



## Thailand's Challenges of Achieving Health Equity in the Era of Non-Communicable Disease

*Kathleen Potempa, Benjaporn Rajataramya, Naruemol Singha-Dong, Philip Furspan,\* Erin Kahle, Rob Stephenson*

**Abstract:** Thailand is an exemplar of the challenges faced in addressing the increasing dual demands of aging populations and increasing incidence of non-communicable disease (NCDs). By understanding the dilemmas and solutions posed by Thailand, we propose a framework of key factors to be addressed in order to accelerate capacity in addressing the NCDs challenges in aging populations. Methods proposed by world health organizations to improve population health could impact NCDs if Quality Adjusted Life Years (QALYs) are increased as well as life expectancy through these measures. Four recommendations for achieving these objectives are discussed: expand investments in health care infrastructure for NCDs prevention and early detection; expand public health policies to full population health goals; expand to universal coverage for health care access; engage multi-sectoral constituencies in policy and strategic implementation programs for health. With the emergence of an aging population and the inevitable rise in NCDs, the Thai government is engaging each element of our recommendations and grappling with the policy trade-offs in the context of broader economic and other strategic goals. The experience of Thailand in achieving its goal of population health is a case study of focus, perseverance, and consistent policy strategies.

*Pacific Rim Int J Nurs Res 2022; 26(2) 187-197*

**Keywords:** Aging, Global health, Health policy, non-communicable disease, Thailand

Received 28 October 2021; Revised 4 December 2021; Accepted December 2021

### Introduction

Rapid industrialization, urbanization, and significant reductions in fertility coupled with widespread successful public health efforts to address communicable diseases and injuries have created rapidly aging populations in many developing middle to middle/high income (M/H) countries.<sup>1</sup> As populations age, the incidence of non-communicable,

**Kathleen Potempa**, RN, PhD, University of Michigan, School of Nursing, Ann Arbor, MI, USA. E-mail: potempa@umich.edu

**Benjaporn Rajataramya**, RN, PhD, Praboromarajchanok Institute for Health Workforce Development Nonthaburi, Thailand. E-mail: addbenjaya@gmail.com

**Naruemol Singha-Dong**, RN, PhD, Suranaree University of Technology Institute of Nursing Nakhon Ratchasima, Thailand. E-mail: naruemol@g.sut.ac.th

**Correspondence to: Philip Furspan**, \* PhD, University of Michigan, School of Nursing, Ann Arbor, MI, USA. E-mail: pfurspan@umich.edu  
**Erin Kahle**, PhD, MPH, University of Michigan School of Nursing and Center for Sexuality and Health Disparities, Ann Arbor, MI, USA. E-mail: ekahle@umich.edu

**Rob Stephenson**, PhD, MSc, University of Michigan School of Nursing and Center for Sexuality and Health Disparities, Ann Arbor, MI, USA. E-mail: rbsteph@umich.edu

chronic diseases (NCDs) has also risen or is rapidly on the rise,<sup>1</sup> creating significant economic and health care burdens. In countries such as Thailand, where the aging population is on a steep rise – as of 2016, 11% of the Thai population are 65 years or older, compared to 5% in 1995,<sup>2</sup> the challenges posed by the rise in NCDs increasingly include reduction in Disability Adjusted Life Years (DALYs) and growing health care cost to consumers and the government.<sup>3</sup> Addressing the challenges of NCDs escalation is now a national imperative for Thailand.<sup>4</sup>

In this paper we focus on Thailand as a case study of the challenges faced by developing M/H countries in addressing the increasing dual demands of aging populations and increasing incidence of NCDs. Although Thailand leveraged health policy, health system infrastructure, and resource allocation to successfully meet many of the WHO communicable disease and child/maternal health Millennium Development Goals (MDGs), these investments alone are not now adequate to fully dampen the rise of NCDs. In part, this progress and success has itself influenced the demographic, cultural and lifestyle changes that now contribute significantly to the escalation of NCDs.<sup>3</sup> Understanding the dilemmas and solutions posed by Thailand, we propose a general framework of key factors to be addressed by countries individually, and in cooperation, in order to accelerate capacity in addressing the NCDs challenges in aging populations. The case of Thailand illustrates that even countries that had early success in meeting MDGs find it difficult to meet the NCDs challenges.

### **Thailand's Success Strategy for Communicable Disease, Injury and Material/Child Health**

Thailand achieved early success in meeting the WHO Millennium Development Goals through

a range of specific and targeted public health and health system measures. What follows is a set of salient and dominant elements that contributed to the country's early success and is not an exhaustive list of all actions taken.

