

## Health workforce contributions to health system development: a platform for universal health coverage

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**Problem** In the 1970s, Thailand was a low-income country with poor health indicators and low health service coverage. The local health infrastructure was especially weak.

**Approach** In the 1980s, measures were initiated to reduce geographical barriers to health service access, improve the health infrastructure at the district level, make essential medicines more widely available and develop a competent, committed health workforce willing to service rural areas. To ensure service accessibility, financial risk protection schemes were expanded.

**Local setting** In Thailand, district hospitals were practically non-existent in the 1960s. Expansion of primary health care (PHC), especially in poor rural areas, was considered essential for attaining universal health coverage (UHC). Nationwide reforms led to important changes in a few decades.

**Relevant changes** Over the past 30 years, the availability and distribution of health workers, as well as their skills and competencies, have greatly improved, along with national health indicators. Between 1980 and 2000 coverage with maternal and child health services increased substantially. By 2002, Thailand had attained UHC. Overall health system development, particularly an expanded health workforce, resulted in a functioning PHC system.

**Lessons learnt** A competent, committed health workforce helped strengthen the PHC system at the district level. Keeping the policy focus on the development of human resources for health (HRH) for an extended period was essential, together with a holistic approach to the development of HRH, characterized by the integration of different kinds of HRH interventions and the linking of these interventions with broader efforts to strengthen other health system domains.

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### Introduction

Thailand has made impressive achievements in health in recent decades. The country, once characterized by poor health indicators and a very weak health infrastructure, especially at the local level, had achieved universal health coverage (UHC) by 2002. Over the years health service utilization increased, financial risk protection mechanisms improved and greater equity in health outcomes was attained.<sup>1</sup> How did these changes come about?

Several factors have contributed to Thailand's improved health outcomes in recent decades. Among them are overall economic growth and improved literacy. The launching of the Expanded Programme on Immunization in 1977, prompted by low immunization coverage and the lack of an effective primary health-care (PHC) system, is another.<sup>2</sup> Most importantly, a functioning PHC system was developed at the district level to achieve equitable access to health services by all.<sup>3,4</sup> Simultaneously, financial risk protection mechanisms were improved to keep people from experiencing financial hardship and prevent households from becoming impoverished on account of the use of health services.<sup>5</sup> Two synergistic policies designed to improve access to health services were at the heart of efforts to develop the Thai health system: one was to increase the availability of functional services and the second was to reduce financial barriers to health service access. In this paper we examine the key actions undertaken in these areas and the main lessons learnt from the Thai experience. We review Thailand's socioeconomic development and its health achievements and progress in

health service coverage, with a focus on how the health system and the health workforce were developed and how both have contributed to a functioning PHC system – a critical element in attaining UHC and equitable access to health services.

### Approach

#### Minimizing geographical barriers

##### Health facility coverage

In the 1960s, Thailand had no district hospitals. A few health centres were providing primary care services in certain large districts. Districts that lacked health centres relied on mobile health teams that usually provided services for a few months out of the year.

In the period from 1960 to 1975, health, education and infrastructure development were the focus of key rural government programmes.<sup>3</sup> District health system development began in 1977 for the purpose of attaining, over the next 20 years, full geographical coverage with domestically funded district hospitals and health centres. During the decade from 1982 to 1991, the number of district hospitals, especially those with 10 to 60 beds, grew enormously. A 10-year programme of health centre development was simultaneously launched to attain full health facility coverage at the subdistrict level. By the late 1990s, the targeted coverage had been attained in districts and subdistricts.

A district health system – defined as a close-to-client service provider<sup>6</sup> consisting of a district hospital and 10 to

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(Submitted: 8 March 2013 – Revised version received: 3 September 2013 – Accepted: 19 September 2013)

12 subdistrict health centres serving a typical catchment area of approximately 50 000 population – serves as a platform for scaling up public health interventions.<sup>7,8</sup> Despite the fact that in the 1980s Thailand was a low-income country with a gross national income per capita of only 710 United States dollars (US\$), fiscal space for investment in the district health system was made possible by a temporary decline in investment in infrastructure at the provincial level.

