EC/ACP/WHO partnership program evaluation

MS UHJIN KIM, WHO CONSULTANT

The outcome of the EC/ACP/WHO partnership, which began in 2004 to assist Pacific island countries (PICs) with pharmaceutical sector capacity building, was assessed in August 2009, its fifth year. The 4 million USD project aimed to enhance the accessibility, affordability and rational use of essential medicines in selected PICs, which comprise Cook Islands, Fiji, Kiribati, Marshall Islands, Federated States of Micronesia, Nauru, Niue, Palau, Papua New Guinea, Samoa, Solomon Islands, Tonga, Tuvalu and Vanuatu.

The EC/ACP/WHO partnership had a significant impact on pharmaceutical sector development in these PICs. It supported PICs in drafting and revising national medicines policies, consulted World Trade Organization (WTO) members and observers on Trade-Related Aspects of Intellectual Property Rights (TRIPS) Agreement safeguards and carried out medicines expenditure reviews. Medicines supply management in many PICs improved considerably, with supply chain reviews and establishment of computerized inventory systems. PICs also underwent national regulatory assessments, and rational use of medicines was promoted through training, campaigns and drafting and updating of standard treatment guidelines and essential medicines lists.

A participatory evaluation survey identified strengthening national medicines policies and drug supply management as the most useful assistance delivered. Regarding drug supply management, 35% of PICs indicated installation of computerized inventory systems as the most useful, 35% cited training of pharmacy technicians and nurses on drug management and 24% stated activities that supported pharmacies to carry out supervisory visits to outer islands were the most useful.

However, despite substantial efforts to improve drug supply management in PICs, stock-outs are still common. Smaller PICs lack overall management capacity, and bigger PICs—which have better central-level situations—still need to improve stock availability at the lower levels. Hence, most PICs indicated improved drug supply management as their priority for future programme activities.

To more than half of the PICs participating, the EC/ACP/WHO partnership provides the sole source of funding to pharmaceutical sector development, and this is especially true in smaller PICs.

Continued support from the partnership will yield notable, meaningful achievements in building sector capacity in the Pacific.
The partnership’s objectives and key achievements

<table>
<thead>
<tr>
<th>Objectives</th>
<th>Outputs</th>
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<tr>
<td>1. Develop, implement &amp; monitor the impact of national medicines policies.</td>
<td>Nine PICs were assisted in drafting &amp; revising their national medicines policies.</td>
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<td>2. Monitor the impact of international trade agreements on access to medicines.</td>
<td>Six PICs were consulted on TRIPS safeguards.</td>
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<td>3. Improve affordability &amp; financing of essential medicines in both the public &amp; private sectors.</td>
<td>Eight PICs had pharmaceutical expenditure reviews &amp; conducted price surveys.</td>
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<td>4. Build more reliable, efficient drug supply management systems.</td>
<td>Four PICs reviewed their supply management systems, six PICs installed &amp; updated pharmaceutical management programmes, &amp; 10 PICs received computers &amp; equipments</td>
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<td>5. Strengthen norms, standards &amp; guidelines for the quality, safety &amp; efficacy of key medicines.</td>
<td>Five PICs were trained on pharmacovigilance &amp; quality assurance. One country tested medicines quality in Australia.</td>
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<td>6. Increase capacity for effective drug regulation &amp; quality assurance systems.</td>
<td>Five PICs were assisted with drafting &amp; revising drug legislation, &amp; six PICs conducted medicines regulatory assessments.</td>
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<td>7. Achieve more rational prescribing &amp; dispensing of medicines by health professionals &amp; containment of antimicrobial resistance.</td>
<td>Five PICs reviewed &amp; updated their essential medicines lists &amp; standard treatment guidelines.</td>
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<td>8. Achieve more rational use of medicines by consumers &amp; patients.</td>
<td>Five PICs conducted public awareness campaigns on correct use of medicines, &amp; their representatives attended training courses.</td>
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Informal intercountry consultation on public health and intellectual property rights for selected Pacific island countries

An informal intercountry consultation on public health and intellectual property rights for selected PICs was held in Nadi, Fiji, from 25 to 27 March 2009 organized by WHO. It aimed to (1) increase knowledge and understanding about the public health implications of intellectual property rights (notably patents) through sharing and exchanging experiences with regard to becoming a member of WTO, implementing the TRIPS Agreement and drafting and amending national patent laws; and (2) facilitate interaction between different sectors, notably health and trade, which need to work together to design public health friendly intellectual property laws.

