

ทัศนคติและมุมมองของประชาชนไทยต่อการฉีดวัคซีนไขหวัดใหญ่: การทบทวนวรรณกรรม**Attitudes and Perspectives to Influenza Vaccination in Thailand Among the Population:
A literature review****สิริวนิชา คงอ่อน¹, กันต์ธิญ์ สิริอังกานนท์², อิมเอม เกียรติคุณรัตน์², ศุจิน มังคลรังษี³****โรงเรียนเตรียมอุดมศึกษา, โรงเรียนประชาคมนานาชาติ, ³นักวิจัยอิสระ****Siriwanichsa Kongon¹, Kanthi Siriangkanon², Imaim Kiattikhunrat², Sujimon Mungkalarungs³****¹Triam Udom Suksa School, ²International Community School, ³Independent Researcher***Corresponding Author: khunsujimon.m@gmail.com**Received 2025 Sep 21, Revised 2025 Oct 12, Accepted 2025 Nov 20**DOI: 10.14456/iudcj.2026.14***บทคัดย่อ**

ความลังเลในการรับวัคซีนยังคงเป็นอุปสรรคสำคัญต่อการลดภาระของโรคไขหวัดใหญ่ในประเทศไทย แม้ว่าวัคซีนจะได้รับการพิสูจน์แล้วว่ามีความปลอดภัยและมีการกระจายอย่างกว้างขวาง แต่ระดับความครอบคลุมของวัคซีนยังคงต่ำกว่ามาตรฐานที่องค์การอนามัยโลก (WHO) กำหนดไว้ โดยเฉพาะในกลุ่มประชากรที่มีความเสี่ยงสูง การทบทวนวรรณกรรมฉบับนี้มีวัตถุประสงค์เพื่อรวบรวมและวิเคราะห์หลักฐานเชิงประจักษ์เกี่ยวกับทัศนคติ การรับรู้ และปัจจัยที่มีอิทธิพลต่อการยอมรับการฉีดวัคซีนไขหวัดใหญ่ในประเทศไทย รวมถึงระบุอุปสรรคและช่องว่างขององค์ความรู้ที่ยังมีอยู่ ได้ดำเนินการสืบค้นข้อมูลจากฐานข้อมูล PubMed และแหล่งข้อมูลสารานุกรมที่เชื่อถือได้ โดยจำกัดเฉพาะบทความภาษาอังกฤษที่ตีพิมพ์ระหว่างเดือนมกราคม ค.ศ. 2010 ถึงสิงหาคม ค.ศ. 2025 เกณฑ์การคัดเลือกคือ งานวิจัยที่เกี่ยวข้องกับวัคซีนไขหวัดใหญ่ ความตระหนักรู้ หรือความลังเลในการฉีดวัคซีนในกลุ่มประชากรไทย ข้อมูลที่ได้ถูกวิเคราะห์เชิงบรรยายตามสามประเด็นหลัก ได้แก่ สถานการณ์ทางระบาดวิทยา ทัศนคติและมุมมองของประชาชน และความท้าทายด้านนโยบายหรือการเข้าถึงบริการ การทบทวนพบว่า ความลังเลในการฉีดวัคซีนในประเทศไทยเกิดจากหลายปัจจัยที่สัมพันธ์กัน ได้แก่ ความเชื่อทางวัฒนธรรม ข้อมูลผิดพลาด โดยเฉพาะจากสื่อสังคมออนไลน์และการเข้าถึงข้อมูลที่ถูกต้องอย่างจำกัด ปัญหาการสื่อสารจากบุคลากรทางการแพทย์ และการฝึกอบรมที่ไม่เพียงพอส่งผลให้ประชาชนขาดความเชื่อมั่นในวัคซีน นอกจากนี้ ปัจจัยทางเศรษฐกิจและสังคม เช่น รายได้และระดับการศึกษา มีผลต่อการตัดสินใจรับวัคซีน โดยเฉพาะในพื้นที่ชนบท แม้ภาครัฐได้จัดบริการวัคซีนฟรี แต่ยังมีพวกรอการฉีดวัคซีนในผู้สูงอายุอยู่ที่ประมาณร้อยละ 34.0 และในเด็กต่ำกว่า 5 ปี อยู่ที่ไม่ถึงร้อยละ 5.0 อีกทั้งยังขาดงานวิจัยที่ศึกษาความสัมพันธ์ระหว่างฐานะทางเศรษฐกิจ การศึกษา และการเข้าถึงบริการสุขภาพกับการยอมรับวัคซีนอย่างชัดเจน การทำความเข้าใจปัจจัยหลายมิติที่มีอิทธิพลต่อการยอมรับวัคซีนเป็นสิ่งสำคัญในการพัฒนากลยุทธ์ที่มีความเหมาะสมตามบริบททางวัฒนธรรมของประเทศไทย การจัดการกับข้อมูลเท็จ การเสริมสร้างทักษะการสื่อสารของบุคลากรสุขภาพ และการลดความเหลื่อมล้ำด้านภูมิศาสตร์และ

