

INRUD NEWS

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Newsletter of the
International Network for Rational Use of Drugs

ICIUM 2004

Proceedings of ICIUM 2004 Now Available on the Web:

<http://www.icium.org>

<http://mednet3.who.int/icium/icium2004/index.asp>

The International Conference on Improving Use of Medicines (ICIUM 2004) Web site provides access to abstracts, posters, slides, and selected videos of oral presentations made at the conference, as well as summaries of conference recommendations, both overall and topic-related. All files can be either viewed and downloaded.

You may access files of oral presentations from the daily conference agenda, look for poster presentations by track, or search for poster and oral presentation files by entering a text word from the poster or presentation title or an author's or presenter's last name in the search boxes.

The goal of improving global access to medicines cannot be fulfilled without a corresponding improvement in their use.

This is one of the key messages coming from the Second International Conference on Improving Use of Medicines (ICIUM 2004), held March 30–April 2. Four hundred and seventy-six public health researchers and policy makers from 70 countries met in Chiang Mai, Thailand, to discuss research and interventions to improve the use of medicines in resource-limited areas. The conference themes spanned all systems in which medicine use is determined—from international and national policies to hospitals, health professionals, retail pharmaceutical sellers, and consumers. Discussion within each theme centered on specific health topics, including access to medicines, HIV/AIDS, malaria, tuberculosis, adult illness, children's health, and antimicrobial resistance.

The milestone ICIUM 1997 produced consensus on interventions to improve medicine use in nonindustrialized countries and generated a research agenda to fill knowledge gaps. ICIUM 2004 saw the results of the intervening years' efforts and, armed with new infor-

mation and experience, conference participants defined the new implementation and research agendas, reflecting current priorities, that are needed to advance to the next stage of promoting rational drug use in developing countries.

Dr. Suwit Wibulpolprasert of the Thai Ministry of Public Health summed up the challenges involved in promoting rational drug use by asking, "How can we make the impossible *possible*?" Participants had encouraging developments to share. Their research showed that initiatives at all levels of care, from international down to community settings, can be successful in improving medicines use. For example, regulatory approaches that restrict access to certain drugs can prevent misuse and reduce rates of antimicrobial resistance; hospitals can address infection control through improved hand hygiene practices; and educating children can affect medicine use practices in families. In a particularly exciting finding, researchers presented data showing that a 3-day course of antibiotic therapy for childhood pneumonia was just as effective as a 7- to 10-day course, but was clearly cheaper and easier to adhere to and reduced antimicrobial resistance. These data could dramatically affect pediatric drug use around the world.

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In a major conference recommendation, countries are encouraged to support the growth of emerging social health insurance systems, which promise to be effective tools to improve access to and use of medicines by linking reimbursement with the use of treatment guidelines and provider accreditation. The challenge is to design medication benefits packages that achieve equity in affordable access, while sustaining financial viability. Dr. Hans Hogerzeil of WHO's Department of Essential Drugs and Medicines Policy (WHO/EDM) said that the future of the essential medicines concept lies with health insurance. "Health insurance is possible in resource-deprived settings," he said. "Increasingly, reimbursement schemes will leverage programs of rational use, medicine pricing, and pharmaceutical policies in general." He further suggested that WHO could help countries by establishing practical guidelines for creating or strengthening health insurance systems.

In the seven years since ICIUM 1997, the field of essential medicines in developing countries has advanced, but it now encounters new challenges as well as new opportunities. Many governments have reconsidered the financial viability of publicly delivered health services, including affordable medicines. The period has also been marked by innovations in health reform, decentralization, and a rapidly expanding private health sector. At the same time, the introduction of global initiatives to address the catastrophic epidemics of HIV/AIDS, tuberculosis, and malaria has brought issues of access and appropriate use of antimicrobials to new prominence in global public health thinking. However, an increased global flow of antimicrobials brings with it the twin threats of antimicrobial resistance and rising prices for alternative antimicrobials to treat resistant infections. And although global access campaigns will bring more medicines to more people, they will not provide medicines to all who need them. Deciding who receives therapy raises important ethical questions that we need to answer.

There is little value for the millions of dollars being spent on procuring lifesaving pharmaceuticals if incorrect usage contributes to antimicrobial resistance. Conference participants were consistently reminded that by correctly using the medicines that work now, we can avoid paying much more for second-line therapies in the future. "It is important to view the global focus on access *not* as a conceptual fence that keeps out rational use, but as a springboard to bring rational use in," said Dr. Jonathan Quick, CEO of Management Sciences for Health, who was also a key participant in ICIUM 1997 while Director of WHO/EDM. Conference participants also emphasized that preventing antimicrobial resistance is not an issue only for developing countries: "Use them well, or lose them" means that once we lose critical pharmaceuticals to resistance, they are lost for everyone—whether the patient lives in Miami or Kampala.

ICIUM 2004 was organized by the International Network for Rational Use of Drugs, the Thai Network for Rational Use of Drugs, WHO/EDM, the Boston University School of Public Health's Center for International Health, the Harvard Medical School's Department of Ambulatory Care and Prevention, and Management Sciences for Health's Rational Pharmaceutical Management (RPM) Plus and Strategies for Enhancing Access to Medicines (SEAM) Programs. Major support for the conference was provided by the

Bill & Melinda Gates Foundation, Canadian International Development Agency, Swedish International Development Cooperation Agency, U.S. Agency for International Development, WHO/Geneva, WHO/Thailand, and WHO Regional Office for South-East Asia (SEARO). In addition, more than 20 other organizations contributed to the success of the conference by sponsoring attendance of multiple participants.

Recommendations from ICIUM 2004

Evidence presented at ICIUM 2004 made it clear that misuse of medicines continues to be widespread and has serious health and economic implications, especially in resource-poor settings. However, effective solutions for some serious medicines problems already exist. Participants called upon governments to implement policies and programs in the priority areas listed below. (Detailed recommendations are available at www.icium.org.)

The conference highlighted the need to move from small-scale research projects to implementing large-scale programs that achieve public health impacts. Many promising and successful interventions were presented at ICIUM 2004, yet global progress is confined primarily to demonstration projects. There are few reports of effective national efforts to improve the use of medicines on a large scale and in a sustainable manner. Thus, a major research gap remains: "How do we achieve *large-scale* and *sustained* improvements within health systems?"

Countries should implement national medicines policies to improve medicines use.

- Data from Lao PDR, Kyrgyzstan, and Oman show that systematic implementation of a comprehensive national medicines policy improves medicines use. Implementation should be based on local evidence; should cover both the private and public sectors, should include interventions on multiple levels of the health care system; and should be long-term because implementation takes time, continued stakeholder commitment, and adequate human resources.
- Broad-based insurance systems covering essential medicines for the poor can be developed in low-income settings. Countries should strengthen efforts to develop and extend insurance systems; these can be used to leverage better prescribing, more cost-effective use by consumers, and lower prices from industry.
- Generic prescribing and dispensing policies can dramatically decrease the cost of medicines to consumers and health programs. They must be accompanied by programs to ensure medicines quality.
- Although challenging, policies to separate prescribing and dispensing are feasible to implement and can result in lower costs to consumers and programs and improved use of medicines.
- In settings where patients share in the cost of care, policies can be structured to promote more appropriate use. Charg-

ing fees per full course of medicines results in higher treatment success rates than charging per unit or per visit.

- Prices are a major determinant of access to medicines. A new standardized methodology allows countries to measure prices and affordability of essential medicines. All countries should measure essential medicines prices, rationalize policies that determine price, and monitor comparative price information over time.

Successful interventions should be scaled up to national level in a sustainable way.

- One exciting finding presented at ICIUM 2004 is the efficacy of 3-day antibiotic therapy for childhood pneumonia, the major killer of children in developing countries. Short-course antibiotic therapy is effective for nonsevere pneumonia, costs less, increases adherence, causes fewer side effects, and decreases the emergence of resistant bacteria.
- Multifaceted coordinated interventions, rather than single interventions, are more effective in changing prescribing by both public- and private-sector providers. Interventions should be based on detailed analyses of existing problems and must take into account financial incentives. Evidence from Sweden demonstrates that a nationwide, multifaceted intervention can improve antibiotic use and contain antimicrobial resistance. Intervention strategies should be tailored to local needs and may include media campaigns, treatment guidelines, and individual and group feedback on practice.
- Misuse of medicines in hospitals remains problematic. However, data from Indonesia, Cambodia, and Lao PDR show that a structured quality improvement process improves use of medicines in hospitals and can be transferred across countries.
- Countries should monitor impacts when scaling up interventions to improve use of medicines. In particular, they should use valid indicators to monitor the long-term impacts on equity of access to medicines, quality of care, affordability, and cost. This will allow countries to evaluate program success and refine approaches based on evidence.

Interventions should address medicines use in the community.

- In many countries, most medicines are purchased in pharmacies and other retail drug shops, often without input from a trained medical provider. Several interventions involving outreach, peer process, regulatory enforcement, and incentives have shown short-term success in improving practice in this setting. Working with professional and trade associations, countries should develop sustainable programs to measure and improve quality of retail pharmacy practice.
- Poor adherence to therapy contributes to the emergence and rapid spread of resistance. Resistance to conventional

drugs has been observed in patients with respiratory infections, malaria, diarrheal diseases, tuberculosis, sexually transmitted infections, and HIV/AIDS. As global programs expand access to therapies for HIV, malaria, and tuberculosis, countries must implement systems to ensure adherence as an integral part of treatment programs and monitor the emergence of resistance to treatments.

- Another exciting finding discussed at ICIUM 2004 was that children can be effective change agents to improve community medicines use. Countries should consider school-based education programs that involve children as a way for key messages to reach parents.
- Pharmaceutical promotion has negative effects on prescribing and consumer choice. Voluntary methods to regulate promotion have been shown to be ineffective. Countries should regulate and monitor the quality of drug advertising and of industry promotional practices and should enforce sanctions for violations.
- Complementary and alternative medicines (CAM) often play a significant role in meeting individuals' needs for affordable essential medicines. However, countries should review all of their policies concerning the quality, safety, and efficacy of CAM.
- Evidence is still needed on how to improve use of medicines for chronic conditions, including mental health problems, in resource-poor settings. Given increasing prevalence worldwide, there is an urgent need to evaluate how medicines are currently used to treat chronic conditions and how to promote more cost-effective long-term use.

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Correspondence and Notices

The Community Development Medicinal Unit, West Bengal

The Community Development Medicinal Unit (CDMU), West Bengal, is a not-for-profit voluntary organization, established with the objective of improving access to essential medicines. It has been working with nongovernmental member organizations [MOs] in India for the last two decades. Every year, a central selection team of experts updates CDMU's list of essential medicines and medical supplies in accordance with WHO's Essential Medicines List. However, it was a matter of grave concern that MOs, which procure medicines from CDMU, faced problems in using such items rationally. There was also a serious lack of unbiased information on available medicines. Thus, access to essential medicines, with emphasis on their rational use, was not being ensured. This led to the establishment of the CDMU Documentation Centre, dedicated to campaigning for rational treatment through such diverse activities as preparing information-education-communication (IEC) materials, publishing drug bulletins, and organizing awareness programs for people from all walks of life with rational drug use as the focus.

Recently, CDMU introduced a new project for promoting the idea of RDU among health professionals. CDMU has appointed a team of trainers, who underwent a reorientation program on RDU and then visited the nongovernmental organizations working in the field of health care delivery in West Bengal. The team uses various IEC materials prepared by CDMU, in English and in the vernacular.

CLICK HERE TO SEE THE PICTURE

Dr. K Weerasuriya, Regional Adviser, EDM/WHO-SEARO, addressing participants at the reorientation program for CDMU trainers.

More details are available from Dr. Amitava Sen, Project Coordinator, Community Development Medicinal Unit Documentation Centre; e-mail cdmudocu@vsnl.com.

CDMU has also launched a Web site, www.cdmubengal.org, based at Ramakrishna Mission Seva Pratishthan Hospital, Kolkata. The Web site provides a range of information on essential drugs and rational therapeutics, as well as details of CDMU's activities. This is the first effort of its kind by an NGO in India and hopefully will help to integrate CDMU into the global village.

Burkina Faso to Host Promoting Rational Drug Use Course

**November 29–December 10, 2004,
Ouagadougou, Burkina Faso**

The second Promoting Rational Drug Use Course to be held in French will take place in Ouagadougou. As always in these lively courses, sessions will be highly participatory and very practically oriented, with group activities, discussions, and fieldwork. Jointly organized by INRUD, WHO/EDM, the Ecumenical Pharmaceutical Network, and CEDIM, Burkina Faso's Drug Information and Documentation Centre, the course will offer a great opportunity for exchanging views and experiences among faculty and participants from numerous countries. Topics covered will include identifying drug use problems, developing and evaluating interventions, producing public and prescriber educational materials, and developing campaigns.

For further information contact: Hans Peter Bollinger, EPN, c/o ODE, 01 B.P. 108, Ouagadougou 01, Burkina Faso; tel: +226 5036 3464 or +226 5036 3460; fax: +226 5036 3466; e-mail: epn.faso@cenatrin.bf.

Mercy Ships Formulary Free for Download on drugref.org

The *Mercy Ships Formulary 2003–2004*, which was completed with help and advice from the e-drug network, is now available for free downloading at www.drugref.org. The formulary is based on the WHO model, and is a pocket-size booklet for quick reference by medical personnel at bedside for basic doses, availability, and cautions, for the NGO Mercy Ships International (www.mercyships.org). Free downloads are available either as Microsoft Word documents in a .zip file, or as Adobe.pdf files.

