative vaccines and medicines are available and accessible to patients regardless of their individual circumstances, it is about forging relationships and collaborating with governments, health care practitioners, NGOs, insurers and other stakeholders in the delivery of care. This allows us to build impactful programs that serve the local needs of patients in ways that are sustainable.


It is this approach that allows us to address the systemic barriers that so often prevent patients from receiving needed medicines and vaccines. We've been on a journey over the last several years to integrate access priorities into every aspect of our business operations, from research and development to quality control and public affairs. This integration is crucial because it ensures our medicines and vaccines reach those who need it most, including patients living in low- and middle-income countries (LMICs), where barriers to access are often numerous and complex.


Our approach to broadening access to our medicines and vaccines is not only aligned with our values and corporate philosophy but remains integrated into our corporate strategy. Life-transforming treatments only create value for patients, society and our business when patients have access to them.


Across our focus therapy areas, our ambition is to ensure every patient, no matter where they live or what they can afford to pay, has sustainable, equitable access to our medicines and vaccines when they need them.

 Rare diseases

 Plasma-derived therapies (PDT)

 Gastroenterology

 Vaccines

 Oncology

Our approach is built around three core pillars

Pillar I: Bridging the affordability gap

Addressing financial barriers to innovative medicines through tiered pricing, affordability based-patient assistance programs (PAPs) and value-based pricing.

> Find out more on page 8

Pillar II: Strengthening health care systems

Addressing barriers to access that exist within health care systems across the entire patient journey - from disease awareness, screening and diagnosis to treatment and patient support.

> Find out more on page 13

Pillar III: Sustaining impact through an integrated business approach

Integrating access into our business strategy and across our operations, from research & development to commercialization.

> Find out more on page 17

“We have worked tirelessly to provide sustainable, equitable access to our innovative medicines and vaccines when and where they are needed most.

Through our integrated business approach and by working with partners, we are bridging affordability barriers, strengthening health care systems and creating value for patients and societies.

We recognize the importance of continuing to listen, adapt and collaborate to make progress at the pace of change we are seeing in the world around us.

I am deeply proud of the work that Takeda has done and is doing to broaden access to our medicines and vaccines in LMICs and I would like to thank our partners, people and leadership for never ceasing to explore what more we can do.”

Michelle Erwee

Global Head of Access to Medicines, Takeda

“Every day, Takeda sees first-hand the barriers patients encounter when trying to access the health care and treatments they need – especially in low- and middle-income countries.

That’s why we’ve adapted our go-to-market model globally to include tiered pricing and affordability-based patient assistance programs, as well as diagnosis and provider training.

We’re also deeply committed to helping local health care systems address growing challenges around affordability, sustainability and equity, which can further separate patients from the care they need. We collaborate closely with stakeholders across health care ecosystems including governments, international bodies and local organizations to get people medicines and vaccines as quickly as possible in a way that reduces barriers and maximizes the positive impact on their lives.”

Ramona Sequeira

President, Global Portfolio Division, Takeda

Our approach to measurement

Measuring impact is key to ensuring that we are generating positive and lasting outcomes.

We are guided by our values and hold ourselves accountable by making our business decisions based on our framework of Patient-Trust-Reputation and Business, in that order. As a company, we are committed to patient reach metrics that are comparable, meaningful and valuable to our stakeholders.

We believe that the most meaningful targets are those that account for the different approaches needed across diseases and therapeutic areas and the specific challenges facing local health care systems. Given our portfolio of innovative medicines and our heavily localized approach to delivering them, we believe that globally aggregated data needs to be complemented by case-by-case reporting to truly gauge the impact of our access to medicines initiatives.



Overview of our access to medicines initiatives

Sustainable and equitable access requires more than making medicines available; rather, it involves addressing the broader systemic challenges that prevent patients from accessing the care and treatment they need.

While our commitment to improving access is global, we understand that barriers are especially complex in countries with evolving health care systems. Therefore, we focus our efforts on strengthening health care systems in low- and middle-income countries (LMICs), where the need is greatest.



81

countries with active health care systems strengthening programs in LMICs

16

countries with active affordability-based Patient Assistance Programs* (some countries have more than one active program)

* Patient Assistance Program (PAP) is a Takeda approach to address the affordability of medicines and increase access to treatment through innovative and collaborative financing models.