The first salient element is consistency in health policy despite changes in the top government officials over time. This consistency in policy is most visible in the continued expansion of individual health financial coverage of citizens (universal coverage) from the 1970's through the implementation of universal coverage in 2004. Thailand has a history of successful and consistent implementation of health policy over decades, a case in point being their reaction to the HIV epidemic.<sup>5</sup>

The second salient element was investment in the Ministry of Public Health (MOPH) system of primary care clinics and hospitals extending through urban and rural areas alike. This investment not only provided health care access down to the level of the rural villages, it also augmented the value of universal coverage to affect positive health impact throughout Thailand.<sup>6</sup>

Third, the expansion of the health professional schools overseen by the MOPH to include nursing, dental, and public health schools created a workforce with standardized curricula and expectations of quality capable of delivering care without the level of shortages experienced in other countries.<sup>7</sup> The health professional schools operated by the MOPH supply approximately 90% of the health workforce in Thailand.<sup>7</sup> The government encouraged cooperation among these schools and those operating under the auspices of the Ministry of Education, Higher Education, Science, Research and Innovation to provide collaboration and common standards of education and training.<sup>8</sup>

Fourth, the government instituted a policy of mandatory three years post-graduate deployment of health professional graduates of the MOPH to rural clinics/hospitals for service to the rural poor.<sup>9</sup>

This alone has created broad population health impact on meeting the MDGs and creating a pathway for achievement of the WHO Sustainable Development Goals 2030 (SDGs) health targets.<sup>10</sup>

Through this investment strategy, policy was rapidly translated to action via the broadly available infrastructure and professional resources throughout the country.<sup>11</sup>

Finally, the Thai Government has improved several other significant factors affecting health outcomes – economic development, reduced poverty, and increased health literacy, especially in women, across Thailand.<sup>12</sup> Yet, despite this impressive progress in outcomes, the rise in NCDs, such as cancer, heart disease, stroke and diabetes across Thailand, is steep and growing.

### **Thailand's Aging Population and the Rise in NCDs**

Thailand's demographic transition to an aging population is occurring faster than in any other regional Asian nation.<sup>13</sup> In 2019, nearly 9 million people were 65 years or older – approximately 12% of the Thai population – the greatest proportion of any other developing nation in Asia.<sup>14</sup> This trend is projected to lead to more than 25% of the population exceeding age 65 by 2040.<sup>2</sup>

With the escalating aging population and the adoption of a more western life-style,<sup>4</sup> Thailand has experienced notable increases in the incidence and prevalence of NCDs. In 2014, NCDs accounted for 71% of all deaths in Thailand.<sup>15</sup> In addition to the increased risk of mortality, these conditions are a major cause of preventable disability for the Thai population.

### **The Paradox**

In the next decade, the number of persons over age 65 will outnumber those 15 and younger

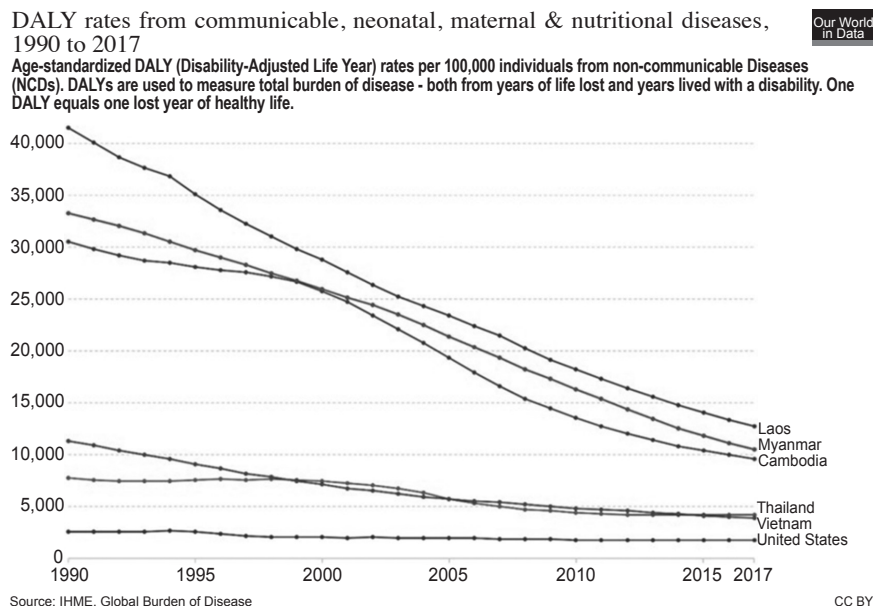
for the first time in Thai history.<sup>13</sup> This presents a substantial stressor to the Thai economy and health care systems, with fewer working adults resulting in a significantly skewed dependency ratio and increased government spending on health for the more expensive and protracted management of NCDs in older adults.<sup>4,13</sup> This rapid rise in health care expenditures places a strain on the gains achieved by universal coverage.<sup>16</sup>