New WHO Guidelines to Promote Proper Use of Alternative Medicines

Because traditional, complementary, and alternative medicines remain largely unregulated, consumers worldwide need to be informed and given the tools to access appropriate, safe, and effective treatment. To help address this issue, WHO has released a new set of guidelines for national health authorities to use in developing context-specific and reliable information for consumer use of alternative medicines. Up to 80 percent of developing country populations rely on traditional medicines for their primary health care due to cultural tradition or lack of other options. In wealthy countries, many people seek out natural remedies on the assumption that natural means safe. However, as the use of traditional or alternative medicines increases, so do reports of adverse reactions. In China, where traditional therapies and products are widely used in parallel with conventional medicine, there were 9,854 reported cases of adverse drug reaction in 2002 alone, up from 4,000 total between 1990 and 1999.

Accessible, easy-to-understand information is key to guiding consumers in their choices. The WHO guidelines provide simple, easy-to-follow tips on issues to look out for and a brief checklist of basic questions that may be used to help facilitate proper use of traditional and alternative medicines. The guidelines also advise government authorities on preparing easy-to-access information and on working with the mass media to sensitize and educate the population. In addition, suggestions are given for several health system structures and processes needed to promote proper use of traditional and alternative medicines.

International Course on Promoting Rational Drug Use in the Community

January 23–30, 2005, Indian Institute of Health Management Research, Jaipur, India

This is a groundbreaking eight-day course developed by WHO to meet requests from many individuals and organizations and to respond to a clear need for more effective planning for, research on, and implementation of rational medicines use practices in the community. It is adapted from the two-week WHO course on Promoting Rational Drug Use in the Community for health program staff from ministries of health, universities, development agencies, nongovernmental and other organizations, and individuals interested in improving drug use in the community.

The course will concentrate on methods to study and remedy inappropriate medicine use in the community, including an essential analysis of what shapes medicines demand. Participants will be exposed to practical approaches to investigating and prioritizing medicine use problems and developing effective strategies for change. There will also be a focus on rational use of antibiotics as well as drugs used to treat patients with AIDS, malaria, and TB.

The course will be participatory in nature and will use the knowledge, skills, and experiences of participants as a major resource throughout. Teaching methods will include group activities, fieldwork, presentations, and discussions. The course will be conducted in English, and the participants are required to have a good command of this language to participate efficiently.

Highlights will include the essential medicines concept; what influences medicines use by consumers; investigating medicines use patterns and identifying problems; how to prioritize problems related to medicines use by the community; conducting a rapid appraisal to analyze problems and identification of solutions; fieldwork and data analysis; monitoring and evaluation; face-to-face education; advocacy and networking; developing research projects linked to interventions; understanding rational use of antibiotics; and medicines use in AIDS, malaria, and TB.

The course is a collaborative effort of WHO/EDM, WHO Regional Office for South-East Asia (SEARO), the Delhi Society for Promotion of Rational Use of Drugs (New Delhi, India), the Rajasthan Society for Promotion of Rational Use of Drugs (Jaipur, India), and the Alliance for Prudent Use of Antibiotics. The fee of 18,000 Indian rupees (INR) (USD 400) covers tuition, course materials, field visit, airport/station pickup, shared accommodation at the Institute Guest House, and three meals a day. Application forms may be obtained from the contact address. Applications should be received by October 31, 2004.

For information or application forms, contact Jawahar S. Bapna, Indian Institute of Health Management Research, 1, Prabhu Dayal Marg, Airport Road, Jaipur – 302 011, India; e-mail: jbapna@iihmr.org.

Two Courses at the University of Amsterdam

International Course on Gender, Reproductive and Sexual Health, and Fertility, November 29–December 10, 2004. Gender is a very important part of reproductive and sexual health and health care, particularly in relation to developing effective programs such as theories of gender, reproductive health and sexuality, the interrelationship between masculinity, femininity, and culture, and globalization and AIDS. The course is intended for academics and professionals who want to reflect on these questions. The tuition fee is EUR 1,250.

Children, Health, and Well-Being: A Cultural Perspective, November 15–26, 2004. Children in situations of illness, poverty, inequality, and conflicts often get much attention in health care and development aid. But what are the differences in the approach of these children in different cultures? How do children consider their own situation? How can children play a role in all this, and how do you carry out qualitative research into children in health care? These are the questions we will reflect on in this course. The course is organized in cooperation with the Department of Children's Health at the Amsterdam Medical Center. The tuition fee is EUR 1,250.

For more information on either of these courses, contact Peter Mesker, AMMA Program Manager, tel: +31 20 525 4779; e-mail: amma@fmg.uva.nl.

More information can also be found at www.fmg.uva.nl/amma.

WHO Guidelines on Good Agricultural and Collection Practices for Medicinal Plants

Medicinal plant materials are supplied through collection from wild populations and cultivation. Under the overall context of quality assurance and control of herbal medicines, WHO developed the Guidelines on Good Agricultural and Collection Practices (GACP) for Medicinal Plants, providing general technical guidance on obtaining medicinal plant materials of good quality for the sustainable production of herbal products classified as medicines. These guidelines are also related to WHO's work on the protection of medicinal plants, aimed at promoting sustainable use and cultivation of medicinal plants.

The main objectives of these guidelines are (1) to contribute to the quality assurance of medicinal plant materials used as the source for herbal medicines with the goal of improving the quality, safety, and efficacy of finished herbal products; (2) to guide the formulation of national and/or regional GACP guidelines and GACP monographs for medicinal plants and related standard operating procedures; and (3) to encourage and support the sustainable cultivation and collection of medicinal plants of good quality in ways that respect and support the conservation of medicinal plants and the environment in general.

Good agricultural and collection practices for medicinal plants are the first step in quality assurance, on which the safety and efficacy of herbal medicinal products directly depend. These practices also play an important role in protecting medicinal plants for sustainable use.

Order information:

English, 2003

78 pages; order number 11500558

Price: CHF 20/USD 18; in developing countries: CHF 14

2003 International Drug Price Indicator Guide

Management Sciences for Health announces the publication of the *2003 International Drug Price Indicator Guide*, which provides prices from more than 20 sources, including nonprofit drug suppliers, commercial procurement agencies, international development organizations, and government agencies. The *Guide* helps supply officers determine the probable cost of pharmaceutical products for their programs, compare current prices paid to prices available on the international market, assess the potential financial impact of changes to a drug list, and support rational drug use education.

The 2003 edition includes nearly 100 new items, for a total of more than 860 items. The therapeutic classes with the most new entries are anti-infectives, especially antibacterials and anti-retrovirals; cardiovascular medicines; and antiallergics and medicines used in anaphylaxis. A CD-ROM version is included with all print copies. The 2003 edition was produced in collaboration with the World Health Organization. Development and publication of the *Guide* was supported by the Strategies for Enhancing Access to Medicines (SEAM) Program (<http://www.msh.org/seam>), funded by the Bill & Melinda Gates Foundation.

The Web version of the 2003 edition is posted at the Manager's Electronic Resource Center (<http://erc.msh.org>), along with data since 1996. If you are not already on the mailing list, please contact the MSH Bookstore at bookstore@msh.org or visit eBookstore at <http://www.msh.org/resources/publications> to request a copy. If you would like to contribute your organization's international competitive bidding or tender award results to the next edition of the *Guide*, please contact Julie E. McFadyen, Management Sciences for Health, e-mail: jmcfadyen@msh.org.

WHO Model Formulary 2004

Since its first publication in 2002, the *WHO Model Formulary* has become an indispensable source of independent information on essential medicines for pharmaceutical policy makers and prescribers worldwide.

The *Model Formulary* is the authoritative guide on how to make effective use of the medicines on the WHO Model List of Essential Medicines, thus improving patient safety and limiting unnecessary medical spending. For each medicine, the *Model Formulary* provides information on use, dosage, adverse effects, contraindications, and warnings, supplemented by guidance on selecting the right medicine for a range of conditions. This new edition details changes made to the WHO Model List of Essential Medicines 2003, with updated therapeutic information on existing medicines, reflecting new clinical knowledge.

Order information:

2004

Mehta, D. K., Ryan, R. S. M., Hogerzeil, H.

548 pages; order number 11502499

Price: CHF 40/USD 36; in developing countries: CHF 20

Social Lives of Medicines

Changing the way people use medicines requires understanding the cultural meaning of those medicines to people, be they doctors, pharmacists, drug sellers, or consumers. Many educational programs that concentrate only on the rational biomedical aspects fail. This book offers a series of eye-opening studies and insights into what medicines mean to different people.

Medicines, as material things, have social as well as pharmacological lives, with people and between people. They are tokens of healing and hope, as well as valuable commodities. Each chapter of this book shows drugs in the hands of particular actors: mothers in Manila, villagers in Burkina Faso, women in the Netherlands, consumers in London, market traders in Cameroon, pharmacists in Mexico, injectionists in Uganda, doctors in Sri Lanka, industrialists in India, and policy makers in Geneva. Each example is used to explore a different problem in the study of medicines, such as social efficacy, experiences of control, skepticism and cultural politics, commodification of health, the attraction of technology and the marketing of images and values. The book shows how anthropologists deal with the sociality of medicines, through their ethnography, their theorizing, and their uses of knowledge.

Order information:

2003, Cambridge University Press

Whyte, S. R., van der Geest, S., and Hardon, A.

208 pages

ISBN Paperback 0-521-80469-8; price: GBP 15.99 (USD 21.00)

Hardback 0-521-80025-0; price: GBP 42.50 (USD 58.00)

Two Regional and International Courses on Promoting Rational Drug Use

Each of these will be a two-week course for physicians, pharmacists, health program managers, officials from ministries of health, universities and private organizations, and others interested in improving the use of drugs.

The courses will focus on methods of studying and remedying inappropriate drug use, including problems with ways in which drugs are prescribed, dispensed, and consumed. Participants will learn practical approaches for applying key concepts such as essential medicines lists, indicators of drug use, and methods for changing inappropriate drug use behavior.

Namibia: Tentative date, April 2005

This course will be a collaboration between INRUD, the Rational Pharmaceutical Management (RPM) Plus Program, and WHO/EDM. A training-of-trainers component will be included. For further information, watch e-drug on the INRUD Web site, or contact John Chalker, e-mail: jchalker@msh.org.

Thailand: Tentative date, June 2005

This course will be a collaboration among INRUD, ThaiNRUD, and WHO/EDM. For further information, please contact Prof. Chitr Sitthi-amorn, Chulalongkorn University, e-mail: schitr@chula.ac.th and cc: sratana3@chula.ac.th.

A Report on Swedish Antibiotic Utilisation and Resistance in Human Medicine

This report, edited by Otto Cars and Karl Ekdahl of the Swedish Strategic Programme for the Rational Use of Antimicrobial Agents (STRAMA) and the Swedish Institute for Infectious Disease Control, respectively, is the second Swedish report combining results from the monitoring of antimicrobial resistance and antimicrobial usage in both human and veterinary medicine: SWEDRES and SVARM. It is today generally accepted that all use of antimicrobials in all sectors contributes to the development of resistance. This report will facilitate comparisons of resistance levels and incidence of use in the two areas. In Sweden, human and veterinary medical practitioners have collaborated and communicated for a number of years, not least within STRAMA. Based on this experience, the editors are convinced that collaboration and joint efforts between human and veterinary medicine are essential in order to counteract the threat that antimicrobial resistance poses to both human and animal health.

Data in this report indicate that the Swedish strategies in human and veterinary medicine have been successful in containing resistance. The general concept is to use antimicrobials only when needed, on prescription by a professional only, with the choice of treatment based on relevant information. Nevertheless, some of the presented results in both veterinary and human fields are cause for concern. Examples of unfavorable development of resistance indicate that the available antimicrobial arsenal is becoming more and more limited. Further efforts must be made to prevent infectious diseases, both in humans and in animals, by other means. The editors hope that this report will serve as a basis for policy recommendations and intervention strategies, and that it will increase understanding of the dynamics of resistance. The ultimate goal is to preserve the effectiveness of available antimicrobials for man and animals.

The report is available at <http://www.smittskyddsinstitutet.se/upload/Publikationer/Swedres-2003.pdf>.

INRUD News Available on the Internet

Past issues of *INRUD News* are available on the World Wide Web. In addition to *INRUD News*, the INRUD site contains information on INRUD members, activities, and links. Please visit the site at <http://www.inrud.org>.

Electronic Communications Update

A sampling of recent correspondence on the E-Drug listserv follows. Anyone wishing to contribute to E-Drug is invited to mail a written message to INRUD News; those with Internet access may send an e-mail message to e-drug@usa.healthnet.org. We reserve the right to edit mail because of the spatial constraints of this newsletter.

Send a message to majordomo@usa.healthnet.org to subscribe to the E-Drug listserv and automatically receive all future correspondence. The following command should be the only text in your message: **subscribe e-drug**.

Counterfeit Drugs

Hans V. Hogerzeil
WHO/Geneva
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Excerpted from *BBC News World Edition*, "Global Rise in Use of Fake Drugs," November 11, 2003 (<http://news.bbc.co.uk/2/hi/health/3261385.stm>)

The worldwide use of fake drugs has increased because they are so easy to make and sell cheaply, says the World Health Organization.

It is launching a campaign to clamp down on the use of the drugs, which it warns can be harmful and even deadly.

The WHO estimates that up to 25% of medicines consumed in developing nations are counterfeit or substandard.

They are often used to treat life-threatening conditions such as malaria, TB, and AIDS.

The problem is also widespread in richer countries, according to the WHO.

One of the best selling fakes is Viagra, which can easily be bought on the Internet, it warned. . . .

The U.S. Food and Drug Administration estimates that fake drugs alone comprise more than 10% of the global medicine market—generating annual sales of more than US\$ 32 billion.

