

INRUD NEWS

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Newsletter of the
International Network for Rational Use of Drugs

A New Initiative to Combat Antibiotic Resistance

React (Action on Resistance to Antibiotics)

The Dag Hammarskjöld Foundation, the Swedish Strategic Programme for the Rational Use of Antimicrobial Agents and Surveillance of Resistance (STRAMA), and the Division of International Health at Karolinska Institutet (IHCAR) have created a network of organizations and individuals to combat the growing threat of antibiotic resistance. IHCAR is a core member of INRUD.

These organizations recognize that the threat is a political, scientific, and economic challenge at all levels and, although resistance has many causes, the nature of resistance is that it grows invisibly. By the time the worst consequences are seen, it will be too late to act. Emergence of antibiotic resistance in well-known pathogens makes new killers out of old ones. Use and misuse of antibiotics continuously drive the evolution of resistant genes and bacteria, which are spread by humans and animals within and between their environments across the globe.

Approximately 50 invited participants gathered in Uppsala September 14–17, 2005, to attend a seminar titled “Will We Respond to Antibiotic Resistance in Time?” They represented a diverse range of interests, including international organizations and agencies, the research community, industry, nongovernmental organizations, consumers, civil society networks, media, and national civil service. Although many participants work with an institution or organization, the discussions reflected personal views and experiences rather than institutional policies.

Broad-based thinking and action are needed because the problem of antibiotic resistance affects everyone, but we each live in different contexts and specific responses will vary. A new network is being formed to create links among individuals, groups, and networks to facilitate concerted action. INRUD is committed to being part of this new network of networks.

In May 2004, individuals from all continents, who had a range of different backgrounds but were all closely connected with the

subject of antibiotic resistance, gathered at the Dag Hammarskjöld Centre in Uppsala to discuss the global threat posed by antibiotic resistance and to explore the reasons why previous discussions and recommendations do not seem to have gone beyond conference rooms. The meeting participants felt that a structured network of individuals, groups, and institutions was needed to increase the power of combined action to ensure effective treatment of bacterial infection for all humanity now and in the future.

Since then, a fledgling structure called React (Action on Resistance to Antibiotics) has been created to support the growth of a movement on antibiotic resistance through the linkage of concerned networks, individuals, and institutions. The React structure currently consists of a small secretariat based in an office in Uppsala University Science Park. Initial work has focused on defining an agenda in three areas identified as important at the May 2004 meeting: Communicating the Message, Ensuring Appropriate Use, and Ensuring the Supply of New Antibiotics.

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React wishes to maintain a broad approach to the complex problem of antibiotic resistance. Many groups are working on various aspects of the problem — surveillance, causes of resistance, options for containment, and the development of new technology. Approaches to the problem have so far had limited success in communicating the true seriousness of the threat, and action to find solutions has been fragmented. React wants to stimulate more open thinking and broader concerted action.

Objectives of the Meeting in September 2005

The meeting held in September aimed to take thinking and action further. It had two overarching aims: to deepen and broaden appreciation of the complexity in dealing with antibiotic resistance, drawing on experiences of people and organizations in the network; and to expand and consolidate the React network to mobilize concerted action globally.

By encouraging consideration and discussion of the complex situation of antibiotic resistance from a number of new perspectives, meeting organizers were better able to critically examine React's approach and barriers to progress; formulate and communicate the problem in a simple and imaginative way (putting a face to the faceless threat); and clarify what it means to take concerted action. Action strategies include the following:

- Convincing leaders in governments; health systems; civil society; and professional, business, scientific, and research organizations of the threat posed by antibiotic resistance and the need for action
- Informing, involving, and mobilizing communities to create action
- Mobilizing influential actors with valuable experience and knowledge to join, advise, and support React
- Creating a stronger foundation for the network by identifying an appropriate organizational structure; ways of working; options for reaching financial stability; and critical elements for the short-, medium-, and long-term work

Outcomes of this exciting initiative will be reported in the next *INRUD News* and will also be available on the React Web site: www.reactgroup.org.

INRUD has a great deal to offer in methods and experience in assessing and improving antimicrobial use. React may prove a new opportunity for INRUD and individual INRUD groups to make important contributions.

E-mail: info@reactgroup.org.

Information about the Organizers

The Dag Hammarskjöld Foundation (www.dhf.uu.se) organizes seminars in the field of alternative development policies with an emphasis on developing countries. In the field of health, it contributed to the preparation of the Alma Ata Conference in 1978, the discussion on pharmaceutical policies in developing countries (1984, 1995), and the organization of the Peoples' Health Assembly 2000.

STRAMA (www.strama.se) is a national network, supported by the Swedish government, for the rational use of antibiotics and the containment of antibiotic resistance. The network consists of a national steering committee and regional expert groups in every province. STRAMA has been actively involved in European and international activities on the problem of antibiotic resistance.

IHCAR (www.phs.ki.se/ihtar) is a division of International Health at Karolinska Institutet and has a long tradition of working on rational use of drugs and strengthening health systems. IHCAR is a core member of INRUD.

For further information about INRUD or *INRUD News*, please contact the INRUD Coordinator at the following address:

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Correspondence and Notices

Priority Medicines for Europe and the World

At a conference in The Hague sponsored by the Netherlands government, WHO launched a major publication: *Priority Medicines for Europe and the World*. The report, by Richard Laing and Warren Kaplan, gives a methodology to assess pharmaceutical research priorities from a public health needs perspective. The full report can be found at <http://mednet3.who.int/prioritymeds/report/index.htm>.

Ghana Issues Fifth Edition of Standard Treatment Guidelines

The fifth editions of the Standard Treatment Guidelines (STG) and Essential Medicines List (EML), 2004, for Ghana were launched in Accra, Ghana. The theme for the launch was "Standard Treatment Guidelines 2004: Ensuring Cost-Effective Health Care." The STG 2004 is an improved version of Ghana's STG 2000. Like the latter, it is evidence-based. The new STG has 530 drug entities; there are 83 deletions of medicines and 48 additions, partly to take into consideration the new WHO Model List of Essential Medicines, and particularly the inclusion of antiretroviral medicines. In addition, the use of British Approved Names in the previous edition has been superseded in the current one by the adoption and use of recommended international nonproprietary names.

The STG and EML 2004 have been launched at a very opportune time, coinciding with the full-scale nationwide implementation of the National Health Insurance Scheme (NHIS) in Ghana. The NHIS has adopted the two books as the fundamental documents governing standards of care under the scheme. Furthermore, the NHIS medicine list for reimbursements will be very similar to the EML. Copies of the STG and EML 2004 are available from the Ghana National Drugs Programme.

For further inquiries please contact the Programme Manager at gndp@ighmail.com.

3x5 Progress Report

WHO launched the latest "3x5" Progress Report in Nairobi/Davos in December 2004. The full report can be found at <http://www.who.int/3by5/progressreport05/>.

International Training Course on Promoting Rational Drug Use in the Community

January 15–24, 2006, Jaipur, India

This 10-day course, to be held at the Indian Institute of Health Management Research, is a condensed version of the official two-week WHO course on Promoting Rational Drug Use in the Community. It is intended for health program staff from ministries of health, universities, development agencies, and non-governmental and other organizations, and also for individuals interested in improving drug use in the community. To encourage a larger number of participants, the course fee has been kept low by using the facilities at the Institute.

Objectives

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

Design

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 held in English and, given its interactive nature, the participants are required to have a good command of this language. The course materials were developed according to WHO and INRUD guidelines in collaboration with eminent colleagues in this field. Participants will thus be exposed to a wide range of national and international experience.

Highlights

- Essential medicines concept
- What influences consumers' use of medicines
- Investigating patterns of medicine use and identifying problems
- How to prioritize problems related to medicines use by the community
- Conducting a rapid appraisal to analyze problems and to identify solutions
- Fieldwork and data analysis
- Monitoring and evaluation

East African Regional Collaboration

- Face-to-face education
- Developing research projects linked to interventions
- Advocacy and networking
- Understanding rational use of drugs in AIDS, malaria, and TB

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Collaborating Institutions

- WHO's Department of Essential Drugs and Medicines Policy (EDM), Geneva, and SEARO, New Delhi, India
- Delhi Society for Promotion of Rational Use of Drugs (DSPRUD), New Delhi, India
- Rajasthan Society for Promotion of Rational Use of Drugs (RSPRUD), Jaipur, India
- Alliance for Prudent Use of Antibiotics (APUA)

Fees and Application

The fee of Rs. 20,000 (US\$450) covers tuition, course materials, field visit, airport/station pickup, shared accommodation at the Institute Guest House, and three meals a day. To apply, send your CV along with a plan of activities related to RUD that you would like to conduct in your region after attending the course. Deadline for applications is November 30, 2005.

