

# **Studies on Geographic Distribution of Doctors in Thailand: Policy Proposals in Solving the Doctor Shortage in Rural Areas**

タイにおける医師の地理的偏在に関する研究  
—僻地における医師不足問題対策への提言—

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## **1. Research purpose and objectives**

The aim of this research is to identify the essential factors for recruitment and retention of Thai doctors in rural areas as well as more effective policy strategies that will solve the shortage of doctors in rural areas. This study contributes to our understanding of determinants of Thai doctor location choices and the way we should solve the problem of doctor shortages in rural areas. Based on the research purpose, there are four specific research objectives that must be explored to guide the research. The first is to clarify the current situation of Thai doctors. Secondly, to determine the attitudes and preferences of Thai doctors with respect to working in underserved areas. Thirdly, to investigate the fundamental values that influence these attitudes and preferences. Finally, to offer specific government intervention to solve the problem.

## **2. Doctor shortage causes human insecurity**

Good health is both essential and instrumental to achieving human security. It is essential because the very heart of security is protecting human lives. Health security is the vital core of human security.<sup>1</sup> Access to appropriate health care service is a vital factor in protecting a person from the risk of ill health and preventable death. Adequate access to health care is thus important in response to a health crisis. Access to high-quality healthcare services depends crucially on the geographic distribution of doctors because they are the cornerstone of health systems. It is proven that the doctor shortage has impacts on the health systems as well as human health. A high ratio of doctors to population can lower the mortality resulting from heart disease, cancer, stroke, infant mortality and maternal mortality.<sup>2</sup> It is obvious that adequate access to doctors, particularly in rural areas, has not been achieved in Thailand

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<sup>1</sup> Ogata, S., Amartya, S. (2003). HUMAN SECURITY NOW. Commission on Human Security 2003, 96-97

<sup>2</sup> Caliskan, Z. (2013). Main Determinants of the Unequal Distribution of Physicians in Turkey: An Empirical Analysis. International Journal of Arts and Commerce Vol. 2 No. 4, 47-48.

yet. Human security is people centred.<sup>3</sup> The most important thing for human security is to prevent or address various threats to life, health safety and well-beings of individuals. From this perspective of human security, the Thai people living in rural areas are threatened with insecurity.

### **3. Data and methodology**

This study employs both primary and secondary data. Statistical data was utilized from the National Statistics Office of Thailand. Based on the secondary data, this paper constructed a hypothesis for the attitudes of Thai doctors toward rural practice and the factors influencing doctors' geographic distribution. Interviews with three Thai doctors were carried out to help construct a hypothesis. To test the hypothesis, the author created a self-administered, close-ended and multiple-choice questionnaire and distributed it to Thai doctors by E-mail. It included responses from 98 Thai doctors aged 20- to 60-year-old from 31 provinces. A questionnaire was administered to each doctor to collect basic individual characteristics (sex, age, current work location, etc.). Questions related to the attitudes with respect to working in rural areas and the specific factors influencing their geographic distribution were also asked. After collecting responses from Thai doctors, descriptive statistics using percentage and univariate analysis using a frequency table, were applied for data analysis. The author conducted interviews with selected Thai doctors to provide a more detailed understanding of the responses. Through the data analysis and interviews, the author proposed a model and various policy interventions that will solve the doctor shortage in rural areas.

### **4. Results and discussion**

A total of 98 responses were collected as a result. A high proportion of doctors showed a preference for long-term rural practice. However, there is a concern about how to make doctors want to remain in rural areas. Most of the doctors are likely to stay in rural areas for a few months to three years. Very few wish to settle down permanently in rural areas. Any program that promotes the permanent placement of doctors in rural areas is not recommended. Well-organized rotations or fixed-term contract rural jobs are favorable conditions for most of the doctors. The majority of Thai doctors who are not attracted by permanent posting in rural areas are interested in working in rural areas for a month to three years on a fixed term or rotating basis only. Although a part of doctors value financial attributes the most, the majority place much higher value on the working conditions. Appropriate workloads and