Generic Substitution

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I have heard pharmacists arguing over and over about bioequivalency tests of generic and brand-name drug products, offering unfounded "professional" knowledge to promote costly

medications. To date, a well-documented therapeutic inequivalence between the two has not been proven. Bioavailability problems in drugs with narrow therapeutic indices have been reported with both generic and brand-name drugs, mainly related to an inherent problem with a drug's chemical characteristics. A perfect example is carbamazepam. Drugs with narrow therapeutic windows, such as warfarin or carbamazepam, are monitored routinely and, when a switch is made to save money, doses can be easily adjusted.

A. Francisco and B. Rossi
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Colombia is implementing a very strong generics policy. Government supports the patient's right to choose between products with the same active ingredient. Our generics market grew from 15 percent in 1995 to 37 percent in 2000, according to marketing data. Quality control of medicines is one of our important advances. We are proud of our drug regulatory agency, INVIMA, which until now has been able to certify with WHO's Good Manufacturing Practices (GMPs) at 100 percent of our manufacturing sites. Our quality control laboratory has been qualified as excellent by the PAHO-USP external control program.

Our decision not to carry out tests of bioequivalence for all generic products is not due to technical or financial inadequacies, but to our technical conviction that they are irrelevant (useless) for most products. The technical and sanitary utility of those tests is restricted to products with a narrow window.

We have discussed this tough and controversial topic a lot in Colombia. Some argue that a "truly generic" drug must show bioequivalence to be interchangeable with the original. If it does not, it is a "copy" or a "similar" drug. And, like it or not, such people urge, the possibility of substandard quality is always present. I'm afraid WHO's position and documents may contribute to this point of view. In Mexico and Brazil, it is the official government position.

The opinion of Colombia's Ministry of Health (MOH) and INVIMA is as follows: Generics are necessary and desirable to introduce competition for the same products. But interchangeability is not a health objective. In fact, any physician is likely to be interested in changing drugs day by day, pill by pill, in order to have options when to start (and end) a therapy. Interchangeability is a condition present in countries with a large patent experience in the market. Generic alternatives must show the same distribution profile to enter into the market when the patent ends. But developing countries are very different. Today, you can find two or three alternatives to one "original" drug.

With drugs that have a narrow therapeutic margin, the situation is clearer. Switching from one drug to another is not recommended,

even from original to generic, or generic to original. In fact, we strongly recommend not changing the manufacturer's drug without clinical follow-up. We sometimes prohibit a change.

Bioequivalence tests, especially in vivo, have a very small scope of application: oral dosage forms, narrow therapeutic margin, and dissolution problems. In our experience there is a very strong effort by the research-based industry to generate artificial (technical) barriers to competition, and to suggest that different standards of quality exist.

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Sana raised one of the fears that informs the decision not to substitute a brand with a generic product. This is the inequivalence/bioavailability factor. As Sana has mentioned, there appears to be no study to support this position. However, in the case of Colombia, as with other countries, one might present another reason for unwillingness to directly substitute a known, well-supported brand with a generic product. Where the national regulatory authority does not have the appropriate infrastructure (tools, well-trained staff, financing, etc.) to conduct appropriate tests to prove equivalence between the generic and the brand (especially where there are issues of inequivalence), one can understand such an authority taking the cautious position of sticking to the trusted branded product, in spite of its cost. After all, it is the national authority, or in fact the government, that would carry the liability for releasing a "suspect" product on the market, especially in cases where a generic manufacturer may not have the track record to supply quality products.

Others have called for regional drug regulatory offices that would address these matters, where some individual governments in such a region may lack the infrastructure to do this work; I would support that position.

Patrice Trouiller
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Medicines registration, one of the missions of any drug regulatory authority (DRA), is complex work. Even for generics, the registration process is embedded in the local social, cultural, and epidemiological context. Many, often lengthy preliminary steps are needed. An important first step is working together to share information and experiences among regional DRAs. Even within an integrated economic zone—because pharmaceutical products are goods meant to circulate abroad, from an exporting country to an importing one—pharmaceutical circulation involves many regulatory hurdles. Quite often, from lack of mutual confidence and understanding, one country will prefer to import a drug from a remote but Western country (supposed to be the gold standard) rather than "shopping" in a neighboring country.

Once there is mutual trust between two or more DRAs of a given region (perhaps formalized through an official agreement), the second step is to try to work on a specific registration dossier, and little by little to come to a mutual recognition that when a registration dossier has been appraised and marketing authorization given by country A, country B will recognize it de facto, and will not have to perform its own process to register the same product. Then you can start working on a regional DRA project. Such a regional project ought to be a priority for many countries. It could indeed save time and money and definitely would improve public health by facilitating the availability of needed medicines.

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To establish a national/regional program for generic substitution/interchangeability is a one-time cost; to maintain the program is absolutely less costly than recommending brand-name drug products, knowing that people in the developing countries have to choose between costly treatment and very basic life expenses. Developing countries lack neither personnel nor money to establish such programs. The problem is lack of will. If an official representative, with no evidence, believes that costly brand-name drugs are superior to generic drugs and therefore should not be substituted, we must ask what a "layperson" there believes. Ethically, this is very troubling. Unless an international agency has a clear mission to put some pressure on the developing country agencies to do what must be done, the problem will continue. The only losers are poor people in developing countries, and the only winners are the brand-name drug companies and their representatives.

Dr. Atieno Ojoo
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A lot of intervention studies have looked at promoting prescribing by using generic names (INN, BAN). I am interested in looking at how promoting generic substitution at the dispensing level impacts drug use and treatment costs and the legal implications (if any) of doing so. Is generic substitution at the dispensing level easier to implement than generic prescribing?

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Here are some resource sites offering pointers on generic substitution:

National Economic Research Associates (NERA) report on generic regulation in the countries of the Organisation of Economic Co-operation and Development (OECD): <http://pharmacos.eudra.org/F2/pharmacos/docs/nerareport.pdf>.

Brazilian situation: http://www.imshealth.com/ims/portal/front/articleC/0,2777,6599_41382706_41633255,00.html

U.S. Congressional Budget Office report: <http://www.cbo.gov/showdoc.cfm?index=655&sequence=0&from=0#anchor>

Recent U.S. Federal Trade Commission report: <http://www.ftc.gov/os/2002/07/genericdrugstudy.pdf>

Ten Best Case Studies in Procurement?

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I am just finishing a comprehensive review of best methods in pharmaceutical procurement. I have found surprisingly few case studies that provide evidence that can guide the implementation of procurement systems. There are so few, in fact, that I thought it would be interesting to put together a "10 best" list.

I can suggest seven to get the discussion started. Are colleagues aware of others? Language does not matter; we can always have reports translated. My only preferences are that the papers contain evidence (whether of an implementation or a field study), and that the report is less than 10 years old. If you send me suggestions, I will collate and report back. A short explanation of why you like the article and hints on how to obtain copies will be appreciated!

Case studies:

1. Organisation of Eastern Caribbean States

- Burnett, F. 2003. "Reducing costs through regional pooled procurement." *Essential Drugs Monitor* 2003(32):7–8.
- Huff-Rousselle, M., and Burnett, F. 1996. "Cost containment through pharmaceutical procurement: a Caribbean case study." *International Journal of Health Planning and Management* 11(2):135–57.

Describes the pooled procurement system put in place across the Organisation of Eastern Caribbean States. By pooling orders across island nations, adopting a system of restricted tendering, and guaranteeing payment to suppliers within 30 days, participating countries saved 70 percent in the first two years.

2. Chaudhury, R. R. 1999. "Rational use of drugs: change in policy changes lives." *Essential Drugs Monitor* 27:2–4.

Describes the Delhi Society for Rational Use of Drugs (DPSRUD), which reorganized its procurement system by creating an essential drugs list, implementing standard treatment guidelines, centralizing procurement, adjudicating tenders of only prequalified suppliers, and promoting rational use, and has, as a result, seen price reductions of 30–35 percent.

3. Van der Veen, F., and Fransen, L. 1998. "Drugs for STD management in developing countries: choice, procurement, cost, and financing." *Sexually Transmitted Infections* 74(Suppl 1): S166–74.

This study showed that the purchase of STD drugs is reliably less expensive when done through an international procurement agent than when done by the national procurement office directly.

4. Kawasaki, E., and Patton, J. 2002. "Drug supply systems of missionary organizations: identifying factors affecting expansion and efficiency: case studies from Uganda and Kenya." WHO/EDM, Geneva, WHO#HQ/01191467.

A WHO report on two mission-run drug supply systems in East Africa (MEDS in Kenya and JMS in Uganda) that shows that efficiency and high-quality service are both possible and sustainable. By focusing on good inventory management, strong logistics support, good financial management, and the efficient use of resources, MEDS and JMS have both increased access to safe, essential drugs.

5. Stapleton, M. 2000. "Bhutan Essential Drugs Programme: a case history." WHO/EDM, Geneva, WHO/EDM/DAP/2000.2.

Stapleton reports on the procurement system implemented in Bhutan. This case history focuses on issues of supplier performance and quality control. Of particular interest is Stapleton's report that Bhutan spent 0.39 percent of the procurement value on quality control of the procured medicines.

6. The Medicine Prices Project

See articles in *Essential Drugs Monitor*, vol. 32 (2003):

- Kishuna, A. "Drug pricing survey in KwaZulu-Natal"
- Wickremasinghe, R., Balasubramaniam, K., Jayarathna, U., Abeywardena, C., Ranwella, S., De Silva, A., and Hettiarachchi, B. "Measuring drug prices in Sri Lanka"
- Aristakesyan, M. "Some results from Armenia"
- Nurghozin, T. "The survey in Kazakhstan"

WHO and Health Action International have launched a new project to collect data on the prices patients pay for medicines in different countries, as well as investigating the cost components and the affordability and availability of key medicines. Early data are reported in the above studies.

7. Bala, K., and Sagoo, K. 2002. "Patents and prices." *HAI News*. Available at: <http://www.haiweb.org/pubs/hainews/Patents%20and%20Prices.html>.

Research by Bala and Sagoo shows the effect of patent policies and product competition on pharmaceutical prices. They found that product competition results in lower prices for generics than for brand-name equivalents as well as smaller variations in cost between similar products. Specifically, they report that "differences in the retail prices of brand-name drugs are much wider (range 1:16 1:59) than those for prices of generic equivalents (range 1:7 1:18)."

Meetings and Workshops

Promoting Rational Drug Use Course

February 1–14, 2004, Nairobi, Kenya

INRUD/Kenya, supported by Management Sciences for Health's RPM Plus Program through INRUD and with WHO/EDM, organized and held an African Regional Course on Promoting Rational Drug Use (PRDU) at the Fairview Hotel in Nairobi, Kenya. The PRDU course helped participants learn about and acquire practical skills to investigate drug use and apply these indicators in researching and implementing cost-effective methods to improve drug use. A training-of-trainers (TOT) component explaining and legitimizing the importance of employing adult learning principles when conducting courses was included, with the goal of enabling participants to teach future courses in their home countries and institutions.

Thirty-six participants from eight countries took part in the workshop, including eight from Ethiopia, four each from Tanzania and Zambia, two from Uganda, and one each from Ghana, Namibia, and Sudan. Local organizers Eva Ombaka and Atieno Ojoo, Kathy Holloway from WHO, and John Chalker and Mohan Joshi from RPM Plus facilitated the sessions.

Dr. James Nyikal, Director of Medical Services with the Kenyan Ministry of Health, gave the opening address. He stressed the importance of interventions to improve drug use in Kenya and that the participants and INRUD/Kenya would be of great use to the Ministry of Health in times to come.

The course was extremely well received, as was the social event in a well-known Nairobi restaurant. This was an excellent initiative taken by the new INRUD/Kenya members to create a group identity.



CLICK HERE TO SEE THE PICTURE

Thirty-six participants gathered in Nairobi for this African Regional Course on PRDU.

Regional Training Course on DTCs and Training-of-Trainers

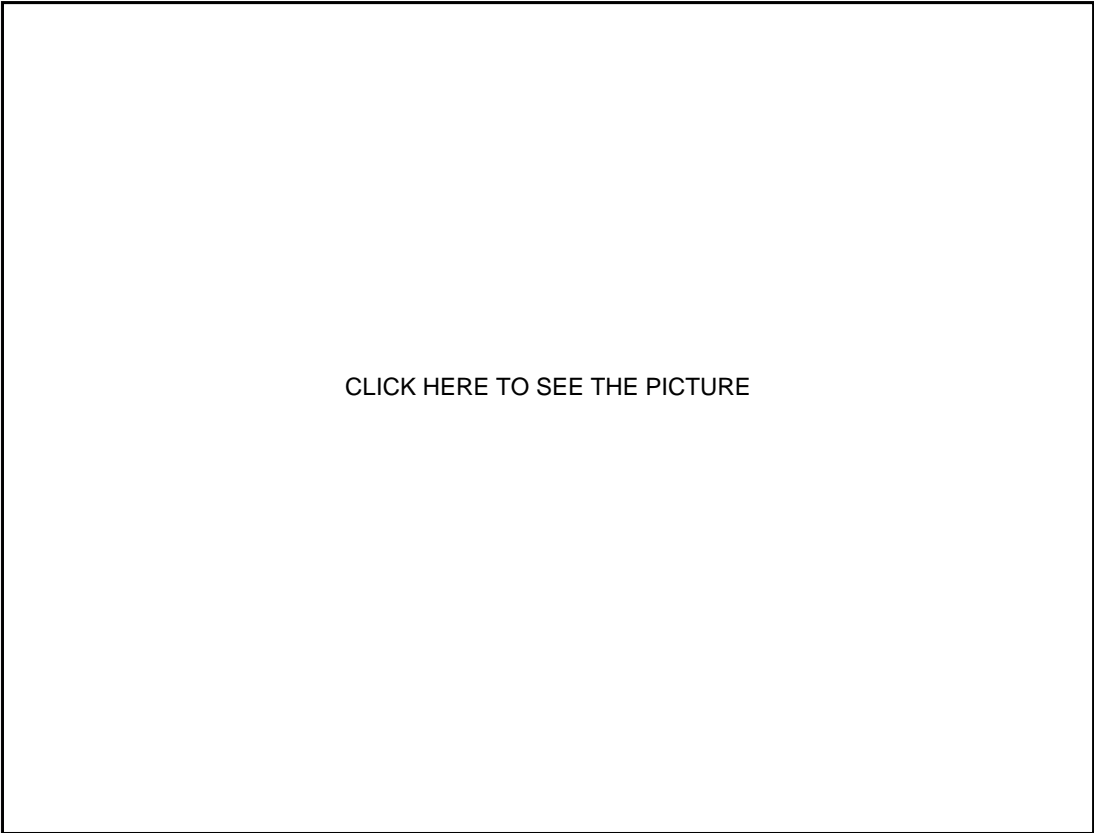
August 29–September 11, 2004, Kampala, Uganda

RPM Plus has recently developed a Training-of-Trainers (TOT) course to complement the existing Drug and Therapeutics Committee (DTC) course. The purpose of this additional initiative is to build national and regional capacities not only to establish effectively functioning DTCs but also to organize local DTC training programs and provide follow-up technical assistance.