The consultation participants were from Fiji, Papua New Guinea, Samoa, Solomon Islands, Tonga and Vanuatu, as well as the Lao People’s Democratic Republic and Maldives.

Participants shared and exchanged experiences regarding becoming a WTO member, implementing the TRIPS Agreement and drafting and amending a patent law and other legislation related to pharmaceutical products.

The consultation introduced and updated implications of intellectual property rights for access to medicines; TRIPS flexibility; and current global developments on intellectual property rights, innovation and public health.

From a public health perspective, intersectoral collaboration is vital to ensure that TRIPS flexibility and safeguards are appropriately reflected in national legislation.
Pacific island countries share their medicines procurement prices

The preliminary results of the medicines price information exchange survey, which is being carried out in PICs by WHO, were presented to participants of a training course on improving medicines supply management for PICs in Melbourne, Australia, 20-25 July 2009. Thirteen PICs participated in the survey, which intended to collect information on medicines procurement mechanisms and price components of the 30 most common medicines in the PICs. Preliminary analysis showed that procurement prices of medicines in most PICs are within international ranges.

However, PICs recognized the need for a regional price information exchange system to assist in obtaining the best prices for the most common medicines and suggested that the current list be extended to include other essential medicines.

The survey results have been further analysed and are now available at the Price Information Exchange for Selected Medicines in the Western Pacific Region website (www.piemeds.com).

Technical working group on medicines selection and use for Pacific island countries

The first technical working group meeting on medicines selection and use for PICs was organized from 18 to 19 August 2009 in Melbourne, Australia. The meeting was attended by eight PICs: Fiji, Kiribati, Nauru, Palau, Samoa, Tonga, Tuvalu and Vanuatu. WHO temporary advisors and Secretariat also attended.

Countries’ experiences in developing and implementing national essential medicine lists and therapeutic guidelines, as well as prevalence of non-communicable diseases, were reviewed.

The results of external expert analysis were discussed. The group also reviewed the comparison of existing national essential medicines lists.

An overview of burden of illness of diabetes and paediatric diseases was presented, and the possibility of core therapeutic guidelines for these conditions was explored in detail. The group agreed to pursue a common approach to improve medicines selection and quality use for PICs on diabetes and paediatric diseases.
A training workshop, Strengthening Strategic and Operational Management Capacities of the Pharmaceutical Service in Solomon Islands, was held from 28 September to 6 October 2009 in Honiara. To strengthen pharmaceutical services in Solomon Islands, it aimed to introduce the basic principles of strategic and operational programme and project management at the national and provincial levels in mid- and long-term planning and operational management. Twenty-four participants from the nine provinces, as well as National Medical Store staff members, attended the course.

This training was particularly important in light of the growing number of vertical programmes in the pharmaceutical sector. As pharmacy officers are continually being called on to contribute to vertical programme planning exercises and to submit to the differing demands of a large number of donors, this workshop was a good opportunity to introduce some of the basic skills required in project management and in structurally addressing problems encountered in programmes. It was followed by the 3-day pharmacy officer refresher course, which is hosted each year in Honiara. Areas identified for improvement have been worked into the operational plans of the National Medical Store, Pharmacy Services Division, and provincial services. These will be monitored and examined again in the next refresher course in 2010.

Stock management guidelines

The Pharmacy Services Division, Solomon Islands developed guidelines to address the shortfall in nursing training in the area of stock management, which is thought to be impacting heavily on stock availability at the clinic level.

A resource booklet, Stock Management of Essential Medicines for Area Health Centres, Rural Health Clinics and Nurse Aid Posts in Solomon Islands, was finalized at a 5-day workshop in April 2009. Key learning areas include quantification and ordering, stock handling and storage and rational use of medicines.