### **Do the Methods for Achieving Global Health Goals Apply to NCDs in Aging Populations?**

The World Health Organization's MDGs, not yet fully achieved in 2021, and the SDGs 2030 were created with the challenge for countries to make policy and investments to achieve these goals. These goals were furthered by the vision of the World Bank's World Development Report<sup>17</sup> that argue for the value of health-related expenditures on both health and economic development, and the Lancet Commission on Investing in Health that provided a 'road map' to achieving gains in global health through a 'grand convergence' – wherein the investments and gains would be achieved by low/middle income countries.<sup>18</sup> The Lancet Commission had four main messages for global health by 2035: that the Grand Convergence of developing countries meeting these goals is achievable through financial and resource investments; that the returns thus far of investing in health are impressive for countries as seen in maternal-child outcomes and in reductions in communicable diseases, mainly HIV/AIDS and tuberculosis; that progressive pathways to universal coverage are an efficient way to achieve health and financial protections; and, that fiscal policies, such as taxation for sugar and tobacco, are a powerful, underused lever for curbing NCDs and injury.<sup>18</sup>

In many ways Thailand is the exemplar for the wisdom of the vision for global health of the WHO, the World Bank, and Lancet Commission if one looks at the gains for maternal/child health and communicable diseases compared to regional countries and the US (Figure 1).<sup>19</sup> But the methods espoused are also fraught with resistance, interference, and other challenges when implemented for

NCDs – especially those requiring industry and international trade organizations cooperation.<sup>20</sup> Resistance to minimum pricing and reduction of aggressive advertising interventions for tobacco and alcohol by these industries has been well documented.<sup>21</sup> Understanding the issues involved in implementation for NCDs may enlighten others facing these same issues.



**Figure 1.** DALY rates from communicable, neonatal, maternal & nutritional diseases in Southeast Asia and U.S.

In a recent presentation we proposed that the methods proposed by WHO, World Bank and the Lancet Commission may apply to the ‘Age of NCDs,’ if two contingencies are met in the policies designed for this application: 1) The Quality Adjusted Life Years [QALYs] are increased as well as life expectancy of the population; and, 2) If there is an accompanying reduction in disability and disease burden into old, old age. Without these two contingencies being met, there is an inevitable health care cost escalation that other critical aspects of economies would be

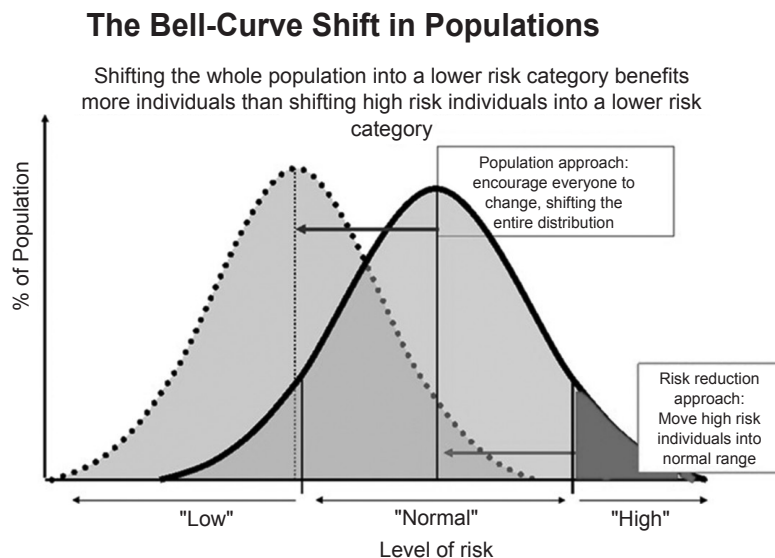
threatened, such as the ability to sustain universal coverage at needed levels.

## Recommended Framework

To achieve these two objectives – increase in QALYs and reduction in disease burden/health care cost of NCDs to old, old age – the following emphases in health care reform have been suggested.<sup>18</sup> We discuss these recommendations to illustrate the challenges and potential avenues for success in their achievement.

*Expand Investments in Health Care Infrastructure for NCDs Prevention and Early Detection.* The expanded investments initiated with escalating NCDs often flow to hospital facilities and workforce to manage diagnosis and treatment of the dominant chronic diseases. For Thailand, as in many other countries, the focus is on the growth in cardiovascular diseases, diabetes, chronic respiratory diseases, and cancers. The cost of building and sustaining the facilities and specialty treatment centers is expensive and draws heavily on the over-all health financing systems. The ensuing reduced emphasis on health promotion, including mitigating population risk of smoking, alcohol consumption and major dietary shifts with westernization, may negatively impact a generation or more of people across cultural, economic, and geographic groups. The infrastructure needed to fully support the surveillance necessary for early detection of NCDs has to be balanced with the expenditures for treatment of advanced disease – another challenge to policy priorities, even for robust economies.<sup>3</sup>

