

Health Data Governance

Legislative and Regulatory
Landscape Review



THAILAND
COUNTRY REPORT

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Transform Health is a global coalition of organisations that work to harness the potential of digital technology and the use of data to achieve universal health coverage (UHC) by 2030. To learn more about Transform Health visit: www.transformhealthcoalition.org.

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1. Introduction

This report analyses the legislative and regulatory landscape of Thailand to understand how and to what extent the governance of health data is addressed. The Health Data Governance Principles (HDG Principles)¹ served as a framework for this analysis to explore and document how the principles manifest in the existing legal and regulatory environment. This review entailed a content analysis of relevant legal texts against the eight HDG Principles.

This report identifies best practices for Thailand's health data governance landscape. It highlights the need for specific health data provisions and cross-border data transfer guidelines. The report emphasises the need for swift response mechanisms to data breaches, continuous improvements in data protection measures, thorough risk assessments, collaborative digital health governance, compliance with the Personal Data Protection Act (PDPA), ensuring access rights to healthcare, and the necessity of obtaining explicit consent for sensitive data processing. These recommendations aim to bolster the legislative and regulatory framework, ensuring enhanced protection, transparency, and accountability in the management and use of health data in Thailand, thereby fostering trust, security, and innovation within the healthcare sector.

Health Data Governance Principles

Protect People



Protect individuals & communities



Build trust in data systems



Ensure data security

Promote health value



Enhance health systems & services



Promote data sharing & interoperability



Enhance health systems & services

Prioritise equity



Establish data rights & ownership



Promote equitable benefit from health data

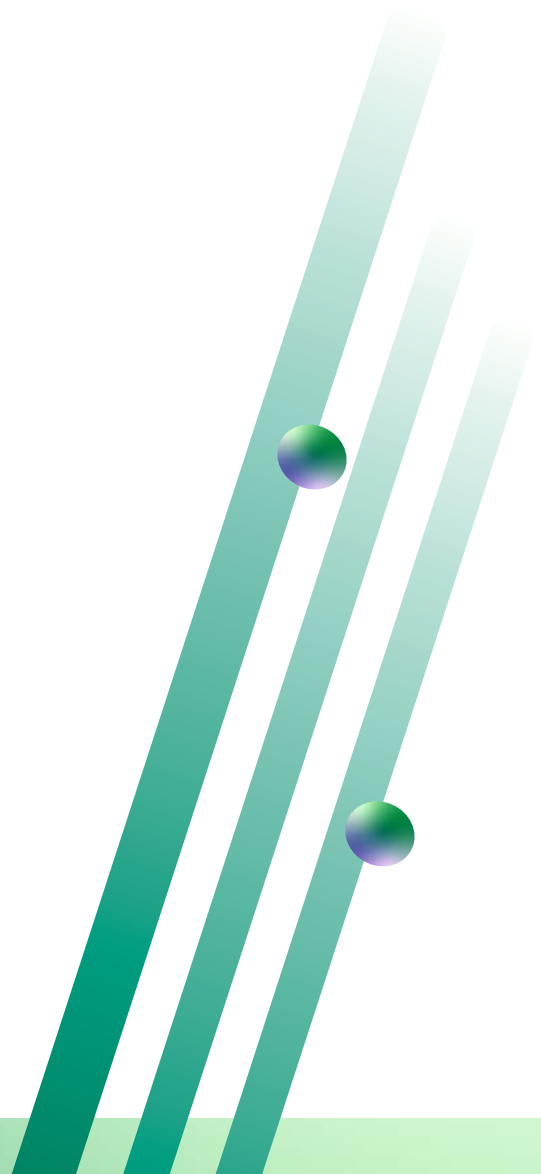
¹ View the Health Data Governance Principles: <https://healthdatapinciples.org>

2. National Legislative and Regulatory Overview

The following sources were used for purposes of analysing the legislative and regulatory system of Thailand:

- Constitution of the Kingdom of Thailand, B.E. 2560 (2017) (Thai.)
- Personal Data Protection Act, B.E. 2562 (2019) (Thai.)
- National Health Act, B.E. 2550 (2007) (Thai.)
- Cybersecurity Act, B.E. 2562 (2019) (Thai.)
- Notification of the Ministry of Digital Economy and Society re: Criteria for the Protection of Personal Data Under the Personal Data Protection Act, B.E. 2562 (2019) (Thai.)
- Personal Data Protection Committee of Thailand, *Guidelines for Implementation of the Personal Data Protection Act*, B.E. 2562 (2019) (2020) (Thai.)
- World Health Organization, *Thailand Country Cooperation Strategy 2022–2026* (2023)

- DLA Piper, *Data Protection Laws of the World: Thailand*
- OneTrust DataGuidance & Blumenthal Richter & Sumet, *Comparing Privacy Laws: GDPR v. Thai Personal Data Protection Act*, (May 2022)
- World Health Organization, *Legal Access Rights to Health Care in Thailand*.
- OneTrust DataGuidance, *Thailand - Data Protection Overview*



3. Analysis of the National Legislative and Regulatory Environment

The currently enacted or most recently published legislative and regulatory instruments in Thailand relating to the eight HDG Principles are discussed under the sub-heading of each respective principle below.

3.1. Protect individuals and communities

The Constitution of the Kingdom of Thailand enshrines rights to privacy, dignity, and health under Sections 32, 35, and 47. These constitutional rights are operationalised through the Personal Data Protection Act (PDPA), which mandates explicit consent for sensitive data processing and ensures individuals' rights to access, correct, and delete their personal information. The National Health Act reinforces these protections by mandating confidentiality and informed consent for health data use in research and healthcare services. The Cybersecurity Act complements these laws by securing critical health information systems from cyber threats, enhancing resilience against breaches.

The PDPA mirrors elements of the European Union's General Data Protection Regulation (GDPR), such as the emphasis on risk-based safeguards and breach notification. However, gaps remain in its application to sensitive health data, necessitating further refinement to address the specific risks associated with medical information.

3.2. Building Trust in Data Systems

Thailand's framework fosters trust through transparency, accountability, and stakeholder engagement. The PDPA establishes the Personal Data Protection Committee (PDPC) to oversee compliance and standard-setting. Notifications issued under the PDPA detail breach management, emphasising prompt reporting and remediation.

The Cybersecurity Act strengthens trust by setting standards for protecting health systems against threats, while the National Health Act promotes inclusivity in health governance, ensuring public input in health policy development. Digital health initiatives, such as the Smart Health ID system, further bolster trust by integrating interoperable platforms to enhance data accessibility and reliability.

3.3. Ensuring Data Security

Legislation requires robust measures to secure health data. Under the PDPA, organisations must implement organisational and technical safeguards, such as encryption and periodic audits, to protect against unauthorised access. The Cybersecurity Act complements these measures by mandating protections for critical health infrastructure and ensuring that security vulnerabilities are swiftly addressed.

The Thailand Country Cooperation Strategy 2022–2026 prioritises privacy in health digitisation efforts, advocating for secure data sharing and resilience against breaches. These measures collectively form a multi-layered defence against threats to health data integrity and confidentiality.



3.4. Enhancing Health Services and Systems

Thailand's universal health coverage initiatives, underpinned by the National Health Act, mandate equitable access to public health services. Digital health platforms, enabled by the PDPA and Cybersecurity Act, improve healthcare delivery through real-time data integration and analytics. Initiatives like the H4U application demonstrate how data can enhance patient care and system efficiency.

The government's Thailand Healthcare Digital Transformation strategy integrates emerging technologies such as artificial intelligence and telemedicine into healthcare delivery, fostering systemic improvements. However, ensuring these innovations align with data protection laws remains a critical challenge.

3.5. Promoting Data Sharing and Interoperability

The PDPA supports interoperability by mandating frameworks for secure data sharing across platforms. The National Health Act and Cybersecurity Act encourage collaboration among stakeholders, facilitating the integration of health data systems. Thailand's Universal Coverage Scheme (UCS) highlights the benefits of interoperable systems, enabling seamless data flow between healthcare and social protection programmes.