A man in a pink jacket is harvesting coffee beans in a field. He is holding a basket filled with coffee beans. The background is a lush green coffee plantation with many trees and branches.

BRIDGING THE AFFORDABILITY GAP

Pillar I: Bridging the affordability gap

Over the last few decades, significant progress has been made across many LMICs towards universal health coverage,¹ however, momentum has slowed and more recently stalled altogether.

The World Health Organization (WHO) has reported that the universal health coverage index increased from 45 to 68 between 2000 and 2010, but only rose 3 points post-2015, with no change since 2019.² Affordability remains one of the most significant barriers to establishing universal health care and ensuring sustainable access.

We believe that everyone deserves access to innovative treatments, regardless of where they live or what they can afford to pay. One of the most effective ways to address this challenge is through national reimbursement programs. Studies show that when government expenditure on health is greater than 5-6% of GDP, fewer households face financial difficulties in paying for health services.³

However, government health care expenditures are constrained amid the uncertain economic environment and national reimbursement schemes can take years to develop.

To bridge the affordability gap today, Takeda supports a multi-stakeholder approach, involving the government, industry, as well as other financing partners. This collaborative effort is crucial not only for overcoming the affordability barrier but also for ensuring sustainable access to health care.

1. <https://www.who.int>
2. <https://www.who.int>
3. <https://cdn.who.int>

We take a multi-layered approach to bridging the affordability gap and creating sustainable, equitable access for patients

Tiered Pricing

Tiered Pricing is a framework that enables differentiated price levels based on a country's specific context, including economic development and health system maturity. It aims to enable sustainable and equitable access for patients to Takeda's innovative medicines globally by reducing access barriers associated with price.

Affordability-Based Patient Assistance Programs (PAPs)

Since their launch in 2017, our PAPs have supported patients who have difficulty accessing medicines to obtain our innovative and life-saving treatments. They provide unique mechanisms and pathways to treatment by determining financial support of individual financial circumstances. Importantly, our PAPs ensure that Takeda's support is sustainable, allowing eligible patients to receive the full course of recommended treatment prescribed by their physicians, regardless of their ability to pay.

Value-Based Pricing

Value-based pricing responds to payers' and providers' need to manage uncertainty around the real-world clinical performance and economic impact of our innovative medicines. We tailor value-based contracts to local needs to accelerate patient access and increase the number of patients who benefit from our science. At the same time, this allows payers to manage uncertainties, such as clinical and budgetary impact and sustainability of the health care system.

28

active Patient Assistance Programs (PAPs) globally

7,245

patients enrolled on our PAPs since 2017

 **CASE STUDY**

Accelerating broad and early access to innovative treatments in India

Non-communicable diseases (NCDs) represent a growing share of the disease burden in India, accounting for approximately 60% of all deaths in the country.¹ Cancer is a major contributor, with experts estimating that one in nine people in India are likely to develop cancer in their lifetime.²

However, India has a diverse health care ecosystem with varying operating models on a state-by-state basis, as well as high rates of out-of-pocket spending on health care, which can put medicines out of reach for many but the most affluent.

In 2023, when we launched Takeda's innovative treatment for Hodgkin lymphoma in India, we simultaneously launched a support program to cover the treatment, with a view to ensuring early, equitable access for patients across the country.

Given the vast geography and complexity of the health care system, the key to successfully implementing the support program for Hodgkin lymphoma treatment has been closely aligning with local government priorities and taking a whole of Takeda approach - rolling out our market access strategy in unison with our access to medicines approach.

Based on Takeda's calculations, more than five times more patients have been able to receive treatment for Hodgkin lymphoma in the first year than would have been possible without the affordability-based program.

To address the country's affordability gap sustainably, particularly in light of the growing disease burden, we are committed to collaborating through multi-stakeholder coalitions. On the basis of our support program, we are refining our approach by collaborating with a broader range of partners to unlock new funding sources, paving the way for wider access.

