Antimicrobial resistance poses a serious threat to human health and welfare and undermines national economies worldwide. Annual losses stemming from antimicrobial resistance are estimated to range from 21,000 million to 34,000 million dollars in the United States of America and about 1,500 million euros in Europe. According to a recent study in Thailand, in 2010 antimicrobial resistance was responsible for at least 3.2 million extra hospitalization days and 38,481 deaths, and for losses amounting to 84.6–202.8 million United States dollars (US$) (exchange rate: 30 Thai baht per US$) in direct medical costs and more than US$ 1,333 million in indirect costs.

There is a positive correlation between antimicrobial resistance and the consumption of antibiotics. In Thailand, the use of new generation antibiotics, such as ceftriaxone and oral azithromycin, has increased over time. Since 2000, antibiotics and other antimicrobials have been the most manufactured and imported drugs in Thailand. In 2009, the total value of antibiotic manufacturing and importation into Thailand amounted to approximately US$ 367 million, with penicillins, cephalosporins and carbapenems in the lead.

Unnecessary use of antibiotics is seen among both health professionals and the public. In European countries, systemic antibiotics are prescribed in the greatest volumes to ambulatory patients, mostly for respiratory tract infections. In Thailand, a study in a tertiary care hospital revealed that only 7.9% of the upper respiratory tract infections (URIs) in the facility were caused by bacteria. Despite this, in Thailand most URIs are treated with antibiotics by hospitals, health centres, drug stores and patients themselves. Liberal use of antibiotics endangers the health of patients without observable clinical benefits, since it neither reduces the rate of complications nor quickens recovery when the illness is caused by a virus.

Increasing awareness of antimicrobial resistance and promoting the rational use of antibiotics among prescribers and the general public are key to combating the unnecessary use of these drugs. Some important programmes have been launched in developed countries. They include Strama in Sweden; the Get Smart: know when antibiotics work programme of the US Centers for Disease Control and Prevention, and several national public campaigns in Europe. A 2007 review showed that the interventions undertaken by Thailand so far to contain antibiotic resistance had only been partially suc-
Antibiotics should not be used to treat the common cold or sore throat. The guiding principle of ASU is that antibiotics should not be used unless necessary, to promote the rational use of antibiotics and prevent the development of antimicrobial resistance. ASU was introduced in 2007 as an innovative model to promote the rational use of medicines in Thailand. It was established to address the irrational use of antibiotics, which was rampant. Using these few resources to empower health professionals and the public was seen as an expedient and efficient way to galvanize improvements by inducing individual behaviour change while creating a critical mass of people who could conduct advocacy and promote the rational use of antibiotics. Second, the rational use of medicines as a concept was not always getting translated into practice, and the ASU model was felt to be useful in bridging this gap.

ASU is action research that has evolved through three phases. During phase 1 (2007–2008), behaviour change interventions targeting antibiotic prescription practices were implemented and assessed; in phase 2 (2008–2009), the feasibility of scaling up the programme was examined; and in phase 3 (2010–present), progress steps are being taken to identify mechanisms for programme sustainability. This paper describes the concept of ASU and explains the programme's operation, as well as how the rational use of medicines gets translated from theory into practice through ASU activities. It also discusses the factors influencing prescription practices and the challenges observed and lessons learnt in phase 1 and phase 2. Phase 3 is not included, as it is not yet completed. The outcomes of ASU evaluation will be presented in a separate paper.

### The concept of Antibiotic Smart Use

The guiding principle of ASU is that antibiotics should not be used to treat non-bacterial infections. This notion derives from a fundamental precept of the rational use of medicines: that these should be used appropriately, in accordance with clinical needs. ASU started by attempting to reduce the unnecessary use of antibiotics in patients with common conditions: URI, especially the common cold with sore throat; acute diarrhea and simple wounds. The ASU programme targets ambulatory patients older than 2 years and in good general health. Patients who are hospitalized or who have diabetes, a compromised immune system or any other serious health condition are not eligible for participation in ASU.