*Expand Public Health Policies to Full Population Health Goals.* Fundamental to achieving the additional QALYs that lead to not only better population health, but also reduce overall health care expenditures, is to shift emphasis to primary prevention and health risk mitigation of the population at the center of the health risk curve – not just for those at the far right ‘high risk’ area [Figure 2]. In order to achieve such a substantial shift there must be emphasis on both public policy and individual health behavior.<sup>22</sup> At the public policy level, the Lancet Commission’s message of taxation on the use of sugar and tobacco is the policy most discussed to reduce the population risk for NCDs.<sup>18</sup> While there is little question that the sugar content of diet and the use of tobacco and alcohol are powerful influencers on health, Thailand’s attempt at implementing such taxation policies have been met with internal resistance and external interference – and will not shift individual behavior alone without a specific focus on creating public health opportunities that stimulate individual change.<sup>23, 24</sup>



Source: Rose G. Sick individuals and sick populations. *Int J Epidemiol.* 1985; 12:32-38.

**Figure 2.** Population health risk curves: shifting everyone vs. shifting high-risk individuals

Increased taxation, minimum pricing constraints and regulations on advertising for tobacco and alcohol have been met with industry resistance within countries especially those with relatively weak regulatory environments.<sup>23</sup> From an international trade perspective, such taxation is often cited as contrary to trade agreements or are pressure points in trade agreement negotiations. International agreements on taxation are also unstable over time and can change with political leadership. These pressures are particularly difficult to overcome in low- to moderate income countries with emerging economies such as in sub-Saharan Africa.<sup>21</sup> Yet Thailand is working to advance taxation, minimum pricing and advertising regulation for these commodities in the midst of such resistance – with calls for collaboration through the strategies proposed by the World Health Organization.<sup>25</sup> As part of its global strategy to reduce the harmful use of alcohol, the WHO recognizes that global cooperation is required if its member countries are to face the challenges of alcohol use at the national level. As part of their commitment to this strategy the WHO has promised to provide leadership, formulate evidence-based policy options, promote networking and exchange of experience among countries, and strengthen partnerships and resource mobilization.<sup>26</sup> Goal two of the WHO's Global Strategy to Accelerate Tobacco Control is to build international alliances and partnerships to facilitate implementation of their Framework Convention on Tobacco Control (FCTC) by mobilizing “international, intergovernmental and developmental partners to integrate the WHO FCTC into their work”.<sup>27</sup>

*Expand to Universal Coverage for Health Care Access.* To reduce overall population risk of chronic disease there must be sustained priority given to prevention and early detection of disease. Health promotion requires comprehensive approaches many of which are accessed through health care

systems such as regular health assessments, vaccinations, maternal and child health initiatives, and surveillance for early detection of diseases.<sup>28</sup> Maintaining the access to and funding of these methods has to be sustained at a level that achieves universal coverage for the total population if we are to reduce overall population risk.<sup>29</sup> Thailand has supported and expanded health coverage since the 1970's and this infrastructure is being sustained even with the rise in NCDs.<sup>30</sup> However, emphasis on early detection of some diseases has not yet been fully actualized such as in cancer detection through regular surveillance programs such as mammography for breast cancer.<sup>31</sup> And hypertension is on a significant rise without aggressive management protocols to accompany its diagnosis.<sup>32</sup> Thailand is in a strong position to leverage its health system structure and available health workforce to place greater emphasis on detection and aggressive early management of diseases.<sup>25, 33</sup> Thailand also has almost universal literacy, and a strong primary education system<sup>34</sup> – opportunities to teach healthy behaviors in primary education should not be overlooked.

*Engage Multi-Sectoral Constituencies in Policy and Strategic Implementation Programs for Health.* The overall goal of many in mitigating the rise in NCDs is to prolong the ‘subclinical’ phase of disease through early detection and aggressive management of ‘risk factors’ such as hypertension, family history of cardiovascular disease, rise in metabolic indicators such as HbA1c and the like. Population health requires even more aggressive solutions to mitigating risk by emphasizing healthy behaviors and healthy support systems in the community, the environment, and public/private policy enactment.<sup>15, 28</sup> Such a multi-sectoral approach has been promoted by the Robert Wood Johnson Health Foundation and others in the U.S. – a country which has yet to contain the steep rise in chronic disease and disability with a rapidly aging population.<sup>35</sup>

In 2011, via the Rio Political Declaration, the WHO succinctly indicated the desirability of engaging multiple sectors with the statement: “We understand that health equity is a shared responsibility and requires the engagement of all sectors of government, of all segments of society, and of all members of the international community”.<sup>36</sup>

Thailand, in its Twelfth National Economic and Social Development Plan 2017–2021<sup>37</sup> and in its National Strategy 2018–2037<sup>38</sup> make reference in these comprehensive planning documents to a focus on minimizing health risks and improving health and well-being of the population through intersecting approaches of community engagement, individual responsibility of its citizenry, and public resource allocation for health system development. At the same time, Thailand also has ambitious economic development goals to increase economic growth so as to become a ‘high income’ country by 2036.<sup>39</sup> Unfortunately, as with the rest of the world, these goals will likely take longer to achieve because of the negative economic effects of the COVID-19 pandemic.<sup>40</sup> For example, some public health goals may well be undermined to favor goals that more aggressively promote economic growth and international trade expansion.