5X

more patients helped in India than would have been possible without Takeda's affordability-based programs

Proprietary Takeda data from October 2024

1. Proprietary IQVIA analysis
2. <https://pubmed.ncbi.nlm.nih.gov>



 **CASE STUDY**

Bridging affordability barriers for innovative medicines on the road to universal health care in Egypt

Egypt's health care system is undergoing a period of rapid transformation as the government aims to secure Universal Health Coverage (UHC) for its fast-growing population by 2032. However, transition at this scale takes time.

Rooted in our belief that public-private partnerships and a multi-stakeholder approach are essential for long-term sustainable and equitable access to medicines and health care, Takeda supports the UHC ambition in Egypt by working closely with a broad range of stakeholders to bridge affordability barriers.

Improving access in a large country like Egypt – the third most populous country in Africa¹ – is no easy feat and requires a unique strategy. Prior to the phased rollout of Egypt's UHC scheme, 70 percent of funding for cancer care was out-of-pocket, with only 30 percent covered by reimbursements.² This means that most patients have faced significant affordability barriers to access treatment, rendering access to life-saving medicines out of reach or burdening households with untenable expenses.

To help find affordable pathways for oncology patients who couldn't afford treatment, Takeda adopted an innovative approach. We collaborated with a third-party entity to assess the unique circumstances of each patient and provide tailored financial support.

"As we were launching a new concept, we started small, with a pilot project in Cairo, that was focused on Hodgkin lymphoma," said Samy Khalil, General Manager for Takeda Egypt. "Today, our PAPs are helping eligible patients access life-transforming medicines and complete their prescribed courses of treatment nationwide."

The expansion of PAPs in Egypt has not only been geographical. Encouraged by their success in treating Hodgkin lymphoma, we partnered with the Egyptian government, as well as numerous hospitals and physicians across the country, expanding the program to cover other therapy areas.

Looking ahead, we are committed to continuing our work to find sustainable financing models that are aligned with – and supportive of – Egypt's health care system as it continues its journey towards UHC.

"I won't deny that I felt distressed when conventional therapy wasn't effective for me. Up until the physician assured me that targeted therapy could be provided to me through Takeda's PAPs. The procedures were fast, and once I started the medication, I felt at ease, or as you may say, I felt safe."

KAREEM AMIN

PAP patient in Egypt

Since 2017, Takeda's PAPs in Egypt have helped

~530

patients living with Hodgkin lymphoma access the full course of treatment they otherwise would have been unable to afford

DOUBLED

patient access to treatment for Hodgkin lymphoma

EXPANDED

to include access to other life-transforming therapies

Proprietary Takeda data from October 2024

1. <https://www.globaldata.com>

2. Proprietary IQVIA data

CASE STUDY

Effective collaboration fast-tracks broader access to dengue vaccine in Brazil

Brazil has the highest incidence rates of dengue globally and the challenge has grown more acute over time. In 2024, the number of dengue cases rose to levels exceeding 6.5 million with more than 5,600 related fatalities.¹ This surge forced multiple municipalities to declare a state of emergency and some to even establish emergency operation centers.² Earlier this year, army troops were even deployed in the capital to track breeding spots of the *Aedes aegypti* mosquito that carries and spreads the dengue virus.³

In response, we have been working closely with the Brazilian government to explore the options for incorporating our dengue vaccine into the country's National Immunization Program. Well before Takeda's vaccine received registration, we were in discussions with the Ministry of Health, with the first meetings dating back to 2021. We were also in close contact with the Department of the National Immunization Program (DPNI), sharing our expertise and exchanging technical details. Because of Takeda's comprehensive engagement plan, interest in the public consultation process to include our vaccine in the National Immunization Program received the third highest number of contributions (2,081) out of 111 public consultations in the preceding 18 months.

As a direct result of this collaborative approach, in December 2023, the relevant decision-makers voted unanimously to fast-track approval and incorporate Takeda's vaccine into its National Immunization Program – the first country to do so globally.

"It was a journey to partner with the government on addressing the dengue challenge. What made this possible was the level of engagement across the entire Takeda organization. It took a combination of market access experts, medical affairs professionals, public affairs specialists and communications colleagues to underscore how an integrated approach to tackling dengue could save lives and have wider societal benefits," said José Manuel Caamaño Iglesias, President of Takeda Brazil.

