



# Thailand

## Makes Great Strides in Healthcare

With a growing pharmaceutical market, renowned biotechnology research programs, and strong government support for the industry, Thailand has much to recommend it to the global pharma industry.

**T**he Kingdom of Thailand, a country with a population of 70 million people, is regarded as newly industrialized with a GDP economy forecast to grow by 4% in 2014. The second-largest economy in Southeast Asia, after Indonesia, the country is regarded by the World Bank as “one of the great development success stories, due to smart economic policies that have elevated it to become an upper-middle income economy that is making significant strides in meeting Millennium Development Goals.”

Since 1961, Thailand has engaged in a series of national economic and social development plans, and is currently in the 11th phase of the plans (2012 to 2016) with the focus on sustainable development. Development strategies include promoting a just society; promoting life-long learning; strengthening the agricultural sector, food, and energy security; social and economic stability; and managing natural resources and the environment.

A World Bank report focuses on Thailand’s aging society and the impact on health costs that this will likely have, which is particularly pertinent as 99.4% of the population is covered under the country’s universal healthcare plan.

### The Pharmaceutical Picture

In 2013, Thailand’s pharma market—

Southeast Asia’s second largest—was valued at almost \$4.8 billion.

“The market is still growing quickly and is forecast to double over the next six years,” says Ames Gross, president of Pacific Bridge Medical.

According to Ash Kuchel, global group president, Publicis HealthCare Group, the country’s pharmaceuticals market is forecast to reach close to \$9 billion in 2020.

Since 2002, when Thailand’s government-run universal healthcare system came into being, there have been an increasing number of Thai drug companies and growing interest by foreign companies in investing in or partnering with local pharmaceutical companies, Mr. Kuchel says.

“Like other countries in the region, Thailand tries to remain autonomous—with nearly four out of five drug companies being local,” he says. “That said, imported pharmaceuticals still represent a significant market share.”

Three-quarters of biopharmaceutical companies in Thailand are Thai-owned, says Kanokwan Pornprasit M.D., general manager of Quintiles Thailand.

Leading local manufacturers include Greater Pharma, Biolab, Siam Pharmaceutical, and Thai Meiji.

“In addition, the Government Pharmaceutical Organization (GPO), run by Thailand’s Ministry of Public Health (MPH), is also a key

player in the local market,” Dr. Pornprasit says. “The GPO manufactures more than 300 pharmaceutical products, most of which are sold via public hospitals.”

The Thai government has been supporting domestic companies to expand production of vaccines, increase R&D spending, and produce higher value drugs, Mr. Gross says.

“The government is also promoting biotechnology, investing in biotech parks and offering significant tax incentives for companies that enter this sector,” Mr. Gross says.

Recently, several consortiums have been established to pool expertise and resources from the government, the private sector, as well as academic institutions, to increase capacity in research and development, Dr. Pornprasit says.

“There are now 165 emerging biotechnology companies in Thailand, about 80 of which were founded between 2000 and 2009,” she says. “These companies are protected by strict intellectual property law enforcement and gain advantage of Thailand’s abundant supply of skilled technicians, attractive investment incentives, and excellent infrastructure.”

Dr. Pornprasit says Thailand is known as a leader in biotechnology research programs, especially in emerging diseases, such as avian flu, as well as HIV and tuberculosis, and tropical diseases, malaria and dengue.

Many R&D programs are being carried out

## Thailand at a Glance

Total population (2012) .....	66,785,000
Gross national income per capita (PPP international \$ 2012) .....	\$9,280
Life expectancy at birth m/f (years, 2012) .....	71/79
Probability of dying under 5 (per 1,000 live births, 2012) .....	13
Probability of dying between 15 and 60 years m/f (per 1,000 population, 2012) .....	182/90
Total expenditure on health per capita (Intl \$ 2011) .....	\$353
Total expenditure on health as % of GDP (2011) .....	4.1

Source: Global Health Observatory

with strong links to international institutes and companies.

There are a number of incentives and advantages for foreign companies considering manufacturing or sourcing drugs in Thailand, Mr Gross notes.

“The country has applied to be a member in the Pharmaceutical Inspection Cooperation Scheme (PICS), so local manufacturers often have high-quality Good Manufacturing Practice (GMP) standards,” he says. “Foreign drug companies investing in Thailand are eligible for government incentives like lowered duties for equipment imports and long tax holidays.”