เศรษฐกิจ จะมีบทบาทสำคัญต่อการสร้างความเชื่อมั่นของประชาชนและการเพิ่มอัตราการฉีดวัคซีนเพื่อให้บรรลุเป้าหมายระดับประเทศ

คำสำคัญ: ไข้หวัดใหญ่, ความครอบคลุมของวัคซีน, ความลังเลในการฉีดวัคซีน, ประเทศไทย

Abstract

Vaccine hesitancy continues to pose a major barrier to reducing the burden of influenza in Thailand, despite the proven safety and availability of vaccines. Although government vaccination programs have expanded over the past decade, national coverage remains far below the World Health Organization (WHO) target, especially among high-risk populations. This literature review aims to synthesize existing evidence on attitudes, perceptions, and factors influencing influenza vaccination acceptance in Thailand, as well as to identify persistent barriers and knowledge gaps. A systematic search of PubMed and relevant public health databases was conducted for English-language studies published between January 2010 and August 2025. Eligible studies included those focusing on influenza vaccination, awareness, or hesitancy among the Thai population. Findings were narratively analyzed according to three main domains: epidemiological situation, public attitudes, and policy or accessibility challenges. The review revealed that vaccine hesitancy in Thailand is shaped by multiple, interrelated factors. Cultural beliefs, misinformation-particularly via social media and limited access to accurate information significantly contribute to low vaccine confidence, especially in rural areas. Insufficient communication from healthcare providers, inadequate training, and socioeconomic barriers such as low income and education levels further limit vaccine uptake. Despite government support and free vaccination programs, coverage remains below 35.0% among older adults and under 5.0% among children. Moreover, there is a notable lack of research examining how financial status, education, and healthcare access interact to influence vaccine decisions within Thailand. Understanding the multifactorial drivers of vaccine acceptance is critical for developing effective, culturally sensitive strategies to improve influenza vaccination rates in Thailand. Addressing misinformation, strengthening healthcare communication, and reducing geographic and socioeconomic inequities will be essential to enhancing public trust and achieving national immunization goals.

Keywords: Influenza, Vaccine coverage, Vaccine hesitancy, Thailand

Introduction

Influenza is a virus classified into four strains: A, B, C, and D. In general, the infection involves the upper respiratory tract and the upper divisions of the bronchi; in severe cases, it can affect the alveolar region. Ref? The severity of the illness depends on the pathogenicity of the virus and the susceptibility of the host. Groups most susceptible to the virus include older adults (≥ 65 years), young children (≤ 5 years), and pregnant women. In addition, individuals with chronic medical conditions such as pulmonary diseases, neurological and neurodevelopmental disorders, sickle cell disease, metabolic disorders, cardiovascular diseases, diabetes mellitus and liver disorders were also at increased risk.⁽¹⁾ Other high-risk groups include those with morbid obesity, individuals under 19 years of age who are on long-term aspirin or salicylate containing medications, people who have experienced a stroke and those with weakened immune systems due to diseases such as HIV/AIDS, cancer treatments like chemotherapy, or inherited metabolic or mitochondrial disorders.⁽²⁻⁴⁾

