Annex 12

Template proposing Priority Areas for

World Health Organization and Royal Thai Government (WHO-RTG)

Country Cooperation Strategy (CCS) 2022-2026

Proposed Priority Area:
Area 8: Digital health and health information systems (HIS)

Q1. This proposal is submitted by:
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Q3. Please provide a clear problem statement with justification for the inclusion of this topic in the CCS 2022-2026. Please also specify why there is a need for additional support under the CCS, beyond the usual budget and current work of Thai health system will not be able to solve the problem.
[Note: (1) Problem statement should highlight a demonstrable impact on the health of people in Thailand. (2) If this topic is part of the current CCS 2017-2021, please indicate why it should continue under CCS 2022-2026 and what will be differences. Please highlight any lessons learned from the previous implementation period (CCS 2017-2021).
Max 500 words

Digital health and Health Information Systems (HIS) have become a powerful and indispensable resource for providing and managing health systems effectively as digital technology and data availability on health has expanded. Among its many uses, HIS aids the identification of resource needs, management of patient outcomes as well as monitoring and evaluation of health programmes. These can be used to inform and formulate health policies strategically. The role of HIS has become even more prominent in the age of COVID-19.

In a study conducted by the Thai Ministry of Public Health (MoPH) and the World Health Organisation (WHO) Thailand(1,2), four challenges were identified for Thailand to overcome in order to establish an integrated effective national eHealth and health information systems. The four challenges are 1) establish multi-stakeholders, national-level, eHealth/digital health/HIS governance system 2) develop health information standards and interoperable health data systems,3) promulgate and implement health data security and privacy law and regulations, and 4) build and strengthening digital health/HIS human resources. Although, in the past two decades, many digital health/HIS programmes and projects have been initiated and implemented to fill the four challenge gaps, Thailand's health information systems are still fragmented and not be able to effectively support the country's health care, public health, and health systems. WHO's Global Strategy on Digital Health 2020–2025(3), endorsed at 73rd WHA 2020 (WHA73), calls for member countries should prioritise developing and implementing integrated digital health and health information systems to support primary health care and Universal Health Coverage (UHC). In Thailand, the government has taken steps to identify the potential areas for addressing these areas. The Thai MoPH has articulated an e-health strategy (2017-2026) and the Thai government passed the Personal Data Protection Act (PDPA) and the Cyber Security Act in 2019. Both laws are general laws that cover digital data from all sectors including the health sector. However, the implementation of the law and the country e-health strategy to achieve secured integrated health information systems have not been realised and is still at a nascent stage of development.

There is an urgent need to create a collaborative digital health governance mechanism to lead the development of the country's digital health and integrated health information systems. Development of national health information architecture and data standards is essential to integrate and enable interoperability in the current system which is fragmented. The third important area concerns PDPA and Cyber Security law on health data management and data sharing. Compliance with the PDPA legislative requirements has been delayed on account of COVID-19 but, once enforced, will require all health stakeholders to set-up and update systems for data security which will require technical capability which is currently missing and financial resources. Additionally, availability of data to conduct research and discover knowledge are important for informing healthcare service, public health, health policy and management. Thailand has committed to an open data policy. However, integrating, accessing, securing, and sharing health data while protecting people's privacy remains an area that needs to be developed and supported further in the country. There are multiple data custodians in the health sector, and each institution has its own policy for managing its data. The issue of effective access and use of data is compounded by the multi-sectoral nature of health, whereby data emanating from health and non-sectors may be needed to learn about further.

Digital Health and HIS could be a new policy area in the WHO Country Cooperation Strategy (CCS) for Thailand. This proposal offers an opportunity for WHO to support a new topic that multiple partners in Thailand deem to be important and has the potential to bring existing partners together while attracting new partners to work on this priority in the "new normal" era. This proposal offers an opportunity to support better health in Thailand by understanding the

current practices, collaborating with various stakeholders within the country as well as international experts and establishing a framework for digital health and HIS to improve health systems and health policy in Thailand.

Q4. How can WHO add value? What is the role of WHO (either WHO Thailand or SEARO or Headquarter) in supporting this priority area?
Max 300 words

WHO will be a critical partner in the implementation of this programme under the CCS. WHO will be able to use its good offices to convene multiple stakeholders in the country, and bring all relevant stakeholders together. The proposed topic is one of interest to many, and the groundwork has been laid in the past years. Still, there remain crucial steps that need to be taken. This proposal seeks to take these steps forward which would greatly benefit from the reputation of WHO to support and assist in moving this priority area forward so that the outcomes from this work can improve Thailand's healthcare system and population health. WHO Thailand, with its connections to WHO SEARO and WHO Headquarters, will also be able to link the team with international experts as well as other partners. Building on its reservoir of knowledge in this field, WHO can offer its intellectual capital to this effort and provide support in terms of training and capacity building as identified during the project period. Furthermore, given Thailand's current partnerships with the global health community, we expect that Thailand will be able to make demonstrable progress over the course of the CCS, and share its experience with other countries in the region and beyond, with the support of WHO. Moreover, Thailand could be an example of implementing the WHO Global Strategy on Digital Health 2020-2025(3), which will guide the activities under the CCS.