According to the Thailand Market Access Tracker by Decision Resources, Thailand’s regulatory environment is relatively friendly to foreign manufacturers, although its intellectual property protection laws are weak.

Mr. Kuchel says Thailand has a fertile, “plug-and-play” market.

“It’s a destination for medical tourism, offers modern technology and medical equipment, renowned medical professionals, and top medical facilities,” he says. “This infrastructure, paired with an established healthcare system, make it a fairly accessible market for growth.”

Dr. Pornprasit says almost 2 million foreign patients visit Thailand each year for a range of healthcare services, which also includes sophisticated clinical procedures.

## Healthcare Coverage

Thailand has implemented a universal healthcare system composed of three parts: the Civil Servant Medical Benefit Scheme (CSMBS) for government workers, the employer funded Social Security Scheme (SSS) for private sector workers, and the Universal Cov-



“ Quintiles’ agreement with the Maharaj Nakorn Chiang Mai Hospital seeks to enhance clinical research by bringing in more clinical trials to Thailand.”

DR. KANOKWAN PORNPRASIT / Quintiles

erage Scheme (UCS) for the remaining 75% of the population, Mr. Gross says.

The first stage of UCS was introduced in 2001 and is now fully in place, under which patients are receiving medical treatment for free at hospitals, Dr. Pornprasit says.

She notes that the CSMBS along with private healthcare, is the main focus for multinational pharmaceutical sales.

“The CSMBS scheme covers about 12% of the total population, and was introduced in the 1960s,” she says. “Organized as a retrospective fee-for-service reimbursement system, it covers civil servants, retired civil servants, and their dependants. Dependants include parents, spouses, and up to three children under 20. Benefits include medical consultations, medical treatment, and the full cost of drugs, inpatient care and obstetrics. Patients are free to choose which hospital they visit.”

Dr. Pornprasit adds that because of growing healthcare expenditures in both the CSMBS and UCS programs, funding has become a major challenge. She notes that in 2012 annual healthcare spending in Thailand reached \$205 per person, up from \$74 per person in 2002.

The government is looking to reduce healthcare costs, resulting in strict cost-containment policies, which include price controls of medicines and devices; pooled purchasing; stricter criteria for drug prescribing; pro-generic policies, etc.

“Public hospitals are also forced to cut back on services,” she says. “Instead, the private sector is expanding, with private hospi-

itals becoming increasingly efficient as more affluent, better educated patients become more concerned about their health.”

To address this challenge, payers in Thailand are increasingly looking for evidence about what therapies offer the greatest value in terms of cost and patient outcomes.

“Real-world and late-phase research uses registries—patient, disease, and product registries—and other means to track how drugs are being used in real-world settings and outcomes for patients,” Dr. Pornprasit says. “These data are essential to help healthcare stakeholders in Thailand expand access to care and improve patient outcomes while controlling costs.”

## Health Developments

Mr. Gross says demand for more and higher quality healthcare will expand as the country’s middle-class population grows, ages, urbanizes, and is more and more sedentary.

Thailand, like many of its neighbors, has made significant progress on some developing world health issues. At the end of March, the World Health Organisation (WHO) certified Thailand and 10 other Asian countries polio free after three years without a single new case being reported.

However, according to Mr. Gross, Thailand still has a high communicable disease burden.

“The number of Thais infected with dengue fever doubled in 2013 to more than 145,000, and there have already been thousands of cases this year,” he says. “More than 525,000 Thais have HIV/AIDS. Other common infectious diseases include tuberculosis, malaria, hepatitis, and diarrhea.”

But today non-communicable diseases are responsible for more than 70% of deaths.

“The primary causes of mortality are cancer and cardiovascular diseases,” Mr. Gross says. “Almost 30% of adults in Thailand have hypertension, around 12% have diabetes, and obesity is on the rise. And though Thailand is still a growing country, demographically it is also starting to age; about 28% of Thais are expected to be older than 60 by 2050. Osteoporosis and other old-age diseases are more and more common. Special funding for diabetes and hypertension care and screening is provided by the UCS, which should mean that these diseases will increasingly be diagnosed early, and Western medicines for these diseases will be in high demand.”

In terms of promoting products, Mr. Kuchel says that under a 1967 law, pharmaceuticals are currently divided into two cate-

**Local Innovation in Thailand**

Since its inception in 2005, the BIOTEC-Novartis International Pharmaceutical Drug Discovery Partnership has contributed to the exploration of uses for micro-organisms and natural compounds as active ingredients for innovative medicine. Because of the successes achieved, the two organizations extended the partnership in 2012 for another three years (through 2014).