To facilitate its adoption, ASU is assessed in terms of five dimensions: simplicity, compatibility with providers' values, advantages relative to current practice, testability and observability (i.e., the extent to which anyone can observe ASU activities and outcomes). In focus group discussions, health professionals have expressed the view that ASU is not complex and that it is compatible with their professional values, which are, namely, to procure patients' safety and good health. ASU is easy to test and its outcomes can be easily observed, since the targeted diseases are self-limiting and not life-threatening. However, opinions were mixed when it came to the relative advantages of ASU. Its financial advantages were discussed at length, and the capitulation payment system - in which health-care providers are paid in accordance with the number of registered members of health insurance schemes in their catchment areas than the quantity of the services they provide - ASU is beneficial because it minimizes expenditure on unnecessary antibiotics and allows profit margins. However, in a fee-for-service payment system, in which health-care providers' income depends on the quantity of the services provided, including the number of drugs prescribed, ASU is not attractive to hospitals unless they can somehow cover the income loss resulting from fewer antibiotic prescriptions. We believe that, when judged in light of these five dimensions, ASU has features that make its adoption by health professionals likely.

### Operational modalities

ASU is run by a multidisciplinary team of health professionals whose common objective is to promote the rational use of antibiotics. The programme is organized on two levels: a network of multidisciplinary groups (i.e., local partners) at the health-care delivery level, and a network of policy-makers, academics and researchers from national agencies and universities (i.e., central partners).

ASU was first organized as a research project to be tested in one province (phase 1) and directed by researchers from Thailand’s Ministry of Public Health and from schools of medicine and pharmacy. In subsequent phases, this team collaborated with policy-makers, academics and researchers from national health agencies to form central partners. The ASU network follows a modified starfish model, in which management has no hierarchical leadership. The local partners include physicians, pharmacists, nurses, health volunteers, local administrators and community leaders who promote the rational use of antibiotics in their healthcare settings and communities. They name their own projects and design their own methods for improving the use of antibiotics among health professionals and the public. The central partners play catalytic and supportive roles; they guide and harmonize activities across local partners and disseminate examples of good practice and success stories drawn from local partners. In this manner, ASU gradually came to be owned by the local partners, who work with central partners as part of a collaborative network designed to translate the concept of ASU into practice.

### Conceptual framework

ASU promotion efforts were described in the conceptual framework based on separate but interrelated planning models from three phases (Fig. 1). The framework integrates theories with observed, contextual information and with lessons learnt in the field. The PRECEDE-PROCEED planning model and the theory of planned behaviour were used in phase 1 to plan interventions designed to change prescription practices among health professionals. The diffusion of innovation theory and the programme sustainability framework are being applied in phases 2 and 3 to guide programme scale-up and sustainability, respectively.

Within the framework described in Fig. 1, patients' health is affected by
prescribing practices (supply side) and self-medication (demand side). Since patients with acute conditions are more likely to adhere to medication than those who have chronic conditions, patients with conditions such as URIs, acute diarrhoea and simple wounds are likely to take their antibiotics as prescribed.

Prescription behaviour can be influenced by predisposing, reinforcing and enabling factors. The first of these categories includes knowledge, attitudes and subjective norms; the second consists of factors such as peer pressure, patient expectations and drug promotion; and the third includes factors that facilitate prescription, such as the prescriber’s diagnostic skill and exposure to hospital formularies and treatment guidelines. Local partners participating in the ASU indicated that, in their settings, irrational drug prescription practices were primarily due to prescribers’ poor understanding of antibiotics and their role in disease management, and to perceived pressure from patients who expected or requested antibiotics.

What patients know about antibiotics they learn primarily from health professionals during medical visits and from their social milieu. Local partners participating in ASU have reported that patients often have misconceptions and erroneous beliefs about antibiotics and are seldom aware of the existence of antimicrobial resistance. Interventions focusing on patient education are therefore focused on three key messages. The first is that antibiotics are not anti-inflammatory agents. In Thailand, antibiotics are commonly referred to as ya-gae-ug-sep, or “drugs that counter inflammation”. This colloquial name is highly misleading, as patients interpret it to mean that antibiotics can alleviate symptoms of inflammation and infection such as swelling, fever and pain. The second message is that antibiotics are classified by Thailand’s Drug Act as potentially dangerous drugs (ya-antalai). Patients should be made aware that they can produce serious side-effects and that their inappropriate use contributes to antimicrobial resistance. Wherever they are available without a prescription, they must be dispensed by pharmacists only. The third message is that the three conditions targeted by ASU, namely URIs, acute diarrhoea and simple wounds, can be cured without antibiotics. If widely disseminated, these messages will gradually improve the public’s understanding of antibiotics and their use and reorient social norms.