The focus is on practical skills for Solomon Islands nurses, and the information is simple and concise.

The workshop and booklet have been rolled out to four provinces (Guadalcanal, Makira, Renbel and Temotu), with five more to be covered in 2010. The course has also been accepted by the nursing colleges in Solomon Islands and will be incorporated into the national curriculum from 2010.
National Medicines Policy revision

MRS BEVERLEY SNELL, WHO CONSULTANT

In July and August 2009, a consultation with the Ministry of Health and Medical Services was undertaken to revise the National Medicines Policy in Solomon Islands. Through small group meetings and visits to relevant locations, a rapid assessment of the pharmaceutical sector was undertaken to identify problems and areas for improvement. Consultations were held with key personnel in the National Drugs and Therapeutics Committee and National Pharmacy Services Division. Other sectors having an impact on the National Medicines Policy, such as disaster management, customs and waste management, were also consulted.

Training for pharmacy officers is generally strong in Solomon Islands, but stock management for nurses and other health workers in clinics is not included in their formal training. Further, procurement is not done by individuals with pharmaceutical training, so there may be insufficient understanding of the maintenance and use of treatment records that lead to good quantification. As such, major problems with stock management remain in Solomon Islands.

In addition, collaboration with sectors, such as disaster management, needs improvement. Involvement of the National Drugs and Therapeutics Committee in decisions concerning these sectors, as well as introduction of vertical programmes where medicines have a significant role, has rarely occurred and needs to be mandated. A regulatory affairs unit for medicines needs to be developed, and customs must be willing to collaborate to ensure appropriate control of imported medical supplies.

It is hoped that the revised National Medicines Policy will address all of these issues and provide a detailed guide for action regarding these problems and areas for improvement. The revised policy then needs to be endorsed, implemented and linked with a strategic plan to prioritize relevant activities.

Review of the medical use and supply of oxygen in Kiribati

DR NAOR BAR ZEEV, WHO CONSULTANT

The Ministry of Health and Medical Services in Kiribati recently undertook an evaluation of oxygen systems for hospital care with the assistance of WHO.

The ministry recognized that although the clinical need for oxygen in Kiribati is very high, the existing systems of oxygen supply were inefficient, expensive, unreliable and unsustainable. Doctors and nurses reported that oxygen cylinders always ran out, resulting in children who needed oxygen not getting it. It was widely recognized that the burden of hypoxia was high, especially among children with respiratory infections, but also among children with other conditions, newborn infants and adults. Hospital administrators were also concerned about the high costs of procurement, with oxygen cylinders making up a large part of total hospital budgets.

In response to this problem, the ministry undertook an assessment of the burden of hypoxia in three major hospitals in Kiribati and a number of primary health centres. The review of current oxygen systems identified very high procurement costs, safety concerns, poor reliability and areas of inefficiency. Major improvements in oxygen delivery and reliability were identified, which were actually cost saving. It was suggested that Kiribati convert from the use of cylinders to oxygen concentrators, as it was estimated that a continuous, reliable, endless supply of oxygen could be achieved at a fraction of the cost of the existing system. These savings would pay the cost of oximeters and other necessary clinical equipment, and still result in surplus funds, which would otherwise have been spent on cylinders. Combined with improvements in the identification and management of clinical hypoxia, this will lead to significant benefits and major cost savings.

Many resource-poor countries share the high burden of respiratory disease found in Kiribati and also face similar problems in the supply and clinical use of oxygen. The issue of oxygen supply is especially problematic in PICs where transport of cylinders by sea is very expensive and difficult. The solutions to these problems are being implemented in Kiribati, and the leadership and enthusiastic support from the ministry and the senior management of clinical services were critical to the successful implementation of the new oxygen system. These activities will ensure major sustainable improvements in the quality of hospital care for sick children and adults in Kiribati.
Feasibility study on medicines quality testing laboratory in Fiji

MS MUNIAMMA GOUNDER, FIJI PHARMACEUTICAL AND BIOMEDICAL SERVICES CENTRE

Many PICs, like Fiji, procure medicines from similar manufacturers through suppliers based overseas. Although the PICs have some internal evaluation procedures to verify quality, there have been instances where quality-related issues have arisen, prompting the need to test the quality of products procured.