Effective pharmaceutical management is key to the successful implementation, scale-up, and expansion of treatment and care services. Over the past year or so, many countries in Africa have experienced a tremendous increase in their supply of antiretroviral drugs (ARVs) as a direct consequence of the global initiatives toward improving access to effective treatment for HIV/AIDS. However, according to the World Bank, given the lack of adequate human resources in all sectors of the health care delivery system in Africa, the scaling-up of existing treatment programs for HIV/AIDS is going to have to be shouldered by health systems with weak pharmaceutical management systems.

Against this background, INRUD/Uganda, in collaboration with counterparts in Kenya, Tanzania, and Rwanda, conceptualized the idea of a Regional Technical Resource Center (RTRC) with an overall aim of increasing the capacity for management and supply of ARVs and other drugs in the East African region.

Since September 2004, with support from Management Sciences for Health and Makerere University, INRUD/Uganda has conducted several activities, including a situational analysis of ARV supply, management, and use in the East African region; a regional stakeholders' meeting to discuss improvement and training strategies; the development and review of training materials; and in-country mobilization meetings with government officials of each of the countries to plan the development of local RTRC initiatives. Training materials are currently being finalized and a field test for adaptation is being planned for later this year, before the organization of a regional training of trainers on management and supply of ARVs. Ultimately, in their efforts to enhance pharmaceutical management capacity, East African countries will be able to use these materials to teach health care workers the basic knowledge and skills needed to appropriately manage and use ARVs and other medicines.

Meetings and Workshops

Managing Drug Supply for Primary Health Care

May 29–June 11, 2005, The Netherlands

With interest in the Newly Independent States of the former Soviet Union and the increased activity on HIV/AIDS in Africa, interest in this course was higher than it had been for some time. Thirty-four participants were chosen from among many more applicants. The course was run jointly by Management Sciences for Health and IDA Solutions in Holland, with collaboration from WHO Essential Drugs and Medicines Policy Department.

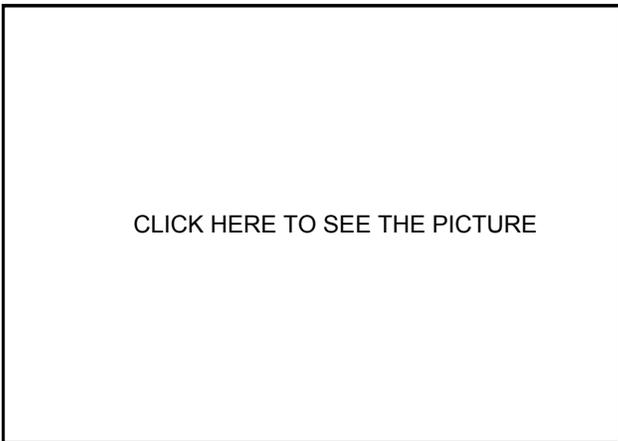
The participants were mostly program managers; pharmacists; and procurement, stock control, and logistics officers. They came from numerous countries, including Ethiopia, Ghana, Kenya, Lesotho, Nigeria, Sudan, Swaziland, Tanzania, and Uganda in Africa; Afghanistan, Brunei, Cambodia, and Thailand in Asia; Mexico and Suriname in the Americas; Tajikistan, Kosovo, Moldova, Iraq, and Saudi Arabia in Central Asia, the Middle East, and Europe; and as far as Tonga in the Pacific. This diversity led to a rich range of experience and problems to discuss, so interaction among participants enabled them to develop a truly global perspective.

Rational Drug Policy and Management Course

September 26–October 7, 2005, Ifakara, Tanzania

A course titled “Rational Drug Policy and Management: The Challenge of Diseases of Poverty” was held September 26–October 7 in Ifakara, Tanzania. The course, organized by the Swiss Tropical Institute in Basel and the Department of Tropical Hygiene and Public Health of the University of Heidelberg, Germany, was designed for health professionals and managers with at least two years of experience in the health and pharmaceutical sectors. The focus was on understanding and applying concepts and principles of essential drugs and rational drug policy, with an emphasis on the diseases of poverty.

The two-week course was highly participatory. Major topics included drug policy and regulation, selection and quantification of drugs, procurement methods and strategies, quality assurance, financing drug supply, store management, distribution strategies, rational drug use, drug supply management information systems, indicator-based assessments, and inventory control. From an INRUD perspective, it is gratifying that the four most highly ranked sessions were Selection & Formulary Management, Indicator-Based Assessments, Appropriate Drug Use, and Improving Health Outcomes with Drug Supply Management.



CLICK HERE TO SEE THE PICTURE

Course participants celebrated their time in the Netherlands by dressing in traditional Dutch costumes.

Course topics included the historical perspective and current global drug situation in different health care systems; the roles of different stakeholders, including health workers, traditional healers, research organizations, and the pharmaceutical industry; treatment guidelines; antimicrobial resistance and approaches for containment; drug quality and quality assurance; the framework and components of a drug supply system, including procurement and distribution; rational management of HIV/AIDS, malaria, and tuberculosis treatment within their global initiatives; elements of drug costs, affordability, and financing options; and critical drug information management.

African Regional Training Course on Promoting Rational Drug Use

April 18–30, 2005, Okahandja, Namibia

Thirty-five participants attended the regional training course, representing the Democratic Republic of Congo, Egypt, Ethiopia, Germany, Ghana, Kenya, Namibia, Nigeria, Pakistan, Rwanda, Tanzania, Uganda, Zambia, Zanzibar, and Zimbabwe. The workshop took place at the Midgard Lodge in Okahandja, an isolated oasis more than 50 km from the nearest village.

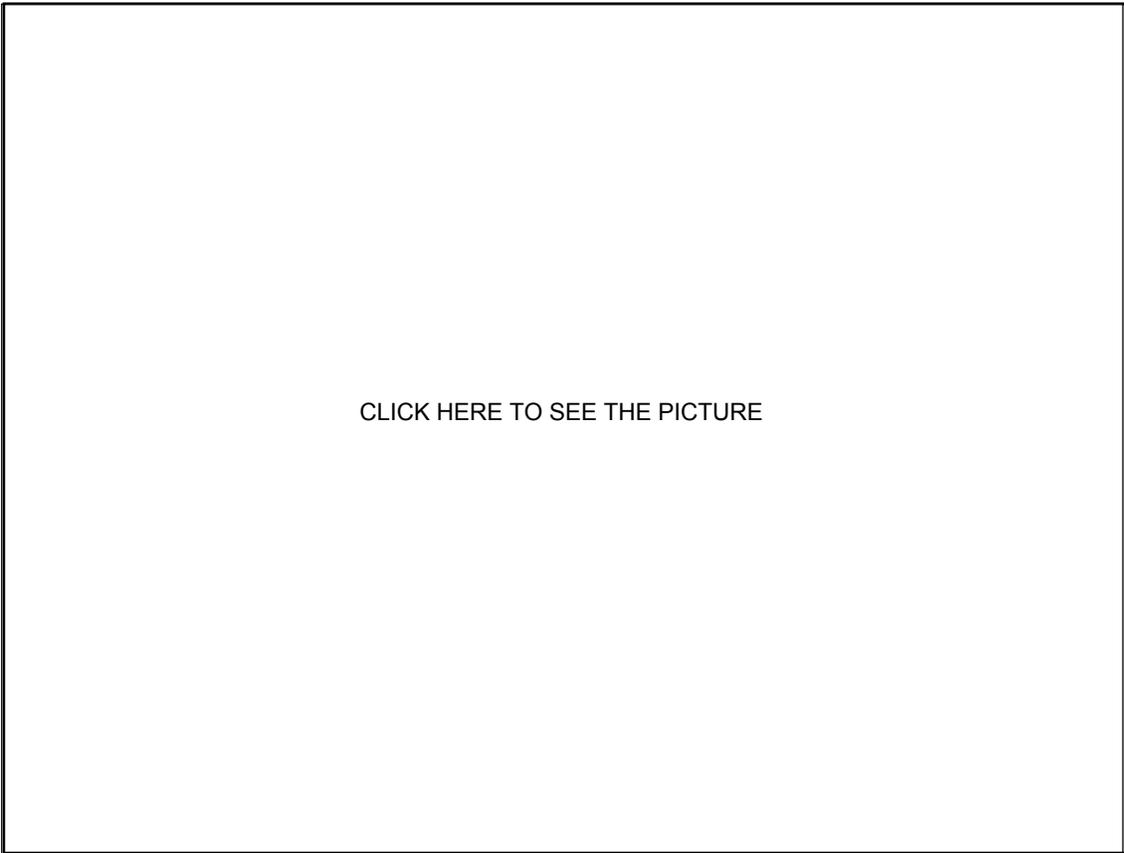
The workshop was ably organized by the Namibian Ministry of Health and Social Services (MoHSS) and the Rational Pharmaceutical Management (RPM) Plus Program of Management Sciences for Health (MSH), in collaboration with the WHO Department of Essential Drugs and Medicines Policy (EDM) and INRUD, with support from the U.S. President's Emergency Plan for AIDS Relief, administered through the U.S. Agency for International Development (USAID). It included a two-day training-of-trainers component.