The TOT component was implemented this year along with the regular DTC course in Uganda. The course was held in Kampala, and was co-organized by the Ministry of Health/Uganda, Makerere University, and RPM Plus in collaboration with WHO/EDM and INRUD/Uganda. The course was supported by USAID. Course work included formal presentations, interactive discussions, activities, and a field study to train participants to identify and collect important information concerning drug use.

Thirty-eight participants from 11 different countries were in attendance. They came from Uganda, India, Nepal, Zambia, Ghana, Namibia, Kenya, Sudan, Nigeria, Iran, and Rwanda. Fifteen of the participants were medical doctors, 20 were pharmacists, and 3 were pharmacy technicians. International facilitators for the course included Mohan P. Joshi, Paul Arnow, and Sarah Paige from MSH; Kathy Holloway from WHO; and David Ofori-Adjei from the University of Ghana. Local facilitators included Willy Anokbonggo, Jasper Ogwal-Okeng, Richard Odoi-Adome, Paul Waako, and Celestino Obua from Makerere University and Martin Oteba from the Uganda Ministry of Health.

The participants rated highly both the DTC and TOT components of the course. They valued the interactive nature of the course design, the opportunity to meet and share experiences with professional peers from other parts of the world, and the acquisition of information and skills that could be put to immediate use upon return to home institutions.



CLICK HERE TO SEE THE PICTURE

The new DTC Training-of-Trainers Course was launched in Kampala.

INRUD Group Reports

Introducing INRUD/Kyrgyzstan

The Kyrgyz Society for Rational Use of Drugs is a nonprofit, nongovernmental organization founded and registered in April 2003. The group works to identify and address problems in the use of medicines. The group's mission is to improve public health in Kyrgyzstan by developing and carrying out progressive programs in the following areas: promoting WHO's essential drug concept, promoting rational drug use, providing independent and objective information about medicines to specialists and members of the public, monitoring and preventing adverse drug reactions, and reducing total morbidity.

The group consists of 13 individuals, including pharmacologists, pharmacists, epidemiologists, and an attorney. In 2003–2004, the group organized several national seminars for specialists on rational drug use; conducted a pharmacoepidemiologic analysis of antibiotic use in southern Kyrgyzstan; researched and monitored levels of antibiotic resistance to important clinical agents; and studied factors and conditions that may interfere with efforts to improve antibiotics use.

Current activities include promoting the rational drug use concept by participating in the National Essential Drugs Committee and the Coordinating Council of the Ministry of Health (MOH) to develop clinical guides as well as training for prescribers and the public on rational antibiotics use. We are also carrying out pharmacoepidemiologic and pharmaco-economic analyses of anti-TB drug use, as TB is currently an acute public health problem in the country.

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Bangladesh Core Group

Prof. Dr. A. K. Azad Chowdhury

Since ICIUM 2004, the INRUD/Bangladesh Core Group has enlarged its membership from 8 to 16, covering most of the disciplines of health and pharmaceutical sciences, including social sciences relevant to health care. The members represent universities, government departments, nongovernmental organizations (NGOs), and international bodies. Five new members attended ICIUM 2004 and presented papers on several topics: 3- versus 5-day antibiotic treatment in common infectious diseases, community-based TB care, the impact of fixed-dose versus single-dose drug combinations on TB control, and antibiotic use in teaching hospitals.

The INRUD/Bangladesh Core Group has identified the following areas for research:

1. Antimicrobial use and resistance surveillance in various regions of Bangladesh to formulate standard treatment guidelines (STGs) for common infectious diseases
2. Development of a new, locally based methodology for integrated surveillance of antimicrobial resistance (AMR) and antimicrobial use in the community that can be used later to evaluate intervention to contain AMR
3. Study of widespread multidrug-resistant shigellosis (*S. sonnei*) in Bangladesh to suggest effective treatment guidelines
4. Extension of primary health care to the common people through promotion of rational use of drugs and introduction of partial cost-sharing in the government primary health care centers (Thana Health Complexes)
5. Monitoring-training-planning (MTP) to reduce irrational use of antibiotics in the major hospitals of Dhaka city
6. Introduction of MTP to reduce sales and dispensing of inappropriate medicines in private pharmacies
7. Development of indicators for study of drug use in private pharmacies
8. Study of emerging multidrug-resistant TB in the community
9. TB control methods (different treatment schedules and different drugs in fixed dose and single dose: DOTS and other regimens)
10. Evaluation of the impact of the National Drug Policy on the country's drug use pattern

Though the health personnel and pharmacists are familiar with the issues of rational use of drugs, quality of care, and outcome studies related to drug use and pharmacotherapy, their interest was waning because of the government's lack of interest in these areas. But ICIUM 2004 has created renewed interest in government circles, among NGOs, and in academia; they all are showing enthusiasm to address these issues to render better health care with minimum resources.

The Directorate Drug Administration recently updated the Bangladesh National Formulary and put it on the Web. It is hoped that this will help the physicians in urban areas to improve their prescribing practices, at least partially. The government is planning to update the National Drug Policy of 1982, but there is apprehension among health personnel and pharmacists that the government may liberalize the salient features of the Drug Policy to the detriment of the common people.

Cambodia Core Group

Dr. Chroeng Sokhan

Monitoring and supervision of drug management and use in Cambodia has been conducted since 1995, following the recommendation of the International Conference on National Medicinal Drug Policies, held in Sydney in October 1995. A network of supervision and monitoring teams was established from level to level: from the central level to the provincial level, from the provincial level to the district level, and from the district level to the health center level. Each supervision and monitoring team is composed of one pharmacist and one medical doctor. The regular visits from the central level to each province, from the provincial team to each district, and from the district to health centers have been planned as quarterly.

In addition to this regular activity, many trainings, workshops, and interventions on rational drug use and rational prescribing were conducted at the national and provincial levels. The main sponsors of these activities are WHO, the KfW Development Bank, and UNICEF. One of our successful activities was the implementation of a monitoring-training-planning approach, first piloted in six provinces in 2000 and expanded to an additional seven provinces in 2002.

We reported on the successes of this activity at ICIUM 2004. Funding is needed for expansion to the remaining 12 provinces of Cambodia.

Group Members

INRUD/Cambodia members include Dr. Chroeng Sokhan, Ph.D., Vice-Director, Department of Drugs and Food, Team Leader; Dr. Thach Varoeun, M.D., Chief, Bureau of Non-Communicable Diseases; Dr. Sok Srun, M.D., Chief, Bureau of Hospital Services;

Mr. Kov Bun Tor, Reproductive Health and Child Health Alliance (NGO); Mr. Va Sokea, Vice-Chief, Essential Drugs Bureau; Ms. Mam Boravann, Rational Drug Use Coordination Unit; Dr. Poch Bunnak, Ph.D., Social Scientist; and Mr. Ouk Kankosal (who has recently moved to the United States).

We are seeking new members to join the group, and many people have expressed interest.

CLICK HERE TO SEE THE PICTURE

*INRUD/Cambodia members, from left to right:
Dr. Chroeng Sokhan, Dr. Thach Varoeun, Dr. Sok Srun,
Mr. Kov Bun Tor, Mr. Va Sokea, Ms. Mam Boravann,
Dr. Poch Bunnak, Mr. Ouk Kankosal.*

INRUD/Cambodia Post-ICIUM 2004 Action Plan

Item No.	Strategic Action with Activities	Time Frame	Budget Needed (USD)	Budget Source
1	Extension of MTP approach to six more provinces	09/04-02/05	8,000	WHO (Strategic Plan?)
2	Extension of MTP approach to the final six provinces	03/05-08/05	8,000	WHO (Strategic Plan?)
3	Survey on drug access and drug use	Implemented in May 2004; no report is yet available	9,000	WHO
4	Follow-up activity on MTP implementation in the previous 13 provinces	09/04-02/05	7,200	Unidentified
5	Survey on attitude of Cambodian people toward health care seeking	10/04-12/04	9,000	Unidentified
6	Extension of the training of private prescribers on RUD in the private clinics and hospitals in five selected provinces	To be determined	7,000	WHO (Strategic Plan?)

China Core Group

Dr. Wang Qing

After attending ICIUM 2004, INRUD/China adjusted its working targets to the following issues:

Quality Care

- Study on prophylactic drug use. A three-year research project on prophylactic antibiotic use was conducted in two Beijing hospitals beginning in 2000; this activity will be replicated in other Chinese hospitals.
- Evaluation and intervention on albumin and fructose diphosphate prescribing on the basis of evidence. Albumin and fructose diphosphate are selected because they are on hospitals' top 10 sales list and should not be used so extensively. In this study, evidenced-based medicine methods as well as promoting rational drug use intervention will be used.
- Study on monitoring prescriptions with RDU software to ensure drug use safety.
- RDU model hospital study. This will be held in a military general hospital; the director of this hospital is a member of INRUD/China and he received support from military headquarters. Results will be disseminated to all military hospitals in the future.
- Research on applying pharmacoeconomic tools to the Chinese medical care system. Some good experiences from Australia or other countries will be introduced to the Chinese government.
- Drug and Therapeutics Committee model research. A DTC will be organized in one general hospital in Beijing to see if it is effective.

Patient Communication

- Intervention study on communication between dispensers and patients.
- Study on promoting compliance among patients taking antidepressant medicines.

Patient Education

- Education intervention on the knowledge of aged patients when they see a doctor, to be undertaken in a few months.

School Education

- Intervention study on drug use teaching for students in primary school.
- PRDU education research for students in medical school.

Seminars and Workshops

- Training course on research design, data analysis, and results publication. Participants are experienced medical work-

ers from group members' institutions. They will attend the seminar with their ongoing PRDU projects. The meeting is expected to be a problem-based training course.

- Symposium of advanced clinical pharmacy.

INRUD/China will focus on the above activities, but members also have been and will continue to be involved in such activities as promoting essential medicines, the medical care system, national treatment guidelines, and national medicines policy.

Delhi Core Group

Dr. Usha Gupta

Post-ICIUM 2004, INRUD/Delhi has been busy primarily with planning activities for the year 2004–2005. However, a few activities scheduled to take place during the last few months and planned last year have been undertaken. Future activities have been identified based on ideas proposed by the group during a preconference meeting and priorities laid down by INRUD at the end of the conference. Activities are directed toward promoting rational use of drugs among pharmacists (community as well as hospital pharmacists), strengthening the functioning of DTCs, educating the community on RUD, and promoting RUD among private prescribers.

Activities Undertaken

- Two training courses for promoting RUD among pharmacists were held in April 2004. One course was held at Delhi and the other at Raipur (Chhattisgarh State). Among others, Dr. Usha Gupta, Dr. Sangeeta Sharma, and Dr. N. K. Gurbani participated as resource persons.
- To facilitate training of pharmacists, training modules have been prepared keeping in view local needs. Topics include the role of pharmacists in promoting RUD, selection of drugs for procurement, procurement process, quantification of drug needs, and managing drugstores. Standard operating procedures for store management have also been prepared.
- A national workshop on resource mobilization was organized May 24–26, 2004. Among others, J. Sawyer (WHO consultant) and F. Craig were resource persons for the workshop. The workshop was funded by WHO/EDM.
- In an effort to create awareness about RUD among communities, the group organized a series of public lectures. An eminent specialist took one lecture every month. Prof. Ranjit Roy Chaudhury was one of the resource persons.
- The central DTC, under the Directorate of Health Services, Government of NCT of Delhi, has met twice, in April 2004 and July 2004. The committee is constantly reviewing the priority areas for interventions. A training program for pharmacists has been initiated by the DTC. In addition to the central DTC, each hospital under the Directorate of Health Services has established a DTC.

Activities Planned

- Because a large number of patients seek advice from private prescribers for their treatment, the group identified the need for promoting RUD among private prescribers. INRUD/Delhi will work in tandem with Delhi Medical Association. Two training programs have been scheduled for the month of September 2004 to cover RUD in some cardiac and renal diseases.
- Two national training programs, one each on Rational Pharmacotherapy and Promoting Rational Use of Drugs, are planned for early 2005. INRUD/Delhi feels that the training program should be an ongoing process, although its impact is difficult to quantify, as the effects are only realized after a long time.