This high level of internal collaboration has been reflected by a high level of external engagement among civil society, health care professionals, and health management organizations.

Once the vaccine was incorporated into the DPNI, Brazil's public health service (SUS) started a campaign to vaccinate 10-14-year-old children, the group most at risk of hospitalization from dengue after the elderly, for whom the vaccine was yet to be approved.⁴ To date, Takeda has ensured the delivery of 6.6 million doses for 2024 and the provision of an additional 9 million doses for 2025.⁵ Over time, vaccinations will be made available to broader segments of the population.

"As Brazil continues to battle dengue, the efforts to provide widespread access to vaccines offer hope for a future with fewer cases and fatalities. The ongoing collaboration between public health officials and Takeda is crucial in this fight, demonstrating that with the right strategies and collaborations, significant public health challenges can be overcome," said Caamaño Iglesias.

What is dengue?

Dengue is a viral infection that spreads to people through the bites of the *Aedes* species of mosquito.

What symptoms does dengue cause?

Symptoms include high fever, headache, vomiting, muscle and joint pains and an itchy skin rash. In some cases, the disease can cause a more severe hemorrhagic fever, resulting in bleeding that can lead to death.

Why is the dengue challenge growing?

Dengue is notoriously hard to control, and experts believe that climate change is increasing its spread. Higher temperatures, heavier rains and more expansive flooding have created ideal breeding grounds for mosquitoes.

Dengue vaccine pre-qualified by the World Health Organization (WHO)

WHO Prequalification is a service provided by the WHO to assess the quality, safety and efficacy of medicines for priority diseases. The pre-qualification of Takeda's dengue vaccine is an important step in expanding access globally, as it is now eligible for procurement by UN agencies such as UNICEF and the Pan American Health Organization.

1. <https://www.gov.br>
2. <https://agenciabrasil.ebc.com.br>
3. <https://www.reuters.com>
4. <https://agenciabrasil.ebc.com.br>
5. <https://agenciabrasil.ebc.com.br>

STRENGTHENING HEALTH CARE SYSTEMS

Pillar II: Strengthening health care systems

We look at the entire patient journey, from disease prevention to aftercare, to identify where the barriers within health care systems exist and how we can play a role working with local partners to address them.

For sustained impact, our approach to health care systems strengthening includes (1) collaborating with partners to address local barriers, (2) aligning our programs with local priorities (3) and creating solutions that can be integrated over time into local health care systems.

Critical to this work are building trusted, deep and effective partnerships. Our close partnerships with governments, international bodies, private organizations and the wider health care ecosystem helps create societal value in a sustainable way, today and for future generations.



THE PATIENT JOURNEY

We help unlock barriers across the patient journey, which starts with patients, builds trust with society and strengthens our reputation. We work with diverse local partners and draw on insights from multiple stakeholders to ensure our programs are truly local, collaborative and sustainable.



1. Awareness

Promote public awareness through culturally appropriate campaigns that address misconception and misinformation



2. Screening

Provide training and support for mass integrated screenings that are more holistic in order to eliminate disease-specific silos that act as barriers



3. Diagnosis

Capacity building and training across the workforce to deliver high-quality and consistent local clinical care



4. Treatment

Leverage early and expanded access programs, Patient Assistance Programs, structured donations, and collaboration on treatment-financing mechanisms



5. Aftercare

Enable continuous and appropriate support for patients and caregivers to address the ever-evolving patient journey


CASE STUDY
Hope for individuals living with rare genetic disease in Vietnam

For 35 years, Nguyen Van Minh suffered unexplained sudden attacks of severe swelling all over his body. Each attack would last two to five days. His throat would tighten and he would struggle to breathe.

Minh, whose name has been changed to protect his privacy and whose story has been shared by his physician Dr. Nguyen Lan Anh at the Central Military Hospital 108, is one of an estimated 1,000 to 2,000 people in Vietnam living with the life-threatening rare disease Hereditary Angioedema, or HAE. Most have no idea and, like many others worldwide, often face years of misdiagnoses, with symptoms often mistaken for allergies or appendicitis.¹

Alongside Vietnam's Ho Chi Minh City's Society of Asthma, Allergy and Clinic Immunology (HSAACI) and guided by Japan's National Center of Global Medicine (NCGM), Takeda has been committed to changing this, and in just three years, the country's HAE diagnostic capabilities have significantly improved. It is just one example of Takeda's approach to improving access to medicines – local, collaborative and sustainable.

