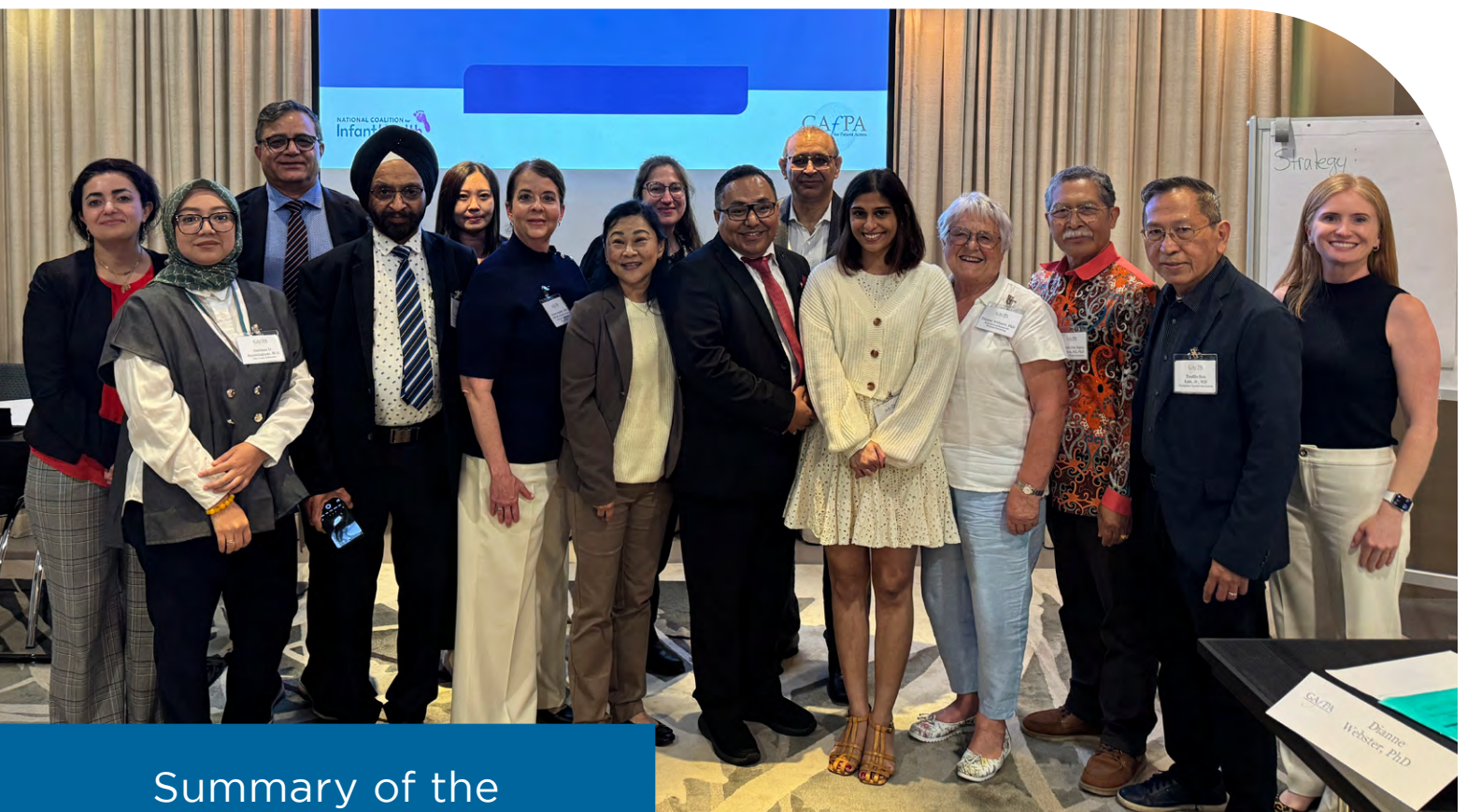


IMPACT AND BURDEN OF THYROID DISEASE

in the Asia-Pacific Region



Summary of the
Thyroid Disease
Roundtable in
Singapore

FEBRUARY 2025





Introduction

Thyroid disease is a condition that affects the production of hormones that regulate metabolism, heart rate and other bodily functions. In infants and young children, it is particularly key in modulating growth and neurodevelopment. There are two main types of thyroid disease—hypothyroidism and hyperthyroidism—resulting in either too little or too much production of hormones. Thyroid disease is the second most common endocrine disorder affecting reproductive-age women, and they are five to eight times more likely than men to be affected with thyroid issues.¹