3.6. Facilitating Innovation Using Health Data

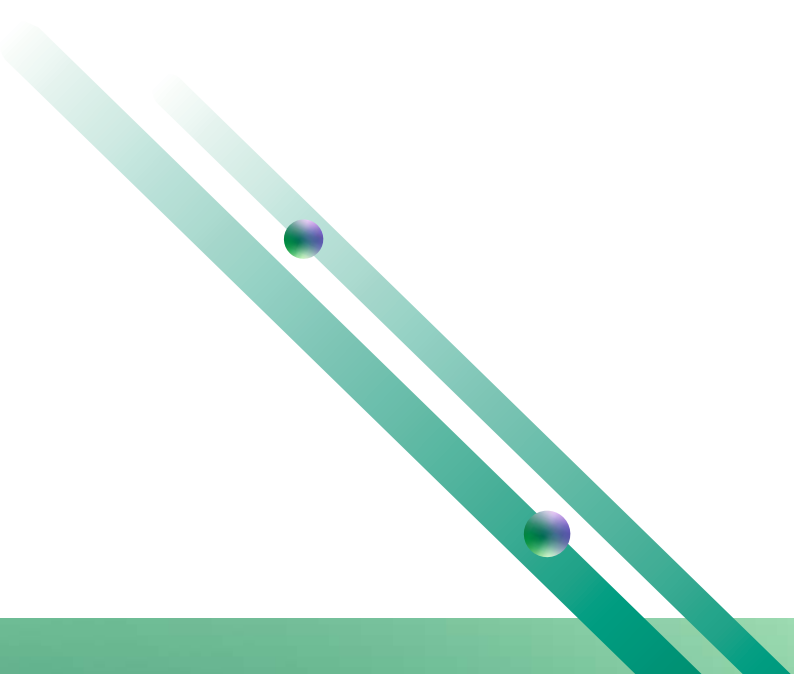
Regulations in Thailand encourage responsible health data use for research and innovation. The PDPA allows the use of personal data for statistical and research purposes under strict safeguards. Initiatives such as Smart Health ID and H4U leverage data analytics to drive improvements in care delivery. However, advancing such innovation necessitates addressing challenges such as data standardisation and secure processing.

3.7. Promoting Equitable Benefits from Health Data

Equity is central to Thailand's health governance. The Constitution ensures access to healthcare for all citizens, including disadvantaged groups. The PDPA permits data processing for public health purposes while safeguarding individual rights. Innovations like the Smart Health ID aim to reduce disparities by enabling personalised healthcare access. Continued focus on equitable data sharing and use will ensure balanced benefits across demographic and socioeconomic groups.

3.8. Establishing Data Rights and Ownership

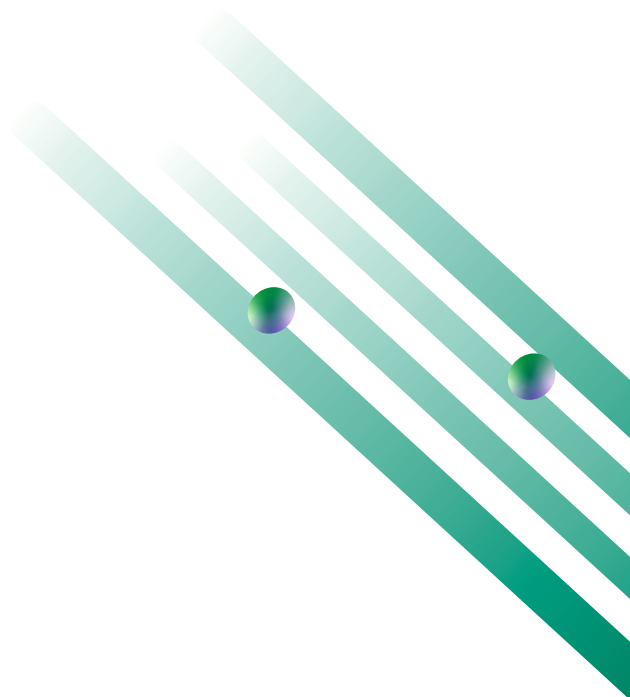
Data rights and ownership are codified under the PDPA, granting individuals rights to access, correct, and delete their health information. The National Health Act reinforces these rights by mandating transparency and confidentiality in health data management. However, additional clarity on ownership frameworks, particularly in the context of cross-border data transfers, is necessary to fully align Thailand's framework with international standards.



