Issue#29
November 2023

Unveiling Thailand's Path to Open Data for Health Policy

Highlight of the study

- Open data is widely recognized as valuable, especially during the COVID-19 pandemic, highlighting the need for up-to-date information systems, leading all sectors to acknowledge its significance in enhancing efficiency, fairness, and societal development.
- These open data movements observed during the pandemic raise important policy questions regarding how to leverage and sustain these movements for long-term improvements of the health system
- This policy brief provides a concise overview of perspectives gathered from the data custodian, data users, case studies, and experts, highlighting the potential of open data systems and addressing the future trajectory of Thailand's health sector through the implementation of an open data policy.

Open Data for Health Policy Research

The Thai government, along with the Ministry of Public Health and other relevant agencies, collaboratively supports research on Thailand's health policy by utilizing open data. They aim to promote information disclosure, facilitate data exchange, and link databases through platforms like www.data.go.th, managed by the Digital Government Development Agency (Public Organization). Additionally, the private sector and civil society have created software and applications to collect health data and offer various health services, which proved crucial during the COVID-19 outbreak. This concerted effort has garnered significant attention in Thailand and led to the advancement of big data management and the establishment of a health information management system.

The multitude of agencies in Thailand possess the necessary expertise and capabilities to handle open data; however, the captivating challenges lie in fostering collaboration among these agencies, determining the path for health information disclosure cooperation, and ensuring data privacy protection while facilitating information transparency, demanding a collective effort from all sectors to uncover solutions.

This Policy Brief presents key perspectives from data custodians, data users, case studies, and experts on open data systems, synthesized from the knowledge exchange forum, " Open Data Movement to Support the Development of Research and Thai Health Policy" held on March 3, 2023, featuring a panel discussion led by Dr. Piya Hanvoravongchai, Secretary-General of the Thailand's National Health Foundation, and the research team from the Open Data Catalytic Initiative for Research and Policy Support in Thailand under Open Data Catalytic Initiative for Research and Policy Support in Thailand, WHO-Royal Thai Government Country Cooperation Strategy (CCS). The discussion also invited presentations by Dr. Lalitya Kongkham, Deputy Secretary-General of the National Health Security Office; Prof. Dr. Weerasak Jongsoowiwatwong, Faculty of Medicine Prince of Songkhla University; Ms. Nongnuch Tantitham, Deputy Director of the Injury Prevention Division, Department of Disease Control; and Dr. Boonchai Kitsa Nayothin, M.D., founder and president of Asia eHealth Information Network (AeHIN).

policy brief

Importance of open data for better health:
perspective from data custodian

The National Health Security Office (NHSO) recognizes the significance of data utilization during a COVID-19 outbreak, integrating COVID data from various departments such as the Ministry of Public Health and the Department of Medical Sciences. The Health Link platform facilitates cooperation, connecting beds and patients, while collaborating with organizations like the WHO for analysis and preparedness. However, the challenge lies in obtaining comprehensive data from all service units and ensuring open access for researchers and those interested in advancing the country's public health and insurance systems.

Open data utilization:
perspective from data user

Researchers emphasize that the key to utilizing open data for health lies in questioning and asking relevant queries. This approach not only provides users with insights into the purpose and format of the data they seek but also aids in the development of a valuable open data system and database for future research. Although numerous databases are currently open for access, their usefulness is limited since no one delves deeper by posing questions to utilize the information effectively. Accessing a database does not guarantee its usability as certain datasets may contain confidential and personally identifiable information.

Therefore, individuals intending to use such data must be aware of ethical considerations and take appropriate actions. Thailand has taken significant steps in this regard by developing and supporting an open access system for health data through collaboration between the NHSO and the National Science and Technology Development Agency (NSTDA).

Furthermore, during the data analysis process, it is crucial to examine and comprehend the data thoroughly to avoid extracting or analyzing inaccurate information. Effective visualization of the data analysis results facilitates understanding and enables users to apply further inquiries.

Open Data Governance and Ecosystem:
perspective from expert

Initially, in accordance with the WHO mandate for the governance of open health information systems, five main characteristics were identified. Firstly, data quality is crucial, emphasizing the need for accurate and reliable information. Secondly, data integrity ensures that the owners' information remains secure and undisclosed without authorization. Thirdly, transparency is vital, promoting openness and accessibility of health data. Fourthly, accountability is emphasized through the ability to audit and examine the system. Lastly, innovation is encouraged, enabling further advancements in the field.

The Thai Health Information Standards Development Center and Asia eHealth Information Network play a significant role in developing and establishing consensus on the key principles of open data governance in health across Asia. Experts in open data systems concluded that health-related open data should consider three aspects. Firstly, data privacy is paramount, ensuring the safeguarding of personal information and fostering trust among information providers. Secondly, generating benefits for the health system by establishing standards and promoting collaboration among agencies to facilitate information sharing. Finally, prioritizing equality by not only focusing on government benefits but also considering the interests of the people. This involves granting the public rights and ownership over their data, requiring permission for data usage.

Case study:
3 databases of road traffic mortality rates to open data

The integration of road traffic mortality data is a result of a cabinet resolution that authorized the Ministry of Public Health to oversee the integration process involving three key agencies: the Department of Disease Control, The Royal Thai Police, and the Central Motor Vehicle Accident Victims Protection Co., Ltd. This integration aimed to consolidate data from the years 2011 to 2021. Once the integration was completed, it became apparent that government agencies, interested individuals, and academics had a high demand for accessing this comprehensive dataset. The website www.data.go.th was established to showcase the recorded data from 2011 to 2022, including information from the Injury Surveillance (IS). It is important to note that the privacy of the data owners was taken into consideration during this process. However, a challenge arises with the disclosure of such data, as users often lack the necessary knowledge and skills to analyze and interpret raw data. This includes a lack of understanding of variables' meanings and data management, hindering the development of effective accident prevention policies at the provincial or local level.

Summary and Discussion

In Thailand, one of the key challenges in the realm of health open data is the lack of a public campaign to raise awareness and inform interested parties about this open data movement. Currently, individuals resort to using information from unknown sources or employing unconventional methods to access health data, despite the existence of databases. Thus, there is a pressing need for policy support to disseminate information and establish a public relations platform dedicated to open information for those who are interested. This support should extend beyond research applications and include the integration of open information into educational curricula for students. Presently, Thailand has made progress by creating various databases and expanding access to open health data at district, provincial, and national levels, thereby facilitating accessibility. However, looking ahead, the utilization of open data is expected to increase further. Therefore, Thailand should develop a robust system that promotes and facilitates easy access to information while also ensuring appropriate safeguards are in place to protect personal health data. This can be achieved through the implementation of processes for recording and storing de-identified data, allowing for academic use and research that tackles complex and diverse health issues, ultimately driving the advancement and utilization of open data analysis in the country.

This document is one of the deliverables under the "Open data catalytic initiative for research and policy support in Thailand" project.
Supported by the World Health Organization (WHO) and Thai Health Promotion Foundation (ThaiHealth).