### Health workforce expansion

To create a functioning PHC system, it is essential for diagnostics and medicines to be available. However, the most critical resource is the health workforce. In Thailand, the rapid expansion of the PHC infrastructure called not just for an expanded health workforce, but also for strategies to ensure health workforce distribution to rural communities.

Since 1974, Thailand has had special tracks for recruiting rural students to medical and nursing careers in return for allowing them to work in their home communities. The system was the first national programme of mandatory rural service – for a three-year period – for new medical and nursing graduates. In later years, this rural bonding policy was extended to dentistry and pharmacy graduates. In addition, the Collaborative Project to Increase the Production of Rural Doctors (CPIRD) in phase one (1995–2004) was approved by the Thai Cabinet. Twelfth-grade students who were residents of a given province were eligible to sit for an examination under the CPIRD track. Those who passed went on to spend one year studying basic sciences, two years pursuing pre-medical studies in a university and three years doing clinical practice in teaching hospitals affiliated with the Ministry of Public Health (34 in total in 2013). These were all accredited regional and provincial teaching hospitals where the teaching was conducted by medical staff.

While the CPIRD continued to phases two and three (2005–2014), a programme known as One District, One Doctor (ODOD, 2005–2015) was approved by the Cabinet to further strengthen the recruitment of rural students into medical schools.<sup>9</sup> Students eligible for the ODOD programme have to be residents of a given district, unlike CPIRD students, who have to reside within a given province.

A system of government bonding is in place. All graduates recruited through the normal track – the national entrance examination – and the CPIRD have to render mandatory service in a district hospital for three years or risk a penalty of US\$ 13 000. ODOD programme graduates have to serve for 12 years in their home towns or face a penalty of US\$ 65 000 if they fail to comply.

The mandatory rural service was accompanied by financial incentives, in addition to the basic salary and per diem while on duty. A monthly hardship allowance for doctors, amounting to US\$ 60–88, was introduced in 1975 and substantially revised in 1997. In response to an internal brain drain from the public to the private sector, a monthly allowance of US\$ 250 was introduced in 1995 for those who chose not to engage in private practice.

Medical schools outside Bangkok – 11 out of a total of 19 – played a critical role in producing doctors for service in rural areas. Their production capacity increased from less than 35% of the country's medical graduates in 2002 to nearly 44% in 2012.<sup>10,11</sup>

A temporary ladder nursing programme was introduced in 1982 in response to the rapid expansion of district health systems. Students received a diploma as technical nurses after a two-year course of study. At the end of the four-year mandatory rural service, these technical nurses received two more years of training to obtain a Bachelor in Nursing. The ladder curriculum was well planned and was approved by the Thai Nursing and Midwifery Council. To fulfil the growing demand for nursing care, since 1990 all stand-alone midwifery courses leading to a diploma have been integrated into the four-year Bachelor in Nursing degree. Competency in midwifery is required of all registered nurses. To reinforce their commitment to rural health service, dedicated health workers are given social recognition by being granted an annual award from a renowned organization or foundation. Professional career advancement is another key incentive. Since 2007, district hospital directors can be promoted to a level 9 position – equivalent to deputy director general – on a scale in which the highest-ranking position is 11. In 1991 the maximum promotion was to level 8.

One of the strengths of the Thai health system has been the presence of a high ratio of nurses to physicians. Nurses'

contributions to the success of maternal and child health-care programmes have been traditionally acknowledged and recognized. In the family planning campaigns conducted in the 1980s, nurses not only provided pills and condoms, but were trained to insert intrauterine devices.<sup>12</sup> Task shifting was introduced in Thailand in the 1980s through programmes such as a 12-month, in-service training in anaesthesiology and psychiatry for nurse practitioners.

### Minimizing financial barriers

Along with the implementation of reforms to strengthen the health-care infrastructure and the health workforce, efforts were made to reduce the constraints on health service demand and, more specifically, to minimize the financial barriers that kept the poorest segments of society from using health services. A two-pronged approach was adopted: (i) a tax-financed scheme, established in 1975, that provided free outpatient and inpatient care for the poor (known as the Low-Income Card Scheme); and (ii) a social health insurance scheme established in 1991, financed from payroll taxes, for formal private sector employees.<sup>13</sup> Providing health insurance coverage for workers in the informal sector and for people who were not economically active was especially difficult because around three quarters of the total population had incomes too irregular to allow for the payment of premiums, and the enforcement and collection of such premiums were prohibitively expensive.<sup>14</sup> Nonetheless, by early 2002 – 27 years after the launching of the Low-Income Card Scheme – Thailand had at last achieved UHC.