The Deputy Minister of Health and Social Services and the head of the USAID/Namibia Mission opened the workshop, and the

WHO Representative in Namibia closed the workshop, showing a high level of commitment. All sessions were co-facilitated by Namibians from the MoHSS. The international facilitators were from RPM Plus, INRUD, MSH, and WHO/EDM.

During the course, participants developed projects to be carried out at their own locations. These included adherence of patients to antiretroviral therapy (ART) in Namibia; dispensing practices of pediatric antiretrovirals and patient compliance; effect of educational intervention strategies in improving private doctors' adherence to ART guidelines in Namibia; irrational use of antibiotics in Katima Hospital outpatients; challenges to efficiently functioning drug and therapeutics committees in Namibian public hospitals; investigating and improving the level of adherence to standard treatment guidelines in malaria treatment in private pharmacies in greater Accra, Ghana; irrational use of antibiotics as prophylaxis in abdominal surgery; non-adherence of prescribers in the private sector to standard treatment guidelines for ART; and an intervention study to improve the quality of prescribing, dispensing, and adherence to ART in hospitals.

The average evaluation for all sessions was 8.1 out of 9, showing a strong appreciation of the course. The real value will be seen with the implementation of the planned projects.



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Participants in the African Regional Training Course on PRDU had no problem finding their own entertainment, including climbing the nearest mountain.

INRUD Group Reports

Bangladesh Core Group

Prof. Dr. A. K. Azad Chowdhury

The Government of the People's Republic of Bangladesh has recently promulgated the National Drug Policy (NDP) 2005, an updated version of the NDP of 1982. The NDP of 1982 gave a tremendous boost to the local production of pharmaceuticals; thereby, the country became self-sufficient in this area. It also radically improved the share of essential drugs in the country's total drug market. These achievements in the drug sector were possible because of successive governments' adherence to the principles of the NDP of 1982. The successes so far achieved in the sector owing to the 1982 NDP are as follows:

- Local production of pharmaceuticals increased substantially; the volume of local production of all types of recognized drugs grew from Tk 1730 million (US\$30.7 million) in 1981 to about Tk 40,000 million (US\$661.2 million) in 2002.
- Market share of local companies rose from 30 percent in 1970 to 80 percent in 2002.
- Drug prices stabilized, increasing nominally (practically a drop in price in real terms), by only 20 percent, compared with an increase of 179 percent in the consumer price index. This made the drugs more affordable to the consumers.
- Quality of drugs improved and the production of substandard drugs fell from 32 percent in 1970 to only 2 percent in 2002.
- The volume of imports of drugs was drastically reduced; the country saves foreign exchange of US\$600 million annually because of self-sufficiency in this sector.
- Bangladesh, formerly a drug-importing country, has turned into a drug-exporting country in recent years.

In spite of these achievements, the NDP of 1982 needed updating in light of major global breakthroughs in the field of pharmaceuticals. Updating has also become necessary to enable Bangladesh to participate in the open market economy, to encourage foreign and multinational companies to bring in new drugs and to produce them in the country under license, and to help expand the potential of drug exports by the national and multinational companies. The required changes have been brought about in the NDP of 2005.

As the drug market has expanded tremendously and has undergone a qualitative change, many have called for upgrading of the Directorate of Drug Administration (the drug-regulating and drug-administering authority of Bangladesh). Hence, the NDP

of 2005 suggested the incorporation of the Directorate of Drug Administration into the Directorate General of Drug Administration, with a corresponding increase in staffing and infrastructure to enforce the drug laws, rules, and regulations covering such areas as registration, manufacture, storage, distribution, sale, import and export, and quality assurance.

In conjunction with the above, the current policy suggested some changes in the areas of drug registration, drug production, drug distribution, drug sale and storage, drug pricing, quality assurance, staff capacity of the manufacturing units, drug information, and drug monitoring.

The NDP suggests the following changes related to drug production:

- Foreign and multinational companies will be allowed to invest and manufacture drugs in Bangladesh as long as they have at least three of their original research products (drugs) registered in at least two of the following countries: the United States, the United Kingdom, Switzerland, Germany, France, Japan, or Australia.
- In order to encourage transfer of technology and availability of newly developed drugs, foreign companies, with or without manufacturing plants in Bangladesh, will be allowed to manufacture drugs in the country under licensing agreements with any partners of their choice, if the drug in the same brand name is registered and marketed in at least in two of the following countries: the United States, the United Kingdom, Switzerland, Germany, France, Japan, or Australia.
- Only for marketing outside Bangladesh, foreign companies without a manufacturing unit in Bangladesh will be allowed to manufacture drugs in the country under toll/licensing agreement with any partner of their choice.
- Both local and foreign companies with manufacturing plants in Bangladesh will be allowed to manufacture drugs under toll/contract manufacturing arrangements at any other manufacturing plant of their choice.

The NDP of 2005 also suggests that the Directorate of Drug Administration have a well-equipped Drug Monitoring and Drug Information Unit. It recommends that—

- Rational use of drugs be ensured by conducting surveys in the systems of prescribing, dispensing, and patient compliance
- Monitoring and reporting of adverse reactions to drugs be seriously done to ensure safe and rational use of drugs in the country
- Objective and educational advertisements of nonprescription drugs based on scientifically established evidence and in good

taste be allowed with prior approval of the drug regulatory authority

In addition, the NDP of 2005 recommends an Essential Drugs List for Bangladesh. The Directorate of Drug Administration, in consultation with the experts committee formed by the government, shall update from time to time and maintain the list of essential drugs in line with the current WHO list of essential drugs.

State of Drug Use in the Country

The drug use study has never been seriously looked into in Bangladesh, though the National Drug Policy has been in place since 1982. Since the formation of INRUD in 1989, Bangladesh has been the center of many formative studies but only a few intervention studies by such organizations as INRUD, INRUD/Bangladesh, the Department of Pharmacy at the University of Dhaka, UNICEF, the departments of community medicine of five government medical colleges of Bangladesh, and the National Institute of Preventive & Social Medicine.

The INRUD/Bangladesh Core Group, in association with INRUD Headquarters; WHO; and the Department of Pharmacy, University of Dhaka, organized the Fifth Asian Promoting Rational Drug Use course in Dhaka in 1997, which has sensitized doctors, pharmacists, and other health personnel in the country and the region to the issues of the rational use of drugs. Since then the Faculty of Pharmacy, University of Dhaka, introduced a separate department—the Department of Clinical Pharmacy & Pharmacology—under the faculty to teach pharmacists, doctors, and other health professionals about drug use issues and the methodology of formative and intervention studies in the field of prescribing, patient care, and dispensing. Now the National Institute of Preventive & Social Medicine, the departments of community medicine of the government medical colleges, and the pharmacy schools of the universities are teaching the discipline as a regular course. The Department of Clinical Pharmacy & Pharmacology, University of Dhaka, has been conducting research in the area, and a number of students studying for their master's degrees in pharmacy are specializing in this field every year.

In spite of all of the achievements in the field of pharmaceuticals (especially in production, quality control, and drug administration), the drug use study and the outcomes studies, adverse reactions to drugs, and the question of bioavailability in relation to the pharmacogenomics of the Bengali people, have not been given due importance. Greater production of essential drugs does not ensure rational use in a country where health professionals and consumers are not practicing the dos and don'ts of rational use of drugs. These areas of the pharmaceutical sector should be studied extensively and interventions implemented, if needed.

Boston (WHO Collaborating Center)

Dr. Dennis Ross-Degnan

The INRUD/Boston group includes individuals from the Drug Policy Research Group at the Department of Ambulatory Care and Prevention of Harvard Medical School, the Center for International Health and Development, the Boston University (BU) School of Public Health, and Management Sciences for Health (MSH). Two years ago, BU and Harvard were also designated as a joint WHO Collaborating Center in Pharmaceutical Policy (CCPP), and all of their international activities in medicines use and policy issues are now conducted under that umbrella.

The biannual meeting of the WHO CCPP was held on August 8, 2005, in Boston, to coincide with a visit to Boston by Richard Laing, who is responsible for coordinating activities of the WHO collaborating centers affiliated with the Essential Medicine Department in Geneva. Maria Auxiliadora Oliveira, the Director of the WHO CCPP located at the National School of Public Health in Rio de Janeiro, Brazil, also participated in the meeting in order to extend the growing collaboration between the two Western hemisphere centers.

Members of the Boston CCPP have been involved in many different activities related to improving use of medicines during the last year, including programs in training and capacity strengthening and applied research and technical assistance. Brief descriptions of the key activities follow.