When planning interventions, attention must be paid to the complex interplay of knowledge, attitudes and behaviour on the part of prescribers and patients and to the contextual influences emanating from specific health-care settings and communities. Two assumptions underlie ASU interventions: that the rational use of medicines is a behavioural issue, and that multifaceted, multilevel interventions are essential. Bottom-up approaches at the individual and organizational levels are essential for modifying behaviour; top-down, policy-level approaches and social measures are also needed, on the other hand, to sustain behaviour change.

**Phase 1**

To assess the effectiveness of the multifaceted interventions implemented in phase 1 to facilitate behaviour change (Table 1), we used a quasi-experimental pre-post design plus a control group. The ASU project was piloted in 10 district hospitals and 87 primary health centres in Saraburi, a medium-sized province with a population of 0.6 million that is located in central Thailand, 200 km from Bangkok. It has typical health-care delivery services, similar to those in other
provinces. Its provincial health office was willing to participate in this project and able to facilitate ASU implementation and data collection. Phra Nakhon Si Ayutthaya, a neighbouring province with similar geography, population and health-care delivery system, was purposively selected as the control group.

On-site training for health professionals consisting of half-day sessions was conducted in the 10 district hospitals. The training focused on educating prescribers and making them feel confident enough to not prescribe antibiotics. Successful experiences were shared during sessions.34

Educational materials were given to health professionals for display or distribution to patients, along with instructions on their proper use. Health-care workers were told, for example, to display posters or play DVDs in waiting areas and to distribute brochures to patients during consultations. They were also given ASU treatment guidelines for URIs, diarrhoea and simple wounds, posters showing diagnosis and treatment algorithms, and diagnostic tools such as white light illuminators for throat examination. Hospitals received seed money for project implementation and evaluation.

Intervention effectiveness was assessed in terms of four indicators: a reduction in antibiotic prescription rates; improved knowledge and attitudes on the part of prescribers; percentage of patients with the targeted conditions who were not prescribed antibiotics (since they did not need them), and patients’ perceived health and satisfaction with the treatment outcome. The pilot phase aimed to reduce antibiotic prescriptions by at least 10%; to increase by at least 10% the number of patient–provider encounters not resulting in the prescription of an antibiotic; and to attain relief of symptoms or full recovery, as well as satisfaction with treatment outcome, in at least 70% of targeted patients.

### Phase 2

In phase 2, the focus was on scaling up effective interventions for promoting the rational use of medicines.2,37,38

Although in 2004 and 2011 the International Conference on Improving Use of Medicines emphasized the need to scale up successful interventions and move from small-scale research projects to large-scale programmes having broad public health impact,39,40 little was known about effective and practical ways to scale up such interventions. Phase 2 of ASU tested the feasibility of scaling up the programme with an ongoing focus on sustainability.41 In this phase, ASU expanded to cover 44 hospitals and 621 primary health centres in three provinces (one large, one medium, one small) as well as two hospital networks – a public network in the south of the country and a private one in Bangkok.