Activities Concluded

Some activities were started by the group prior to ICIUM 2004 and have just been completed.

- Testing of indicators described in the working draft “Investigating Antimicrobial Drug Use in Hospitals: Selected Indicators,” developed by the RPM Plus Program of Management Sciences for Health. These indicators have been field-tested in one of the tertiary care hospitals of Delhi State.
- Pre- and postintervention evaluation of adherence to STGs in different specialties has just been concluded.
- The Delhi State Essential Drugs Formulary has been updated. This was necessary because of the revision of the Essential Drugs List (EDL).
- Dr. Sharma participated in the VIII International Congress on Clinical Pharmacology and Therapeutics, held in Australia recently.

Ethiopia Core Group

Mr. Tenaw Andualem

ICIUM 2004 was a forum for exchanging experiences and paving the way for collaboration among the research groups. It has created feelings of hopes for the future of improving drug use, but a long process remains to fully address those complex issues raised during the conference. INRUD/Ethiopia will place emphasis on the following activities, among others.

1. Possible collaborative research with Boston University to assess the impact of revolving drug funds to increase availability and improve quality of health services. The draft proposal, which was prepared earlier, has been submitted to Brenda Waning based on our discussion with two INRUD/Ethiopia members while she was in Ethiopia in May 2004. We are looking forward to collaborating on this. There may also be collaborative research with Boston University

on other aspects of drugs, which will be clearly defined at a later stage.

2. Introduction of departments of social pharmacy in the schools of pharmacy in universities. We hope that these will be focal points for coordination of research in the area of drug use in universities.
3. Advice, guidance, and supervision of undergraduate and graduate students to work in the area of drug use.
4. Introduction and strengthening of PRDU concepts in the health professionals' curricula.
5. Expansion of INRUD/Ethiopia's membership.
6. Study on antimicrobial drug resistance, which will have many subprojects. This proposal has been submitted for support but has not received any to date. We are looking forward to identifying collaborators.
7. We are expecting collaborative works on
 - Development and testing of indicators and methods to assess pharmacy practice
 - Ethnopharmacology and pharmacoepidemiology of herbal drugs
 - Intervention research to promote the rational use of drugs by drug retail outlets

Since ICIUM 2004, INRUD/Ethiopia members have been continuing their research and involvement in issues that will help in the promotion of rational drug use. Some of the papers submitted for publication that are related to rational drug use and abstracts to be presented at the Annual Professional Associations are mentioned below.

Articles Published before ICIUM 2004

- Tenaw Andualem and Tsige Gebre-Mariam. “Self-medication practices of drug consumers in Addis Ababa: a prospective study.” *Ethiopian Journal of Health Sciences* January 2004; 14(1):1–11.

Articles Submitted after ICIUM 2004

- Tenaw Andualem and Tsige Gebre-Mariam. “Assessment of consumers' drug knowledge in Addis Ababa: a cross-sectional survey.”
- Tenaw Andualem. “A community based survey on microorganisms' resistance against antimicrobial drugs.” Submitted to *Ethiopian Pharmaceutical Journal*.
- Dagen Belilign, Tenaw Andualem, and Antneh Belete. “Dispensing practices and drug consumers' satisfaction in selected community pharmacies in Addis Ababa.” Submitted to *Ethiopian Pharmaceutical Journal*.
- An ICIUM 2004 INRUD press release will be published in *Pharma Forum*, the newsletter of the Ethiopian Pharmaceutical Association.

- The INRUD/Ethiopia coordinator has compiled and submitted the first wide-distribution introduction to INRUD, titled "INRUD's Vision and Action to Promote Rational Drug Use," to be published in *Pharma Forum*. This was also presented to the Executive Committee of the Ethiopian Pharmaceutical Association as part of a request to share office space and to register INRUD/Ethiopia with this association.

Finally, INRUD/Ethiopia members are hoping to do their best to impact the rational use of drugs in this country. We also look forward to materializing collaborative research efforts. We suggest that the newer groups need better support from the INRUD secretariat so that they can use their potential and sustain their groups by themselves. In developing countries like ours, one might have project ideas and come out with proposals, but it is difficult to get funding; a coordinated effort and guidance along these lines would enhance the group's work.

Ghana Core Group

Prof. David Ofori-Adjei

Pre-ICIUM 2004 Activities

Ghana was represented at ICIUM 2004 by a 12-member delegation that presented posters, delivered lectures, and took part in the plenary. Though no formal INRUD/Ghana meeting was held prior to the conference, members met in small groups regularly to prepare the INRUD posters and to decide on follow-up activities post-ICIUM 2004. Ghana researchers made nine poster, plenary, or oral presentations at ICIUM 2004, with the following titles:

- The role of the comprehensive pharmaceutical sector development programme in improving rational use of drugs: the Ghana example
- An intervention to improve antibiotic prescribing habits of doctors in a teaching hospital
- Monitoring the pharmaceutical sector in the developing world: the Ghana example
- Improving access to essential medicines through public-private initiatives: the case of the Catholic Pharmaceutical Service in Ghana
- Improving access to essential medicines through public-private initiatives: a case for an essential medicines franchise in Ghana
- Experiences with insurance coverage of medicines in Ghana
- Understanding factors that improve adherence to anti-malarial therapy as an essential step in developing interventions to improve adherence
- Improving adherence to malaria treatment for children: the use of pre-packed chloroquine tablets versus chloroquine syrup

- The impact of large-scale rectal artesunate deployment in the initial management of non per os III in under-five children in Ghana

Post-ICIUM 2004 Plans

Several activities have been planned following ICIUM 2004, some of which are already in process.

The National Health Insurance Scheme (NHIS) has been launched and INRUD/Ghana members Dr. Daniel Arhinful, Dr. Irene Agyepong, and Mrs. Martha Gyansa-Lutterodt are at the forefront of various activities to help in the implementation of health insurance in Ghana, including undertaking the development of a National Health Insurance Drug List, a study of the factors that influence the recruitment of subscribers into the various schemes, and a pricing study to monitor the effect of the introduction of the NHIS on charges, cost of pharmaceuticals, and the uptake of services. Dr. Agyepong was part of the ministerial task team that developed the NHIS policy framework, and she and Dr. Arhinful are presently assisting in the development of guidelines to shape the design of district mutual health insurance schemes in Ghana. They have also submitted a proposal for funding to monitor and evaluate health insurance program design and implementation, as well as pro-poor financing strategies in Ghana from the client perspective.

In August, INRUD/Ghana member Dr. Alex Dodoo delivered the keynote address at this year's Pharmaceutical Society of Ghana meeting on the theme "Quality pharmaceutical care: an essential component of the national health insurance scheme." He called for appropriate management of pharmaceuticals and a clear separation of prescribing and dispensing functions to ensure sustainability of the scheme.

The Ghana National Drugs Programme has just completed the second edition of the Ghana National Drugs Policy and this has been approved by the cabinet. INRUD/Ghana members were involved in all aspects of the policy and are currently involved in the final stages of reviewing the standard treatment guidelines and the Essential Drugs List for Ghana.

Prof. David Ofori-Adjei, INRUD/Ghana Coordinator, and INRUD/Ghana members Dr. Francis Ofei, Mrs. Gyansa-Lutterodt, Mrs. Amah Nkansah, and Dr. Dodoo will continue their active participation as resource persons for the delivery of the modular Drug and Therapeutics Committee program of the National Catholic Secretariat as part of the Strategies for Enhancing Access to Medicines (SEAM) initiative in Ghana. The first batch of trainees has successfully completed their program and they graduated at a colorful ceremony in June 2004 chaired by Dr. Dodoo. INRUD/Ghana members have been the main facilitators of the DTC training of the Ministry of Health and recently undertook a training course for the Greater Accra Regional Hospital, the Ridge Hospital in Accra. The group will continue to offer this service to the ministry in the years ahead and to any other countries in the subregion that may need the service. Prof. Ofori-Adjei was among the facilitators at the Regional DTC Training-of-Trainers workshop held in Kampala, Uganda, in August 2004.

As part of the post-ICIUM plans, INRUD/Ghana will be taking part in a multicenter pharmacy practice indicator study involving other INRUD countries.

Together with other members, the INRUD/Ghana group continues to provide technical assistance in the training of licensed chemical sellers (referred to as CAREshops) under the franchise scheme being supported in Ghana by Management Sciences for Health.

Ghana is undergoing a policy change with regard to the treatment of malaria, replacing chloroquine with a combination of amodiaquine and artesunate as the first-line treatment for uncomplicated malaria. Furthermore, the use of chloroquine tablets weekly for prophylaxis of malaria in pregnancy is being replaced with intermittent preventive treatment (IPT) involving 3 courses of sulfadoxine-pyrimethamine (SP) between 16 and 36 weeks' gestation at intervals of at least one month. INRUD/Ghana members Dr. Agyepong, Prof. Ofori-Adjei, and Mrs. Gyansa-Lutterodt were all involved in the policy change. Research on the monitoring of adverse events that will occur following administration of SP for IPT is planned in 20 selected pilot districts and will be executed by the National Centre for Pharmacovigilance, which is under the coordination of Dr. Dodoo.

To create a greater impact of the above and other issues that emerged at ICIUM 2004, the Ghana National Drugs Programme of the Ministry of Health, under the management of INRUD/Ghana member Mrs. Gyansa-Lutterodt, has agreed to host a post-ICIUM 2004 dissemination workshop for relevant stakeholders in Ghana. At the time of writing, the exact dates were not yet announced.

Indonesia Core Group

Dr. Sri Suryawati

After the successful ICIUM 2004, INRUD/Indonesia organized a consolidation meeting with its small groups. The objectives of the meeting were to evaluate the contributions and achievements of INRUD/Indonesia and its small groups in improving the use of medicines at the district, national, as well as global levels, and to identify room for improvements in their programs.

INRUD/Indonesia is fully aware that achieving the access, affordability, and appropriateness of essential medicines is the ultimate goal in promoting the quality use of medicines. Therefore, improving prescribing practices alone will not be sustained without improving drug management through rational selection and efficient distribution.

Decentralization of medicine procurement in Indonesia obviously affects the access to and the quality use of medicines, and causes difficulties for district health managers. However, experience showed that with technical and political support from INRUD/Indonesia, some district managers have been successful in tackling these difficult situations. Such technical support included negotiating with local authorities, training the district

staff in medicines policy and management, and transferring skills in conducting interventions and self-assessment to district health managers.

INRUD/Indonesia is also aware that the spread of HIV/AIDS, malaria, and tuberculosis have become serious threats to the public health. Attention should be paid and actions taken to overcome these diseases, and therefore they should be incorporated in our programs.

Based on these considerations, INRUD/Indonesia has set its strategic plan for 2004–2008 as follows:

1. Strengthening existing INRUD/Indonesia small groups and establishing more groups, with more attention to the areas where access to centers of excellence in rational use of medicines remains a problem
2. Providing technical and justified financial support to INRUD small groups in working together with local authorities at the district and provincial levels and with public and private hospitals to improve the use of medicines in their respective districts
3. Encouraging INRUD small groups to provide technical support and advocacy, and to transfer skills in conducting action research and implementing well-proven strategies to improve medicine use in their respective districts
4. Encouraging our small groups to conduct pharmaco-economic studies of rational selection and cost containment in order to provide evidence for district health managers in making decisions
5. Collaborating with the master's degree program on medicine policy and management of Gadjah Mada University in providing technical support and training materials, and facilitating its graduates to improve the use of medicines in their working environments
6. Ensuring the incorporation of essential medicine concepts, rational medicine use, national medicine policy, and priority issues in health care such as HIV/AIDS, TB, and malaria in health professional curricula, through advocacy to authorities and managers in health professional education programs, and establishing collaboration with pharmacology/pharmacotherapeutics/clinical pharmacology departments of public and private universities
7. Working with grassroots organizations and other social and community organizations to conduct transdisciplinary programs aimed at community empowerment to improve the access and use of medicines

Based on the strategic plan, each INRUD small group shall set its plan of action. To support the activities, INRUD/Indonesia and its small groups shall raise accountable funds from research projects, training courses, and services delivery. Progress evaluation will be conducted in 2006 and 2008. In 2006, an evaluation meeting will be organized, including all small groups and the health managers in the respective districts, stakeholders, and

policy makers at national level. Whenever possible, INRUD founders will be invited. Financial support shall be sought for this meeting. A similar meeting will be organized in 2008.

Kenya Core Group

Prof. Bill Lore

INRUD/Kenya continues to hold its meetings at WHO's Regional Logistics Initiative (RLI) meeting room, courtesy of MSH/RPM Plus, and to plan its research activities under the guidance of the new national coordinator, Prof. Bill Lore. Dr. Atieno Ojoo has taken study leave to the United States, and the position of INRUD/Kenya secretary has been handed over to Dr. Julius Ombogo.

INRUD/Kenya's main activity this year, supported by USAID, was the organization and implementation of an African Regional Course on Promoting Rational Drug Use, February 1–14, 2004, at the Fairview Hotel in Nairobi, Kenya. The course was co-sponsored by WHO/EDM and MSH, with support from USAID. The course was facilitated by Dr. J. Chalker, INRUD's International Coordinator; Dr. K. Holloway, WHO/EDM; Dr. M. Joshi, RPM Plus/MSH; and Dr. E. Ombaka and Dr. Ojoo of INRUD/Kenya. Sarah Paige, RPM Plus/MSH, assisted in the organizational and administrative aspects of the course. (See **Meetings and Workshops**.)