Recent activities related to training and capacity strengthening have included—

- The Harvard Medical School Fellowship Program in Pharmaceutical Policy, which hosts both international and U.S. fellows for one- or two-year periods to work on pharmaceutical policy research issues with a focus on developing future leaders in the field
- BU graduate courses and seminars in pharmaceutical issues, including courses connected to the master of public health, doctor of public health, and summer programs
- Regional drug policy issues courses conducted collaboratively between WHO, Pan American Health Organization, and the CCPPs in Rio and Boston
- A new two-week short course in antiretroviral management conducted in the BU summer program, which will be extended to several international settings in the next year
- In collaboration with WHO/Geneva, development of a comprehensive report on the current global situation related to implementation and outcomes of pharmaceutical policies, with data collected using WHO Level I and Level II pharmaceutical policy indicators

- The Values and Access to Medicines Project, whose goal is to develop approaches to assess and improve the equity of nongovernmental programs that deliver antiretroviral treatment in developing countries
- The initiative on Strengthening Medicines Policies in Insurance Programs, which has developed a comprehensive survey of medicines policies in international health insurance programs, and provides training, technical assistance, and networking to developing countries implementing national health insurance components
- Improvement of understanding of pediatric HIV pharmaceutical management, comprising studies of pediatric antiretroviral formulations and pharmaceuticals and evaluation of the impact of pediatric HIV programs in Africa
- Working under the Rational Pharmaceutical Management (RPM) Plus Program based at MSH, development and evaluation of a comprehensive assessment tool and quality improvement approach for improving hospital infection control practices, which are currently being field-tested in collaboration with INRUD/Uganda
- Also under RPM Plus, development of an Intervention Manual designed to guide local managers and policy makers interested in developing interventions to improve the use of medicines for child health in resource-poor settings
- Several programs on pharmaceutical policy in Central Asia, including the ZdravPlus Health Reform project and the CAPACITY HIV/AIDS project, which are designed to improve the financial sustainability, efficiency, and quality of the health care system while preserving equitable access
- Development of the final Web site for the International Conference on Improving Use of Medicines (ICIUM 2004), including integration and dissemination of the ICIUM policy recommendations (full information at <http://www.icium.org>)

Members of INRUD/Boston look forward to continuing these and other collaborative activities aimed at improving use of medicines with their global INRUD partners.

Cambodia Core Group

Dr. Chroeng Sokhan

The Monitoring Training Planning (MTP) Approach, aimed at improving the use of medicines and changing the prescribing habits of prescribers in hospitals, has been successfully conducted in 12 provinces in Cambodia. The MTP activity in the first six provinces was conducted with the technical assistance of Dr. Sri Suryawati, INRUD Board member and WHO short-term consultant. Following the same curriculum and methodology, the second phase of the approach was conducted by the Essential Drugs Bureau of the Cambodian Ministry of Health in another six provinces. The results of both phases of MTP implementation in Cambodia were presented at the International Con-

ference on Improving Use of Medicines held in Chiang Mai, Thailand, in April 2004, and were well received by the conference participants.

On July 22, 2005, in the third phase of expansion of the MTP Approach and with WHO financial support, a workshop was organized in Sihanoukville, the seaside city of Kampong Som in the southwest part of Cambodia. This third phase is to be implemented by six additional provinces in Cambodia: Kampot, Koh Kong, Svay Rieng, Takao, Kep, and Sihanoukville. Participants in this workshop included the chairs of the MTP committees of the 12 previous provinces and two participants—hospital director and chair of the hospital technical committee (similar to the drug and therapeutics committee) from each of the six new provinces.

The workshop facilitators and lecturers were all members of INRUD/Cambodia. Dr. Thach Varoen from the Department of Preventive Medicine, Vice-Chair of INRUD/Cambodia, gave a presentation on the background and objectives of the MTP Approach and a strategy for MTP implementation. This strategy includes the assignment of the MTP hospital committee, establishment of a schedule for regular meetings, development of definitions of problems and possible solutions, and fixing of the target for each indicator. Implementation should be evaluated at each meeting and the final evaluation should be done after six months.

Dr. Sok Srun from the Hospital Department showed the results of implementation in the first 12 provinces, explained the methodology of defining priority areas for implementation, and gave examples of indicators and a target to be defined.

Dr. Chiev Sivuthy, also from the Hospital Department, presented the reporting forms to be completed by the hospital committee.

Dr. Sim Yutheasa, a surgeon from Battambang Province and Chair of the MTP hospital committee, related the good experiences of the successful MTP implementation in his province.

WHO has already made funds available for the implementation of the approach in the last remaining six provinces of Cambodia. The workshop for the fourth phase of MTP expansion has been planned, as has the final evaluation of the third phase, which takes place during the next consultancy of Dr. Sri Suryawati, in November 2005.

China Core Group

Prof. Yu Yong

After attending the International Conference on Improving Use of Medicines (ICIUM 2004), INRUD/China adjusted its working targets to the following issues:

Quality Care

Because most group members are from hospitals, the research based on hospitals will be more likely to have an impact and to be sustainable.

- Prof. Zhai Suodi directed an evaluation of and intervention on albumin and fructose diphosphate prescribing on the basis of evidence in 2004. Albumin and fructose diphosphate were selected because they are on the top 10 list of sales in hospitals and should not be used so extensively. The study relied on an evidenced-based medicine method as well as Promoting Rational Drug Use (PRDU) intervention. Fructose diphosphate was deleted from the National Essential Drug List in December 2004 because of the research results.
- A three-year research study on prophylactic antibiotic use was undertaken in two Beijing hospitals from 2001 to 2003. The results have been introduced to other hospitals by medical journals and seminars and were introduced at the ICIUM 2004 conference. Dr. Wang Yuqin and Dr. Wang Qing are the key researchers for a follow-up investigation to find out if, after two years, the intervention has had any impact. Prof. Chang Ming and Prof. Zhai Suodi are conducting two similar studies on prophylactic drug use and aim to change clinical practice.
- A study on monitoring prescriptions with RDU software to ensure drug use safety has been undertaken. The software was tested in 36 hospitals and proved helpful in correcting drug use errors in 2004 and 2005. The database is now being used to do further analysis. Dr. Ma Jinchang, Dr. Tang Jingbo, and Dr. Wang Xiaobo are the principal researchers.
- An RDU model hospital research study is being conducted in a military general hospital. The director of the hospital, Dr. Wang Xiaobo, is a new INRUD/China member and has received support from military headquarters. The results of the study will be introduced to all military hospitals in the future.
- Prof. Chang Ming and Dr. Wang Yuqin are involved in establishing an antibiotic monitoring network in the near future based on an antibiotic survey conducted in 40 Chinese hospitals in 2004.

Patient Communication and Education

- Prof. Chang Ming and Dr. Wang Yuqin are the key researchers on an intervention study on communication between dispensers and patients and a study on promoting compliance of patients taking antidepressant medicines. More than 200 patients have received services and approximately 100 patients attended the follow-up activities.
- Young volunteers from eight Beijing hospitals were organized to disseminate RDU knowledge. Eight consulting groups were set up on the topics of diabetes, asthma, gastritis, osteoporosis, insomnia, infectious disease, antibiotics, and traditional medicine. Prof. Chang Ming is the team leader. This type of patient education is scheduled to be done at least nine times in 2005.
- In 2004, Dr. Ma Jinchang developed a drug use handbook for patients on common diseases.

School Education

- Dr. Wang Yuqin developed an RDU class for middle-school children. Two middle schools and 20 classes of students have received the instruction. Some of the topics discussed include the following: Do you know what medicine is? Do you know that there are adverse drug reactions? Do you know that it's of no use to take medicines for the general cold? All topics are common knowledge among the students.
- Due to the efforts of Prof. Zhai Suodi, a new specialty, clinical pharmaceuticals, was established at Beijing University in 2004. The first 15 postgraduate students selected clinical pharmaceuticals as their specialty and focused on RDU.

Seminars and Workshops

- The Symposium of Advanced Clinical Pharmacy has been held every year since 2002. The latest was held in August 2005 and all group members gave lectures. Approximately 50 pharmacists from different provinces attended the course. Prof. Zhai Suodi is the program leader.

Publications

- Dr. Wang Yuqin developed a training book for community pharmacists in the Ministry of Health.
- Dr. Wang Xiaobo and Dr. Ma Jinchang translated two PRDU books: *To Err Is Human, Building a Safer Health System* and *Crossing the Quality Chasm, A New Health System for the 21st Century*.
- Prof. Jin Youyu and Dr. Wang Qing have translated into Chinese the PRDU training materials developed by WHO and Boston University.

INRUD/China will pay attention to the above-mentioned activities, and several group members have been and will continue to be involved in activities that promote essential medicines, the medical care system, the national treatment guidelines, and the national medicines policy—including the review of essential medicines or medical insurance drug list and antibiotic treatment guidelines.

Delhi Core Group

Prof. Usha Gupta

INRUD/Delhi has been involved in the following activities since the last publication of *INRUD News*.