“We were facing a lot of challenges in Vietnam in 2021,” said Takeda Vietnam's Head of Medical Affairs, Dr. Than Trong Son, referring to the start of the program. “No patient had been diagnosed with HAE. Why? Because we did not have any general or family screening for the disease. We had only one treatment center in Hanoi with expertise in allergy and immunology.”

Minh is now one of 24 who have been diagnosed through free testing. Three of the others are children between the ages of five and six. In total, 81 people have been screened.

HAE, as the name suggests, is genetic. Minh lost his father a number of years ago to an acute attack they now believe struck his larynx. At the time, there was no way of knowing what was happening or how he could be helped. Family screening is therefore critical in achieving early detection.

The multi-stakeholder approach taken in Vietnam reinforces the idea that barriers need to be addressed and tackled throughout the patient journey to adequately strengthen health care systems, and that means starting with the basics – raising awareness, offering free testing and training health care professionals. To date, over 5,600 doctors and nurses have been trained by the coalition of partners involved in this initiative.²

Those who have been diagnosed with HAE through this program are today more likely to swiftly receive basic treatments that can ease the impact of acute symptoms. However, there is still more to do to significantly improve outcomes for patients. Access to advanced and innovative treatments has the potential to dramatically improve the quality of life for patients across Vietnam. This is a hurdle very much on the minds of the coalition partners.

“The patient journey is very challenging. We need to keep up momentum; knowledge building takes time,” said Dr. Son.

Having established central treatment centers in Hanoi and Ho Chi Minh City, the collaboration is now expanding their support elsewhere, starting with the coastal city of Da Nang in central Vietnam. Their long-term vision involves reaching more remote and underserved communities and bringing treatments to the country so that every HAE patient, no matter where they are, can receive the care they need.



1. <https://www.discoverhae.com>
2. Takeda proprietary data

CASE STUDY

Digital tools expand reach in battle against dengue in Thailand

To effectively combat dengue, it's crucial to adopt an integrated approach that combines efforts from both public and private sectors to address risks at all stages of the disease. While immunization and vaccination are pivotal, raising awareness and educating the public about the risks of the disease are equally important.

Our team in Thailand is leveraging technology to combat dengue, capitalizing on the country's rapid adoption of digital tools and technologies to address an evolving and urgent public health challenge.

Climate change has extended the life cycle of the virus-carrying mosquitoes, leading to a surge in dengue cases in 2024, straining the health care system, creating an economic burden and impacting society.

"We are committed to addressing the dengue challenge in Thailand through innovation and a strong focus on digital," said Peter Streibl, General Manager of Takeda in Thailand as he highlighted several ongoing digital initiatives in collaboration with the Thai government, from public awareness campaigns to building a central database to help predict and mitigate outbreaks, going beyond advocating for immunization. With the help of a comprehensive, data-driven framework, it is easier for the medical and scientific community and Thai policymakers to prioritize and respond to dengue. By also improving awareness through digital channels, we are making an impact, strengthening health care systems and helping to reduce mortality rates and the mobility of the disease," he added.

A public awareness campaign, using the hashtag #ยิ่งไม่รู้ ยิ่งต้องป้องกัน (#TheLessYouKnowTheMoreProtectionYouNeed), has focused on finding trusted voices on social media to share tips on preventing mosquito breeding grounds, protecting families and strengthening immune systems.

With Thailand's high mobile penetration rate of nearly 85 percent, the campaign has quickly and affordably reached vast numbers of people, including in underserved communities.¹ The campaign was also featured across the official communication channels of the Department of Disease Control, Ministry of Public Health and the Bangkok Metropolitan Administration, enhancing public reach and accessibility through trusted sources.

A coordinated approach to collecting and using dengue-related data is also showing promise. "If we can predict outbreaks, then we can save lives because we can protect people faster," Streibl explained, referencing the vaccine and adding that this work could also reduce misdiagnoses by alerting doctors as risks rise in certain areas.