Soon after the PRDU course in Nairobi, six INRUD/Kenya members participated in ICIUM 2004. Meeting participants noted that the increased access to quality drugs is beneficial only if the medicines are used properly. Developing interventions to improve medicine use and to increase understanding of issues that impact the appropriate use of medicines was therefore a main resolution for the global research agenda coming out of the meeting.

Kenya is planning to introduce a compulsory national social health insurance scheme (NSHI) in July 2004 as it undertakes reforms in the health sector. As emerging health insurance systems promise to be effective tools to improve access to and use of medicines, INRUD/Kenya will focus on developing methods to assess and to build RDU into the Kenyan NSHI scheme. There is urgent need to support programs of rational use, medicine pricing, and pharmaceutical policies in general. Proposed activities include the following.

Service Program

- Make a significant contribution by promoting improved rational use of drugs under the national social health insurance scheme to be introduced by the Ministry of Health

Research Activities

- Assess the proposed drug management logistics for the health insurance scheme

- Develop a methodology to assess the impact of the health insurance scheme on the rational use of drugs
- Participate in the development and testing of indicators and methods to assess pharmacy practice educational and training programs
- Identify training gaps for health professionals and personnel
- Identify training gaps for suppliers, vendors, and consumers of drugs

Advocacy Programs

- Identify specific avenues for reaching consumers to improve their drug consumption behavior

Nepal Core Group

Prof. Kumud K. Kafle

INRUD/Nepal has been involved in the following activities since the last publication of *INRUD News*:

- ICIUM 2004: Presentation of papers titled "Strategy to Improve Use of STGs in Prescribing Practices at Primary Health Care Outlets in Nepal" and "Pilot Implementation of Self-Monitoring and Peer-Group Discussion Strategy to Improve Use of Medicines in PHC Outlets in Nepal." Four members of INRUD/Nepal participated in the conference.
- Identification of studies: The INRUD groups meeting held at the conference decided that each country group should identify studies to conduct and take leadership or collaborate with other groups. Accordingly, INRUD/Nepal has identified the following studies and has developed an outline for one of them.
 - Leadership-role study: Improving Drug Sellers' Practices through MTP and Adherence to Treatment Protocol
 - Collaboration study: Malaria Study, Child Health Study, and Chronic Respiratory Diseases
 - Submission of baseline report of the study titled "Developing and Implementing Monitoring and Supervision Systems for Drug Management and Use." The work was completed by the end of June 2004. The study is funded by USAID through the RPM Plus Program.
- Organization of the 16th National Training Course on the Rational Use of Drugs in Kathmandu. The 16th course was a regular training course held in October 2003 with 31 participants who were supported by six organizations paying course fees and other expenses.
- Development of two articles for submission to the international journals from the previous intervention studies on drug sellers and standard treatment schedules (STS).

Dr. Dennis Ross-Degnan was in Nepal in June 2004 to work with us in developing the articles. The articles are in the process of submission.

Members' Activities

- Dr. K. K. Kafle was invited as a William Evans visiting fellow to the University of Otago, New Zealand, March 2004. He gave several talks at the University of Otago and the University of Auckland; topics included medicine-related issues in developing countries, community education about medicines, pharmacy service and education in Nepal, using simulated clients to study pharmacy services, and other interventions.
- Dr. S. B. Karkee presented findings on "Issues in Antibacterial Provision in Primary Health Care in Nepal" and Dr. Kafle participated in the Ph.D. thesis dissemination meeting, Kathmandu, May 2004.
- Mr. R. R. Prasad has been nominated to be a member of the Central Committee on Adverse Effect following Immunisation, MOH, 2004.
- Mr. G. B. Bhujju, Dr. Kafle, Dr. Karkee, and Mr. Prasad participated in ICIUM 2004.
- Dr. Kafle presented a paper titled "Pilot Study on Prescribing Practices and Pharmacy Services of TU Teaching Hospital," a study conducted by the Drug Committee, at the Institute of Medicine faculty meeting, Kathmandu, May 2004.
- Dr. Karkee presented papers titled "Community Intervention to Promote Rational Treatment of Acute Respiratory Infection in Rural Nepal" and "Assessing Community Members' Understanding and Practices in Treating ARI in Rural Nepal," in collaboration with the Britain-Nepal Medical Trust (BNMT), at ICIUM 2004.
- Mr. Prasad participated in the Workshop on Counterfeit Medicines, and attended the International Conference of Drug Regulatory Authorities (ICDRA), WHO, in Spain, February 2004.
- Dr. Kafle presented papers titled "Project on Enhancement of Research Capacity in Nepal: Interventions on Primary Health Care" and "Effect of Regulatory Intervention on Drug Availability in Nepal," at ICIUM 2004.
- Dr. Kafle and Mr. Bhujju were re-elected chairman and member, respectively, of the NGO Pharmaceutical Horizon of Nepal (PHON), in February 2004.

Impact of INRUD/Nepal

The Director General of the Department of Health Services (DHS) distributed certificates of participation at the 16th national training course. The farewell reception was attended by senior officials from the Ministry of Health; representatives from UNICEF, the Rural Health Development Project/

SDC, JICA, and District Health Strengthening Project/DFID; the BNMT Director; health professionals from hospitals and medical colleges; and journalists.

INRUD/Nepal and its activities have been listed in the Annual Report, 2002/2003, DHS/MOH.

Key findings from the monitoring and supervision study were presented at the Community Drug Programme (CDP) Network Committee meeting, which was attended by the following: Director General, DHS; Director, Logistics Management Division, DHS; Chief, Health Section, UNICEF; and other senior officials from MOH.

District Drug Use and Health Profile 2002, a document published by INRUD/Nepal, has been widely circulated in Nepal and abroad. The next edition of the document was published as of July 2004.

Web Site

INRUD/Nepal now has its own Web site. The address is www.inrud-nepal.org.np. Please come and visit us.

Nigeria Core Group

Prof. A. F. B. Mabadeje

Pre-ICIUM 2004

A three-day national course titled Promoting Rational Drug Use and Managing Drug Supply was successfully organized by INRUD/Nigeria November 30–December 2, 2003. It was supported by WHO/EDM. A total of 25 participants were in attendance. Facilitators included Prof. A. F. B. Mabadeje, Prof. L. A. Salako, Prof. I. Abdu-Aguye, Prof. Isah, Mr. R. K. Omotayo, Dr. C. C. Chukwuani, Dr. S. O. Olayemi, Mr. I. A. Oreagba, and Dr. Dora Akunyili, Director General of the National Agency for Food and Drug Administration and Control (NAFDAC), who was represented by Mrs. A. Osakwe. At the Annual General Meeting that concluded the course, National Trustees for INRUD/Nigeria were appointed.

Prof. Isah, Dr. Olayemi, Dr. Emeka, Mr. Oreagba, and Mrs. Tekobo attended the 30th Regional Scientific Conference of the West African Society for Pharmacology, Ibadan, Nigeria, October 18–24, 2003. The theme of the conference was "The Challenges of Drug Development and Utilization in a Developing Nation." Papers were presented by all of the INRUD attendees. Dr. Falade was a member of the local organizing committee.

Prof. (Mrs.) Femi Oyewo, Mrs. Adedeji—INRUD/Nigeria South West Zone representative and Assistant Director, Pharmaceutical Services, Lagos University Teaching Hospital, respectively—and Mr. Oreagba attended the 16th Annual Scientific Symposium of the West African Postgraduate College of Pharmacists in Accra, Ghana, March 8–12, 2004. Mr. Oreagba presented a paper titled "Assessment of the Use and Adverse Effects of Antineoplastics in a Nigerian Teaching Hospital."

Dr. Ogori Taylor, the present National Professional Officer (WHO/EDM) for Nigeria, gave a keynote address at the 76th Annual National Conference of the Pharmaceutical Society of Nigeria held in Abuja, November 7–12, 2003, titled “Safe Health Care Systems: The Pharmacist and the Society.”

Post-ICIUM 2004

A general meeting was held May 6, 2004, to deliberate and share experiences on key issues discussed at ICIUM 2004, which was attended by Prof. Isah and six other members, and to take decisions on priority research areas for the group. Two research topics were selected: adherence to medicines and drug promotion. However, some members indicated their interests in other research topics, including pharmacy practice indicators, incentive schemes to promote rational drug use, and pricing. Research groups have been set up to present the relevant proposals for review during the next meeting.

INRUD/Nigeria will work with Dr. Taylor in executing some of the priority research projects.

An ICIUM 2004 press release has been submitted to local medical and pharmaceutical journals for publication.

Consultations are ongoing between INRUD/Nigeria and NAFDAC on establishing a National Pharmacovigilance Centre to help collect, monitor, and evaluate data on adverse drug reactions.

Prof. Oyewo, an INRUD/Nigeria member and General Secretary of the West African Postgraduate College of Pharmacists (WAPCP), along with Dr. Eniojukan and Mr. Oreagba, were resource persons for WAPCP update lectures for pharmacists, held in Lagos, April 27–29, 2004, which featured such topics as pharmacoepidemiology, rational drug use, pharmacoconomics, and national health insurance.

Peru Core Group

Dr. Raúl Cruzado Ubillús

It was a good experience for us to attend the Second International Conference on Improving Use of Medicines in Thailand. Thanks a lot for the opportunity to participate. The INRUD/Peru group has planned the following activities for 2005.

- Training courses on managing drug supply, rational pharmacotherapy, and rational use of drugs
- Technical assistance to the Regulatory Authority of Drugs (with emphasis on managing drug supply and therapeutic value of medicines in Peru)
- Development of a research project about rational use of antibiotics in Peru
- Elaboration of a research project about managing drug supply in Peru
- Editing and dissemination of teaching materials on rational use of drugs (PAHO: *The Medical Letter on Drugs and*

Therapeutics; Drug and Therapeutics Bulletin; and Adverse Drug Reaction Bulletin) in Spanish in Peru

- Advocacy programs: access to essential drugs
- Support to research developed by pregraduate university students in the areas of health and social sciences (pharmacy, medicine, obstetrics, and nursing)
- Development of better communication with other INRUD groups

We are interested in collaborating on research with other INRUD groups. We think it would be helpful to research specific topics in relation to rational use of drugs in different INRUD countries.

Good luck to all groups, and let's continue working for rational use of drugs through INRUD!

Philippines Core Group

Dr. Roberto A. Rosadia

Right after ICIUM 2004, the INRUD/Philippines Core Group reorganized itself with the addition of new members from various cooperating institutions. Regular meetings have been held and plans have been laid out as to new directions that the group will take. Among these activities are the following.

Drug sellers study. Preparations are in high gear for the drug seller intervention study, in collaboration with Boston University's Center for International Health. INRUD members of the National Drug Information Center, the Department of Health's National Drug Policy Office, Philippine Health Insurance Corporation, De La Salle University, and UP-PGH Clinical Epidemiology Unit laid the groundwork for the July 5–9, 2004, visit of Brenda Waning and Hilbrand Haak to see possible research sites and to discuss the details for the USAID-supported study. The team made site visits to rural drug seller outlets and held meetings with key government officials, including the Secretary of Health and the Bureau of Food and Drugs Director. Drs. Sid Sia and Rainier Galang were the lead persons for this activity.

Research methods workshop on drug utilization studies. Drs. Rita Alvero, Galang, and Bobby Rosadia have met to discuss the conduct of a research methods workshop for health care providers who are interested in drug utilization studies. The participants are expected to come up with a preliminary proposal on drug use study after the workshop, tentatively scheduled for September 2004.

Rational drug use training course for Vietnamese group. The National Drug Information Center (Dr. Galang) was deeply involved in a two-week training course held June 1–11, 2004, at the University of the Philippines Department of Pharmacology, for four pharmacists from the Vietnam Ministry of Health. The Vietnamese participants highly appreciated the National Drug Information Center team's hands-on approach to information

research and use in drug evaluation and in developing standard treatment guidelines and drug bulletins.

Drugs and Therapeutics Committee Workshop. INRUD/Philippines Core Group members Drs. Alvero, Tim Badoy, and Rosadia shall conduct a preconference seminar/workshop on DTCs for health professionals participating in the Health Technology Assessment Conference in November of this year. The Philippine Health Insurance Corporation, led by Drs. Madz Valera and Lito Acuin, will host the Health Technology Assessment Conference.

PRDU courses. The group will be conducting local PRDU courses for government and private health workers by the start of next year. The hosting of an international PRDU course will be coordinated by the group with the INRUD secretariat.

Drug promotion module. Dr. Alvero is finalizing the materials for the training module on Drug Promotion to be offered to government and private health professionals starting early next year.

Tamil Nadu Core Group

Dr. R. Murali

- ICIUM 2004 was attended by four members of INRUD/Tamil Nadu, who presented two posters and made three oral presentations. INRUD/Tamil Nadu has been strongly advocating the principle of “catch them young.” It was only fitting to see two undergraduate medical students attend ICIUM 2004. They have now returned as peer group educators on rational drug use.
- Dr. R. Murali, Coordinator, has been re-appointed as the regional coordinator of sentinel surveillance and as external monitor of the Prevention of Mother-to-Child Transmission program in the state.
- INRUD/Tamil Nadu has been entrusted by the Tamil Nadu State AIDS Control Society with the responsibility of procuring material on rational use of antiretrovirals for equipping the Tamil Nadu Resource and Information Centre for HIV/AIDS.
- Dr. C. Rajkumar has been entrusted with the responsibility of educating trainees in advanced cardiac life support on emergency drugs and their rational use.
- Dr. D. Sathyanarayanan attended the course on promoting rational drug use in the community at the Indian Institute of Health Management and Research.
- Dr. R. Senthil Kumar conducted an awareness campaign for the rational use of drugs in pediatric patients with liver disease. A hepatitis-B camp setting was used to remove myths and misconceptions about use of drugs and diet in children with jaundice.
- INRUD/Tamil Nadu has been approached by Indira Gandhi National Open University to prepare messages on rational

drug use for broadcast on its FM radio channel. INRUD/Tamil Nadu is preparing messages for transmission.