To increase the likelihood of sustainability, ASU scale-up was conducted with an emphasis on integrating ASU into routine practice. In phase 2, ASU focused on two approaches. The first was to decentralize networks among local and central partners and strengthen the capacity of local partners to implement and evaluate ASU.
Activities included training of trainers, sharing and promoting ASU good practices and encouraging local partners to conduct ASU-related research in parallel with routine ASU practice to generate scientific evidence for guiding the work of ASU. Second, policy advocacy aimed at creating a favourable climate for hospital directors or provincial health administrators to support ASU and integrate it into their routine work. ASU champions from schools of medicine and pharmacy and from the Thai Ministry of Public Health succeeded, owing to the good results obtained in phase 1, in having ASU practice included among the pay-for-performance (P4P) criteria of the National Health Security Office (NHSO), the agency responsible for Thailand’s universal health-care coverage scheme. The P4P is a financial reward mechanism that provides stepwise financial incentives to hospitals based on the degree to which they have implemented ASU. P4P scores, based on self-assessment, range from 1 to 5: 1 indicates that a given hospital has agreed to implement ASU; 2 indicates that it is taking preparatory steps, such as revising the hospital formulary and developing treatment guidelines; 3 shows that ASU is being implemented through training sessions, observance of the ASU treatment guidelines and patient education; 4 indicates that outcome evaluation is under way and that changes in antibiotic prescription practices are being monitored; and 5 signals that ASU outcomes are being disseminated or published. ASU was included among the P4P criteria for district hospitals in 2009 and for all types of hospitals in 2010. Subsequently, the Drug System Monitoring and Development Centre, a civil society organization funded by the Thai Health Promotion Foundation, supported 22 ASU networks in 15 provinces between 2010 and 2011 to strengthen their activities and boost programme scale-up. Table 2 summarizes the contents of the ASU programme and Box 1 summarizes the lessons learnt in phases 1 and 2.

Table 2. Characteristics of the Antibiotics Smart Use (ASU) programme, by programmatic phase, Thailand

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<thead>
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<tr>
<td>Goals</td>
<td>Test the effectiveness of ASU in changing antibiotic prescription behaviour</td>
<td>Test feasibility of scaling up ASU model</td>
<td>Strengthen networks and assess scaling-up mechanisms</td>
</tr>
<tr>
<td>Target</td>
<td>1 province&lt;sup&gt;a&lt;/sup&gt;</td>
<td>3 provinces and 2 networks of public and private hospitals&lt;sup&gt;b&lt;/sup&gt;</td>
<td>22 public hospital networks in 15 provinces</td>
</tr>
<tr>
<td>Funding agencies</td>
<td>WHO, Thai FDA</td>
<td>HSRRI, NHSO, Thai FDA</td>
<td>DSMDC, Thai FDA</td>
</tr>
<tr>
<td>Coordinating agencies</td>
<td>Thai FDA</td>
<td>Thai FDA</td>
<td>DSMDC, Thai FDA, IHPP</td>
</tr>
<tr>
<td>Budget spending</td>
<td>US$ 33,000&lt;sup&gt;c&lt;/sup&gt;</td>
<td>US$ 73,000</td>
<td>US$ 123,000</td>
</tr>
<tr>
<td>Spillover effect</td>
<td>No</td>
<td>Yes</td>
<td>Yes</td>
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</tbody>
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DSMDC, Drug System Monitoring and Development Centre; FDA, Food and Drug Administration; HSRRI, Health Systems Research Institute; IHPP, International Health Policy Program; NHSO, National Health Security Office; US$, United States dollar; WHO, World Health Organization.

<sup>a</sup> 10 district hospitals and 87 primary health centres.
<sup>b</sup> 44 hospitals and 621 primary health centres.
<sup>c</sup> The budget spending reported here is for the amount received from funding agencies; it does not include budget funds received from local partners.
<sup>d</sup> The exchange rate was 30 Thai baht to one US dollar.
<sup>e</sup> This is the extent to which health-care facilities, organizations and individuals not targeted by ASU implement ASU methods.

Successes and challenges

The multifaceted, multilevel interventions undertaken in phase 1 and phase 2 to implement and scale up the ASU were successful. The adoption of ASU practice as a P4P criterion by the NHSO, a major purchaser of health care for Thailand, was an important achievement that prompted nationwide expansion of ASU. The decentralized network approach promotes local ownership, mutual respect and social recognition. Local partners are given full autonomy in naming their own ASU projects and designing culturally sensitive interventions and media materials. This, in turn, generates a sense of ownership, pride and long-term commitment. Despite limited resources, the interventions implemented at the network and policy levels showed the feasibility of programme scale-up and sustainability. Some local partners applied ASU methods to promote the rational use of medicines other than antibiotics. Others conducted parallel ASU-related research and won research awards.