On February 12, 2025, the Global Alliance for Patient Access and National Coalition for Infant Health co-hosted a roundtable meeting in Singapore to discuss the burden and impact of hypothyroidism on maternal and infant health in Asia Pacific. Convening healthcare experts and patient advocates from the region, the meeting highlighted four key points:

- **Hypothyroidism poses a major threat**, especially to maternal and infant health in the Asia-Pacific region.
- **Access barriers**, such as stigma and low prioritization, negatively impact patient health outcomes.
- **Timely screening, diagnosis and treatment** are crucial to long-term health, especially for at-risk populations.
- **Prioritizing thyroid disease among global health policymakers** will lead to a healthier population.



Understanding Hypothyroidism

Hypothyroidism, also called underactive thyroid, is a type of thyroid disease where the thyroid gland does not produce enough thyroid hormone, which can lead to slowing of the body's functions, impacting all levels of cellular metabolism. This includes heart rate, body temperature regulation, and metabolic processes.

During pregnancy, untreated hypothyroidism can lead to preterm birth, miscarriage, pregnancy-induced hypertension, or low birth weight in the infant. The developing fetus also relies on the mother's thyroid hormones for proper growth and development throughout gestation. Without these crucial hormones, fetal growth—especially brain growth—is delayed and can lead to life-long challenges including intellectual disabilities and impaired motor function.²

Congenital hypothyroidism can occur when the thyroid does not form correctly in utero or when there is dysfunction of the hypothalamus or pituitary glands. If not diagnosed promptly, congenital hypothyroidism can lead to growth problems and neurodevelopmental disabilities. Babies born to mothers with thyroid disease or those born to mothers in iodine-deficient regions have increased risk of congenital hypothyroidism.



Impact and Burden of Thyroid Disease in the Asia-Pacific Region

The prevalence of hypothyroidism in the Asia-Pacific region is higher compared to the rest of the world, affecting an estimated 11% of adults compared to 2-4% elsewhere. For pregnant women, prevalence is also higher in the region, with approximately 13% suffering from thyroid disease, compared to 5-7% of expectant mothers globally. The region also sees 5-7 in every 10,000 babies born with thyroid diseases, compared to the global average of 3 in every 10,000 births.³

The roundtable meeting highlighted how improved screening, diagnosis, treatment and prevention can lead to better patient outcomes in the Asia-Pacific region.



Prevention

The most cost-effective means of preventing hypothyroidism is through salt iodization. Additional iodine fortification is especially important during pregnancy, with intake requirements increasing by over 50%. Insufficient iodine intake during pregnancy can affect the infants' neurological development.⁶



Early Detection and Targeted Screenings

Targeting high-risk groups, such as pregnant women, has been shown to help improve overall detection of thyroid disease. When integrated into existing programs and services, thyroid screenings are more efficient and cost-effective.⁴

“Early detection of thyroid disorders is crucial for improving health outcomes.”

-Tjokorda Gde Dalem Pemayun, MD, PhD

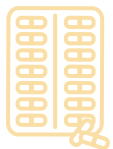
Universal screening for maternal thyroid disease has not yet been adopted in the region. For instance, in Malaysia, the screening is a targeted case-finding approach towards maternal hypothyroidism, whereby pregnant women are only screened when they have additional risk factors, such as a family history of thyroid dysfunction.⁵

While universal newborn screening is more widely adopted throughout the region, it is still not available in many countries. In fact, it is estimated that only one in three babies globally receives congenital hypothyroidism screening. Early detection within the first few months of life is critical to reducing long-term consequences.



Diagnosis

In adults, symptoms can vary from person to person and mimic those of other health conditions, so thyroid patients are often underdiagnosed or misdiagnosed. Thyroid levels, via blood sampling, are needed to confirm a diagnosis. Imaging via ultrasound may also be indicated if goiter or other dysfunction is suspected.