Research in Progress

- Study of drug use patterns in tribes of Thiruvallur, Tamil Nadu
- Evaluation of a syndromic approach in management of sexually transmitted diseases
- ADD/ARI management in primary health centers of Tamil Nadu

Post-ICIUM 2004 Activities

- Develop STGs for the state
- Assist the state in the launch of an antiretroviral therapy program and serve as the nodal agency for notification of adverse events
- Develop DTCs at all public-sector hospitals
- Undertake intervention studies to promote RUD in the state, particularly research in the following areas:
 - Antimicrobial resistance
 - Compliance of patients suffering from chronic ailments with drug use instructions
 - Geriatric prescribing
 - Injection abuse
 - Treating depression
- Utilize the services of medical internees to conduct community sensitization programs
- Continue training more health care providers and students on RUD

Tanzania Core Group

Dr. Amos Massele

Post-ICIUM Plans

Analysis of results of the health facility malaria treatment intervention project. This was reported in the last issue of *INRUD News* and is ongoing with participation of local INRUD members and international collaborators, including Profs. Göran Tomson, Lars Gustafsson, and Anders Bjorkman.

Improving malaria case management in under-fives in two districts of Tanzania, Kibaha and Bagamoyo. As opposed to the above-mentioned health facility malaria treatment intervention, this intervention will focus on treatment of malaria in households and drug shops. The design of the intervention is not yet finalized but it will definitely be a randomized controlled trial.

Inauguration of the Regional Pharmaceutical Forum (RPF) for East, Central, and Southern Africa (ECSA). This forum was

inaugurated in Arusha, Tanzania, May 18–21, 2004. Sixteen ECSA delegates attended the inauguration. INRUD/Tanzania was represented by Amos Masele; Margareth Ndomondo-Sigonda, Director General of the Tanzania Food and Drugs Authority (TFDA); and Christopher Msemo, Director of Procurement, Medical Stores Department (MSD), Tanzania. The RPF will be responsible for harmonization for pooled procurement and strategies to promote rational use of drugs, including developing common STGs, drug formularies, essential drug lists (for common diseases like HIV/AIDS, malaria, TB, etc.), and pharmacovigilance. However, more activities will be identified.

Establishment of a drug information center and use of IT. INRUD/Tanzania, in collaboration with the TFDA and Prof. Lars Gustafsson from the Karolinska Institute, is planning to set up a drug information center. This may be one of the strategies to promote rational use of pharmaceuticals in Tanzania.

Thailand Core Group

Dr. Chitr Sitthi-amorn

ThaiNRUD, in cooperation with INRUD, WHO/EDM, Boston University School of International Public Health, Harvard Medical School Department of Ambulatory Care & Prevention, Management Sciences for Health/RPM Plus/SEAM), organized ICIUM 2004, held in Chiang Mai, Thailand. The conference aimed to build an up-to-date international consensus on strategies for implementing effective interventions for improving use of medicines. One hundred members of ThaiNRUD participated in this important conference. All contributed to the discussions based on their findings and experience in international and national policy, national policy on HIV treatment, access to medicines, strategies for improving pharmaceutical promotion, impacts of insurance coverage on use of and cost of drugs, hospital and inpatient care, and so on. Recently, the International Organizing Committee and ThaiNRUD have launched the post-ICIUM Web site. (See **ICIUM 2004**, page 1.)

Since ICIUM 2004, the ThaiNRUD members have agreed to work together on promoting RUD, including these activities:

- Periodical ThaiNRUD working group meetings to initiate research/projects/activities based on the ICIUM 2004 recommendations (chairperson: Prof. Chitr Sitthi-amorn)
- Pharmaceutical price study and a study of the civil service medical benefits reform scheme (Assoc. Prof. Dr. Sauwakon Ratanawijitrasin)
- Quality use of medicines and antiretrovirals for AIDS, integrating behavior of providers, patient compliance, quality of drug products, and viral resistance pattern
- Quality of drugs for malaria treatment and malaria resistance
- Collaborative research/project between Chulalongkorn University and FDA, Ministry of Public Health

- Promoting RUD activities:
 - Presentation of the ICIUM 2004 summary (by Prof. Chitr Sitthi-amorn) at the national conference of the Institute of Health Research (100 participants)
 - Dissemination of the ICIUM abstract books to university libraries countrywide
 - Planning for training course
 - PRDU (international training course, tentative: February 2005)
 - DTC (international training course, tentative: April 2005)
 - Pharmacoeconomics (national level, tentative: November 2004)

Research/Projects

- Sauwakon Ratanawijitrasin, Inthira Kanchanaphibool, Jiraporn Usanakornkul, Puree Anantachote, Sanita Hirunrasmi, Siripa Udomugsorn, Anyarat Raksayos, Taweepong Areeyasopon, and Nawach Jarkwittamrong. 2004. "Reimbursement Drug List, Price List, and Reimbursement Information System for Civil Service Medical Benefits Scheme." Bangkok: Health System Research Institute/Department of the Comptroller General, Ministry of Finance.
- Sauwakon Ratanawijitrasin, Puree Anantachote, Inthira Kanchanaphibool, Arthorn Riewpaiboon, and Siripa Udomugsorn. 2003. "Pharmaceutical Price Study." Bangkok: Health System Research Institute/Department of the Comptroller General, Ministry of Finance.
- Sauwakon Ratanawijitrasin, Inthira Kanchanaphibool, Anuchai Theeraruangchaisri, Puree Anantachote, and Kongkiat Kespetch. 2003. "Transfer System for Pharmaceutical Price and Utilization Information." Bangkok: Health System Research Institute/Department of the Comptroller General, Ministry of Finance.
- Sauwakon Ratanawijitrasin, Puree Anantachote, Montarat Burasanont, Siritree Sutajit, and Siripa Udomugsorn. 2002. "Pharmaceutical Benefits Models for the Civil Service Medical Benefits Scheme." Bangkok: Health System Research Institute/Department of the Comptroller General, Ministry of Finance.

Uganda Core Group

Dr. Paul Waako

Current Membership

Dr. Paul Waako (Coordinator), Prof. W. W. Anokbonggo, Dr. D. Kyegombe, Dr. Y. Mawerere, Dr. Celestino Obua, Dr. Richard Odoi-Adome, Dr. Erisa Owino, Ms. Angela Bonabana, Dr. Winifred Tumwiikirize, Ms. Nadongo Pamela, Dr. Sarah Nanzigu, Assoc. Prof. J. Ogwal-Okeng, Mr. Patrick Ogwang, Mr. Godfrey

Completed Activities

- The results of the Phase I projects were published in *The East African Medical Journal* supplement of February 2004 (Vol. 81, No 2).
- The INRUD/Uganda secretariat coordinated the organization of the Drug and Therapeutics Committee/Training-of-Trainers Course that was held in Kampala, August 29–September 11, 2004. Members of INRUD/Uganda served as facilitators.
- The investigators have submitted reports of the three Phase III projects to the ARCH Project and MSH/RPM Plus. The projects are:
 - Change in malaria treatment policy: a study of its immediate effects on hospital malaria drug management, utilization of hospital facilities and prescription behavior in District Hospitals of Uganda (by Paul Waako and Jasper Ogwal-okeng)
 - Assessing the effect of cost-sharing on availability of drugs and utilization of services in public health facilities in Uganda (by Winifred Adrine Tumwikirize and John Ekwari)
 - The relationship between drug supply and prescribing patterns in district hospitals of Uganda (by Jasper Ogwal-okeng and Celestino Obua)

Members are now developing manuscripts based on the above projects for publication.

Proposed Activities (for the Next Five Years)

Since ICIUM 2004, members of INRUD/Uganda have had a series of meetings to work out the research agenda. A number of ideas have been brought forward in the form of concept papers. The concept papers focus on five areas:

1. The impact of health insurance and micro-medical care schemes on access and prescribing of essential medicines in Uganda
2. The functioning of Drug and Therapeutics Committees of health facilities and how they can be used to improve management and utilization of drugs in hospitals
3. Factors affecting drug pricing in Uganda
4. Improving antibiotic use in the treatment of ARI in under-fives
5. Factors affecting adherence and treatment outcomes in the treatment of HIV with antiretroviral therapy

The Uganda Core Group will continue to carry out research and advocacy for improving use of medicines in Uganda health facilities. The members at the recent meeting resolved to develop these ideas further and look for funding. The group welcomes any advice as to how the research projects could be funded.

Following ICIUM 2004, the INRUD/Zimbabwe Core Group has realized its weakness regarding research outputs but acknowledges that its strengths still lie in its advisory capacity to the Secretary of Health regarding drug issues. Most of its members are quite senior clinicians and pharmacists and, as such, hold positions where they can and do influence policy decisions. The group, therefore, is expecting to continue contributing to drug policy changes, such as (1) the use of fixed-dose combinations for TB therapy and (2) a change in first-line treatment of malaria. Malaria first-line treatment was changed to a chloroquine and sulfadoxine/pyrimethamine (CQ/SP) combination, but, in view of current discussions about resistance to these agents, the group will start advocating for the use of artemisinin combination therapy as soon as possible. It took us two to three years to effect the new malaria policy of CQ/SP, and it is still not yet embraced nationally. The use of, for example, coartem, which has already been embraced by the Ministry of Health and Child Welfare, will need to be added to our next edition of EDLIZ, which is due for publication next year; EDLIZ only gets reviewed every four years.

With antiretroviral (ARV) therapy being scaled up in this country, our group will need to strengthen training in the use of the chosen antiretroviral regimens as well as the use of fluconazole in the diflucan Pfizer program, which has changed our management of cryptococcal meningitis. These changes will need to be reflected in the next EDLIZ. There will be a need to set up DTCs in those hospitals that will be getting the ARVs so that monitoring and evaluation of their use can be conducted via these committees. The chairperson has already received a month of HIV/AIDS training through the Academic Alliance for AIDS Care and Prevention in Africa Program at Mulago Hospital in Kampala, Uganda (May 2004). Two of our members were accepted for the DTC/Training-of-Trainers Course held in Kampala, August 29–September 11, 2004. Thus, the group will have strengthened its expertise in setting up DTCs. The group expects, however, that DTC activities will still need to be integrated with the activities carried out by existing meetings, such as various hospital division meetings.

Through its links with HAQOCI (HIV/AIDS Quality of Care Initiative, a collaboration between the Clinical Epidemiology Resource and Training Centre [CERTC], University of Zimbabwe, and CDC, Atlanta, via CDC-Zimbabwe), the group has already been involved in a week of training participants from 5 out of the 10 provinces in the country in the prevention of opportunistic infections (OIs), which includes training in the use of ARVs and treatment of OIs. This training was conducted basically as HIV/AIDS training geared for those who will be involved in the running of OI clinics. This particular course had 29 participants, including doctors, nurses, and pharmacy technicians. The chairperson is also spearheading the establishment of one central hospital's OI clinic through which ARV drug delivery will be effected.

Thus, the INRUD/Zimbabwe Core Group is well positioned to see to it that the rational use of drugs, especially ARVs, is practiced in this country. Through the OI clinics and its links with HAQOCI, the group will be able to collect data for drug use surveys.

It is noted with great concern that pharmacists/pharmacy technicians have been largely left out of the various HIV/AIDS training/treatment literacy campaigns by various stakeholders. This issue will need to be addressed by including this cadre of staff wherever health care workers are being trained in ARV use.

INRUD News can be found on the Web at <http://www.inrud.org>. For further information, please contact the INRUD Coordinator at the following address:

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Recent Publications of Interest

Four recent publications from East Africa highlight the importance of the private retail sector in improving the treatment of pediatric malaria. The first two papers demonstrate why improving the treatment of fevers in private shops is crucial from a public health perspective in Africa. Two innovative intervention programs in Kenya, described in the second two articles, demonstrate the possibility of creating successful and scalable approaches to improving malaria treatment.

The Use of Formal and Informal Curative Services in the Management of Paediatric Fevers in Four Districts in Kenya

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Reference: *Tropical Medicine and International Health* 2003; 8(12):1143–52

Abstract

Objective: To assess the sources, costs, timing, and types of treatment for fevers among children under 5 years of age in four ecologically distinct districts of Kenya.

Methods: Structured questionnaires were administered to caretakers of one randomly selected child aged under 5 years per homestead to establish whether the child had had a fever within

the last 14 days and the types, sources, costs, and timing of treatment. Drug charts of common proprietary antimalarial and antipyretic drugs in Kenya were used as visual aids.

Results: A total of 2,655 fevers were reported among 6,287 (42.2 percent) children, with significant differences between the four districts ($P < 0.01$). A substantial number of fevers remained untreated (28.1 percent) across all districts and more fevers were treated in Greater Kisii than in any other district ($P < 0.01$). The median delay for any treatment was 2 days (inter-quartile range [IQR]: 2, 4). The informal retail sector had no transport costs associated with it and charged less for drugs than any of the other sectors. Most antimalarial-treated fevers occurred in the formal public sector (52.6 percent). Only 2.3 percent of fevers were treated within 24 hours of onset with sulfadoxine-pyrimethamine (SP), the nationally recommended first-line drug for the management of uncomplicated malaria.

Conclusions: The Abuja target of ensuring that 60 percent of childhood fevers are treated with appropriate antimalarial drugs within 24 hours of onset by 2010 is largely unmet and a major investment in improving prompt access to antimalarial drugs will be required to achieve this.