Whether or not the NHSO will continue to support the policy of including ASU participation among the P4P criteria is not known at present. In recent years, the financial incentives used in connection with P4P have been greatly reduced. The NHSO views its role as that of a service purchaser, and P4P criteria, intended to improve efficiency and service quality, lie beyond its mandates. It is crucial that ASU be incorporated into relevant national policies. The 2011 National Drug Policy on the rational use of medicines, which comprises national strategies for the containment of antimicrobial resistance, as well as other policy movements offer an opportunity to consolidate ASU and other initiatives pursuing the same ends into a comprehensive roadmap for the containment of antimicrobial resistance in Thailand. These policies, despite not being law, reflect a strong commitment to support the rational use of medicines in Thailand.

Implementing ASU in large hospitals, where antibiotics are used indiscriminately to treat URIs, is difficult. ASU’s primary aim is not to reduce costs; it cannot generate attractive savings for these hospitals, unlike other interventions targeting high-cost medicines. Furthermore, in district hospitals physicians trained in ASU are often rotated to other settings, which makes it necessary to train incoming physicians. Resistance to change is common among physicians. Finally, Thailand is short on the resources and capacities required to audit antibiotic prescriptions.

Conclusion

ASU is a workable model for promoting the rational use of medicines. The pro-
Model to promote rational use of medicines in Thailand

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Box 1. Lessons learnt during phase 1 and phase 2 of the Antibiotics Smart Use (ASU) programme, Thailand

Changing prescription behaviour (phase 1)

- Although ASU is a well-planned project, it must inevitably be adapted to the local context. For example, an individual training programme was delivered on-site in every district hospital to adapt to the tight schedule of district hospital physicians.
- Priming patients with accurate information about diseases and antibiotics before they see a physician is useful. However, the setting and medium should be carefully selected. For example, playing an educational DVD in a crowded waiting area proved ineffective in some settings because patients were more attentive to being called than to the DVD.
- Prescribers’ confidence can be bolstered by having them experiment with not prescribing antibiotics and monitoring patients’ clinical outcomes. In one district hospital, the hospital director had physicians, nurses and pharmacists collectively observe his practice of not prescribing antibiotics and co-monitor patients’ clinical outcomes. Successful treatment outcomes boosted health professionals’ confidence in not prescribing antibiotics for URIs, diarrhoea and simple wounds.
- Providing a choice of alternative, non-antibiotic therapies facilitates behaviour change. Prescribers who are reluctant to prescribe nothing for a viral infection, who fear that patients may get worse without antibiotics or who feel pressured by patients’ expectations can prescribe the herbal medicines listed in Thailand’s National List of Essential Medicines, such as Andrographis paniculata. This comes in capsules that resemble antibiotic capsules and is used to relieve fever and sore throat from viral infection. This can alleviate tensions during the transition period in which prescribers undergo behaviour change.

Scaling up ASU to ensure sustainability (phase 2)

- Presenting evidence on a programme’s benefits and feasibility is not enough to successfully conduct policy advocacy. Policy champions from academia, the Health Systems Research Institute and the Ministry of Public Health play an essential role in garnering support for the ASU concept and bringing about changes in public policy.
- Generic, evidence-based campaign materials developed by central partners to convey key messages can be adapted by local partners for their own use. Local partners should develop campaign materials that are appropriate for their cultural contexts. Using locally-developed campaign materials presented by family or community members promotes a sense of community ownership.
- Understanding the contexts in which local partners work is very important. Local partners are generally overwhelmed by the plethora of policies, health programmes and activities generated by national health agencies, provincial or community-based organizations and other entities. To avoid this, local partners integrate ASU into the general health service structure and community activities in their areas. Local teams can arrange for specific ASU events if necessary.
- ASU owes its successes mainly to personal commitment, especially among executives and health professionals who act as champions or catalysts in health-care facilities.
- Disseminating ASU network news and activities to all partners and relevant stakeholders (e.g. provincial health offices, civil society organizations, funding agencies, etc.) helps generate an atmosphere that is supportive to the ASU network and creates spillover effects.

URI, upper respiratory tract infection.