Activities Undertaken

- Dr. Sangeeta Sharma, Dr. G. K. Sethi, the late Dr. G. K. Sachdeva, Dr. Usha Gupta, and Dr. Raj Gulati were the editors of the second edition of *Standard Treatment Guidelines* for Delhi Hospitals, first developed in 2002 and revised for 2005. The new edition was received very positively and has been used in the state of Delhi as well as by prescribers in Maharashtra, Gujrat, and Rajasthan.

- Under the aegis of the Central Drug and Therapeutics Committee, a Continuing Medical Education program on rational use of antimicrobials was conducted for doctors working in government hospitals, February 24–25, 2005. Dr. Usha Gupta was Chief Organizer of the program.
- Dr. J. S. Bapna organized an international training course on PRDU in Communities. Both national and international participants attended the course.
- Prof. Ranjit Roy Chaudhury was the lead person for a series of lectures to educate the public on rational use of drugs. The concluding lecture was held in April 2005.
- Phase I of a Multi-center Project on Surveillance of Antimicrobial Use and Resistance funded by WHO Geneva was completed. A concluding two-day workshop was held April 13–14, 2005. Dr. Kathleen Holloway from WHO Geneva participated in the workshop.
- INRUD/Delhi is trying to promote rational use of drugs among private prescribers because the majority of the population seeks health care advice from private prescribers. The group organized a one-day workshop on rational prescribing of medicines on November 27, 2004, in collaboration with the Delhi Medical Association. This was the first effort to spread the message among private prescribers. Similar workshops are in the pipeline.

Members' Achievements

- Prof. Chaudhury was conferred the degree of doctor of science (Hon. Causa) by Chulalongkorn University Bangkok for his contribution to the field of rational use of drugs.
- Prof. Usha Gupta attended the meeting of the Expert Committee on Selection and Use of Essential Medicines held at WHO Geneva, March 7–11, 2005.

Publications

- Chaudhury R Roy, Parameswar R, Gupta U, Sharma S, Tekur U, and Bapna JS. "Quality medicines for poor: Experience of the Delhi programme on rational use of drugs." *Health Policy and Planning* 2005; 20(2):124–36.
- Gupta U, Sharma S, Sheth PD, Jha J, and Chaudhury RR. "Improving medicine usage through patient information leaflets in India." *Tropical Doctor* 2005; 35(3):164–6.

Ethiopia Core Group

Mr. Tenaw Andualem

Drug Use–Related Contributions and Participation

- The INRUD/Ethiopia coordinator initiated discussions with the Rational Pharmaceutical Management (RPM) Plus/Management Sciences for Health (MSH) Ethiopia office on how to collaboratively work in the area of drug use, ways of strengthening INRUD/Ethiopia, and possibilities of hosting INRUD/

Ethiopia. Similar discussions were also held with the national program officer of the WHO office in Ethiopia.

- Prof. Eyasu Makonnen has presented papers on the following topics to health providers at workshops on more than 20 occasions: The Implementation of Standard Treatment Guidelines, The Pharmacodynamics of Antiretroviral Drugs, Health Research Ethics, Drug Development, A Framework for Changing Drug Use Practices, and An Overview of the Pharmacology of Khat.
- Mr. Tamir Mhired participated in the conference Drug Supply Management in Primary Health Care held in The Netherlands, May 29–June 11, 2005, organized by WHO, MSH, and the International Dispensary Association (IDA).
- Mr. Tenaw Andualem participated in the Prices of Medicines Survey organized by the Ministry of Health/WHO in May 2005, and in an Injection Safety workshop. He also attended the Joint Ethiopian Professionals Associations (64 professional associations) meeting, representing the Ethiopian Pharmaceutical Association, of which he is an executive committee member.
- Dr. Teferi attended a preservice curriculum development workshop on commodity management for antiretroviral treatment in East, Central, and Southern Africa, Nairobi, Kenya, May 23–25, 2005.
- Mr. Edmealem Egigu attended an antiretroviral drug quantification workshop in Namibia, July 19–22, 2005.

Research

- Prof. Tsige Gebre-Mariam and Dr. Teferi advised students on their M.Sc. theses in areas related to drug use. Topics included injection practices in Butajira District: community and health facility based study; drug utilization pattern in selected health facilities in Bahir Dar and Western Gojjam administrative zones; ethno medicine in Jinka area, southwestern Ethiopia; and drug utilization patterns in Harari region.

Publications

- Tenaw Andualem and Tsige Gebre-Mariam. "Assessment of consumers' drug knowledge in Addis Ababa: A cross-sectional survey." *Ethiopian Journal of Health Sciences* July 2004; 14(2):71–80.
- Dagen Belilign, Tenaw Andualem, and Antneh Belete. "Dispensing practices in selected community pharmacies in Addis Ababa." (Submitted for publication.)

News

- Prof. Tsige, Dean of the School of Pharmacy, has been appointed Associate Vice President for Research and Graduate Studies, Addis Ababa University, Ethiopia.
- The School of Pharmacy of Addis Ababa University started a new graduate program: a master's of science in pharmacoepidemiology and social pharmacy. INRUD/Ethiopia members have played a role in introducing this new program. Appli-

cants from other countries are welcome. Candidates undertaking the program are expected to do their seminar and thesis work on applied aspects of health in general and drug management/use in particular.

- Dr. Bekele Alemayehu of the Department of Internal Medicine, Faculty of Medicine, has gone back to Germany for a clinical attachment in cardiology, which was started earlier in Germany and Israel.

Members of INRUD/Ethiopia have attempted to work in the area of drug use. However, few institutions or individuals in the country are working on supply and research in promoting drug use. Therefore, INRUD/Ethiopia is looking for a host institution to employ one of its core members so that he or she can complete sound intervention research.

Ghana Core Group

Prof. David Ofori-Adjei

INRUD/Ghana was actively involved in the planning and hosting of the successful Strategies for Enhancing Access to Medicines (SEAM) Conference held in Accra, Ghana, June 20–22, 2005. With funding from the Bill & Melinda Gates Foundation and technical support from Management Sciences for Health, the SEAM Program aimed to explore strategies for improving access to medicines using a variety of approaches, including private-public partnerships, the franchising of sellers of non-prescription medicines, and the involvement of the faith-based sector in expanding access to medicines. SEAM operated in three countries: Ghana, Tanzania, and El Salvador, and two earlier SEAM conferences were held in Washington and Dar es Salaam. The Local Advisory Committee for SEAM 2005 was chaired by INRUD/Ghana Coordinator Prof. David Ofori-Adjei, and several members of INRUD/Ghana served on the Advisory Committee. All INRUD/Ghana members took part in the SEAM 2005 conference and there have since been discussions on how best INRUD/Ghana can take the lead in facilitating local implementation of some of the key learning points from the conference in policy and practice.

INRUD/Ghana members are currently actively involved in the implementation of the National Health Insurance Scheme in Ghana; Prof. Ofori-Adjei, Mrs. Martha Gyansa-Lutterodt, and Dr. Alex Doodoo serve on the subcommittee on pharmaceuticals management. INRUD/Ghana member Dr. Francis Ofei has been appointed to serve on the governing board of the national drug regulatory authority, the Food and Drugs Board. Dr. Irene Agyepong, INRUD/Ghana member, has assumed duty as the Director of Medical Services for the Greater Accra Region of Ghana, which includes responsibility for medical services in the capital, Accra. Along with other INRUD members, she is still involved in intensive research in malaria and health care financing.

The group in Ghana continues to operate very actively, though nonformally, severely restricting formal meetings but encouraging multidisciplinary research among members. Areas in which INRUD/Ghana members are currently focusing their efforts either in small groups or together as INRUD/Ghana include the following:

- Implementation of HealthDirect, a telephone answering service for health that provides advice and directions to patients. Modeled along the lines of the hugely successful NHS Direct in the United Kingdom, the funds for pilot-testing HealthDirect have been provided by the U.K. government's Department for International Development, which also recently funded a study tour on NHS Direct in the United Kingdom that was attended by INRUD/Ghana members Mrs. Martha Gyansa-Lutterodt, Dr. Doodoo, and two others.
- Studies to examine pricing of pharmaceuticals in Ghana and suggestions for reducing price and price variations of pharmaceuticals in Ghana.
- Assessment of Ghana's capacity for local production of pharmaceuticals and suggestions for policy change to enhance local production.
- Following study tours, which included INRUD/Ghana member Mrs. Gyansa-Lutterodt, Ghana aims to exploit the relevant sections of the Trade-Related Intellectual Property Rights agreement safeguards to improve supply of pharmaceuticals, especially antiretrovirals, within the country. INRUD members attended a high-level ministerial meeting on this subject and made several suggestions to improve not just access but also the rational use of medicines in the country.
- Health care financing and the implications of the implementation of the National Health Insurance Scheme on the uptake of health care services.
- Examination of the availability of standardized prescription formats in Ghana and the risks to patients caused by the absence of standardized prescription formats.
- Production of guidelines for testing the safety and efficacy of herbal medicines in Ghana and approaches toward integration of traditional medicine products into orthodox care.
- Safety monitoring of drugs used in public health programs, including monitoring of the safety of amodiaquine + artesunate, the new national first-line recommended therapy for uncomplicated malaria.
- Study of the impact of genetic factors on drug disposition and the effects of these factors on national standard treatment guidelines.
- Revision, editing, and production of the current editions of the *National Standard Treatment Guidelines* and *Essential Medicines List*.
- Production of the National Health Insurance Drug List.