## Relevant changes

### Improvements in health infrastructure

Investment in health infrastructure resulted in substantial expansion of public health facilities to rural areas, where full geographical coverage with such facilities was reached well before UHC was achieved. In 2010 there were 9758 health centres in the 7255 subdistricts; 731 district hospitals in the 801 districts; and 68 provincial and 25 regional hospitals in the 76 provinces outside Bangkok. Some provincial hospitals were located in large districts.

Infrastructural improvement was followed by securing of a larger health workforce. The number of physicians increased from 8000 in 1985 to 35 000 in 2009 – a fourfold increase in 24 years. A 3.3-fold increase in nurses was noted during the same period.

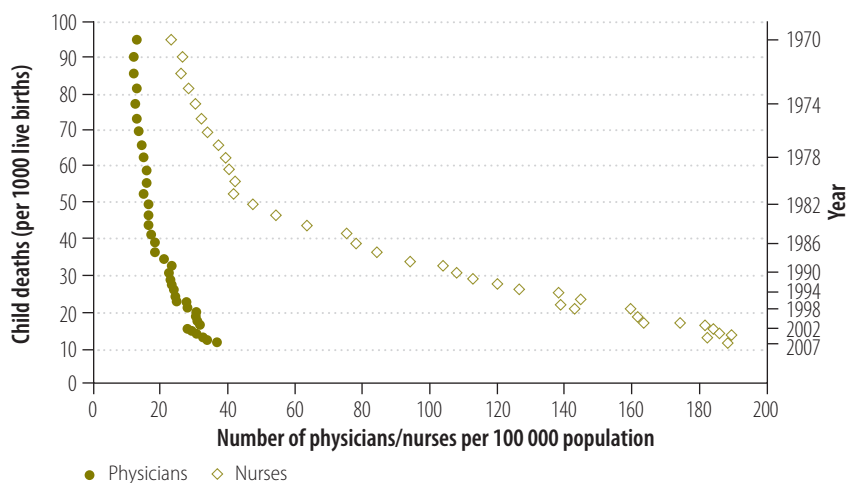
Medical schools outside Bangkok have increased their production capacity over the last decade.<sup>15,16</sup> In addition, nursing schools have increased in number from 39 in 1976 to 80 in 2009. Notably, private nursing colleges increased from 3 to 21 over this period and all of them were accredited by the Thai Nursing and Midwifery Council.

In addition to an increase in the number of graduates, there has also been improvement in worker distribution. In 1979 there was one doctor for every 1210 residents of Bangkok, while in the north-eastern part of Thailand, there was one doctor for every 25 713 residents. This 21-fold difference was reduced to a 5-fold difference in 2009. Over the same period, the gap in the number of nurses between Bangkok and the north-eastern part of the country was reduced from 18-fold to 3-fold.

According to survey data, graduates recruited through special tracks (the CPIRD and the ODOD programme) had 10 to 15% higher chances of complying with their three-year mandatory service than those recruited through the normal track.<sup>17</sup> They also showed longer retention in rural district hospitals. It was noted that 80% and 16% of CPIRD graduates were still serving in such hospitals after three and 10 years, respectively, compared with 70% and 10% of graduates who had been recruited through the normal channel.<sup>18</sup> Graduates from the CPIRD and from regional medical schools were more confident of surgical skills and had better medical knowledge than graduates of medical schools in greater Bangkok and those recruited through the normal track.<sup>19</sup> Although the knowledge gap is decreasing, it is still large and efforts are being made to reduce it further.