4. Best practices

- **Comprehensive Legal Frameworks:** The PDPA establishes a comprehensive framework for data protection. It mandates explicit consent for processing sensitive data, including health information, and ensures rights such as data access, correction, and deletion. The National Health Act further reinforces privacy and informed consent in healthcare settings, ensuring patient rights remain protected.
- **Robust Data Security Measures:** Thailand prioritises data security through legal and technical measures. The Cybersecurity Act designates critical health infrastructure as a protected domain, mandating periodic assessments and resilience planning against cyber threats. These measures are supported by mandatory security protocols under the PDPA, which include encryption, de-identification, and breach notification.
- **Focus on Interoperability and Digital Integration:** Innovative platforms like H4U and Smart Health ID leverage interoperable frameworks to enhance healthcare delivery. These platforms facilitate the seamless exchange of medical information across healthcare providers, promoting continuity of care and operational efficiency. Such initiatives demonstrate Thailand's progress in transitioning towards a digitally integrated healthcare system.
- **Transparency and Accountability:** The PDPA requires organisations to adopt transparent practices, including publishing privacy policies and appointing data protection officers. This emphasis on accountability strengthens public trust in health data governance and aligns organisational practices with global data protection standards.
- **Equity and Inclusivity in Health Data Use:** Thailand's universal healthcare coverage model underscores its commitment to equitable access. Innovations like Smart Health ID are designed to bridge gaps in access, ensuring that vulnerable and underserved populations benefit equally from advancements in healthcare data usage.
- **Promotion of Public-Private Partnerships:** The government actively collaborates with private sector entities to enhance health informatics infrastructure and develop advanced applications such as artificial intelligence and predictive analytics. These partnerships leverage the strengths of various stakeholders to create a more robust and innovative healthcare ecosystem.

These practices reflect Thailand's commitment to balancing individual rights with societal benefits, fostering an environment where data-driven healthcare can thrive while maintaining strong safeguards for privacy and security.



5. Gaps

Despite Thailand's advancements in health data governance, several gaps hinder the full realisation of its potential. These include regulatory, technical, and equity-related challenges.

- **Ambiguities in Legal Definitions:** Although the PDPA provides comprehensive protections, its lack of explicit provisions tailored for health data creates uncertainty in application. The absence of granular definitions for health data categories and processing scenarios can lead to inconsistent enforcement and compliance challenges.
- **Cross-Border Data Transfer Limitations:** While the PDPA outlines conditions for cross-border data transfers, its implementation remains limited. The absence of established adequacy mechanisms or clear guidance for transferring health data to international partners complicates global collaboration, particularly in research and public health emergencies.
- **Inequities in Digital Access and Literacy:** Although initiatives like Smart Health ID aim to enhance accessibility, disparities in digital literacy and infrastructure in rural and underserved areas limit their impact. Such inequities pose significant barriers to achieving truly inclusive healthcare benefits.
- **Weaknesses in Interoperability Standards:** While platforms like H4U promote data sharing, inconsistencies in data formats and insufficient integration with legacy systems hinder seamless interoperability. This limits the efficiency of Thailand's healthcare delivery and data-driven decision-making.
- **Inadequate Enforcement and Monitoring:** Overlapping responsibilities between the PDPC and sectoral regulators create inefficiencies in enforcement. Insufficient monitoring and accountability mechanisms exacerbate non-compliance risks, undermining the integrity of data governance practices.
- **Underdeveloped Data Security Measures:** Despite the emphasis on security in the Cybersecurity Act, many healthcare institutions lack robust technical safeguards to protect sensitive personal data. This gap increases vulnerability to cyberattacks and data breaches, particularly in smaller, resource-constrained facilities.
- **Insufficient Public Awareness and Engagement:** Limited public understanding of rights under the PDPA and health data governance frameworks reduces the effectiveness of consent-based mechanisms. Without active engagement, individuals may unknowingly expose themselves to privacy risks or miss opportunities to exercise their rights.

Addressing these gaps is essential to strengthen Thailand's health data governance system and build trust among stakeholders, ensuring equitable and secure use of health information.