Samples of products are actually sent to overseas laboratories for such testing however, as this exercise is expensive, the number of samples sent for testing is usually confined to a budgetary allocation of funds, which may not be sufficient to send an adequate number of samples.

There have been plans to extend the current Fiji Pharmaceutical and Biomedical Services Centre, and in the proposal, space has been allocated for a quality control laboratory.

A feasibility study was thus requested, which was required to not only assess the need of such a laboratory but also to develop its technical specifications, including proper costing of resource requirements. This evaluation study was undertaken in August 2009 by a consultant who has many years of practical experience working in a quality control laboratory, thus providing much-needed insight into the actual set-up and operations of a laboratory of this nature.

After the evaluation, it was concluded that setting up the laboratory within the Fiji Pharmaceutical and Biomedical Services Centre was feasible.

Major changes were recommended on the initial proposal of the quality control laboratory with respect to floor space and location as well as details of equipment and layout. The evaluation also provided specific information needed on the setup and practicalities of operating a quality control laboratory in Fiji, from planning and designing it to human resources issues.

The evaluation has received positive feedback, and the details have been submitted as part of a proposal for the extension of the Fiji Pharmaceutical and Biomedical Services Centre.

Supervisory and monitoring visit to outer islands of Cook Islands

MR NEVILLE PUCKEY, CHIEF PHARMACIST, MINISTRY OF HEALTH, COOK ISLANDS

The Central Pharmacy and Medical Store, Ministry of Health, Cook Islands undertook a pharmacy supervisory visit to the Northern Group of Islands in September 2009. These islands are the most remote and inaccessible of all of the outer islands. With the islands scattered over 2.8 million square miles of ocean, and flights once every 6–7 weeks to the most northern island, it can be a very time-consuming and expensive exercise. This was the first time a trip like this had ever been undertaken, thanks to support from the EC/ACP/WHO Partnership on Pharmaceutical Policies. The supervisory visit covered (1) stock management, (2) prescribing patterns and (3) auditing of the Ministry of Health’s Fixed Asset Register.

It was found that a major problem on these islands is over-ordering and subsequent waste due to expired stock, and, in some cases, under-ordering.

In one facility, 33% of the stock had expired. This is not only a waste of medicines but also of limited budgets. Medicines are ordered based on what was ordered the last time, but this does not take into account how much has also expired.

As a result of this trip, each month, facilities now carry out a full inventory, which calculates use. All inventories are first sent to the chief pharmacist, who scrutinizes them based on current stock holding and use. An order is then sent to the Central Pharmacy and Medical Store in Rarotonga, which generates an electronic copy of each island’s stock. Thus, it now has a complete working knowledge of stock held on each island.

Since the visit, stock rotation has improved, and medicines have been sent back to Central Pharmacy and Medical Store before they expire. Further, nurse practitioners and doctors on these islands were very receptive to the system and now have a greater understanding of stock movement.
Running a national medicines supply system requires a wide range of knowledge and skills to be applied in a professional manner at appropriate points in the supply system. Those involved should receive training on medicines supply management, including selection, quantification, procurement, distribution and use. Efficient performance in all of these areas is essential to maintain a reliable medicines supply system.

In response to this need, problem-oriented training modules on all aspects of medicines supply management were developed by the Fiji Pharmaceutical and Biomedical Services Centre in collaboration with WHO in Fiji in April 2009 based on findings of previous studies, field visits and consultations.

Training workshops on access to essential medicines were organized in April 2009 in Suva and Lautoka, involving personnel performing the tasks of pharmaceutical services and medicines supply management from the centre to the periphery of the system in two regions (Central and Western Divisions).

