Rare Disease Network

Life Sciences
Innovation Forum

APEC Life Sciences Innovation Forum
Rare Disease Network
Discussion Paper

Opportunities for Thailand to Accelerate Implementation of the *APEC Action Plan on Rare Diseases, 2018-2025*

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Key Message

The APEC Life Sciences Innovation Forum (LSIF) Rare Disease Network (RDN) is committed to supporting APEC member economies in strengthening healthcare systems for patients with rare diseases. When implementing effective rare disease policy, APEC economies are encouraged by the *APEC Action Plan on Rare Diseases* ("APEC Action Plan") to define rare diseases with policy and process; raise public and political awareness of rare disease issues; promote innovative research and development; build human resource capacity across health professions, other allied health, and non-medical sectors; facilitate early, accurate, and systematic diagnosis; support financial and social needs of patients and families; manage pooling and usage of patient data securely and effectively; and prioritize comprehensive domestic rare disease policy. The RDN aims to continue supporting the Thai government on rare disease policy implementation in cooperation with other Thai stakeholders and in line with Thailand's vision of a sustainable health care system.

Per the APEC Action Plan, by 2025, APEC member economies should aim to improve the economic and social inclusion of all affected by rare diseases by addressing barriers to healthcare and social welfare services. The RDN has developed this Discussion Paper, informed by multistakeholder discussions at the 11th Rare Disease Day Thailand on 28 February 2021 and aligned with the APEC Action Plan, to support the Thai government on the following objectives:

1. Facilitate greater alignment of domestic rare disease policies and regulations;
2. Support implementation of proven best practices;
3. Promote multisectoral collaborations and patient partnerships;
4. Raise social awareness about rare diseases to create a friendly and sustainable environment.

Preface

Rare diseases are characteristically one of the significant health challenges of our time. While these diseases are uncommon individually, between 5,000 to 8,000 rare diseases have been identified and collectively affect 6-8% of the global population (Rath & Janmaat, 2018; Barakat et al., 2014). This "paradox of rarity" presents unique problems for not only the individuals living with rare diseases, but also for caregivers, researchers, policymakers, and industries (Schulenburg & Frank, 2015). More than 80% of rare diseases are caused by genetic or congenital aberrations, and 75% present with a wide range of neurological symptoms and physical and intellectual disabilities (McClellan & King, 2010). Rare diseases mostly impact children or young adults, and several siblings can be affected in the same family. Almost one-third of those born with a rare disease die before the age of five (Institute of Medicine, 2010). Since many rare diseases are fatal with no known treatment or cure, they can cause substantial hardships for patients, families, and communities.

Following the 7th APEC High-Level Meeting on Health & the Economy (HLM7) in Ho Chi Minh City, Vietnam in 2017, the APEC LSIF established the RDN as a cooperation between government officials, academic experts and clinicians, industry representatives, and patients. The initiative was launched to address barriers to diagnosis and treatment of rare diseases in the region, recognizing that such efforts could improve the economic and social cooperation of those affected by rare diseases and their caregivers and help meet the goals of Healthy Asia Pacific 2020. Represented by stakeholders in the Ministry of Public Health (MoPH), National Health Security Office (NHSO) Working Group on the Development of Rare Disease Healthcare Services (WG), Thailand Center of Excellence for Life Sciences (TCELS), and Genomics Thailand, Thailand has been participating in the RDN since its launch. In June 2018, Thailand participated in the inaugural APEC Policy Dialogue on Rare Diseases in Beijing, P.R. China. In August 2018, Thailand contributed to the development of the APEC Action Plan, which was later endorsed by APEC Health Ministers. In December 2019, APEC RDN convened the APEC Rare Disease Roundtable Dialogue on Implementing the APEC Action Plan in Bangkok, Thailand. In December 2020, members of the NHSO WG participated in the APEC Virtual Policy Dialogue on Rare Diseases in Malaysia & the Asia-Pacific. In December 2020, Thailand Food & Drug Administration (FDA) participated in the 1st APEC Virtual Workshop on Facilitated Regulatory Pathways. In September 2021, Thailand FDA participated in the 2nd APEC Virtual Workshop on Facilitated Regulatory Pathways and its Special Session on Orphan Medical Product Regulation.

Recommendations

Thailand is widely recognized as a role model for Universal Health Coverage. However, despite advances, rare diseases remain a major public health challenge that needs the government and public's attention, as well as proper allocation of resources by domestic policymakers. In addition to limitations within the continuum of care, from diagnosis to lack of education and awareness, the economic burden is greater than treatment, non-treatment, and other indirect costs.

To address limitations and support rare disease patients and their families in Thailand, the APEC RDN has developed a joint proposal with 4 key recommendations:

1. Deliver new and accessible treatments to patients;
2. Manage pooling and usage of patient data securely and effectively;
3. Identify opportunities for alternative financing;
4. Prioritize comprehensive domestic rare disease policy to support recommendations 1-3.