## **Discussion-The Challenge of Implementation**

Thailand’s struggle to achieve national population health goals in the context of their aging population and the rise in NCDs provides a valuable example of the complex interplay of policies as they are implemented in evolving economies. Clearly, a long-term and consistent strategic focus on population-wide health that includes addressing poverty, literacy, access to high quality food, access to health care, and universal health financial coverage is essential. These

attributes provide the universal safety-net that promote health for people and allow for productive engagement of the whole population in the economic advancement of the country.

We know that as countries such as Thailand grow their economies and their populations age, the rise in NCDs are inevitable and create new challenges. As this occurs, leveraging gains achieved by the universal safety-net infrastructure is key to making adjustments quickly. For example, without access to high quality food or access to basic health care, it is much harder to engage people in ‘healthy behavior’ interventions or early detection of disease surveillance programs. Also, countries without universal coverage will find it very difficult to engage low-income segments of the population in such health promotion programs.

Thailand made early decisions to expand the health workforce across the health professions which has brought high quality care to both urban and rural citizens across the regions of the country.<sup>4,41</sup> A sustained and adequate health workforce is the necessary foundation for universal high quality care access and rapid deployment as priorities shift as NCDs expand. Thailand’s solution was to invest in education programs and policy for rural service of health professional graduates that continues to keep pace with workforce needs. This solution is plausible for many other nations now plagued with workforce shortages.

As populations begin to age, an early priority focused on building systems for NCDs prevention and early detection of disease is important. This is balanced with the need to support disease management infrastructure – and this priority balance is a value-laden decision. Achieving the balance in focus, infrastructure, and resource allocations to maximize *population health* while addressing disease detection and intervention is the ultimate, but perhaps, the most difficult goal. Public policy follows the politics of

government decision-making in the wake of trade-offs across economic, trade, international relations, health and other national objectives. As in Thailand and other emerging economies, international trade organizations have great interest in challenging attempts to control pricing and taxation on cigarettes, sugar, alcohol and other substances hazardous to health. Cross-country compacts such as those being promulgated by the WHO for alcohol and tobacco are important avenues to countering these pressures.<sup>26, 27</sup>

The experience of Thailand in achieving its goal of population health is a case study of focus, perseverance, and consistent policy strategies. With the emergence of an aging population and the inevitable rise in NCDs, the Thai government is engaging each element of our recommendations and grappling with the policy trade-offs in the context of broader economic and other strategic goals. Nevertheless, the health of the Thai population is central to achieving all goals, a value not undermined in their evolving economy.

**Acknowledgments:** We would like to acknowledge funding provided by the U.S. Department of Health and Human Services, National Institutes of Health, Fogarty International Center, 2D43TW00988306

## References

1. World Health Organization [Internet]. Global Health and Aging (NIH publication no. 11-7737). World Health Organization: Geneva. 2011 [cited 2021 Sep 28]; Available from: [https://www.who.int/ageing/publications/global\\_health.pdf](https://www.who.int/ageing/publications/global_health.pdf)
2. The World Bank [Internet]. Thailand economic monitor : aging society and economy - June 2016 (English). Washington, DC; 2016 [cited 2021 Sep 18]; Available from: <http://documents.worldbank.org/curated/en/830261469638312246/Thailand-economic-monitor-aging-society-and-economy-June-2016>
3. World Health Organization [Internet]. Global status report on noncommunicable diseases 2014: World Health Organization; 2014 [cited 2021 Sep 28]; Available from: <https://apps.who.int/iris/handle/10665/148114>
4. Kaufman ND, Chasombat S, Tanomsingh S, Rajataramya B, Potempa K. Public health in Thailand: emerging focus on non-communicable diseases. *Int J Health Plann M.* 2011;26(3):e197-212. doi.org/10.1002/hpm.1078
5. Siraprasasiri T, Ongwangdee S, Benjarattanaporn P, Peerapatanapokin W, Sharma M. The impact of Thailand's public health response to the HIV epidemic 1984-2015: understanding the ingredients of success. *J Virus Erad.* 2016;2(Suppl 4): 7-14. doi.org/10.1016/S2055-6640(20)31093-1.
6. Tangcharoensathien V, Witthayapitopsakul W, Panichkriangkrai W, Patcharanarumol W, Mills A. Health systems development in Thailand: a solid platform for successful implementation of universal health coverage. *Lancet.* 2018;391(10126): 1205-23. doi.org/10.1016/S0140-6736(18)30198-3.
7. Pagaiya N, Noree T. Thailand's health workforce: a review of challenges and experiences. 2009 [cited 2021 Sep 26]; Available from: <http://documents1.worldbank.org/curated/en/453661468171879780/pdf/546330WP0THLHe10Box349423B01PUBLIC1.pdf>
8. Lumbiganon P, Chuenkongkaew W, Putthasri W. editors. Education reform of health professionals for the 21st century: a situation analysis in Thailand. Nonthaburi: Health Professional Education Foundation; 2016. Available from: [http://www.healthprofessionals21thailand.org/wp-content/uploads/2016/11/Situation-analysis-in-Thailand\\_final.pdf](http://www.healthprofessionals21thailand.org/wp-content/uploads/2016/11/Situation-analysis-in-Thailand_final.pdf)
9. Wiwanitkit V. Mandatory rural service for health care workers in Thailand. *Rural and Remote Health.* 2011;11:1583. doi.org/10.22605/RRH1583.
10. Buse K, Hawkes S. Health in the sustainable development goals: ready for a paradigm shift? *Globalization Health.* 2015; 11(1):1-8. doi.org/10.1186/s12992-015-0098-8.
11. United Nations [Internet]. Thailand - Addressing ongoing and emerging challenges for meeting the Millennium Development Goals in 2015 and for sustaining development gains in the future. United Nations; 2014 [cited 2021 Sep 25]; Available from: [https://www.un.org/en/ecosoc/newfunct/pdf14/thailand\\_nr.pdf](https://www.un.org/en/ecosoc/newfunct/pdf14/thailand_nr.pdf)
12. Saengpassa C. Healthy legacy of the caring King. The Nation-Thailand. 2016, Available from: <https://www.nationthailand.com/in-focus/30298914>