Clearly the CPIRD and the ODOD programme had persistent shortcomings. Most CPIRD graduates did not stay in district hospitals longer than required of them; after three years, about three quarters had left to undertake specialist training. The fraction was similar among graduates recruited through the normal track. District health systems continue to receive new graduates owing

Fig. 1. Mortality among children younger than 5 years as a function of the density of physicians and nurses, Thailand, 1970–2007



Source: Data on nurses and physicians: Ministry of Public Health of Thailand, health resource surveys for various years; child mortality rates: Global Health Data Exchange (2013).<sup>25</sup>

to the mandatory service requirement, but only a small percentage is retained beyond. Also, financial incentives did not always improve retention beyond the mandatory period. To remain in service in rural areas is a decision made by health workers based on a complex set of factors; recruitment of graduates from rural areas for rural service, government bonding and financial and non-financial incentives are only a few.

### Improved financial risk protection

According to the evidence, UHC has improved financial risk protection in Thailand. Since the accessible district health system is the main service provider, health services are pro-poor, as is government health spending.<sup>8,20</sup> Out-of-pocket payments for health care have dropped substantially, from 33% of total health expenditure in 2001 – before UHC – to 14% in 2010. This fraction puts Thailand on a par with countries belonging to the Organisation for Economic Co-operation and Development (OECD). The high level of financial risk protection is reflected in the low rates of catastrophic household health expenditure and health-related impoverishment.<sup>21</sup> Recently, an independent external assessment of the first 10 years of UHC found positive results, both in terms of equity and efficiency.<sup>1</sup> If the OECD definition is applied, in 2010 the unmet need for outpatient and inpatient services was as low as 1.4% and 0.4%, respectively, and on a par with the fraction observed in selected OECD countries.<sup>22</sup>

### Service coverage and health outcomes

Vaccination coverage of more than 90% of children less than one year of age has been achieved and sustained since 1990. The coverage of the newly-introduced hepatitis B vaccine increased from 10% in 1992 to 90% in 1996, a reflection of the high capacity and resilience of PHC systems in Thailand.

The number of pregnant women who attended at least four antenatal care visits increased from 62% in 1988 to 82% in 2006.<sup>23</sup> Government health services accounted for 80.3% of all prenatal care. Births delivered by skilled birth attendants increased from 66% in 1986 to nearly 100% in 1995 and beyond. Physicians and professional nurses – those with a bachelor's degree in nursing – have been the most common delivery attendants since 1990.

In 1970, the child mortality rate in Thailand was 87.9 per 1000 live births.<sup>24</sup> Between 1990 and 2006 this rate decreased by an average annual rate of 8.5%, in proportion with an increase in the density of the health workforce, other contributing socioeconomic factors notwithstanding (Fig. 1). This put Thailand among the 30 low- and middle-income countries that registered the highest decreases in child mortality over that period.<sup>26</sup>

In 1970, a high total fertility rate of 5.1 was recorded and the prevalence of contraceptive use was very low (14.7%) owing to insufficient access to essential

maternal and child health services.<sup>27</sup> Between 1965 and 1994, Thailand's total fertility rate dropped from 6.3 to below the replacement rate of 2.1.<sup>28</sup> By 2003 it had decreased to 1.7 – below the replacement rate. The prevalence of contraceptive use increased from 14.7% in 1970 to 81.1% in 2006 and a gap in this prevalence no longer exists between urban and rural areas.

Life expectancy at birth increased more among women than among men. In women it increased from 63.8 years in 1975 to 77.6 years in 2005. The epidemic of human immunodeficiency virus infection triggered active prevention and control measures as early as the late 1980s and, as a result, by the late 1990s the epidemic had reversed.<sup>15,29</sup> Furthermore, the recent introduction of universal antiretroviral therapy has greatly reduced mortality from acquired immunodeficiency syndrome.<sup>30,31</sup>

## Lessons learnt

Expanding the health system infrastructure at the district level to achieve full geographical coverage is feasible with continued political commitment and a favourable fiscal space. However, doing so is not easy. Thailand's experience over the past 30 years has been the source of several critical lessons (Box 1):

The development of a functioning primary health-care system at the district level and the extension of financial risk protection lie at the heart

### Box 1. Summary of main lessons learnt

- Two synergistic policies have contributed to the development of the Thai health system: (i) the development of a functioning primary health-care system based on an adequate number of competent and committed health workers; (ii) the extension of financial risk protection to minimize financial barriers to health care.
- The development of a functioning health-care system at the district level served as a platform for achieving universal health coverage and more equitable health outcomes by facilitating people's access to health services.
- Pivotal in making services available where needed was the adoption of educational strategies to retain health workers in rural areas: rural recruitment, training close to home and placement in workers' home towns, together with government bonding and financial and non-financial incentives.