Indonesia Core Group

Dr. Sri Suryawati

In line with its 2004–2008 strategic plans, INRUD/Indonesia has conducted various activities: introducing integrated programs on improving rational medicine use, working to empower communities, and transferring skills to conduct interventions to improve the self-reliance of health facilities. INRUD/Indonesia has been using any possible forum to disseminate successful experiences, for example, in national workshops organized by the Ministry of Health, provincial and district governments, professional organizations, and universities.

INRUD/Indonesia Strategic Plan 2004–2008

1. Strengthening the existing and establishing more INRUD small groups with more attention to the areas where access to centers of excellence in rational use of medicines is limited
2. Providing technical and justified financial supports to INRUD small groups in working together with local authorities at 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 its small groups to conduct pharmacoeconomic studies on 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 and other potential partners in providing technical support and training materials, and facilitating the ability of 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 in health professional curricula through advocacy with 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 to and use of medicines

Integrated Programs on Promoting the Rational Use of Medicines

Decentralization of medicines 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 integrated programs, some district managers have been successful in tackling these difficult situations. INRUD/Indonesia is fully aware that rational use of medicines is not a remote issue. Improving prescribing practices alone will not be sustainable without a full-spectrum district-level policy. Therefore, INRUD/Indonesia has been working with and providing technical support to district and institutional health managers. Such technical support includes training in medicines policy and management, transferring skills in conducting interventions and self-assessment to health managers, and, whenever necessary, supporting the health managers in the marketing of rational use of medicines programs to the district-level authorities.

Sleman District illustrates how the concept of rational use of medicines is used as the basis of district-level policy in medicines. Supported by studies showing long-term evidence in promoting the rational use of medicines, the health manager has conducted successful marketing to the district authorities. As a result, the district government is now providing stronger political and financial supports—for example, increasing the district budget for medicines and related facilities, recruiting medical staff based on their attitude toward rational use of medicines, modifying drug procurement procedures to achieve better quality of medicines and cost-efficiency, using a better incentive-disincentive system, and strengthening and increasing the self-reliance of the health centers to promote rational use of medicines.

Community Empowerment in Improving the Rational Use of Medicines

Cara Belajar Ibu Aktif (Mothers' Active Learning Method), an innovative educational module to improve mothers' skill in selecting OTC medicines, is used by student health professionals during the community service program in their final year of formal training. Technical support for CBIA has been provided to various parties, such as charity organizations, pharmacy schools, and nongovernmental organizations. The method has been modified and field-tested by the Yogyakarta Cancer Foundation to increase the effectiveness of educational leaflets promoting the early detection of breast and cervical cancers. Furthermore, the method is currently being field-tested to improve the adherence of patients to TB treatment.

Transferring Skills to Improve Self-Reliance of Health Centers

MTP (monitoring-training-planning), an innovative strategy using the quality improvement management cycles to promote rational use of medicines in hospitals, has attracted health managers. Although MTP was initially designed for the hospital setting, district managers are interested in using the MTP strategy to increase the self-reliance of the health centers. For example, in Kolaka District, where transportation is a problem because of its geographical situation, transferring skills in conducting MTP has improved the capability of health centers to maintain medicines supply. In turn, it cut down the district health expenses for supervisory visits.

Promoting Rational Use of Medicines in Health Professional Curricula

INRUD/Indonesia members participated in various national workshops to improve pharmacotherapy teaching in health professional curricula. The Indonesian Association of Higher Medical Education Institutions and the Indonesian Association of Higher Pharmacy Education Institutions have supported these efforts.

Kenya Core Group

Prof. Bill Lore

In November 2004, INRUD/Kenya held its inaugural Annual General Meeting and Elections. The following seven persons were elected to constitute the Board of Management:

- Prof. Bill Lore – Chairman
- Dr. Eva Ombaka – Vice Chairman
- Dr. Julius Ombogo – Secretary
- Dr. Jennifer Orwa – Treasurer
- Dr. Rashid Aman
- Dr. Margaret Oluca
- Ms. Lilian Gitau

A secretariat has been established, with facilities in Nairobi and one part-time staff member.

Members of INRUD/Kenya have participated in various activities since the last report. Ms. Gitau attended a PRDU course in the Republic of South Africa at the end of 2004. As a follow-up to this training, INRUD/Kenya, in conjunction with Health Action International (HAI) Africa, held a successful one-day stakeholders workshop in December 2004 on strategies for improving rational use of medicines in the community.

Dr. Ombogo was appointed coordinator of the first-ever Drug Prices Survey in Kenya, a collaborative project between the Ministry of Health, WHO, and HAI. This nationwide activity was intended to highlight the burden borne by patients in paying for drugs. Prof. Lore served as a member of the Advisory Committee on this survey. The report of the findings was presented on August 17, 2005, at a stakeholders workshop in Nairobi, co-hosted by the Ministry of Health, WHO, HAI Africa, and INRUD/Kenya. Dr. Ombogo is preparing the final report.

Dr. Orwa attended a planning meeting organized by the Regional Technical Resource Centre (RTRC) December 20–21, 2004, in Kampala, Uganda, where she presented a paper titled “Supply and Management of ARV Drugs in Kenya.” This planning meeting was followed by an assessment of ARV supply and management in Kenya. Subsequently, a Kenya RTRC group was formed; Dr. Orwa is the coordinator and Dr. Ombogo is the secretary. The group has just finalized a proposal for training health care

providers on ARV supply and management that has been forwarded to the Global Fund to Fight AIDS, Tuberculosis, and Malaria and the Kenya National AIDS Control Programme.

Prof. Lore was invited by the United Nations High Commissioner on Refugees (UNHCR) to present a paper on “Introduction to Rational Use of Drugs” during the First Conference on Drug Management organized by the UNHCR and held in Nairobi, March 1–4, 2005. This meeting was attended by key personnel involved in refugee health care, particularly program officers, pharmacists, medical doctors, nurses, and clinical officers. The conference attendees were drawn from three regions of Africa: the Horn, East, and South.

Kyrgyzstan Core Group

Dr. Ashirali Zurdinov

INRUD/Kyrgyzstan members have been working toward rational drug use. They conduct frequent seminars for the doctors in both primary health care (polyclinics) and secondary health care (territorial hospitals). The Ministry of Health of Kyrgyzstan has carried out reforms in the public health sector. The Health Sector Reform Project has as its main focus the formation of a stable and effective system of medical service, as well as the improvement of medical service accessibility and medical care financing. The project consists of the following components:

- Restructuring of the medical service system
- Health care financing
- Health care quality improvement
- Public health
- Project monitoring and evaluation

The following activities reflect our organization’s main priorities:

- Prof. A. Zurdinov conducted several NSAID seminars for trainers of the Kyrgyz State Medical Institute for Retraining and Continuing Medical Education.
- CitiHope International conducted a four-day Continuing Medical Education (CME) workshop, funded by USAID, in Bishkek, Kyrgyzstan, January 24–28, 2005.
- Six highly qualified facilitators from Russia, the United States, Belarus, and Kyrgyzstan conducted a training session in clinical pharmacology for 38 trainers of family medicine practitioners within the national CME and numerous leading medical specialists and key players in health reform in Kyrgyzstan. Among the lecturers were Prof. Leonid Stratchounski, Director of the Institute of Antimicrobial Chemotherapy, and Prof. Vladimir Rafalski, Deputy Director of the Institute of Antimicrobial Chemotherapy, Smolensk, Russia; Prof. Albert Wertheimer, clinical pharmacologist from Temple University in Philadelphia, Pennsylvania, USA; Dr. Sergei Golubev, pharmacoeconomic specialist from Vitebsk, Belarus; and Prof.

Zuridinov and Prof. Brimkulov from Kyrgyzstan. Printed lecture materials were provided to all of the participants, along with books authored by Prof. Strachounski and Dr. Golubev. Topics included the urgent need for improving rural doctors' education; the rational use of antibiotics, brucellosis treatment, and nonsteroidal anti-inflammatory drugs; and pharmacoconomics. The audience actively participated in follow-up discussions.