Treatment

Hypothyroidism is easily treated and most commonly involves taking a daily hormone replacement tablet. Hyperthyroidism may also require medication with possible ablation or surgical removal of the thyroid. Due to the worsening of long-term consequences as symptoms progress in both mothers and infants, detecting thyroid disease early and treating as soon as possible is key to improving patient outcomes.



Barriers to Education, Screening and Treatment

Roundtable participants highlighted three main barriers impacting thyroid care in Asia Pacific.



System barriers

Systemic barriers include policies or practices that can hinder access to care.

- Lack of awareness and education among healthcare providers
- Lack of universal screening early in pregnancy for maternal thyroid disease
- No universal newborn screening in many jurisdictions for congenital hypothyroidism, although adoption and acceptance of such programs is greater than for maternal screening
- Access to specialists or sites of care, especially in rural areas
- General system bias toward treatment rather than prevention

Programs do exist to address some of these systemic barriers. For example, in Indonesia, the Thyroid RAISE Program brings multiple stakeholders together to improve healthcare professionals' ability to screen and diagnose thyroid disorders in high-risk populations. The program is expected to increase access to hypothyroidism treatment by 5.5 times by 2030.⁷ And in 2024, the WHO issued a resolution strongly supporting newborn screening.⁸



Patient and cultural barriers

Religion, cultural practices and belief systems can impact access to care.

- Stigma of accessing "free" care; or for the family of a newborn facing health issues
- Suspicion about new programs and tests
- Deference to healthcare providers / not wanting to ask questions or raise concerns of current health issues or symptoms
- Normalization of ill health
- Costs and insurance coverage

Aimed at addressing some of these barriers, a Nepalese program set up a free thyroid screening clinic inside a local temple. Of the 124 attendees screened, 24 were found positive for thyroid-related issues. Participants also received important education about thyroid disease prevention, treatment and management. This program showed how taking a hyper-local approach was effective in reaching patients and breaking through cultural barriers.



Healthcare provider barriers

Education and awareness among healthcare providers also plays a role in the screening, diagnosis and treatment of hypothyroidism.

- Lack of medical school education focused on thyroid disease
- Limited time with patients due to overburdened healthcare systems
- Healthcare workforce shortages
- Insufficient or inconsistent communication between multi-disciplinary care teams

Integrating thyroid disease into medical and nursing education courses as well as clinical training opportunities for healthcare providers are ways to help improve overall thyroid literacy and close the gaps that exist in screening, diagnosis and treatment.

Prioritizing Thyroid Disease Among International Stakeholders

Thyroid disease states are chronic conditions that place an immense burden on patients, families, healthcare providers, governments and healthcare systems. Roundtable participants agreed that thyroid disease should be elevated as a priority for global policymakers. For example, formal recognition as a noncommunicable disease by the World Health Organization could ensure better access to education, screening, diagnosis and treatment, improving outcomes for patients in Asia Pacific and across the world.

It is estimated that 1.6 billion people globally are at risk for thyroid disorders. Participants also noted an official recognition of a Global Thyroid Disease Awareness Day by the WHO could help to elevate awareness and improve outcomes.

Informing and educating national and international health leaders on the need for prioritization is an important step in ultimately influencing the WHO to recognize thyroid disease as an NCD.

Conclusions



Thyroid function has a large-scale impact on overall health. Significant variation in hormone levels may have a debilitating impact on our most vulnerable populations, with women of child-bearing age and infants at particular risk for long-term health impacts.

Patients, advocates, policymakers and healthcare providers must come together to ensure:

- ✓ Greater education and awareness of thyroid disease risks, symptoms and diagnostic studies.
- ✓ Universal thyroid screening for pregnant women.
- ✓ Inclusion of congenital hypothyroidism into widely adopted and accepted newborn screening programs.
- ✓ Prioritization of thyroid disease among global policymakers.

Doing so will reduce barriers to education, screening and treatment of thyroid disease and improve patients' lives.

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The Global Alliance for Patient Access is an international platform for healthcare providers and patient advocates to inform policy dialogue about patient-centered care.

GAfPA.org



The National Coalition for Infant Health is a collaborative of professional, clinical, community and family support organizations. The coalition focuses on education and advocacy promoting patient-centered care for all infants – whether born preterm or full term – and their families.

InfantHealth.org



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