At the workshops, the current system of ordering from the Fiji Pharmaceutical and Biomedical Services Centre was discussed. Participants were supplied with copies of the presentation, handouts and copies of Standard Treatment Guidelines in Fiji. The training modules will continue to be used for any training on medicines supply management within the country.

mSupply -1 year later in Tuvalu

In May 2009, the Department of Pharmacy in Tuvalu installed its first computerized inventory control system, known as mSupply. The system was to complement and improve the existing manual inventory system as well as introduce innovative measures in managing medicines supply.

By computerizing the pharmaceutical inventory control system, it was envisioned that procurement, storage management and distribution services would be improved; stock-outs and staff workloads would be reduced; and prescription analysis and accounts would be better managed.

However, 1 year later, procurement remains an issue and may be due to not synchronizing orders acceptably. Although mSupply has tender assessment and other features in place, they were not utilized fully due to issues with Internet connectivity and staff knowledge of the system.

If the software was fully utilized, managing stores and distribution could help reduce stock-outs in the outer island clinics and improve services in the hospitals, including within-department requisitions.

Limited funds could also be managed appropriately if the system was used properly. However, the department can only utilize mSupply adequately if training on its use is provided and staff members are self-motivated.

Although the Department of Pharmacy has not yet met expectations in regard to mSupply, it looks forward to developing its use further.
Training course on improving medicines supply management for Pacific island countries

A training course on improving medicines supply management for PICs was held from 20 to 25 July 2009 in Melbourne, Australia. It was organized by WHO and hosted by Macfarlane Burnet Institute for Medical Research & Public Health, Melbourne, Australia.

Its objectives were to (1) introduce the principles of effective medicines supply management and associated training modules, (2) acquire essential skills to provide training on medicines supply management for relevant health care providers in their respective PICs and to monitor and supervise national medicines supply management systems and (3) develop draft national work plans on medicines supply management activities based on identified constraints. Participants hailed from Cook Islands, Fiji, Kiribati, Federated States of Micronesia, Nauru, Palau, Papua New Guinea, Samoa, Solomon Islands, Tonga, Tuvalu and Vanuatu.

The training course consisted of plenary presentations, discussions and exercises on all areas of medicines supply management, including selection of medicines, quantifying medicine requirements, managing medicines procurement, issues and challenges regarding medicines donations, regulatory issues including quality assurance mechanisms, good storage practices, pharmaceutical waste management, good distribution practices, challenges associated with vertical programmes, prescribing and dispensing, and supervision and monitoring of supply management systems.

Field visits to the Western Region Health Centre, hospital and community pharmacy and the Quality Use of Medicines Division Program were also organized, focusing on different aspects of community care and support, comprising quality use of medicines, community pharmacy care and hospital ward pharmacies. The experiences at each site were shared with all participants in a plenary session the following day.

Throughout the training course, there were opportunities for participant group discussions and development of tools to take back to the PICs. Top priorities to improve medicines supply management were discussed, and each PIC developed its own list of actions.

There was general consensus on the need to include medicines management in the curricula of pharmacy workers and nurses as well as on-the-job training for workers in the current pharmacy system, especially where there are identified gaps.

The workshop endorsed recommendations to strengthen systems at all levels and to continue collaboration in promoting rational use, medicines quality assurance mechanisms and human resources development. Participants also agreed to continue to explore the possibility of developing common core treatment guidelines and formularies for PICs.

Pharmacy conference in Papua New Guinea

MR VALI KARO, PRINCIPAL ADVISOR PHARMACEUTICALS, DEPARTMENT OF HEALTH

A conference, Quality Pharmacy Services for Better Health, was organized by the Pharmaceutical Society of Papua New Guinea from 2 to 4 November 2009 in Port Moresby. With support from the EC/ACP/WHO partnership, six staff members of area medical stores from Lae, Madang, Mount Hagen and Rabaul attended the conference. More than 70 participants also attended, including pharmacists and pharmacy technicians from provincial hospitals, the private sector, University of Papua New Guinea and abroad.

The conference was opened by the Minister for Health and HIV/AIDS, Sasa Zibe.

The highlight of the conference was future directions for pharmacies in Papua New Guinea, which prompted the participants to discuss current issues pertaining to quality assurance, rational use, good governance and pharmacy education and training.