Programme developed as a decentralized collaborative network was expanded on a wider scale and the feasibility of making it sustainable over the long term was shown. Its multifaceted, multilevel interventions involve health-care professionals and local communities.

The ASU programme has yielded several lessons. First, strong political commitment is a crucial element for success, as seen in other countries. In France, which is one of Europe’s largest consumers of outpatient antibiotics and one of the biggest users of antimicrobials worldwide,2,14 the government initiated a long-term, nationwide campaign that resulted in a marked reduction in unnecessary antibiotic prescriptions.24 In Sweden, Strama’s proposal for the containment of antimicrobial resistance was finally legislated into a bill, and the Strama that began as an informal multidisciplinary network was later institutionalized and made into an independent government body.25 In Thailand, political commitment to combat antimicrobial resistance is expected to strengthen thanks to the country’s national strategies and to its adherence to the Jaipur Declaration.

Second, in some Latin American countries, dispensing antibiotics by prescription only has reduced their consumption in the short term, but the long-term effect of such a policy remains undetermined.14 This suggests that the rational use of medicines is indeed a complex issue that cannot be addressed by top-down approaches, which trigger resistance and non-compliance. In addition, the Thai health system is structurally conducive to the overuse of antibiotics because it allows physicians to dispense drugs, pharmacists to prescribe them and patients to medicate themselves. Regulatory capacity is insufficient and measures limiting people’s access to antibiotics are not properly enforced. Therefore, top-down approaches (e.g. regulation) must be supplemented with bottom-up approaches (e.g. community empowerment) for long-term results to be achieved.

Third, in Europe and the United States, public campaigns to promote the rational use of antibiotics, with correct treatment of URIs as a common theme, have reduced the unnecessary use of these drugs.1,2,12,23 Thus, the concept of ASU and awareness of antimicrobial resistance should be promoted through public campaigns targeting individuals, organizations and the community at large, as in the fights against tobacco and alcohol. However, achieving a meaningful reduction in unnecessary antibiotic use without jeopardizing the successful treatment of bacterial infections and without generating public panic with respect to antimicrobial resistance or a fear of lawsuits due to preventable nosocomial infection of bacterial resistant strains is a challenge.

ASU has several limitations. Because the network is decentralized, there is no formal reporting to a central authority on local activities or spending by local partners. This makes the cost-effectiveness of the programme difficult to assess, especially since ASU has been integrated into health professionals’ routine work. Inconsistencies between the diagnostic codes of the International Classification of Diseases, 10th Revision, and the conditions listed in ASU’s treatment guidelines make it difficult to assess the use of antibiotics for the treatment of specific conditions, especially simple wounds. ASU is vulnerable to the influence of external, uncontrollable factors, such as sudden influenza outbreaks or changes in policy, or in the political interests of relevant stakeholders; out-
comes may not be as expected despite attempts to adjust the programme in the face of changing circumstances.

Antimicrobial resistance and the irrational use of antibiotics have no simple solution. ASU is a cross-cutting exercise that seeks to promote the rational use of medicines by strengthening human resources, improving health facility infrastructure and empowering communities. It can be applied to rationalize the use of medicines other than antibiotics.

ASU's sustainability depends on programme ownership and commitment by local teams, an enabling environment and integration into routine systems with appropriate financial incentives and an effective audit system.

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Résumé
Utilisation intelligente des antibiotiques: un modèle viable visant à promouvoir l’usage rationnel des médicaments en Thaïlande