13. United Nations Population Fund [Internet]. Impact of demographic change in Thailand: United Nations Population Fund Country Office in Thailand; 2011 [cited 2021 Sep 27]; Available from: <https://thailand.unfpa.org/sites/default/files/pub-pdf/Impact-Full-Report-a-Eng.pdf>
14. The World Bank [Internet]. Population ages 65 and above (% of total population) – Thailand, 2019 [cited 2021 Sep 27]; Available from: <https://data.worldbank.org/indicator/SP.POP.65UP.TO.ZS?locations=TH>
15. World Health Organization [Internet]. Joint mission of the United Nations Interagency Task Force on the prevention and control of noncommunicable diseases: Thailand, 28–30 August 2018. 2018 [cited 2021 Sep 27]; Available from: <https://apps.who.int/iris/handle/10665/275090>
16. Sumriddetchkajorn K, Shimazaki K, Ono T, Kusaba T, Sato K, Kobayashi N. Universal health coverage and primary care, Thailand. *B World Health Organ.* 2019;97(6):415–22.
17. World Bank [Internet]. World Development Report 1993: ‘Investing in Health.’ New York: Oxford University Press, 1993 [cited 2021 Sep 27]; Available from: <https://openknowledge.worldbank.org/handle/10986/5976>
18. Jamison DT, Summers LH, Alleyne G, Arrow KJ, Berkley S, Binagwaho A, et al. Global health 2035: a world converging within a generation. *Lancet.* 2013;382(9908):1898–955.
19. Roser M, Ritchie H. Burden of Disease 2016. Published online at OurWorldInData.org, [cited 2021 Sep 24]; Retrieved from: <https://ourworldindata.org/burden-of-disease>
20. Cowling K, Magraw D. Addressing NCDs: Protecting health from trade and investment law: comment on “Addressing NCDs: Challenges From Industry market Promotion and Interferences.” *Int J Health Policy Manag.* 2019;8(8):508–10. doi: 10.15171/ijhpm.2019.41.
21. Delobelle P. Big tobacco, alcohol, and food and NCDs in LMICs: an inconvenient truth and call to action comment on “Addressing NCDs: Challenges From Industry Market Promotion and Interferences.” *Int J Health Policy Manag.* 2019;8(12):727–31. doi: 10.15171/ijhpm.2019.74.
22. Rose G. Sick individuals and sick populations. *Int J Epidemiol.* 2001;30(3):427–32. doi.org/10.1093/ije/30.3.427.
23. Kickbusch I, Allen L, Franz C. The commercial determinants of health. *Lancet Glob Health.* 2016;4(12):e895–6. doi.org/10.1016/S2214-109X(16)30217-0.
24. Supawongse C, Buasai S, Thanapathara J, WHO [Internet]. The evolution of the tobacco consumption control in Thailand / by Choochai Supangwongse, Supakorn Buasai; Jitsiri Thanapathara. Nonthaburi, Thailand : Dept. of Health. Available from: <https://apps.who.int/iris/handle/10665/42410>
25. World Health Organization [Internet]. WHO country cooperation strategy, Thailand: 2017–2021. 2017 [cited 2021 Sep 28]; Available from: <https://apps.who.int/iris/handle/10665/255510>
26. World Health Organization [Internet]. Global strategy to reduce the harmful use of alcohol: World Health Organization; 2010 [cited 2021 Aug 27]; Available from: [https://www.who.int/substance\\_abuse/msbalcstrategy.pdf](https://www.who.int/substance_abuse/msbalcstrategy.pdf)
27. World Health Organization [Internet]. Global strategy to accelerate tobacco control: advancing sustainable development through the implementation of the WHO FCTC 2019–2025. World Health Organization; 2019 [cited 2021 Jul 21]; Available from: <https://www.who.int/fctc/implementation/global-strategy-to-accelerate-tobacco-control/en/>
28. World Health Organization [Internet]. Health promotion and disease prevention through population-based interventions, including action to address social determinants and health inequity. 2018 [cited 2021 Sep 7]; Available from: <http://www.emro.who.int/about-who/public-health-functions/health-promotion-disease-prevention.html>
29. Adulyanon S. Funding health promotion and disease prevention programmes: an innovative financing experience from Thailand. *WHO-SEAJPH.* 2012;1(2):201. Available from: <https://apps.who.int/iris/handle/10665/329828>
30. Nonkhuntod R, Yu S. Lessons from Thailand: universal healthcare achievements and challenges. *Int J Soc Econ.* 2018;45(2):387–401. doi.org/10.1108/IJSE-03-2017-0107.
31. Mukem S, Sriplung H, McNeil E, Tangcharoensathien V. Breast cancer screening among women in Thailand: analyses of population-based household surveys. *J Med Assoc Thai.* 2014;97(11):1106–18.