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<sup>3</sup> UNESCO, S.a. (2008). Human Security Approaches and Challenges. UNESCO, 3

working hours are the most important factor in determining where they want to work. Availability of medical equipment and opportunity to gain specialist skills were found to be as important as better income. Doctors tend to choose to work at health facilities that they are able to have a chance to gain more medical skills and utilize adequate medical equipment. The relationship with hometown location is significant. The majority of doctors prefer to settle down and work in and around their hometown. Therefore, doctors should be recruited locally and allowed to provide medical services close to their hometowns. If doctors cannot be recruited locally, rural hospitals need to bring doctors from Bangkok or urban areas. When looking for long-term resident doctors, rural hospitals should focus on single, male doctors aged 20- to 29-year-old who work only for the public sector. They are among the most likely to work in rural areas for at least one year. The problem with doctors aged 20- to 29-year-old is that they lack experience. There is a low probability that experienced doctors will stay for a long period of time in rural areas. Doctors aged 30- to 39-year-old or over only accept a short-term rural placement. When looking for short-term resident doctors, rural hospitals should focus on married doctors aged 30-year-old or over. They prefer to work in rural areas for a few months on a rotating basis. To provide the rural population with an access to experienced doctors, rural hospitals should enable them to make a scheduled visits to rural areas or work on a rotation basis. Doctors who are currently working in Northeast, North and South are more likely to move to rural areas and work for a long period of time than those working in Bangkok, the capital city of Thailand. This finding does not necessarily mean that doctors working in Bangkok are unwilling to move to work in rural areas. According to the survey results, 68% of doctors who are currently working in Bangkok indicated that they are willing to work in rural areas and 30.3% of them accept a long-term rural placement. A high proportion of doctors currently working in Bangkok shows a preference for long-term rural placement. However, they are less likely to settle down and work in rural areas. The author focused on outreach service strategies as a means to develop a model. Outreach service is a model that mobilizes urban health workers to provide medical services to the population, away from the location where they usually work and live.<sup>4</sup> Outreach services use two different strategies that mobilize health workers from urban areas: physical and technology-based strategies. Both of these strategies need health workers working in urban areas. Physical strategies require health workers to go to the field to provide medical service while technology-

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<sup>4</sup> Roodenbeke, E..d., Lucas, S., & Rouzaut, A. (2011). Outreach services as a strategy to increase access to health workers in remote and rural areas. World Health Organization, 1-14.

based strategies enable health workers to provide medical service without moving from their workplace. This physical strategies use a short consultation visit, rotation in health structures, short-term cover and long-term temporary cover. A short consultation visit performed by both general practitioners and medical specialists provides basic medical services and emergency services such as surgical treatment to people in the isolated rural areas. A rotation in the health structure is to deploy doctors on a rotation basis to rural areas. One example is Project Number 1816 in Viet Nam. Qualified health workers in high-level hospitals are assigned on three months rotation to low-level hospitals, which are mostly located in rural areas.<sup>5</sup> Long-term temporary contract is often used to recruit and retain doctors in rural areas. These contracts can last up to a few months to a few years. Technology-based strategy utilizes telemedicine which is also referred as eHealth. It is the use of information and communication technologies (ICT) for health, for example, treating patients, conducting research, educating the health workforce, tracking diseases and monitoring public health. Telemedicine has been considered as a useful tool that supports rural doctors and provides diagnosis and treatment to the rural population. The Nagasaki model is a good example of outreach service because it deploys both physical and technology-based strategies. The author presumes that it can be applied for the Thai case. The following are the details. It recruits doctors from the whole country once it receives request from local governments in remote islands. Those recruited from the whole country are employed as a public servant and assigned to public health clinic in remote islands. The employment period is two years and it is a fixed term contract.

## **5. Conclusion**

There are three major findings in this paper: the majority of Thai doctors are interested in working in rural areas for a few months up to three years on a fixed term or rotating basis, the majority of Thai doctors prefer to work in and around hometown, and appropriate workloads and working hours are the most important factor in recruiting and retaining doctors in rural areas. Using these findings and the outreach services, the author proposed a model that sends doctors from Bangkok or the urban areas to rural areas and make them work for a previously agreed term.

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<sup>5</sup> Ministry of Health, Labour and Welfare. (2011). VIETNAM COUNTRY REPORT. The 9th ASEAN & Japan High level officials meeting on Caring Societies: "Human Resource Development in the sectors of Welfare and Health with a focus on capacity building of service provides and employability promotion of vulnerable people", 9.