1. Deliver New and Accessible Treatments to Patients

Policies and methodologies for evaluating orphan and rare disease drugs that are appropriate and in line with international criteria will enhance domestically registered drugs, in addition to the benefit mechanisms for industry operators.

Challenges

Rare disease patients currently experience several challenges accessing essential treatments to manage their conditions. In addition to limited provider awareness of rare diseases and disparities in access to specific treatments, the medicine registration approval process is slow and there are no clear guidelines to address urgent patient needs. There is a lack of policies to motivate companies to pursue registration and importation of medicines for the treatment of rare diseases, and procedures for coordinating importation with regulatory authorities are unclear. Additionally, there is no one-stop service for the public sector and companies to support evidence generation, regulations, and procedures for the provision of rare disease treatments that are not licensed, registered, or available in the economy.

Recommendations

Responsible agencies should:

A. Establish incentives to encourage and support commercialization of domestic research and development for rare disease drugs and orphan products.

   i. Streamline the registration and approval processes for rare disease treatments and determine a clear assessment process with a defined timeline for document verification and flexibility to submit additional supporting documents (e.g., one stop service and fast track). *(APEC Action Plan 1.2, 1.3, 7.1)*
   ii. Ensure ongoing review of rare disease treatments included on the list of essential medicines as additional data becomes available and treatments are introduced. *(APEC Action Plan 1.2)*
   iii. Allow academic, regional, and international clinical data, experience, and evidence to be included as references in the drug registration approval process. *(APEC Action Plan 1.3, 9.3)*

B. Incentivize and coordinate importation of rare disease treatments not currently available domestically:

   i. Establish programs and improve coordination between government agencies and relevant sectors to facilitate and incentivize importation of drugs and diets for rare diseases, such as tax exemptions on imported and/or donated drugs, for purposes of compassionate and urgent use. *(APEC Action Plan 7.1)*

ii. Establish a mechanism and work with international organizations to ensure Early Access programs have frameworks appropriate to the domestic context to provide a channel for patients with high unmet needs to access new therapies while broader evaluation or regulatory approval is underway. *(APEC Action Plan 7.1)*

C. Leverage multi-stakeholder consultations to build capacity and create an enabling policy environment:

i. Engage patient and provider groups in the policymaking process via participation in the NHSO Rare Disease Working Group and the National Drug Working Group/Subcommittee, among others. *(APEC Action Plan 1.2, 2.1)*
ii. Support development of unique and comprehensive education and communication initiatives across sectors, targeting the public, patients, providers, and political communities. *(APEC Action Plan 2.3, 4.1, 4.2)*

2. Manage Pooling and Usage of Patient Data Securely and Effectively

Accurate and timely collection of rare disease patient data will enhance the scope of public health and clinical research, as well as provide evidence and information to define health system models and services. The information can also be used to promote and disseminate new knowledge of treatment best practices. However, there must be appropriate mechanisms in place for governance and security, including agreements on what data can be collected and who can access it.

Challenges

There is a disparity in access to the rare disease care continuum for several reasons, one of the most important being the lack of patient registration database systems. An effective system could address existing gaps in resource planning, surveillance, and knowledge development, as well as generate evidence to support budget and impact assessments.

Recommendations

Responsible agencies should:

A. Establish a rare disease patient registration database system and determine data requirements and standards:

i. Design a rare disease patient registration database system that facilitates sustainable care for rare disease patients in the form of an online platform hosted by either a central agency that is flexible and transparent, such as the Rare Disease Patient Foundation, or an agency that specializes in data collection and analysis. The database would be the center for data storage and administration under guidelines consistent with the economy's rare disease development policy. *(APEC Action Plan 9.1)*
ii. Develop a database system to facilitate data flows while respecting patient privacy, that will be open to relevant parties to analyze patient and clinical trial data, evaluate and design programs to maximize benefit and reach. *(APEC Action Plan 9.3)*
iii. Determine data and system requirements, composition, and standards, develop relevant, non-redundant software, and involve patients in documenting quality of life data (e.g., non-medical/Patient Report Outcome). *(APEC Action Plan 9.1)*

B. Engage with relevant stakeholders, particularly providers, to develop and sustain digital tools:

i. Partner with industry, medical personnel, and patient groups to develop digital tools, such as remote detailing, online knowledge portals, and mobile applications, to support remote patient monitoring, overcome geographic barriers to patient-to-doctor data transfer, and support community service providers, such as nurses, social workers and hospital staff, in

providing genetic education and counseling for families with rare diseases. *(APEC Action Plan 6.2)*

ii. Provide ongoing support to healthcare professionals for recording and exchanging information, such as training for physicians and related medical personnel in various regions in Thailand. *(APEC Action Plan 4.1)*

3. Support financial and other resource needs for patients and families

For rare diseases, the cost per patient is often high to offset the cost of drug development and marketing for a relatively small group of patients. Theoretically, the right combination of regulation and benefits could encourage researchers and industry to develop new orphan products, foster partnerships between the government, non-government organizations (NGOs), and charities to provide financial support, and establish health insurance mechanisms to help manage costs. Since the Health Technology Standards Assessment (HTA) is not suitable for assessing rare medicines, a reasonable financial management policy is therefore of paramount importance.