Le programme d’utilisation intelligente des antibiotiques (ASU) a été lancé en Thaïlande comme un modèle visant à promouvoir l’usage rationnel des médicaments, à commencer par les antibiotiques. La première phase du programme a consisté à évaluer les interventions visant à modifier les pratiques de prescription. La deuxième phase a examiné la faisabilité d’une extension du programme. Actuellement, le programme en est à sa troisième phase, qui se concentre sur sa viabilité. Cet article décrit le concept sur lequel repose l’ASU, les modalités de fonctionnement du programme, l’élaboration de son cadre conceptuel et la mise en œuvre des deux premières phases. Pour changer les pratiques de prescription des antibiotiques, des interventions multifonctions aux niveaux individuels et organisationnels ont été réalisées. Pour gérer le changement de comportement et développer le programme, on a recouru à des interventions au niveau du réseau et de la politique. Le Bureau national de la Sécurité sanitaire a adopté l’ASU comme critère de rémunération au rendement, une réalisation majeure qui a conduit à l’expansion du programme à l’échelle nationale. Malgré des ressources limitées, le développement du programme et sa viabilité ont été facilités par la promotion de la propriété locale et de la reconnaissance mutuelle, qui ont généré fierté et engagement. L’ASU est clairement un point de départ viable pour les efforts visant à rationaliser l’utilisation des médicaments en Thaïlande. Sa viabilité à long terme nécessitera un engagement local et un soutien politique continu, un contrôle efficace et l’intégration de l’ASU dans les systèmes de routine avec les incitations financières appropriées.
Разумное использование антибиотиков: работающая модель обеспечения рационального использования лекарственных препаратов в Таиланде

Программа разумного использования антибиотиков (ASU) была внедрена в Таиланде в качестве модели обеспечения рационального использования лекарственных препаратов, начиная с антибиотиков. Первая фаза программы состояла из оценки мероприятий, предназначенных для изменения схем приема лекарств; в этой фазе изучалась обоснованность расширения программы. В настоящее время программа находится в третьей фазе, сфокусированной на устойчивости к антибиотикам. Для изменения практики назначения антибиотиков были проведены многосторонние мероприятия на индивидуальных и организационных уровнях, для изменения модели поведения и расширения программы были проведены мероприятия на сетевом и политическом уровне. Национальное бюро по вопросам безопасности в области здравоохранения приняло ASU в качестве показателя оплаты по результатам, что стало основным достижением, которое привело к расширению программы в национальном масштабе. Несмотря на ограниченные ресурсы, расширение программы и ее устойчивое развитие облегчалось обеспечением принципа ‘местной собственности’ и взаимного признания, что способствовало возникновению чувства гордости и приверженности программе. ASU является несомненно работающим исходным пунктом для усилий по рационализации использования лекарственных препаратов в Таиланде. Долгосрочное устойчивое развитие программы потребует непрерывного участия общественности и политической поддержки, эффективного контроля и интеграции ASU в существующие системы с соответствующим финансовым стимулированием.

Resumen

Uso inteligente de los antibióticos: un modelo factible para fomentar el uso racional de los medicamentos en Tailandia

El programa Uso inteligente de los antibióticos (ASU, por sus siglas en inglés) se introdujo en Tailandia como un modelo para fomentar el uso racional de los medicamentos, comenzando por los antibióticos. La primera fase del programa consistió en evaluar las intervenciones con el fin de cambiar las prácticas de prescripción de medicamentos y la segunda fase examinó la viabilidad de la ampliación del programa. El programa se encuentra en la actualidad en la tercera fase, centrada en la sostenibilidad. El presente documento describe el concepto de ASU, los modos de funcionamiento del programa, el desarrollo de su marco conceptual y la puesta en práctica de la primera y la segunda fase. Con objeto de cambiar las prácticas de prescripción, se pusieron en práctica intervenciones multifacéticas a nivel individual y organizativo, y se emplearon intervenciones en la red y a nivel normativo para mantener ese cambio en el comportamiento y la ampliación del programa. La organización nacional de seguridad sanitaria (NHPO, por sus siglas en inglés) ha adoptado el programa ASU como criterio de remuneración basado en el desempeño, un logro muy importante que ha conseguido que el programa se expanda a nivel nacional. A pesar de los limitados recursos, el fomento del sentido de la propiedad local y el reconocimiento mutuo, que han generado orgullo y compromiso, han facilitado la ampliación y sostenibilidad del programa. ASU es, sin duda, una vía de acceso factible para los esfuerzos por racionalizar el uso de los medicamentos en Tailandia. La sostenibilidad a largo plazo requiere un compromiso local continuo, así como el apoyo político, la auditoría eficaz y la integración de ASU en los sistemas rutinarios por medio de incentivos financieros adecuados.

Referencias