One of the most important resolutions of the conference was to promote the professional and ethical practice of the pharmaceutical profession in Papua New Guinea, to ensure that the same voice and goal is heard and achieved in all sectors locally and internationally.

Other resolutions were to strengthen the enforcement and implementation of medicines regulation, which was seen to be weak, as well as the ongoing empowerment and training of pharmaceutical professionals.
A review of existing essential medicines lists and standard treatment guidelines in PICs was undertaken, involving essential medicines lists from 12 PICs and standard treatment guidelines from six PICs.

In all country situations examined, there were many more medicines on the essential medicines lists than in the standard treatment guidelines. It is recommended that the differences identified between the standard treatment guidelines and essential medicines lists be considered by the relevant drugs and therapeutics committee or review body in each PIC. Then, a decision can be made on whether revisions to the standard treatment guidelines and/or essential medicines list are required.

There is little evidence available on the extent of availability and use of standard treatment guidelines within countries. Preliminary evidence from a small survey of 17 Fiji health facilities suggests that better methods of distribution and strategies to improve implementation and uptake of guidelines are required.

It is important that the development of harmonized standard treatment guidelines is not seen as an endpoint. There is a role for WHO in supporting the printing of harmonized standard treatment guidelines, but an equally important role in ensuring widespread distribution of the guidelines and supporting education and implementation strategies within PICs.

As a general observation, in some PICs, there appears to be very few medicines available in paediatric formulations (particularly syrup formulations), and it was unclear how small doses required for infants and young children could be delivered using the dose formulations and strengths listed on the essential medicines lists.

Further, there is an opportunity for WHO to be more proactive in disseminating the results of its deliberations on the WHO essential medicines list and paediatric essential medicines list directly to drugs and therapeutics committees.

In some PICs, there was limited access to information sources on medicines. WHO could provide PICs with medicines formularies, such as the WHO Model Formulary or British National Formulary, as an alternative to developing a separate PIC information resource or formulary.

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Rational use of medicines at health facilities in Fiji

A workshop on rational use of medicines at health facilities was organized in Suva, Fiji from 15 to 16 September 2009, aimed at discussing potential problems in medicine use, and introducing the concept, framework and strategies to improve the quality use of medicines. The workshop was attended by 10 representatives from seven hospitals and health centres. Some potential medicines use problems were discussed, as well as examples of effective interventions.

At the end of the workshop, participants presented their work plans. Of the seven action plans, five hospitals (Labasa, Lautoka, Nausori, Rakiraki and Savusavu) indicated the importance of improving communication between prescribers (clinicians) and providers (pharmacists) to solve medicines use problems together.

A format of small group problem-solving interactive discussions was indicated as the most appropriate.

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Twelve core interventions to promote more rational use of medicines

1. Mandated multidisciplinary national body to coordinate medicine use policies
2. Clinical guidelines
3. Essential medicines list based on treatments of choice
4. Drugs and therapeutics committees in districts and hospitals
5. Problem-based pharmacotherapy training in undergraduate curricula
6. Continuing in-service medical education as a license requirement
7. Supervision, audit and feedback
8. Independent information on medicines
9. Public education about medicines
10. Avoidance of perverse financial incentives
11. Appropriate and enforced regulation
12. Sufficient government expenditure to ensure availability of medicines and staff

WHO Policy Perspective on Medicines, 2002
Standard treatment guidelines for antibiotics in Palau

PROFESSOR ANTHONY J. SMITH, WHO CONSULTANT

Between 13 and 27 September 2009, a short-term consultancy was undertaken in Palau in collaboration with the Pharmacy Department and Ministry of Health, to assist in the development of standard treatment guidelines for antibiotics.

Most countries worldwide have problems related to the use of antibiotics. The risks of encouraging the emergence of antimicrobial resistance if these medicines are used inappropriately is always a concern, apart from their expense.