Q5. Please specify what focus areas need to be addressed under this priority area, proposed plans/activities and the budget needed in Thai Baht for 5 years during 2022-2026.
(maximum 5 areas, each area should be linked to the problem statement)
Max 500 words

This programme will address the following focus areas, rationale and a high-level list of proposed outputs for 5 years during 2022-2026:

Sr. No.	Proposed focus areas	Rationale	Outputs
1	Development of collaborative national digital health and HIS governance mechanism	There are several players who are involved in HIS in Thailand. Each operates with its own institutional mandate. There is a need to gain an understanding of the existing structures and processes in order to build on current capabilities across the system.	1.1 Landscape analysis of key stakeholders, resources and current practices in health data management and sharing in Thailand
1.2 White paper on national digital health governance mechanism and advocacy
2	Development of national health	There are currently several templates for datasets that are	2.1 National health information architecture,

	information architecture, standards, and interoperability	not standardised, which prevents the use, comparison, and operationalization of services across sectors that are working on related topics (such as health of irregular migrants, where data for this group is fragmented across different sectors).	standards, and interoperable health data management in Thailand 2.2 Model of standard datasets use in one health region (7-8 provinces) 2.3 Case study of a standard dataset to assess health of irregular migrant workers in Thailand
3	Create and implement a framework for health data management and data sharing in Thailand in a secured manner, while protecting people's privacy	To support the operationalization of the e-health strategy, and ultimately support the healthcare system, implementers could benefit from more guidance on how to manage and share data where all stakeholders can benefit.	3.1 Framework and implementation guide on secured and sharable health data while protecting people's privacy 3.2 White paper on how to share and manage data to support the healthcare system (including impact of the PDPA Act on the use of data) 3.3 Model on data sharing and PDPA use in one health region (7-8 provinces)
4	Open data policy in Thailand	Thailand has an open data policy yet data is not readily accessible for research to support policy formulation. This is important to ensure transparency, however, there is a need to maintain the integrity of data while making it accessible to researchers, for example, and support health system research in the country.	4.1 White paper on open data policy in Thailand 4.2 Model on open data policy use in one health region (7-8 provinces)
5	Virtual hospitals and telemedicine	COVID-19 has challenged the traditional mode of healthcare delivery. The "new normal" requires our healthcare system to adapt to the virtual world while continuing to live normal lives.	5.1 White paper on virtual hospital and telemedicine 5.2 Prototype (model) of virtual hospitals and telemedicine in one

		Information on data infrastructure and framework to support virtual hospital and telemedicine could assist in the transition to the new normal era.	health region (7-8 provinces)
6	Strengthening human resources for digital health and HIS	There remains a need to arm healthcare workers and decision makers with the skills and equipment to prepare for the digital age in healthcare.	6.1 Review to identify gaps in human resources for digital health and HIS at the delivery through to the decision-making levels 6.2 Strategy for strengthening human resources for digital health and HIS in Thailand

Activities
The outputs outlined for each of the focus areas above will involve the following activities in close collaboration with WHO:
- Conduct research as relevant to the focus area
- Convene relevant stakeholders domestically for consultation
- Solicit inputs from international experts

Proposed budget for 5 years (2022-2026): THB 10 million

Q6. What are the changes we want to see over the 5 years – what will be different in 5 years as a result of this program under CCS 2022-2026.
Max 500 words

Over the five-years of CCS support, Thailand will design an integrated and implementable framework with relevant stakeholders for digital health HIS, in the areas of on digital health governance mechanism, national health data architecture, health data standards, health data security and privacy, virtual hospitals and telemedicines and strengthening human resources for health. This programme would facilitate a better understanding of the digital health and HIS landscape in the country and establish a coherent and integrated approach for digital health and HIS in Thailand. The country would be able to implement integrated interoperable health information systems which is secured, sharable and usable among related stakeholders. Importantly, through the CCS, a case study of using the digital infrastructure to provide health to a group that is excluded from the formal health system, namely, irregular migrants. Developing an operational policy for virtual hospitals and tele-medicines could potentially be a game-changer in the delivery of healthcare. Prototypes of the recommendations will be piloted in provinces over the course of the CCS to determine their feasibility. Notably, the health personnel as well as non-health professionals who support the health system, would benefit from these activities and be able to participate in the digital health effectively.

The proposed programme builds on decades of initiatives and is a promising opportunity to bring together the various strands of activities and operationalise the vision for an integrated health

information system in Thailand. The programme will seek to address not only the technological issues but also the capacity to effectively utilise digital and informational technologies to improve the health and well-being of people in Thailand. The outputs from this programme, summarised above, will provide analytical inputs, guidance documents and demonstrate feasibility of initiatives through implementation in select provinces. These outputs will provide a blueprint for the way forward, through a collaborative effort of practitioners, researchers and decision-makers in the country as well as through learning from international experts.

This programme has the potential to benefit from being part of the WHO CCS 2022-2026 for Thailand. The demand for digital health and HIS is strong and the support from WHO CCS could be catalysing in bringing multiple partners together who will implement the activities and seek to bring about consensus among relevant stakeholders in the country to forge the path ahead. This would promote an integrated approach to health policy in the country and have a pay-off in the long-term. The proposed programme, with the support of WHO, will therefore be critical in making Thailand fit for its ambitions for a thriving digital system for health, improving processes and promoting better health for its population. Strengthening this component of the health system will also enable it to share its experiences with other countries that are in the process of developing their health information systems, together supporting the goals of achieving UHC.

References

1.   Kijsanayotin B, Kasitipradith N, Pannarunothai S. eHealth in Thailand: the current status. Studies in health technology and informatics. 2010;160(Pt 1):376–80.

2.   Kijsanayotin B, Thit WM, Thanapak W, Nareenuch N, Leelakittisin B, Khongmun P, et al. eHealth in Thailand: Interoperability and Health Information Standards. Thai Health Information Standards Development Center, Health System Research …; 2016.

3.   Geneva: World Health Organization. Global strategy on digital health 2020-2025 [Internet]. [cited 2021 Aug 10]. Available from: https://cdn.who.int/media/docs/default-source/documents/gs4dhdaa2a9f352b0445bafbc79ca799dce4d.pdf?sfvrsn=f112ede5_75