Challenges

Diagnosis and treatment of rare diseases can be expensive and inaccessible. Most patients must pay for themselves with little to no reimbursement due to disparities in health benefits. However, many medical expenses are not covered by any rights. Of the 5,000 to 8,000 identified rare diseases, the universal health coverage program in Thailand only covers 24 rare diseases identified in collaboration with patient groups, clinicians, the Public Health Ministry, and the Thailand NHSO WG, with benefit packages that include screening, diagnostic testing, clinical referral and logistics, and treatment (NHSO, 2021; NHSO, 2020). Patients with rare diseases that are not included on the list of essential medicines may be unable to access these essential services. Additionally, many device fees are not covered, and social insurance does not cover genetic testing. Given the low prevalence of rare diseases, awareness of characteristics and challenges is low among the general public, policy makers, and healthcare professionals, resulting in misdiagnosis, stigma, worsening of barriers, lack of community support, and limited policy attention (APEC, 2018).

Recommendations

Responsible agencies should:

A. Increase access to resources for diagnosis and condition management:

i. Provide a newborn screening program to be reviewed every three (3) years. The program should be fully reimbursable, mandatory or opt-out, available to all newborns, required or strongly recommended for facility accreditation or licensing, cover testable and treatable rare diseases, and require timely patient and clinician notification. *(APEC Action Plan 5.2)*

ii. Build genetic testing and diagnostic infrastructure by adjusting trade policies in collaboration with industry, diagnostic professionals, and patient organizations to improve the ease of transporting anonymized patient data and/or tissue samples across domestic borders, and pilot the innovative security capabilities of digital technologies. (*APEC Action Plan 5.1*)

iii. Collaborate with clinical geneticists and other joint specialists to conduct family risk assessments of newborns with rare diseases, discuss diagnostic testing options with families, and translate results as needed. *(APEC Action Plan 4.1)*

iv. Ensure that an individual diagnosed with a rare disease becomes a beneficiary of new and existing social safety net programs. *(APEC Action Plan 8.1)*

v. Adjust employment and education systems in collaboration across departments or ministries to improve inclusivity and accommodations for individuals living with a rare disease. *(APEC Action Plan 8.3)*

vi. Ensure that patient and provider groups have sufficient access to resources to support individuals living with a rare disease. *(APEC Action Plan 2.1)*

B. Identify innovative pricing and payment models:

   i. Ensure sustainable funding for rare diseases through inclusion in the domestic budget and creation of a Rare Disease Fund.
   ii. Examine efforts to coordinate the operation and funding of social protection programs across multiple parties or ministries and between local and central funding authorities, and consider strategies for enhancing collaboration to maximize resources and synergies. *(APEC Action Plan 8.1)*
   iii. Create an enabling policy and regulatory environment that encourages and facilitates the development of innovative private insurance schemes. *(APEC Action Plan 8.2)*
   iv. Identify opportunities for diversification and risk management. Key government agencies, in partnership with the private sector, healthcare professionals, and manufacturers, should study innovative pricing mechanisms that address problems and provide reasonable evidence to support faster access to treatment for patients. *(APEC Action Plan 7.2)*

4. Prioritize comprehensive domestic rare disease policy to support recommendations 1-3

A. Facilitate implementation of preceding recommendations by introducing comprehensive rare disease legislation that establishes funding, requires creation of a rare disease action plan, supports non-healthcare rare disease initiatives, and evolves over time to complement the domestic rare disease context. *(APEC Action Plan 10.1-10.2)*

B. Engage relevant regional and global stakeholders to incorporate best practices to implement rare disease policy and regulatory recommendations. *(APEC Action Plan 1.3)*

C. Utilize the NHSO Rare Disease Working Group, which mobilizes cross-sector cooperation to inform recommendations for rare disease policy, to provide advice on comprehensive legislation to address the challenges of rare disease, including access to diagnostics, appropriate patient-centered care and management, and the regulatory and reimbursement systems relied upon to facilitate access to therapy. Legislation should also coordinate government support for research on rare diseases. *(APEC Action Plan 10.3)*

Conclusion

While Thailand has defined rare diseases and implemented care and financial systems for 24 rare diseases, most guidelines still need clarity on the specifics of practice or action and milestones. Creating a friendly and sustainable environment for rare disease patients requires several successful elements, including policy and budgetary support from governments. Members of the RDN will collaborate with governments and relevant agencies to increase public awareness of rare diseases and alleviate the burden of rare disease on patients by advancing policies that establish a concrete and sustainable health care system.

The recommendations of this Discussion Paper are a direct result of collaborative brainstorming workshops on key rare disease topics and are consistent with the APEC Action Plan.

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