32. World Health Organization [Internet]. Hypertension care in Thailand: best practices and challenges, 2019. 2019 [cited 2021 Sep 1]; Available from: <https://apps.who.int/iris/handle/10665/330488>
33. World Health Organization [Internet]. The Kingdom of Thailand health system review. Manila: WHO Regional Office for the Western Pacific; 2015 [cited 2021 Sep 2]; Available from: [https://apps.who.int/iris/bitstream/handle/10665/208216/9789290617136\\_eng.pdf?sequence=1&isAllowed=y](https://apps.who.int/iris/bitstream/handle/10665/208216/9789290617136_eng.pdf?sequence=1&isAllowed=y)
34. In Wikipedia [Internet]. Education in Thailand (January 20, 2021), [cited 2021 Sep 27]; Available from: [https://en.wikipedia.org/w/index.php?title=List\\_of\\_countries\\_by\\_life\\_expectancy&oldid=981893303](https://en.wikipedia.org/w/index.php?title=List_of_countries_by_life_expectancy&oldid=981893303)
35. Erickson J, Milstein B, Schafer L, Pritchard KE, Levitz C, Miller C, et al. Progress along the pathway for transforming regional health: a pulse check on multi-sector partnerships. 2017 [cited 2021 Sep 26]; Available from: <https://www.rethinkhealth.org/wp-content/uploads/2017/03/2016-Pulse-Check-Narrative-Final.pdf>
36. World Health Organization [Internet]. Rio political declaration on social determinants of health. Geneva; 2011 [cited 2021 May 27]; Available from: <http://www.who.int/sdhconference/declaration/en/>
37. Office of the National Economic Social Development Board [Internet]. The twelfth national economic and social development plan (2017-2021). 2017 [cited 2021 Sep 3]; Available from: [https://www.nesdc.go.th/ewt\\_dl\\_link.php?nid=9640#:~:text=Foreword-,The%20Twelfth%20National%20Economic%20and%20Social%20Development%20Plan%20\(2017%2D2021,Thailand%20itself%20was%20undergoing%20reforms](https://www.nesdc.go.th/ewt_dl_link.php?nid=9640#:~:text=Foreword-,The%20Twelfth%20National%20Economic%20and%20Social%20Development%20Plan%20(2017%2D2021,Thailand%20itself%20was%20undergoing%20reforms)
38. Thailand National Strategy Committee [Internet]. NATIONAL STRATEGY 2018 – 2037. 2017 [cited 2021 Aug 27]; Available from: <http://nscr.nesdb.go.th/wp-content/uploads/2019/10/National-Strategy-Eng-Final-25-OCT-2019.pdf>
39. Thailand's Voluntary National Review on the Implementation of the 2030 Agenda for Sustainable Development. 2017 [cited 2021 Jul 27]; Available from: [https://sustainabledevelopment.un.org/content/documents/16147\\_Thailand.pdf](https://sustainabledevelopment.un.org/content/documents/16147_Thailand.pdf)
40. The World Bank [Internet]. The World Bank in Thailand. 2020 [cited 2021 Sep 17]; Available from: <https://www.worldbank.org/en/country/thailand/overview#1>
41. Witthayapipopsakul W, Cetthakrikul N, Suphanchaimat R, Noree T, Sawaengdee K. Equity of health workforce distribution in Thailand: an implication of concentration index. *Risk Manag Healthc Policy*. 2019;12:13–22. doi: 10.2147/RMHP.S181174.