- B. Kambaralieva conducted a rational drug use seminar (anti-biotics, NSAIDs, inhaled corticosteroids, cardiovascular drugs) for family group practice doctors in the following regions: Issyk Kul (Karakol City), Naryn (Naryn City), Chui (Tokmok City), and Batken (Batken City), and for the Territorial Hospital's doctors in Bishkek City, Chui, Jalal Abad, Osh, and Batken areas. Sixty-three family doctors participated in these USAID-funded seminars.
- U. Tilekeeva participated as a lecturer in the Safety of Anti-tuberculous Drugs Conference in Moldova (Kishinev).
- Our organization conducted a conference on rational drug use for tuberculosis specialists, July 25–29, 2005, supported by the Global Fund.
- Members of the organization have given free telephone consultations regarding drug use to specialists and the public.

Nepal Core Group

Prof. Kumud K. Kafle

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

- Submission of final report of the study titled “Pilot Implementation of Monitoring and Supervision System for Drug Management and Use in Chitwan District,” June 2004. The study was funded by USAID through the RPM Plus Program.
- Organization of the 17th and 18th national training courses on the Rational Use of Drugs at Kathmandu held in September 2004 and April 2005. The 17th course had 17 participants who were supported by six organizations paying course fees and other expenses. Thirteen participants attended the 18th course and were funded by six organizations; one participant attended at his own expense.
- Presentation of a paper titled “Use of Hospital Services for Kala-azar and Malaria” at the 22nd All Nepal Medical Conference, Kathmandu, April 2005.
- Publication of the second edition of “District Drug Use and Health Profile 2004.” The first edition was published in 2002.
- Signing of a contract with CARE Nepal for Developing Training Packages on Rational Use of Drugs and Good Dispensing, and Conducting Trainings, November 2004. The training packages have been developed and the training will be conducted in the near future.

- Development of an article titled “Intervention Studies on Rational Use of Drugs in Public and Private Sector in Nepal.” The article was published in the July 2005 issue of *Nepal Medical College Journal*, an indexed journal.
- Dissemination of a report titled “Implementation of Self-Monitoring and Peer-Group Discussion for Drug Management and Use in Chitwan District” at the First National Review Meeting of the Community Drug Program, Ministry of Health, May 2005.

Members' Activities

- Dr. K. K. Kafle presented a paper titled “Operational Research and Its Application in Nepal” at the workshop on Research Methodology in Primary Health Care, Tribhuvan University/Danida, May 2005.
- Mr. R. R. Prasad was a member of the Technical Advisory Committee on Reproductive Health Commodities Pricing Study, Ministry of Health, April 2005.
- Mr. G. B. Bhujju was a member of the committee on Use of Zinc in the Treatment of Diarrhoea, Ministry of Health, June 2005.
- Mr. P. L. Das was nominated a member of the subcommittee on Social Science and Culture, Royal Nepal Academy, May 2005.
- Dr. Kafle is listed in *Asia/Pacific Who's Who*, published by Rifacimento International, New Delhi, India, September 2004.
- Mr. Bhujju was decorated with a medal, Gorkha Dakshin Bahu, on the occasion of His Majesty the King's birthday, July 2005.
- Mr. Prasad was a member of a committee drafting National Guidelines on Good Clinical Practice with the Use of Pharmaceutical Products, May 2005.
- Mr. Bhujju participated in the WHO training course on Pharmacovigilance, WHO, Sweden, June 2005.
- Dr. Kafle, Mr. Prasad, and Mr. Bhujju are members of the committee on Revision of Standard Treatment Schedule for Health Posts and Sub-health Posts, appointed in 2005.

Impact of INRUD/Nepal

- The Director General of the Department of Health Services distributed the certificates of participation in the 17th and 18th national training courses on Rational Use of Drugs, 2004 and 2005.
- INRUD/Nepal and its activities were listed in the Annual Report, 2003/2004, Department of Health Services/Ministry of Health.
- INRUD/Nepal presented key findings from the Monitoring and Supervision Study in the Community Drug Programme National Review meeting. The meeting was attended by the Director General, Department of Health Services; Director, Logistic Management Division, Department of Health Services; and representatives from UNICEF, WHO, and international and national nongovernmental organizations.

- “District Drug Use and Health Profile 2004,” a document published by INRUD/Nepal has been widely circulated in Nepal and abroad. The first edition of the document was published in 2002.
- INRUD/Nepal held meetings with Dr. Kris Weerasuriya, Regional Advisor, SEARO/WHO; Dr. Kathy Holloway, WHO/Geneva; and Prof. A. M. Das, WHO/Nepal to brief them on the group’s activities and present them with INRUD/Nepal publications.

Nigeria Core Group

Prof. A. F. B. Mabadeje

INRUD/Nigeria held two meetings this year, one in Benin (January 26, 2005) and the other in Lagos (July 20, 2005). A National Stakeholders Meeting on Rational Drug Use/Annual National Conference is planned for February 2006. The meeting will focus on important drug-related issues aimed at sensitizing policy makers and stakeholders on the need to improve rational drug use. Topics planned for discussion include the National Health Insurance Scheme, which was officially launched early this year; adherence to medications; drug promotion; herbal medicines; and pharmacovigilance, among others.

A policy change on the first-line antimalarial—from chloroquine to artemisinin-based combination therapy (ACT)—was announced in Nigeria last March. Prof. A. F. B. Mabadeje was appointed chairman of the National Antimalarial Drug Policy Implementation Transition Committee.

INRUD/Nigeria is organizing various seminars/workshops to educate health professionals on the policy change and strategies that will ensure a smooth implementation. The West African Post Graduate College of Pharmacists (Nigeria chapter) organized a scientific workshop on recent developments in the management of malaria, its socioeconomic impact, and the impact of the policy changes on the pharmaceutical industry. Prof. Salako gave the keynote address. In June, Dr. S. O. Olayemi and Mr. Ibrahim Oreagba made a presentation on current trends in malaria management to health professionals in the oil sector.

Prof. Ambrose Isah, Prof. Ibrahim Abdu-Aguye, and Dr. Ogori Taylor are members of the expert committee on the development of the National Standard Treatment Guidelines. Prof. Isah is setting up a hospital-based adverse drug reporting scheme and a supporting drug and poisons information service with a view to improving drug use among medical professionals locally and nationally.

Pharm. Obileye is working on a policy paper that aims to establish the need for parallel importation and regulation of proprietary medicines’ prices and suggests effective strategies that would incorporate these into the regulatory mechanisms for medicines.

Specific objectives include the following:

- Demonstrating the effect of parallel importation on prices of proprietary medicines and the consequent implication this has had for access to these essential medicines by patients and for the overall cost reduction for public health
- Developing and advocating for inclusion of parallel importation into the regulation of medicines in Nigeria through the appropriate framework
- Reviewing the implication of unregulated prices of proprietary medicines and highlighting the benefits
- Developing administrative tools for the effective regulation of prices of proprietary medicines in Nigeria

Courses/Conferences

Pharms. Aina and Oreagba successfully completed a six-module online course titled Management of Medicines in International Health, organized by INWENT (Capacity Building International Germany) in conjunction with the University of Heidelberg, Germany, April to October 2004. Pharm. Aina attended the face-to-face workshop in Heidelberg.

Pharms. Aina, Opanuga, Aderemi-Williams, and Oreagba, all INRUD/Nigeria members, attended the training seminar on Antiretroviral Program Management in Boston, August 8–19, 2005. This will help strengthen capacity in implementing one of INRUD/Nigeria’s priority research projects—Adherence to Antiretroviral Therapy in Nigerian Hospitals. Pharm. Aina is the Acting Head, Department of Clinical Pharmacy and Biopharmacy, University of Lagos. Pharm. Opanuga is in charge of the Antiretroviral Management Program at the Lagos University Teaching Hospital, supported by the President’s Emergency Plan for AIDS Relief. Pharm. Aderemi-Williams is actively involved with creating awareness and training health professionals on the rational use of ARVs.

Pharm. Bukky Dada attended the World Pharmacy Congress organized by the International Federation of Pharmacists, in New Orleans, Louisiana, USA, September 5–11, 2004. She presented a paper titled “A Survey of Community Pharmacies for Antiretrovirals in Lagos State, Nigeria.”

Dr. Bassi attended a training course on pharmacovigilance in Uppsala, Sweden.

Pharm. Oreagba attended the 7th Scientific Conference of the Islamic Medical Association of Nigeria, held in Kano, Nigeria, July 8–10, 2005, and presented a paper titled “Outcome of a Face-to-Face Strategy on Awareness and Treatment Knowledge of Malaria Among Caregivers of Young Children in Southwest Nigeria Rural Community.” Prof. Isah and Pharm. Oreagba attended a national sensitization workshop for stakeholders on Ensuring Access to Ethical Drugs Strictly on Prescription, in Abuja, July 29, 2005.