Comment

As in much of Africa, children living in these four districts in Kenya are still a long way from having effective access to rapid and effective treatment for fever. Part of the problem lies in decisions made at the household level, with high rates of untreated symptoms and long delays in care seeking. The reasons for these inappropriate practices remain unexplored in these surveys, but other studies have demonstrated the importance of misperceptions about symptoms, poor geographic access to formal health services, and economic barriers to care. In these surveys, two in five children who received treatment did so in the private retail sector, which presents the fewest potential geographic and economic barriers. To have any hope

of reaching the Abuja target, improving treatment practices in retail settings must be a major focus for national malaria programs.

—Dennis Ross-Degnan

Retail Supply of Malaria-Related Drugs in Rural Tanzania: Risks and Opportunities

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Reference: *Tropical Medicine and International Health* 2004; 9(6):655–63

Abstract

Objectives: To characterize availability of fever and malaria medicines within the retail sector in rural Tanzania, assess the likely public health implications, and identify opportunities for policy interventions to increase the coverage of effective treatment.

Methods: A census of retailers selling drugs was undertaken in the areas under demographic surveillance in four Tanzanian districts, using a structured questionnaire.

Results: Drugs were stocked by two types of retailer: a large number of general retailers (n = 675) and a relatively small number of drug shops (n = 43). Almost all outlets stocked antipyretics/painkillers. One-third of general retailers stocking drugs had antimalarials, usually chloroquine alone. Almost all drug shops stocked antimalarials (98 percent): nearly all had chloroquine, 42 percent stocked quinine, 37 percent stocked SP, and 30 percent stocked amodiaquine. A large number of antimalarial brands was available. Population ratios indicate the relative accessibility of retail drug providers compared with health facilities. Drug shop staff generally traveled long distances to buy from drug wholesalers or pharmacies. General retailers bought mainly from local general wholesalers, with a few general wholesalers accounting for a high proportion of all sources cited.

Conclusions: Drugs were widely available from a large number of retail outlets. Potential negative implications include provision of ineffective drugs, confusion over brand names, uncontrolled use of antimalarials, and the availability of components of potential combination therapy regimens as monotherapies. On the other hand, this active, highly accessible retail market provides opportunities for improving the coverage of effective antimalarial treatment. Interventions targeted at all drug retail-

ers are likely to be costly to deliver and difficult to sustain, but two promising points for targeted intervention are drug shops and selected general wholesalers. Retail quality may also be improved through consumer education and modification of the chemical quality, packaging, and price of products entering the retail distribution chain.

Comment

This study demonstrates the potential of the private retail sector as a source of malaria care, as well as the importance of formative research to understanding the local dynamics of drug supply systems when designing interventions. In this district in Tanzania, patterns of drug availability and sources of supply differ substantially between the small number of dedicated drug shops and the more widespread general retail shops, some of which sell drugs. All drug shops stocked one or more antimalarials, but fewer than 40 percent carried SP, the nationally recommended treatment. Despite legal barriers, one in three general retailers stocked chloroquine while virtually none carried SP. To improve access to effective treatment in this setting, policy makers must decide whether legal barriers should be allowed to restrict more widespread availability of antimalarials in general stores and they must examine the failure of SP to penetrate the market even in licensed drug shops.

—Dennis Ross-Degnan

Improving Malaria Home Treatment by Training Drug Retailers in Rural Kenya

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Reference: *Tropical Medicine and International Health* 2004; 9(4):451–60

Abstract

Recent global malaria control initiatives highlight the potential role of drug retailers to improve access to early effective malaria treatment. This article reports on the findings and discusses the implications of an educational program for rural drug retailers and communities in Kenya between 1998 and 2001 in a study population of 70,000. Impact was evaluated through annual household surveys of over-the-counter (OTC) drug use and simulated retail client surveys in an early- (1999) and a late- (2000) implementation area. The program achieved major improvements in drug-selling practices. The proportion of OTC antimalarial drug users receiving an adequate dose rose from 8 percent (n = 98) to 33 percent (n = 121) between 1998 and 1999 in

the early-implementation area. By 2001, and with the introduction of sulfadoxine-pyrimethamine group drugs in accordance with national policy, this proportion rose to 64 percent (n = 441) across the early- and late-implementation areas. Overall, the proportion of shop-treated childhood fevers receiving an adequate dose of a recommended antimalarial drug within 24 hours rose from 1 percent (n = 681) in 1998 to 28 percent (n = 919) by 2001. These findings strongly support the inclusion of private drug retailers in control strategies aimed at improving prompt, effective treatment of malaria.

Comment

This study demonstrates the efficacy of a multifaceted intervention to improve the malaria treatment practices of drug retailers in a rural district in eastern Kenya. The intervention consisted of (1) skill-based training for groups of 1–20 shopkeepers, including role play, group discussions, and exercises; (2) a dosage chart for the nationally recommended treatment; (3) follow-up visits to retailers to evaluate their skills; (4) certificates of successful completion of training as well as posters to be displayed in shops; (5) presentations by trainers at community meetings to create awareness of the intervention program; and (6) posters displayed in prominent places around the community describing the program and displaying the logo that would indicate a trained drug shop. The good news is that the intervention demonstrated clear success, although treatment of fevers still remained far from optimal. Reviews of the literature have demonstrated that multifaceted and tailored interventions like this one have the highest likelihood of success. However, the intensity of the training-oriented approach coupled with high turnover in shops leave open questions about their long-term sustainability.

—Dennis Ross-Degnan

Vendor-to-Vendor Education to Improve Malaria Treatment by Private Drug Outlets in Bungoma District, Kenya

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Reference: *Malaria Journal* 2003; 2:10 (<http://www.malariajournal.com/content/2/1/10>)

Abstract

Background: Private outlets are the main suppliers of uncomplicated malaria treatment in Africa. However, they are so numerous that they are difficult for governments to influence and regulate. This study's objective was to evaluate a low-cost outreach education (vendor-to-vendor) program to improve the

private sector's compliance with malaria guidelines in Bungoma District, Kenya. The cornerstone of the program was the district's training of 73 wholesalers who were equipped with customized job aids for distribution to small retailers.

Methods: Six months after training the wholesalers, the program was evaluated using mystery shoppers. The shoppers posed as caretakers of sick children needing medication at 252 drug outlets. Afterward, supervisors assessed the outlets' knowledge, drug stocks, and prices.

Results: The intervention seems to have had a significant impact on stocking patterns, malaria knowledge, and prescribing practices of shops/kiosks, but not consistently on other types of outlets. About 32 percent of shops receiving job aids prescribed to mystery shoppers the approved first-line drug, sulfadoxine-pyrimethamine, compared with only 3 percent of the control shops. In the first six months, it is estimated that 500 outlets were reached, at a cost of about USD 8,000.

Conclusions: Changing private-sector knowledge and practices is widely acknowledged to be slow and difficult. The vendor-to-vendor program seems a feasible district-level strategy for achieving significant improvements in knowledge and practices of shops/kiosks. However, alternate strategies will be needed to influence pharmacies and clinics. Overall, the impact will be only moderate unless national policies and programs are also introduced.

Comment

The authors describe an alternative strategy for improving treatment of fevers in retail shops that was tested in western Kenya. Instead of relying on intensive training workshops for shopkeepers, this approach relied on training the wholesale counter attendants and mobile suppliers who supply the medicines sold in rural private retail outlets. These wholesale staff were trained in the importance of correct malaria treatment with SP by members of the district health management team in a one-day workshop and were provided with supportive materials to distribute to retail vendors: (1) a shopkeepers' job aid that listed the clinical symptoms of malaria and an age-specific SP-antipyretic dosage chart and (2) a poster to be displayed in shops to generate consumer awareness, which listed the five nationally approved brands of SP that were available over the counter. Because the intervention was less intensive and depended on the wholesalers as intermediaries, the overall results were less impressive than those of the Kilifi intervention described above. (In addition, they were tested at the shop level rather than at the community level.) Nevertheless, the cost per outlet reached was much lower, and because the intervention relied on supplementing the normal day-to-day activities of wholesalers, the potential sustainability of this approach is much higher. Whether this potential sustainability is realized in fact and whether the approach can be disseminated to other districts remains to be demonstrated.

—Dennis Ross-Degnan

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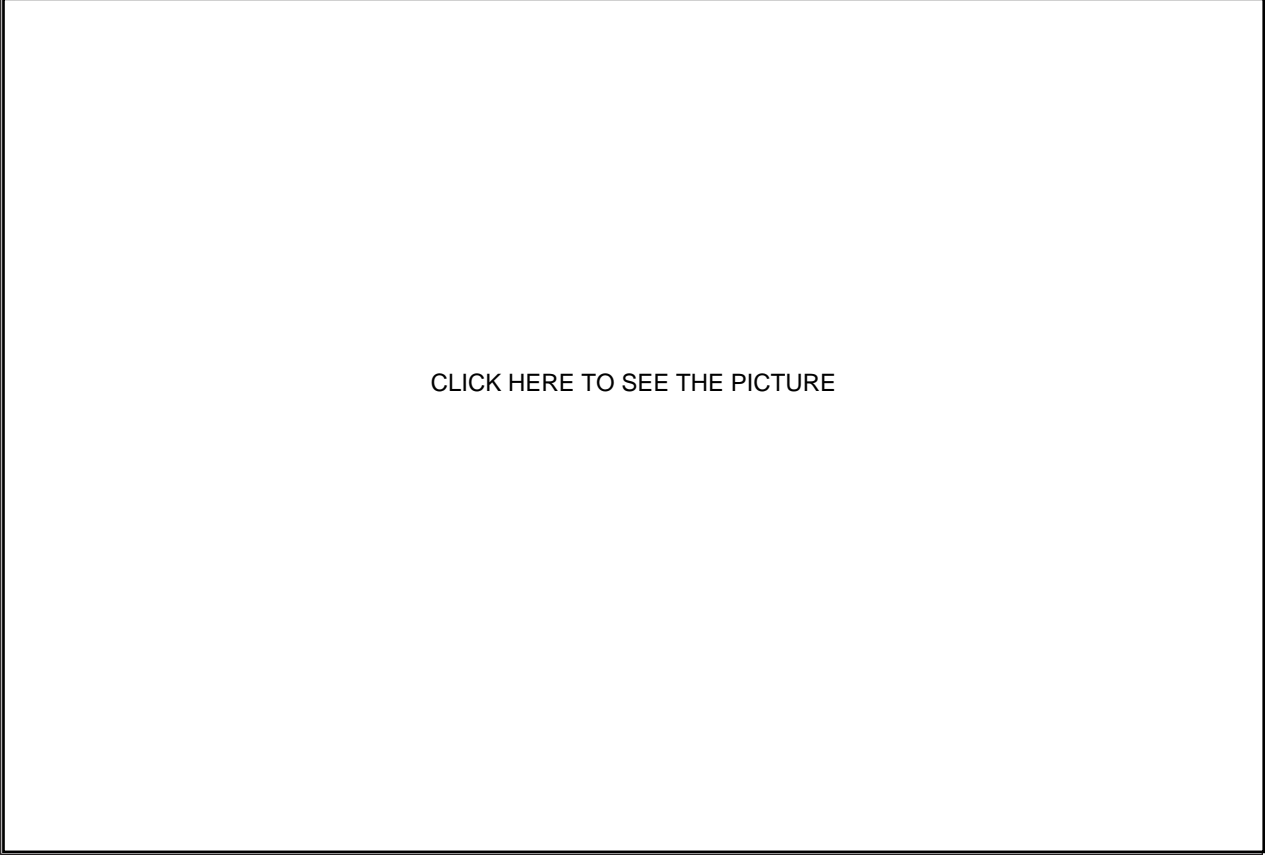
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INRUD Bibliography

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The bibliography is available on the Web at <http://www.inrud.org>. You may also request it on disk or via e-mail attachment. Contact inrud@msh.org to receive a copy.

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INRUD Meeting at ICIUM 2004

More than 50 members of INRUD managed to have two meetings before and after ICIUM 2004 in Chiang Mai. This was the first time we have all gathered together since ICIUM 1997, when there were only 10 groups. Participating in the meetings were members of all of the different groups, including the eight new groups, all past coordinators, and all advisory institutions (which are now groups). It was wonderful to have this opportunity but, sadly, we only have one fairly poor-quality photograph, reproduced here, to mark this all-too-rare meeting. The group coordinators emphasized the importance of their role of keeping their ears to the ground to understand and interpret the priority research, training, and implementation issues of their countries as well as creatively working toward fulfilling these goals, in addition to coordinating and collaborating activities with other groups in their regions and globally.

What Is INRUD?

The International Network for Rational Use of Drugs (INRUD) was established in 1989 with the goal of promoting the rational use of pharmaceuticals. INRUD's strategy to achieve this include—

- An interdisciplinary focus, linking clinical and social sciences
- Activities originating from country-based core groups of individuals representing ministries of health, universities, nongovernmental organizations, and private-sector institutions
- Belief in the importance of sharing relevant experiences and in technical cooperation among participating individuals
- Emphasis on understanding behavioral aspects of drug use, particularly the beliefs and motivations of providers and consumers
- Promotion of well-designed research studies to understand these behavioral factors, leading to reproducible interventions to improve drug use
- Development of useful tools for research, including standard research methodologies, simplified sampling and data collection strategies, and user-accessible computer software



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Upcoming Meetings

Promoting Rational Drug Use	November 29–December 10, 2004	Ouagadougou, Burkina Faso
Promoting Rational Drug Use in the Community	January 23–30, 2005	Jaipur, India
Promoting Rational Drug Use	April 2005 (tentative date)	Windhoek, Namibia
Promoting Rational Drug Use	June 2005 (tentative date)	Bangkok, Thailand

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