The Geolocation feature embedded on www.knowdengueth.com, a website run jointly by Thailand's health authorities and Takeda, allows users to track the risk of dengue in their area by providing real-time updates on dengue cases coupled with national data. This tool empowers users to make safer choices for themselves and for their communities by combining awareness with action.

Takeda is committed to playing our part in reducing the impact of dengue in Thailand is long-term. In the words of Streibl: "This is a journey, there's unlikely to be an 'end point' because there's so much we can keep doing to continue our mission to protect people from dengue and drive impactful change forward."



1. <https://www.statista.com/statistics>



SUSTAINING IMPACT THROUGH AN INTEGRATED BUSINESS APPROACH

Pillar III: Sustaining impact through an integrated business approach

Takeda's enduring commitment to equitable medicine

Takeda's approach to access to medicines reflects its deeply rooted Sanpo Yoshi philosophy, a commitment to creating value for all, which has guided the company for over two centuries.

Today, our access to medicines approach builds on this tradition by pursuing equitable, sustainable solutions that serve patients and communities worldwide, and is a platform for sustainable business growth. By embedding access to medicines initiatives within every aspect of our business, we ensure that patients in LMICs gain access to life-saving treatments for generations to come.

This integration is more than symbolic – it is woven into our operations to drive better outcomes. Guided by Takeda-ism values – Integrity, Fairness, Honesty and Perseverance – our access to medicines approach is a natural evolution of Sanpo Yoshi that meets today's global inequities, honoring our heritage and making a sustained impact on patient lives.

This integrated business approach has been the driving force for all of our dengue efforts that you have read about in this year's report so far. The case study on the rollout of our dengue vaccine in Indonesia on the pages that follow is a further example of this approach in action.



CASE STUDY

Accelerating access: an integrated approach to dengue management in Indonesia

Despite decades of battling dengue fever in Indonesia, one of the most populous and densely inhabited places in the world, cases are surging.¹ The need for new, scalable solutions to combat the disease is now more urgent than ever. Achieving this requires an integrated, country-wide collaborative campaign to curb the spread of dengue.

Based in Jakarta, Takeda's local team has been hard at work, partnering with the Ministry of Health, the state vaccine manufacturer Bio Farma, global institutions and health tech companies, amongst others, to tackle the virus on multiple fronts.

"This really is an access story," said Andreas Gutknecht, Takeda's General Manager in Indonesia, referencing the approval of Takeda's dengue vaccine in Indonesia in August 2022 - the first such approval globally. "From day one, we saw an opportunity to contribute to a public health movement. We're committed to playing our part in lowering the disease burden. Our efforts and partnerships go beyond just making a vaccine available."

Globally, dengue has been on the rise due to climate change and urbanization. Higher temperatures, altered rainfall, and rapid urban growth have extended mosquito breeding seasons and expanded suitable habitats. In Indonesia, the world's fourth-most populous country, the impact is severe. "Everyone is at risk of dengue, regardless of their age, their lifestyle or where they live. Big dengue outbreaks used to be limited to the rainy season, but now they occur year-round,"² Gutknecht explained.

"From day one, we saw an opportunity in Indonesia to contribute to a public health movement. We're committed to playing our part in lowering the disease burden. Our efforts and partnerships go beyond just making a vaccine available."

Andreas Gutknecht
General Manager, Takeda Indonesia

1. <https://www.who.int>
2. <https://www.channelnewsasia.com>

CASE STUDY CONTINUED

Indonesia's geography poses unique challenges. The archipelago comprises around 18,000 islands, roughly 6,000 of which are inhabited, making health care outreach both physically and administratively challenging. The disease disproportionately affects children,³ and social and economic costs are immense.⁴

To address these challenges, Takeda deploys an integrated, whole-of-business approach, working across the public and private sectors to drive awareness, intensify mosquito control, and deploy preventative measures, including vaccination.

"In a country like Indonesia, you get momentum by bringing people together," said Gutknecht. "This approach works by having only one strategy internally – not a marketing team strategy, not a market access strategy... really, just one strategy to support greater access to medicines and vaccines."