Every year globally, influenza claimed an estimated 290,000 to 650,000 deaths.⁽¹⁾ In Southeast Asia, including Thailand, seasonal influenza outbreaks remained a persistent health concern. Compared to the global average, Thailand's cases of influenza were somewhat lower, but hospitalization rates were especially high in older adults and individuals with pre-existing conditions.⁽⁵⁾

As Thailand entered an aging society, the number of influenza virus cases increased, as older adults were among the groups with a higher risk of hospitalization and mortality compared to younger adults.⁽⁶⁻⁷⁾ With this in mind, many countries, including Thailand, provided support to encourage the uptake of an influenza vaccine to alleviate the severity of the disease. However, vaccine coverage in Thailand remained far below the WHO target of 75.0% for high-risk groups. During 2010-2012, coverage averaged 6.3%.⁽⁸⁻⁹⁾ but recent reports indicate modest improvement - rising to approximately 34.0% among the elderly and 2.0% among children in 2024, following expanded government vaccination programs and digital registration systems in Bangkok.⁽¹⁰⁾ In comparison, Japan and South Korea had reached closer to 50.0% coverage among the elderly,⁽¹¹⁾ highlighting Thailand's challenge.

Although the influenza vaccine was mostly accessible, there were still obstacles to its distribution, such as geographic limitations, lack of transportation, and vaccine hesitancy, which stemmed from various reasons, including the spread of misinformation particularly via social media platforms, insufficient understanding, religious beliefs, cultural norms, societal influences, and individual concerns such as needle phobia or mistrust in medical interventions.⁽¹²⁻¹³⁾

Thus, this review aimed to gather attitudes and perspectives of influenza vaccination among high-risk patients in Thailand.



Methods

This literature review systematically examined studies related to attitudes and perspectives toward influenza vaccination in Thailand. A comprehensive search was conducted using the PubMed database for English-language articles published between January 2010 and August 2025. The following keywords and Boolean combinations were applied: (“Influenza” OR “Seasonal influenza”) AND (“Vaccine” OR “Vaccination”) AND (“Attitude” OR “Perception” OR “Hesitancy”) AND (“Thailand” OR “Thai population”). Additional information was retrieved from credible public health sources, including the World Health Organization (WHO), Centers for Disease Control and Prevention (CDC), Organization for Economic Co-operation and Development (OECD), and the Thai Ministry of Public Health.

Studies were included if they focused on influenza vaccination, awareness, or hesitancy among Thai populations and contained empirical or review data. Articles unrelated to influenza or lacking relevant data were excluded. From an initial total of 138 records, 27 studies met the inclusion criteria after screening titles, abstracts, and full texts following PRISMA 2020 guidelines. Data were extracted on study characteristics, target populations, and findings related to knowledge, attitudes, and barriers toward vaccination.

The collected evidence was synthesized narratively across three main domains: the epidemiological situation of influenza in Thailand, public attitudes and vaccine hesitancy, and policy

or accessibility challenges. The findings were cross-checked with official health reports to ensure validity, reliability, and relevance to Thailand’s public health context.

Ethical Considerations

This review did not involve primary data collection or direct participation of human subjects. All data were obtained from published studies that had received prior ethical approval. The authors respected the rights and dignity of study participants as presented in the reviewed literature, and no identifiable personal information was used.