of Thailand's success in increasing access to health care and achieving more equitable health outcomes. To create such a system, the country had to adopt policies not just to produce more health workers, but also to attract them to rural areas and encourage them to remain there. This latter goal was achieved through regulatory policies and incentive systems based on government bonding of new medical graduates for public services and on actively recruiting students from rural areas, offering them training in provincial institutions close to home, and enabling them to work in their own home towns together with financial and non-financial incentives.<sup>32</sup>

It takes comprehensive policy interventions to develop the health workforce. To carry out their work effectively, workers require an adequate health infrastructure and enough equipment, medicines and supplies. Policies designed to improve working conditions and ensure a sufficient supply of medi-

cines and equipment are consequently necessary.<sup>33</sup>

Producing a competent, committed health workforce can only be achieved by keeping the policy focus on the development of human resources for health (HRH) over an extended period. The development of such a workforce should be part of a holistic approach characterized by different types of HRH interventions embedded in broader efforts to strengthen the health system as a whole.

Thailand still faces important challenges in the area of HRH. Above all, it must build a workforce capable of fulfilling the health-care needs created by the epidemiologic transition and an ageing population and of working with non-health sectors in addressing the social determinants of health. ■

**Competing interests:** None declared.

## ملخص

### إسهامات القوى العاملة الصحية في تطوير النظام الصحي: مناهج عمل للتغطية الصحية الشاملة

بالإضافة إلى مهاراتهم وكفاءاتهم، على مدار الثلاثين سنة الماضية، تحسناً كبيراً، فضلاً عن تحسن المؤشرات الصحية على الصعيد الوطني. وفي الفترة من عام 1980 إلى 2000، ازدادت تغطية الخدمات الصحية للأم والطفل بشكل كبير. وبحلول عام 2002، حققت تايلند التغطية الصحية الشاملة. وأسفر التطوير الشامل للنظام الصحي، ولاسيما توسيع نطاق القوى العاملة الصحية، عن نظام رعاية صحية أولية يعمل على نحو جيد.

الدروس المستفادة ساعدت القوى العاملة الصحية التي تتمتع بالكفاءة والالتزام في تعزيز نظام الرعاية الصحية الأولية على مستوى المناطق. وكان للحفاظ على تركيز السياسة على تنمية الموارد البشرية الصحية لفترة ممتدة أمراً ضرورياً، فضلاً عن اتباع نهج شامل لتنمية الموارد البشرية الصحية، يتسم بدمج الأنواع المختلفة لتدخلات الموارد البشرية الصحية وربط هذه التدخلات بالجهود الأوسع نطاقاً لتعزيز مجالات النظام الصحي الأخرى.

المشكلة في سبعينيات القرن العشرين، كانت تايلند بلداً منخفض الدخل مع ضعف المؤشرات الصحية وانخفاض تغطية الخدمات الصحية. وكانت البنية التحتية الصحية المحلية بالأخص ضعيفة. الأسلوب في ثمانينيات القرن العشرين، تم البدء في اتخاذ تدابير لتقليل الحواجز الجغرافية أمام الوصول إلى الخدمات الصحية، وتحسين البنية التحتية الصحية على مستوى المنطقة وإتاحة الأدوية الأساسية على نطاق أوسع وتطوير قوى عاملة صحية مؤهلة وملتزمة مستعدة لخدمة المناطق الريفية. ولضمان إتاحة الخدمة، تم توسيع مخططات الحماية من المخاطر المالية.