This approach is yielding results. Starting in November last year, as many as 9,800 school children received a dengue vaccination in Balikpapan in East Kalimantan province in the first regional public program.⁵ This was made possible by a strategic partnership between Takeda and Bio Farma and was later extended to the province's capital Samarinda by the Provincial Health Department for 2,750 eight to 10-year-old children.

In September 2024, the Health Department of Probolinggo, East Java, kicked off another program for 1,120 elementary school children.

By setting an affordable price for the vaccine, Takeda has also accelerated access across the country. It has meant that through various collaborations, they have been able to cover portions of Indonesia's workforce, including their families, as well as schools and communities.

However, vaccines are only part of the solution. Through the #Ayo3MPlusVaksinDBD campaign, Takeda has joined hands with Indonesia's Ministry of Health to increase public awareness and educate the public, social workers and doctors on dengue prevention and treatment. In addition, the company reiterates the importance of vector control programs aimed at reducing mosquito breeding by encouraging communities to drain standing water and eliminate breeding sites in high-risk areas like schools and workplaces.

Takeda's partnerships with health tech firms have reached tens of millions of users, providing them with accurate information and helping to dispel harmful myths, such as the misconception that one infection grants immunity. "Although dengue has been around for a long time in Indonesia, there's still a lot of misinformation about it. Tackling this, especially in hard-to-reach areas, is essential to prevent outbreaks and encourage prevention," said Gutknecht.

The list of initiatives is long: from collaborating closely with government efforts to improve predictive modelling, to supporting innovative approaches such as introducing Wolbachia bacteria into mosquito populations to curb transmission rates. This latter initiative is part of a coalition spearheaded by the Health Caucus of Parliament and the Ministry of Health, with Takeda as a founding member. In Gutknecht's words, "it brings together everyone who has a role in society's fight against dengue."

Addressing an endemic, complex and evolving disease like dengue in Indonesia requires a holistic response, both internally and externally. "We are a more than 240-year-old company, so our perspective is very long-term. It's an entire generation's work to overcome a disease like dengue, and we understand that deeply," said Gutknecht.

3. <https://www.worldmosquitoprogram.org>

4. <https://bmcinfectdis.biomedcentral.com>

5. Proprietary Takeda data

A photograph of a man standing in a flooded street in a developing area. The man is seen from behind, wearing a grey t-shirt and dark shorts, with his hands on the handlebars of a bicycle. The street is completely submerged in brown, murky water. In the background, there are multi-story buildings, some with balconies and laundry hanging out. A green sign with Thai text is visible on a utility pole. The sky is overcast with grey clouds. The overall scene conveys a sense of daily life in a challenging environment.

A PARTNER'S PERSPECTIVE

Access for all: Navigating the implications of a changing climate for health care

The non-profit organization Drugs for Neglected Disease Initiative (DNDi) has partnered with Takeda since 2013 to speed up the development of effective and affordable new treatments for neglected tropical diseases, known as NTDs, which predominantly affect the world's poorest populations.

DNDi's Policy Advocacy Manager, Rittika Datta, sat down with Takeda's Access to Medicines Office to discuss how critical such partnerships are to tackling NTDs, particularly in the context of climate change.

Q What roles do partnerships play in your effort to enhance access to health care?

A Collaboration is at the heart of our work. We see ourselves as a virtual orchestra, bringing together partners from various sectors to innovate and improve access to health tools in NTD-endemic regions.

Our partnerships with pharmaceutical companies like Takeda allow us to tap into their wealth of expertise - especially through their Research and Development functions. Collaborating in this way means we can achieve much more than we could on our own, increasing the likelihood of finding innovative solutions for often neglected diseases.

Q You talk about climate-vulnerable regions. How is climate change impacting the spread and severity of diseases and what is the single impact that worries you the most?

A Climate change is especially impacting vector-borne diseases, many of which are NTDs. They are spreading faster and more frequently in areas where they were previously under control. Take dengue, for example: it used to be limited to certain regions, but now it's popping up in places like the U.S., Europe, and Japan.

What worries us most is how climate change is making health inequities even worse. It hits the most vulnerable populations the hardest, those who already have limited access to health care. For instance, dengue outbreaks are becoming more common in Latin America, South Asia, and the Western Pacific. Similarly, diseases spread by sand flies, like leishmaniasis, are affected by changes in temperature and rainfall, which influence the vectors and disease transmission.