Current situation of influenza infection

Influenza remained a significant global and national health threat. Each year, 3 to 5 million people worldwide contract influenza, with infection rates of 5.0 -10.0% among adults and 20.0-30.0% among children.⁽¹⁴⁾ Among these cases, approximately 290,000 - 650,000 deaths were reported annually due to the virus.⁽¹⁾ The ever-changing nature of influenza, driven by its ability to undergo antigenic drift, led to the emergence of new strains over time. These changes resulted in additional casualties and symptoms that the human immune system often failed to recognize as influenza.⁽¹⁵⁾ A notable example was the emergence of swine influenza, commonly called swine flu, which was caused by type A influenza viruses that circulated in pigs, primarily subtypes H1N1, H1N2, and H3N2. Among these, the H1N1 strain demonstrated a strong ability to jump to humans, resulting

in zoonotic spillovers and posing a persistent public health threat.

In Thailand, influenza continued to be a major seasonal health concern, with cases typically peaking during the rainy season from August to November. In 2024, over 491,000 cases were reported during this period, underscoring the virus's recurring impact on public health systems.⁽¹⁶⁾ The most commonly circulating strains included A/H3N2 and B/H3N2, both of which were known to cause more severe outcomes, particularly in vulnerable populations.⁽¹⁷⁾ Children, the elderly, and pregnant women were at greater risk of complications such as pneumonia and hospitalization.⁽⁴⁾

Several studies highlight the persistently suboptimal influenza vaccine coverage in Thailand. A retrospective analysis spanning nine years revealed that despite a national program providing free vaccines to risk groups, annual influenza vaccination uptake in the general Thai population remains consistently below 30.0%.⁽¹⁸⁾ Even within prioritized high-risk populations, significant disparities exist, with a recent report indicating 85.0% coverage among healthcare personnel but only 47.0% in older adults (≥ 65 years) and a mere 2.0% in young children.⁽¹⁰⁾ Further research at a tertiary hospital reported a 52.2% vaccination rate among patients with type 2 diabetes in 2018.⁽¹⁹⁾ Key barriers contributing to these low rates include insufficient recommendations from healthcare professionals, low public awareness and perceived risk of influenza, vaccine hesitancy stemming from safety concerns, and potential limitations within the healthcare system's vaccine delivery

infrastructure.^(10,18-19)

Beyond the toll on health, the economic impact of influenza was particularly severe in low- and lower-middle-income countries.⁽²⁰⁾ The cost of influenza illness in Thailand was especially high among children under two years old and older adults with chronic conditions. The major contributors to this economic burden were medical expenses during hospitalization and productivity losses.⁽²¹⁾

Influenza vaccine distribution and health policy

As of 2022, the global production capacity for seasonal influenza vaccines was approximately 1.5 billion doses, with the potential to reach 4 to 8 billion doses. Demand for seasonal influenza vaccines was projected to increase by approximately 10.0% over the following decade. However, vaccine distribution remained unequal and of the 760 million doses procured worldwide in that year with 97.0 % of those vaccines consumed by high and upper-middle income countries and 92.0 % by countries in the Region of the Americas, European Region, and Western Pacific Regions.⁽²⁰⁾ In 2022, only 66.0% of countries had official influenza vaccination policies, and coverage rates for priority groups fell below WHO targets. The rates stood at approximately 55.0% for older adults, 37.0% for pregnant women, and 62.0% for healthcare workers.⁽²²⁾

Multiple studies in Thailand have examined reasons for vaccine hesitancy among specific high-risk groups such as pregnant women, the elderly and the children. A study on older Thai adults (≥ 65 years) found that geographic

location significantly influenced access to vaccination.⁽²³⁾ Studies focusing on pregnant women revealed that many did not receive sufficient information from a physician to make informed decisions for both of them and their child, despite already being encouraged by the government.⁽²⁴⁻²⁶⁾ This could be substantially detrimental to the highly susceptible groups, including young children, older adults, pregnant women, and people with chronic medical conditions like asthma, diabetes, heart disease, and immunocompromising illnesses, as they had weak immune systems and were less able to defend themselves against the virus.⁽²⁷⁾