المواقع المحلية لم تكن مستشفيات المناطق موجودة من الناحية العملية في تايلند في ستينيات القرن العشرين. واعتبر توسيع نطاق الرعاية الصحية الأولية، ولاسيما في المناطق الريفية الفقيرة، أمراً ضرورياً لبلوغ التغطية الصحية الشاملة. وأدت الإصلاحات على الصعيد الوطني إلى تغيرات هامة خلال بضعة عقود. التغيرات ذات الصلة شهد توافر العاملين الصحيين وتوزيعهم،



## 摘要

### 卫生劳动力对卫生系统发展的贡献：全民医疗保障的平台

**问题** 在二十世纪七十年代，作为低收入国家，泰国的卫生指标差，医疗服务覆盖率低，地方卫生基础设施尤其薄弱。

**方法** 在二十世纪八十年代，泰国开始实施各种措施，减少卫生服务可及性的地理障碍，改善地区级卫生基础设施，更广泛地提供基本药物，培养愿意在农村地区服务的胜任并全身心投入的卫生工作者。为确保服务的可及性，扩大了财务风险保护计划。

**当地状况** 二十世纪六十年代，泰国几乎没有地区医院。扩大初级卫生保健（PHC）被认为是实现全民医保（UHC）的关键，在穷苦的农村地区尤其如此。几十年间全国范围的改革带来了重大的改变。

**相关变化** 在过去的 30 年间，卫生工作者的可及性和分布及其技能和能力与国民健康指标一道得到很大提高。在 1980 年至 2000 年，孕产妇和儿童卫生服务覆盖率大幅增加。到 2002 年，泰国已经实现 UHC。整个卫生系统的发展，尤其是扩大的卫生劳动力，形成了有效运作的 PHC 系统。

**经验教训** 胜任并全身心投入的卫生工作者有助于强化地区级别的 PHC 系统。在更长时期保持政策关注卫生人力资源（HRH）发展至关重要，同时要采用整体方法发展 HRH，其特点在于融合各种 HRH 干预并将这些干预与更广泛的努力相关联，以加强其他卫生系统。

## Résumé

### Contributions des effectifs de santé au développement du système de santé: une plate-forme pour réaliser la couverture sanitaire universelle

**Problème** Dans les années 70, la Thaïlande était un pays à faible revenu avec de mauvais indicateurs de santé et une faible couverture des services de santé. L'infrastructure sanitaire locale était particulièrement faible.

**Approche** Dans les années 80, des mesures ont été entreprises pour réduire les obstacles géographiques à l'accès aux services de santé, améliorer les infrastructures sanitaires au niveau des districts, rendre les médicaments essentiels plus largement disponibles et développer des effectifs de santé compétents et dévoués, prêts à desservir les zones rurales. Pour assurer l'accessibilité à ces services, les systèmes de protection contre les risques financiers ont été étendus.

**Environnement local** En Thaïlande, les hôpitaux de districts étaient pratiquement inexistantes dans les années 60. L'expansion des soins de santé primaires, en particulier dans les zones rurales pauvres, était considérée comme essentielle pour réaliser la couverture sanitaire universelle. Des réformes nationales ont conduit à d'importants changements en quelques décennies.

**Changements significatifs** Au cours des 30 dernières années, la

disponibilité et la distribution des effectifs de santé, ainsi que leurs qualifications et leurs compétences, se sont grandement améliorées, tout comme les indicateurs de santé nationaux. Entre 1980 et 2000, la couverture des services de santé maternelle et de santé infantile a considérablement augmenté. En 2002, la Thaïlande a atteint la couverture sanitaire universelle. Le développement de l'ensemble du système de santé, en particulier un effectif de santé élargi, a abouti à un système de soins de santé primaires qui fonctionne.

**Leçons tirées** Un effectif de santé compétent et dévoué a permis de renforcer le système de soins de santé primaires au niveau des districts. Maintenir les politiques concentrés sur le développement des ressources humaines de la santé pendant une période prolongée fut essentiel, conjointement avec une approche globale pour le développement des ressources humaines de la santé, qui fut caractérisée par l'intégration de différents types d'intervention des ressources humaines de la santé et l'association de ces interventions avec des efforts plus larges visant à renforcer les autres domaines de systèmes de santé.

## Резюме

### Вклад кадровых ресурсов здравоохранения в развитие системы здравоохранения: платформа для всеобщего охвата медико-санитарной помощью

**Проблема** В 1970-х годах Таиланд был страной с низким уровнем дохода, слабыми показателями системы здравоохранения и низким уровнем охвата медико-санитарными службами. Локальная инфраструктура здравоохранения была исключительно слабой.