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RITTIKA DATTA

Global Policy Advocacy Manager, DNDi



Q What should a global response to climate-sensitive diseases look like? What more can be done?

A An effective global response needs to be multifaceted, focusing on building resilient health care systems, fostering international cooperation, and ensuring equitable access to health care innovations. And while vector control and prevention are crucial, they aren't enough. We need a comprehensive toolkit that includes early response, monitoring, warning systems, diagnostics, treatment and vaccination.

Communities are on the frontline of climate change, and they should be central to our response. For instance, for diseases endemic to the global south, engaging with local institutes is crucial to ensuring solutions meet local needs and circumstances.

Innovation is essential, especially for diseases neglected by the market. While dengue is one example, there are many other lesser-known diseases that need attention. The spread of these diseases to high-income countries could lead to more resource allocation and innovation, but as we saw with COVID-19, access remains a challenge. Innovation alone isn't enough; we need policies to ensure the most affected populations can access these new tools.

We need to build up the infrastructure in the global south to enable them to handle the increased burden of the disease. Many of these vector-borne diseases either have no specific treatment, and other medications could be toxic or complex to administer. Therefore, we need to develop treatments for these diseases that are safe, effective, affordable and climate-smart – capable of withstanding hot, humid conditions and power outages. If we can get this right, then we simultaneously ease the burden on health care systems and free up capacity and beds for other patients.

Q What would be your call to action for policymakers, governments, pharmaceutical companies, and other key stakeholders?

A We really need to shine a spotlight on climate-sensitive diseases that are often overlooked. It's crucial to push for biomedical innovation for these neglected diseases and make them a higher priority. The climate change and health resolution adopted at the World Health Assembly in 2024 touches on R&D and accessibility, which is a step in the right direction, but we need to talk about it more and get it higher on the agenda.

Also, adapting our response to climate change can only take us so far. Once temperatures rise beyond a certain point, adaptation alone won't cut it. That's why we need to focus on both mitigation and adaptation strategies together. This dual approach should be at the heart of our advocacy.

Pharmaceutical companies play a crucial role in continuing to innovate for climate sensitive diseases, investing in research and development to deliver more environmentally sustainable products and manufacturing processes. In addition, companies can also work towards making supply chains more robust to withstand climate-related disruptions like extreme weather events. By partnering on outbreaks and ensuring the availability of essential medicines and health care kits, we can build more resilient health care systems and better support those in climate-vulnerable regions.



President and CEO
message

Our access to
medicines approach

Bridging the
affordability gap

Strengthening
health care systems

Sustaining impact through an
integrated business approach

A partner's
perspective

Looking
forward

LOOKING FORWARD

Shaping the future of health care, accelerating access



As a company dedicated to advancing global health, our mission is to innovate, develop and deliver effective medicines and vaccines that address the most urgent health needs worldwide. We are committed to ensuring that these innovations reach all eligible patients globally in a sustainable and equitable manner.

The challenges to achieving meaningful access are becoming more pronounced. Emerging challenges such as supply chain disruptions, exacerbated by climate change-related events like extreme weather, further strain distribution networks. Additionally, infrastructure limitations and environmental impacts on production and storage are complicating efforts to ensure consistent access to essential medicines.

Despite these escalating challenges, we remain resolute in our efforts. Our goal is a world where no one has to choose between their health and their financial well-being, and where access to life-changing medicines is a fundamental right rather than a privilege.

We are playing our role, by developing an access to medicines approach that is integrated into our business strategy and embedded throughout the entire lifecycle of our products—from initial research and development to clinical trials and go-to market strategies—to create a meaningful impact for patients, society and our business.

As we look for new and effective ways to measure our progress, we are expanding our focus to assess the broader societal impact of our programs, recognizing that health interventions can positively impact both patients and the communities in which they live.

We remain dedicated to creating a future where everyone, regardless of their circumstances, can access the medicines they need for better health and well-being. Together, we can drive meaningful change and contribute to a healthier, more equitable world.

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President
Growth and Emerging Markets, Takeda



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