Table 1 Summary of Factors Influencing Influenza Vaccine Acceptance and Low-Coverage Groups in Thailand

Category	Key Factors	Affected Groups	Recent Findings (2023-2025)
Access & Geography	Distance to vaccination sites, lack of transport, rural vs. urban inequality	Elderly in rural areas	Lower uptake in northern and northeastern provinces ⁽¹⁰⁾
Information & Communication	Inadequate advice from healthcare providers; limited health literacy	Pregnant women, caregivers	Only 25% of pregnant women received physician recommendation ⁽²³⁾
Socioeconomic Factors	Low income, low education, competing household priorities	Low-income adults, informal workers	Cost barriers persist despite free MOPH programs ⁽¹⁾
Cultural Beliefs & Hesitancy	Fear of side effects, mistrust, misinformation on social media	General public, young adults	Vaccine hesitancy influenced by misinformation ⁽¹²⁾
Systemic Barriers	Limited free-dose quotas, inconsistent supply during peak season	Children under 5, chronically ill patients	Coverage remains below 10% among young children ⁽¹⁰⁾

Problems and casualties associated with the Influenza vaccination have been acknowledged by the Thai government, with them implementing policies through the Ministry of Public Health. Since 2005, the Thai Government has issued a National Strategy Plan for Pandemic Influenza Preparedness with the primary objective of domestically producing seasonal influenza vaccines by establishing an industrial-scale influenza vaccine production plant, which they then handed over to the Government Pharmaceutical Organization (GPO) to supervise the process. The Thai Ministry of Public Health has also recommended influenza vaccination for high-risk citizens (such as pregnant individuals, health care workers, people who are ≥ 65 years, children aged 6-35 months, and people with health problems.⁽²⁸⁾

Between 2010 and 2012, Thailand purchased 8.18 million influenza vaccine doses with annual distributions ranging from around 2.4 to 3.3 million doses. These vaccines were provided free of charge as part of the national program. However, coverage in high-risk groups remained significantly below the WHO target with only 6.3% vaccinated compared to the recommended 75.0%.^(1,5)

Attitudes and Perspectives to influenza vaccination

Reasons for concern around the flu vaccine differ from group to group and are related to awareness, access, and credibility of the health systems. In Thailand, amongst pregnant women, 61.0% reported awareness and 42.0% reported willingness to receive the vaccine, but only 1.0% of

them got vaccinated, even though it was provided for free. Even fewer women, about 25.0%, received an endorsement from health professionals, which goes to show how important their advice is in influencing vaccine uptake.^(17,29) Likewise, there is an elderly population above the age of 65, which showed a vaccination rate of about 34.0%. The uptake was affected by the distance to vaccination centres and a very limited understanding of influenza.⁽³⁾

Choices made in those who were pregnant and of the elderly tended to be based on external factors, general perception of danger, influence from peers, and the overall necessity for health services.⁽²⁻³⁾ Vaccination rates among caregivers of young children were very low, with only 9.0% reported vaccination coverage. The caregivers who vaccinated their children were more educated and more knowledgeable about influenza. The most common drivers of vaccination for children included national vaccination programs, information from providers, availability of government health insurance, and the child's vaccination history.⁽⁴⁾

Among international travellers who came to Thailand, knowledge about influenza was high, standing at 86.4%, and 72.2% claimed adherence to regular hygiene practices. However, vaccine acceptance for this population was low, standing at only 38.2% accessibility, policy communication, and strong healthcare provider engagement across all population groups.⁽³⁰⁾

Discussion and Conclusion

In Thailand, there had been over 491,000 reported cases of people being infected with the influenza virus in the rainy season of 2024. By accounting for the fact that that number came from just a season of the year and comparing it to the 3-5 million annual cases per year, the magnitude of influenza patients in Thailand should not be something to ignore. An assumption could be made that the Thai government agrees to this statement by mainly citing their actions. Between 2010 to 2012, the Thai government had purchased 8.18 million influenza vaccine doses and gave out roughly 2.4-3.3 million doses in hopes of improving the vaccine uptake. More recently, the vaccination coverage has been standing around 34.0%, which only 2.0% accounts for children.⁽¹⁶⁾