In Palau, the costs of antibiotics in 2008–2009 were found to exceed 42% of the total medicines budgets of hospitals (this proportion would normally not exceed 20%–25%). This led to an examination of the pattern of use of different antibiotics to establish whether this cost was caused by overuse of all antibiotics or whether particularly expensive antibiotics were being used.

It was found that ceftriaxone, in particular, was being used by many doctors for a variety of bacterial infections when it might not always be the first choice. In many countries, it is reserved for severe infections unresponsive to other antibiotics.

Discussions with doctors and the laboratory staff pointed to a need to strengthen microbiology services to enable timely availability of antimicrobial-sensitivity patterns (a programme of upgrading the laboratory services had already been identified as a priority by the Ministry of Health), and this, in turn, led to the recognition that doctors always prescribed defensively when confronted with a sick patient and in the absence of secure information about the likely organism. As a result, ceftriaxone, with a broad spectrum of activity, was prescribed if there was any risk of missing a crucial infecting organism.

Overuse of expensive antibiotics was not the only problem in Palau, and doctors agreed that there were times when patients with simple viral infections were given antibiotics even though they were unlikely to be effective. The heavy usage of amoxicillin was explained in part by this practice.

Thus, provisional antibiotic guidelines were drafted for Palau and were discussed with medical and technical staff. It was agreed to designate these as provisional in the expectation that they would be modified further as better knowledge about the sensitivity patterns of common infecting organisms becomes available.

The final recommendations included the introduction of a 7-day automatic stop rule for all antibiotic treatments to ensure that they were reviewed at this point. It was suggested that some antibiotics be put into a reserve category and not be used as first-line unless there were compelling circumstances. Consumer demand in Palau, as in most places, is strong, and it was felt that a community advocacy programme might help provide the public with the evidence on which decision to use (or not use) an antibiotic is based.

Role of the private sector in malaria treatment and artemisinin combination therapy distribution in Solomon Islands

In Solomon Islands, a meeting was organized on 18 April 2009 in Honiara emphasizing the role of private practitioners (doctors and pharmacists) and collaboration with the Ministry of Health and Medical Services in securing quality pharmaceuticals for treatment of malaria in compliance with national guidelines and protocols.

Private doctors indicated that malaria incidence within Honiara is over-reported, with patients referred between private doctors counted twice or more. Thus, the meeting recommended that accurate data on malaria needs to be collected, and it defined by whom and how. These data will then be used to inform decisions. Further, the meeting cited a need to integrate the reporting of malaria and pharmaceutical use with the existing reporting processes.

One of the key issues in malaria reporting is the quality assurance of laboratory facilities and microscopists. In Solomon Islands, this needs to be established. Those at the meeting suggested that private sector facilities, which have microscopes, should be supported with public sector quality assurance services. Finally, training and awareness of private clinicians and pharmacists is imperative for the success of the case management of malaria.

It is important to note that treatment guidelines for malaria in Solomon Islands are not only for first-line therapy. They include treatment protocol for second- and third-line and complicated cases. This is a comprehensive document, which is designed to inform all clinicians about the treatment of malaria from a best practice standpoint.
Training course on rational use of medicines in Samoa

A 3-day training course on improving rational use of medicines for health care providers was held in August 2009 in Apia, Samoa. The training course was attended by health professionals such as policy makers, pharmacists, pharmacy technicians, dental therapists and laboratory technicians. The activities consisted of group discussions and presentations; field visits; role-plays on writing prescriptions, dispensing and communication; WHO/INRUD medicines use indicators; essential medicines concepts of selection and advantages; standard treatments; role of dispensers in rational drug use; assessing promotional materials; and intervention strategies in improving drug use.

The training course recommended that the curriculum and training manual should be used and training imparted to the prescribers and dispensers from health facilities. Educational materials should be developed to educate consumers on use of various medicines, including antibiotics and injections, and drugs and therapeutics committees should be constituted in hospitals for improving the use of medicines.

Systematic review of the literature addressing competencies, training & workforce requirements for medicines supply management in Pacific island countries

A systematic review of the literature on competencies, training and workforce requirements for health care workers involved in essential medicines supply management in PICs was undertaken by Mr Andrew Brown, University of Canberra, in collaboration with WHO. The objective was to determine the full extent of current work carried out in this area and to provide a reference point from which further work into this area may continue.