## ความท้าทายของประเทศไทยในการบรรลุความเท่าเทียมทางสุขภาพในยุค แห่งโรคไม่ติดต่อ

Kathleen Potempa, เบญจพร รัชตารมย์, นฤมล สิงห์ตง, Philip Furspan,\* Erin Kahle, Rob Stephenson

**บทคัดย่อ:** ประเทศไทยเป็นหนึ่งในแบบอย่างความท้าทายที่ต้องเผชิญกับการตอบสนองความต้องการด้านสุขภาพที่เพิ่มขึ้นอย่างมากของทั้งประชากรสูงอายุและอุบัติการณ์ของโรคไม่ติดต่อ ด้วยการทำความเข้าใจสถานการณ์ยากลำบากที่เผชิญอยู่ และแนวทางแก้ไขของประเทศไทย ผู้เขียนเสนอกรอบแนวคิดของปัจจัยสำคัญที่จะถูกกล่าวถึงทั่วโลกในการเร่งขีดความสามารถในการแก้ไขปัญหาโรคไม่ติดต่อในกลุ่มประชากรสูงอายุ องค์การอนามัยโลกได้ให้ข้อเสนอแนะ ในการปรับปรุงภาวะสุขภาพของประชากรที่สามารถส่งผลกระทบต่อโรคไม่ติดต่อเรื้อรัง หากเพิ่มจำนวนปีของชีวิตที่มีคุณภาพตลอดจนอายุขัยเฉลี่ย ผ่านมาตรการ 4 ประการ ซึ่งได้กล่าวถึงในบทความนี้ ได้แก่ การขยายการลงทุนในโครงสร้างพื้นฐานด้านการดูแลสุขภาพสำหรับการป้องกันโรคไม่ติดต่อและการคัดกรองเพื่อตรวจหาโรคในระยะเริ่มต้น การขยายนโยบายสาธารณสุขไปสู่เป้าหมายด้านสุขภาพในระดับประชากรอย่างเต็มรูปแบบ การขยายหลักประกันสุขภาพถ้วนหน้าเพื่อการเข้าถึงบริการสุขภาพอย่างทั่วถึง การกำหนดให้หลายภาคส่วนมีส่วนร่วมในนโยบายและแผนการดำเนินงานเชิงกลยุทธ์เพื่อสุขภาพ ด้วยการเพิ่มขึ้นของประชากรสูงอายุและการเพิ่มขึ้นของโรคไม่ติดต่ออย่างหลีกเลี่ยงไม่ได้ รัฐบาลไทยได้นำมาใช้แต่ละองค์ประกอบของข้อเสนอแนะดังกล่าว และนโยบายนี้ทำให้ประเทศไทยเผชิญกับความท้าทายในบริบทของเป้าหมายทางเศรษฐกิจที่กว้างขึ้น และเป้าหมายเชิงกลยุทธ์อื่น ๆ ประสิทธิภาพของประเทศไทยในการบรรลุเป้าหมายด้านสุขภาพของประชากรเป็นกรณีศึกษาของการมุ่งมั่น ความอดทน และนโยบายเชิงกลยุทธ์ที่สอดคล้องกัน

*Pacific Rim Int J Nurs Res 2022; 26(2) 187-197*

**คำสำคัญ:** การสูงอายุ สุขภาพโลก นโยบายสุขภาพ โรคไม่ติดต่อ ประเทศไทย

**Kathleen Potempa, RN, PhD, University of Michigan, School of Nursing, Ann Arbor, MI, USA. E-mail: potempa@umich.edu**

**เบญจพร รัชตารมย์, PhD, สถาบันพระบรมราชชนก กลุ่มพัฒนการศึกษานนทบุรี ประเทศไทย E-mail: addbenjaya@gmail.com**

**นฤมล สิงห์ตง, RN, PhD, MS, MSN, สำนักวิทยาสถาบาลศาสตร์ มหาวิทยาลัยเทคโนโลยีสุรนารี นครราชสีมา ประเทศไทย E-mail: naruemol@g.sut.ac.th**

**Correspondence to: Philip Furspan,\* PhD, University of Michigan, School of Nursing, Ann Arbor, MI, USA. E-mail: pfurspan@umich.edu**

**Erin Kahle, PhD, MPH, University of Michigan Center for Sexuality and Health Disparities, Ann Arbor, MI, USA. E-mail: ekahle@umich.edu**

**Rob Stephenson, PhD, MSc, University of Michigan Center for Sexuality and Health Disparities, Ann Arbor, MI, USA. E-mail: rsteph@umich.edu**