BIOTEC's expertise lies in the knowledge of certain microorganisms, ranging from collection, identification, preservation to culturing conditions, and in the isolation and preliminary characterization of pure natural compounds from such microorganisms, while Novartis has expertise in the discovery, characterization, development, and worldwide commercialization of compounds derived from both synthetic and natural-product sources.

Thailand has successfully developed numerous biosensor products, including the world's first commercial biosensors for Avian Influenza H5, the Alpha Thalassemia immunochromatographic strip test, and simple CD4+ lymphocyte test kits that are used for counting CD4 lymphocytes or T-cells in HIV patients. Meanwhile, in the service industry, there are at least three companies providing genetic testing services, which are extremely useful in predicting diseases and preventing medication side effects.

Source: BIOTEC and the Thai National Science and Tech Development Agency For more information, visit <http://www.biotec.or.th/en/>

gories—modern and traditional Thai medicine—with regulations around traditional medications being less stringent than those for “modern medications.”

“Amendments to this law are currently being considered that would reclassify products into three categories: prescription, pharmacy-dispensed, and household remedies, and only drugs that are deemed household remedies may be advertised directly to consumers,” he says. “Prescription or pharmacy-dispensed drugs may be marketed through disease awareness campaigns or unbranded educational campaigns in line with Thailand’s Food and Drug Administration standards for promotion.”

**Clinical Trials**

Dr. Pornprasit says the country’s population of 70 million people, combined with a diverse disease profile, provide a sizeable pool of patients with different types of unmet medical needs.

March 2014 data from [clinicaltrials.gov](http://clinicaltrials.gov) showed that Thailand had the highest number of clinical trials conducted in Southeast Asian countries.

The opportunity for conducting trials in Thailand lies in infectious diseases, including vaccines, cancers, cardiovascular disease, and cerebrovascular disease. In 2009, for example, Sanofi launched a 4,000-patient study in Thailand to research its dengue fever vaccine.

The tropical location of Thailand combined with a comparatively treatment naïve population makes it a good place for clinical trials and research on tropical diseases, Mr. Gross says.

Strong collaboration among four major stakeholders—health authorities, investigators/institutes, ethic committees, and sponsors—is the main driver for establishing a clinical trial infrastructure in Thailand, Dr. Pornprasit says.

“These stakeholders have worked through a group called ThaiTECT, or Thailand Toward Excellence in Clinical Trials, with common goals to improve quality and streamline the process of clinical trials conducted in Thailand to increase country competitiveness in clinical trials,” she says.

Current priorities of the group are to: standardize the review process; establish a national accreditation system of ethics committees; develop capabilities and strengthen collaboration networks of clinical research centers in medical schools and develop clinical research professionals, including training programs and career paths; and engage in closer collaboration with the National Research Council of Thailand.

Another factor differentiating the Thai market is the major role that CROs have played in building up Thailand’s clinical research infrastructure and expertise. While MNCs have a strong presence in Thailand in manufacturing and market share, development in Thailand is driven largely by biopharma companies using CROs to manage trials in Thailand.

“CROs have taken a leading role in collaborating with governmental, academic, biopharma industry, and other healthcare stakeholders on clinical research,” Dr. Pornprasit says. “In fact Quintiles’ Bangkok office is the company’s largest in Southeast Asia, second only to our Asia-Pacific regional headquarters in Singapore.”

In December 2013, Quintiles signed an agreement with the Maharaj Nakorn Chiang Mai Hospital establishing it as Quintiles’



**“ For foreign pharmaceutical firms considering manufacturing or sourcing drugs in Thailand, the country offers many advantages.”**

**AMES GROSS / Pacific Bridge Medical**



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**ASH KUCHEL**  
Publicis Healthcare Communications Group

first Prime Site in Thailand. Prime Sites are Quintiles’ largest and most collaborative site relationships that emphasize transformative growth in site relationships, site management, and innovation. The objective of this partnership is to strengthen collaboration between the two organizations to enhance clinical research by bringing in more clinical trials to Thailand. In addition, Quintiles is also collaborating with Chulalongkorn University in Bangkok to establish a clinical research associate (CRA) school to provide high quality training programs for CRAs who form an integral part of the infrastructure necessary to support growth of the biopharma industry in Thailand. **PV**



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