**Подход** В 1980-х годах были приняты меры по устранению географических барьеров, ограничивающих доступность служб здравоохранения, улучшению инфраструктуры здравоохранения на региональном уровне, повышению доступности основных лекарственных средств и формированию компетентных, целеустремленных кадровых ресурсов здравоохранения, желающих оказывать услуги в сельской местности. Для обеспечения доступности служб были расширены схемы защиты от финансовых рисков.

**Местные условия** В 1960 годах в Таиланде практически не существовало региональных больниц. Распространение первичной медико-санитарной помощи, особенно в бедных и сельских регионах, считалось важнейшей задачей для обеспечения всеобщего охвата медико-санитарной помощью.

Реформы национального масштаба привели к важным изменениям на протяжении нескольких десятилетий.

**Осуществленные перемены** На протяжении последних 30 лет значительно улучшилась доступность и распределение работников здравоохранения, а также повысился их профессионализм и компетентность, что привело к улучшению национальных показателей здоровья. В период с 1980-го по 2000-ый годы значительно увеличился охват службами по уходу за беременными женщинами и новорожденными. К 2002 году Таиланд достиг всеобщего охвата медико-санитарными службами. Общее развитие системы здравоохранения, особенно расширение кадровых ресурсов здравоохранения, позволило сформировать действующую систему первичной медико-санитарной помощи.

**Выводы** Компетентные, целеустремленные работники здравоохранения помогли усилить систему первичной медико-санитарной помощи на региональном уровне. Важную роль сыграла поддержка политики развития кадровых

recursos para el cuidado de la salud durante un período prolongado, en combinación con un enfoque integral para el desarrollo de recursos humanos para el cuidado de la salud, que incluye la integración de los esfuerzos de los trabajadores de la salud de diferentes especialidades y el complemento de estos pasos de integración con acciones más amplias para fortalecer otros dominios de los sistemas de salud.

specializations and complementing these integration steps with more large-scale actions to develop other health system domains.

## Resumen

### Las contribuciones del personal sanitario al desarrollo del sistema sanitario: una plataforma para la cobertura sanitaria universal

**Situación** En la década de 1970, Tailandia era un país de bajos ingresos con indicadores de salud deficientes y cobertura de servicios sanitarios insuficiente. Además, la infraestructura sanitaria local era particularmente precaria.

**Enfoque** En la década de 1980, se comenzaron a aplicar las medidas para reducir las barreras geográficas al acceso a los servicios sanitarios, mejorar la infraestructura sanitaria a nivel local, aumentar en gran medida la disponibilidad de los medicamentos esenciales y formar a un personal sanitario competente, comprometido y dispuesto a prestar atención en las áreas rurales. Los sistemas de protección contra los riesgos financieros se expandieron para garantizar la accesibilidad a los servicios.

**Marco regional** En Tailandia, los hospitales locales eran casi inexistentes en la década de 1960, por lo que se consideraba esencial ampliar la atención primaria de salud (APS), sobre todo en las zonas rurales pobres, para alcanzar la cobertura sanitaria universal (UHC). Las reformas a nivel nacional llevaron a cambios importantes en solo unas décadas.

**Cambios importantes** En los últimos 30 años, la disponibilidad y la distribución del personal sanitario, así como sus capacidades y competencias, han mejorado en gran medida, junto con los indicadores nacionales de salud. Entre 1980 y 2000 aumentó considerablemente la cobertura que incluía servicios de salud materno-infantiles. En 2002, Tailandia alcanzó la cobertura sanitaria universal. El desarrollo del sistema sanitario general, especialmente la ampliación del personal sanitario, dio como fruto un sistema de atención primaria de la salud operativo.

**Lecciones aprendidas** Disponer de un personal sanitario competente y comprometido ayudó a fortalecer el sistema de atención primaria de salud a nivel local. Fue vital mantener el enfoque de las políticas en el desarrollo de los recursos humanos en sanidad (RHS) por un mayor período, junto con un enfoque integral para el desarrollo de los recursos humanos en sanidad, basado en la integración de las diferentes intervenciones del sector de los recursos humanos en sanidad, y la unión de dichas intervenciones con otros esfuerzos más amplios para fortalecer otros dominios de los sistemas sanitarios.

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