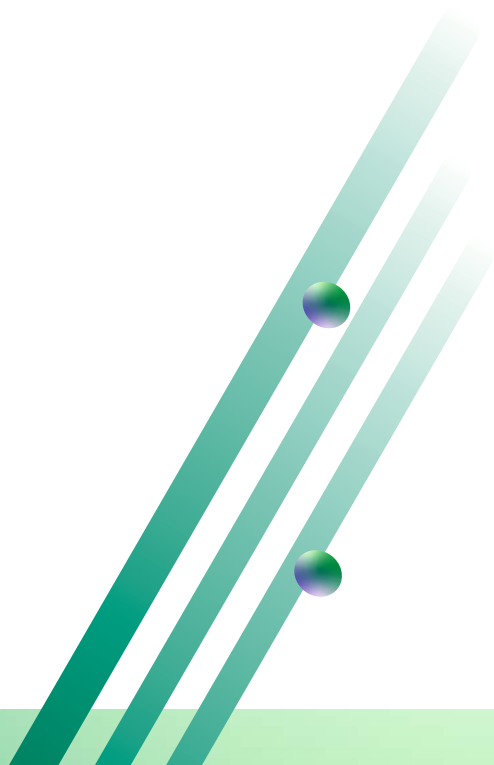


6. Recommendations

The following recommendations aim to address the identified gaps and enhance Thailand's health data governance framework:

- Clarify Legal Definitions and Standards:** Develop sector-specific guidelines under the PDPA to explicitly address the unique risks and requirements associated with health data. Establish clear definitions for health data categories, including genetic, biometric, and behavioural data, to standardise application across stakeholders.
- Strengthen Cross-Border Data Frameworks:** Implement adequacy mechanisms or bilateral agreements to facilitate secure international data transfers while maintaining compliance with the PDPA. Create streamlined protocols for data sharing in global health crises to enable effective international collaboration.
- Enhance Interoperability Standards:** Introduce unified data formats and integration frameworks to harmonise health information systems, ensuring compatibility across platforms and institutions. Expand the scope and adoption of initiatives like H4U to cover a broader range of healthcare providers and services.
- Address Inequities in Digital Access:** Invest in digital literacy programmes and infrastructure development in rural areas to bridge gaps in access to digital health services. Tailor platforms like Smart Health ID to account for the needs of low-literacy users, ensuring inclusivity in healthcare innovations.
- Strengthen Regulatory Enforcement:** Empower the PDPC to act as a central authority for health data governance, with enhanced resources for enforcement and compliance monitoring. Increase penalties for non-compliance to incentivise adherence to data protection standards.
- Enhance Public Awareness:** Launch nationwide campaigns to educate citizens about their rights under the PDPA and the benefits of responsible data sharing in healthcare. Establish feedback mechanisms to incorporate public concerns and perspectives into data governance policymaking.
- Bolster Data Security Measures:** Provide financial and technical support to smaller healthcare institutions to adopt advanced cybersecurity measures. Mandate periodic security audits and risk assessments for all entities handling sensitive health data.

These recommendations aim to create a resilient, inclusive, and innovation-friendly health data governance system that aligns with Thailand's national and global health priorities.



7. Discussion of Research Results

The research highlights Thailand's progress in creating a robust health data governance framework, underscored by the PDPA and complementary laws like the Cybersecurity Act and National Health Act. Best practices such as promoting interoperability, integrating public-private partnerships, and ensuring universal healthcare access demonstrate the nation's commitment to leveraging data for better health outcomes. However, persistent gaps in legal clarity, equity, and technical capacity underscore the need for targeted reforms. By addressing these challenges, Thailand can further align its health data governance with global best practices, fostering trust and innovation in the healthcare sector.

8. Conclusion

Thailand's health data governance framework reflects a careful balance between protecting individual rights and fostering innovation in healthcare. By addressing identified gaps—such as enhancing legal clarity, ensuring interoperability, and promoting equity—Thailand can solidify its position as a leader in health data governance in Southeast Asia. Proactive implementation of the recommended measures will enable the nation to maximise the benefits of health data while safeguarding the privacy and security of its citizens.