The review included country and intercountry reports on pharmaceutical programmes, individual health workforce plans from 10 PICs (Cook Islands, Fiji, Kiribati, Marshall Islands, Federated States of Micronesia, Niue, Commonwealth of the Northern Mariana Islands, Palau, Samoa and Tonga), mapping of human resources for health profile as well as individual reviews with relevant persons and institutions. A summary from the analysis of these reports identified the following key findings:

- The need for training is clear.
- An individual country approach is desired.
- A systematic approach to human resources management is desired.
- Support from regional institutions is requested.
- The approach to training needs specific features.
- A collaborative regional workforce is ideal.
- A collaborative approach to training is ideal.
- A review of available training materials is essential.
- Parallel programmes should work to integrate into PIC medicines system structures.

From the review, it is evident that the data available to inform decision-making are limited. The time may be appropriate for a more systematic approach to developing human resources in this area to enable the achievement of better health outcomes for the Region.
In June 2009, the Ministry of Health in Nauru initiated the development of a national medicines policy. A 1-day stakeholder consultation discussed the draft policy document and implementation plan. It emphasized the importance of further consultations, including with consumers, prior to the submission of the draft policy to the Cabinet for approval.

A 2-day meeting on the National Medicines Policy of the Federated States of Micronesia was conducted in Pohnpei from 22 to 23 July 2009. It discussed the final draft policy involving input from private clinics, wholesalers and the public.

A national consultation, which was held in Nuku'alofa, Tonga on 15 September 2009, reviewed the country's National Medicines Policy. It agreed that the Pharmacy Act of 2001 needs to be reviewed to support implementation of the policy.

The Pharmacy Department of Palau assessed and modified its inventory management system, the Pharmacy Management and Information System. The system was first introduced in 2008 to improve inventory management.

Four state hospitals of the Federated States of Micronesia assessed the status of implementation of the Pharmaceutical Management Information System (PMIS). Trainings for end-users were conducted on the PMIS modules during 2009.

Training of assistant pharmacists and a national training workshop on medicines supply management was undertaken in Nuku'alofa, Tonga.

A public awareness on proper use of antibiotics was conducted in Cook Islands and Tuvalu.

A study on medicines use at health facilities was carried out in Samoa.

A medicines procurement and supply system (PUSH and PULL) was reviewed in Papua New Guinea.

The electronic network, Drug Information Exchange for Pacific Island Countries (DIEFPIC), became operational in 2009. Focused on information and knowledge on medicines-related issues, the network had been recommended in meetings of PIC ministers of health. It involves national counterparts, partners and WHO.

Staff members from Pharmacy Department of Papua New Guinea, Solomon Islands and Vanuatu participated in an international training course on monitoring and evaluation of medicines procurement and supply management systems, 15–20 March 2009, in Amsterdam, Netherlands, and in a training course on procurement and quantification management of medicines and medical supplies, 14–19 June 2009, also in Amsterdam.

Ministry of Health staff members from Solomon Islands and Papua New Guinea attended a technical briefing seminar on medicines quality and safety in Geneva, Switzerland, 21–25 September 2009. The general objective of this seminar was to increase awareness and knowledge of quality assurance and safety of medicines, blood products and related biological material with a special focus on WHO standard-setting processes.

A staff member from the Central Pharmacy and Medical Store, Tonga attended a training course in promoting rational drug use in the community, Cape Town, South Africa, 29 June–10 July 2009. The objectives of the course were to study and remedy inappropriate medicines use in the community.

Two staff members from the National Medical Store, Solomon Islands observed procurement, quantification, distribution and regulatory issues in Auckland, New Zealand in June 2009. They had the opportunity to engage in best practices of stock control and management. It is anticipated that they will be able to utilize these skills in their senior roles at the National Medical Store and to pass them on to other staff members. They have been able to implement some changes already in rearranging the workplace and putting in place some processes to improve quality assurance.