While some studies have recorded positive attitudes for influenza vaccination, there are still many barriers that remain. Of them all, some are a lack of awareness, concerns for vaccine safety, and geographical barriers. A limitation in our current literature is the small amount of data and papers on financial barriers of this topic within Thailand. This prompts further investigation on the effects of 66 economic strains on the vaccine uptake. Potential strategies include increasing public awareness campaigns, improving accessibility in vulnerable areas, and decreasing costs for certain populations.

Reviewing the attitudes and perspectives toward influenza vaccination in Thailand is important for several reasons. On the positive side, understanding what drives vaccine acceptance can help improve public health outcomes by serving as a guide for increasing influenza vaccination rates nationwide. It also holds the potential to raise awareness of the influenza vaccine, as exploring people's views can support the spread of knowledge across both urban and rural areas of Thailand. However, several knowledge gaps hinder the process of fully addressing these challenges. There is limited data on how cultural beliefs and misinformation affect vaccine acceptance in Thai communities, especially in more remote and rural areas.⁽²⁾ Furthermore, a lack of communication strategies and training for healthcare providers reduces the effectiveness of the knowledge of vaccines, especially seen for pregnant women and caregivers.⁽¹⁷⁾

Last but not least, there were not enough data of relationships between influenza vaccination and financial issues, education, and hospital accessibility. Thus, our recommendation for further studies is to explore those relationships for more understanding and sustainability improvement of Thailand's health promotion in the future.

Recommendations

Based on the findings of this review, improving influenza vaccination uptake in Thailand requires both policy-level reforms and community-based interventions tailored to local contexts. The following recommendations are proposed:

At the policy level, the Thai Ministry of Public Health should prioritize the development of sustainable national vaccination strategies that integrate influenza immunization into existing primary healthcare and chronic disease programs. Establishing a national influenza vaccination registry can help monitor coverage trends, identify under-immunized groups, and inform resource allocation. Additionally, continuous government support for domestic vaccine production under the Government Pharmaceutical Organization (GPO) should be maintained to ensure long-term vaccine availability and affordability.

At the community and practice level, effective health communication strategies should be implemented to address cultural beliefs, misinformation, and vaccine hesitancy. Public health campaigns must employ trusted local figures, such as village health volunteers, community leaders, and religious representatives, to disseminate accurate information and promote vaccine

confidence. Furthermore, training programs for healthcare providers-especially physicians, nurses, and antenatal care staff-should be strengthened to enhance their capacity to counsel patients and recommend vaccination effectively, particularly for high-risk groups such as pregnant women, older adults, and children.

To further improve accessibility and equity, expanding mobile vaccination units and increasing the number of vaccination sites in remote provinces are recommended. Financial barriers could be mitigated by offering free or subsidized vaccination, transportation assistance, or workplace vaccination initiatives for informal workers. Finally, strengthening collaboration between the Ministry of Public Health, academic institutions, and the private sector will facilitate continuous research on socioeconomic and behavioral determinants of vaccine uptake, ensuring evidence-based policy development and sustained improvement of Thailand's public health resilience.

แนะนำการอ้างอิงสำหรับบทความนี้

สิริวนิชชา คงอ่อน, กันตธีร์ ศิริธังกานนท์, อิมเมม เกียรติคุณรัตน์, ศุภินัน มังคลรังษี.ทัศนคติและมุมมองของประชาชนไทยต่อการฉีดวัคซีนไข้หวัดใหญ่: การทบทวนวรรณกรรม. วารสารสถาบันป้องกันควบคุมโรคเขตเมือง. 2569;11(1):197-208.

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