Research Activities

- Exploring case management of malaria in a semirural health facility in southwest Nigeria – Pharm. Oreagba

- Improving pediatric pharmaceutical care – Pharm. Moses Iorngurum
- Improving prescription writing in health facilities – Prof. Isah and Dr. Akoria
- Assessing impact of advertising on rational use of drugs – Pharm. Aghomo and Prof. Isah

Appointments

Prof. Mabadeje – Elected to INRUD (International) Board. As stated above, he was appointed Chairman of the National Antimalarial Drug Policy Implementation Transition Committee. He is also a member of the Nigeria Country Coordinating Mechanism for the Global Fund to Fight AIDS, Tuberculosis, and Malaria.

Prof. Isah – Appointed full Professor of Clinical Pharmacology and President of the Nigerian Hypertension Society.

Prof. Abdu-Aguye – Appointed Chief Medical Director of Ahmadu Bello University Teaching Hospital Zaria Kaduna and Chairman of the Essential Drugs List and Drug Formulary Committee and its Therapeutic Guidelines Sub-Committee.

Philippines Core Group

Dr. Roberto A. Rosadia

INRUD/Philippines organized a half-day preconference seminar for the 3rd Asian Regional Health Technology Assessment Conference held November 24–27, 2004, in Manila, Philippines. The group, led by Bobby Rosadia, presented the principles of and shared experiences of establishing drug and therapeutics committees with more than 60 conference participants, who were mostly from public and private hospitals in the Philippines. Other resource speakers for the seminar, also involved with INRUD/Philippines, were Rita Alvero of the De La Salle University, Tim Badoy of the National Drug Policy staff, Rainier Galang of the National Drug Information Center, Sid Sia of the University of the Philippines, and Madz Valera of the Philippine Health Insurance Corporation. The conference, with the theme “Bridging Global Evidence to Local Issues,” was organized by the Philippine Health Insurance Corporation, the Philippine Department of Health, the Philippine Council for Health Research and Development, and the Foundation for the Advancement of Clinical Epidemiology.

WHO/Manila commissioned Rainier Galang to conduct research to determine the effect of posters and other information, education, and communication materials on the awareness and behavior of Filipino consumers of counterfeit medicines. The research, which is being conducted in two urban and two rural areas in the Philippines, will be completed in October 2005. The research has the support of the Philippine Bureau of Food and Drugs and the National Drug Information Center.

The Philippine Department of Health’s Center for Health Development approved a proposal titled Interventions to Enhance

the Access and Improve the Use of Medicines in Depressed Communities in the Philippines through the Botika Ng Baranga. Implementation of the project will commence during the last quarter of 2005. Collaborating partners include the University of the Philippines’ Drug Use Study Group, the National Drug Information Center, and the Center for Health Development Region 4 Office.

INRUD/Philippines is working with Dr. John Wong of Management Sciences for Health’s Local Enhancement and Development for Health Project—(LEAD) in developing and implementing a training module on rational drug use concepts for local government unit health managers in LEAD’s project sites. Targeted participants are local health officers, physicians, and other local government health workers. The purpose of the training course is to equip local government health managers with practical knowledge and skills to improve their prescribing, dispensing, and drug use practices.

Sweden Core Group

Dr. Göran Tomson

The Division of International Health at Karolinska Institutet (IHCAR) is continuing its collaboration with Muhimbili University College and INRUD/Tanzania. IHCAR also has had its second Ph.D. dissertation. A pharmacist who was supervised by Prof. Lars Gustafsson defended his doctoral dissertation on antimalarial drug analysis. Dr. Jaran Eriksen is due to defend his thesis in early 2006. He is looking at both an antimalarial drug policy shift and the consequences for antimalarial drug resistance.

In Uganda, recent work includes an evaluation of the home-based management of fever in children under five. Dr. Jesca Nsungwi Sabiiti is focusing on malaria in children under five years of age, and Karin Kallander on acute respiratory infection, including pneumonia. Both are expected to defend their Ph.D. dissertations in early 2006. This is also a Swedish International Development Agency, Department for Research Cooperation–funded collaboration between Karolinska Institutet and Makerere University.

Since the last edition of *INRUD News*, IHCAR has worked hard on planning a major multi-stakeholder international meeting in mid-September in Uppsala to address the worrisome situation of increasing antibiotic resistance and decreasing antibiotic innovations. See page 1 and www.reactgroup.org.

Tamil Nadu Core Group

Dr. R. Murali

- First-year to final-year students are taught basic principles of RUD, concepts of rational prescribing, ethical and legal issues in rational prescribing, problems of irrational prescribing, and a holistic approach with practical examples. During their internship, they are assigned community activities in promoting RUD.

- Medical officers are trained to use standard treatment guidelines for common diseases based on the essential drug list of the Tamil Nadu Medical Services Corporation.
- INRUD/Tamil Nadu is supporting the publication of articles on promoting rational use of ARVs in the monthly publication of the newsletter and by sharing information through the Web site.
- Female medical officers undergoing postgraduate courses were trained on rational use of drugs and antiretroviral therapy, with particular emphasis on Prevention of Parent to Child Transmission of HIV program.
- With the help of interns at Madras Medical College, community sensitization workshops have been organized in urban slums to promote rational drug use.
- The drug formulary of Tamil Nadu state has been made available at www.icm.tn.gov.in so that it can be used as a ready reference for medical officers. The formulary is slated for release shortly.

Members' Activities

- Dr. R. Murali chaired weekly sessions on RUD, and special training programs were carried out to train house surgeons during their postings.
- Fliers and fact sheets prepared by Dr. K. Punitha with support from Compulsory, Rotatory Residential Interns are used for the promotion of rational use of drugs for medical officers of primary health centers and for the public.
- Dr. Punitha participated in the session on drug interactions and management in general practice in a workshop organized for private practitioners in Chennai.

Current Research Activities

- Under the guidance of Dr. Punitha, undergraduate students in Madras Medical College are undertaking an analysis of cost factors in the use of antibiotics and patient compliance.
- A study is also under way to assess ARV use in government-initiated ARV centers in different districts.

Other activities include the following:

- Developing and supplying training materials and organizing training programs for various medical and paramedical personnel through symposiums and seminars
- Developing strategies for the participation of various personnel, such as policy makers and representatives of ministries, in designing, implementing, and evaluating RUD
- Providing information through networking on RUD
- Disseminating information on drug policy issues and side effects and adverse reactions encountered in the use of drugs, including new drugs
- Developing a resource group for guidance and research action involving RUD in various places

- Supporting and integrating government and nongovernmental agencies for sustainability
- Encouraging public-private partnerships
- Developing strategies to involve and empower all allied institutions, including beneficiaries
- Designing and developing value-added service programs for sustainability
- Developing a drug information center linking all agencies involved in RUD

Tanzania Core Group

Prof. Amos Massele

INRUD/Tanzania has been involved in the following activities since the International Conference on Improving Use of Medicines (ICIUM) in April 2004, held in Chiang Mai, Thailand. This is also the first report since the last issue of *INRUD News*.

Post-ICIUM Activities

- Analysis of results of the health facility malaria treatment intervention project, 2001–2003. These results were partly reported in *INRUD News* vol. 14(1). This is an ongoing collaboration with Prof. Göran Tomson, Professor of Public Health; Prof. Anders Bjorkan, Professor of Infectious Diseases; and Prof. Lars Gustafsson, Professor of Clinical Pharmacology, all from the Karolinska Institutet, Sweden.

Two Tanzanian doctoral students were involved in this project: Dr. Billy Ngassala and Ms. Marcelina Mubi. Both are registered at the Karolinska Institutet and are expected to complete their Ph.D.s by 2007/2008. A number of manuscripts are in preparation for publication.

- Improving quality of malaria case management in under-fives at households in two districts of Tanzania, Kibaha and Bagamoyo. Unlike the first interventions mentioned on health facility malaria case management, this intervention will focus on improving quality of malaria treatment in households.

The title of the research proposal has been modified to Rapid Diagnostic Testing (RDT) and Artemisinin-Based Combination Therapy for Uncomplicated Malaria by Community Health Workers. Due to resistance, most African countries are switching to artemisinin-based combination therapy (ACT) as first-line treatment policy. For Tanzania mainland, the candidate drug is Coartem, a fixed combination of lumefantrine and artemisinin. In Zanzibar (Tanzania Isles), ACT as first-line treatment was implemented in 2004, replacing sulfadoxine/primethamine.

ACTs are more expensive; thus, a diagnosis of “true” malaria infection is more important than ever before. The aim of this intervention is to evaluate whether community health workers can be trained to treat malaria using ACT in their communities and if they can be aided by RDT.

A final proposal draft is being submitted for ethical clearance at both Muhimbili University College (MUCHS) and the Karolinska Institutet Human Research Ethics Committee.

INRUD/Tanzania thanks the following collaborators for making this a success:

- Prof. Göran Tomson, Karolinska Institutet
- Prof. Anders Bjorkman, Karolinska Institutet
- Prof. Lars Gustafsson, Karolinska Institutet
- Dr. Mariam Warsame, Karolinska Institutet
- Prof. Zul Premji, MUCHS
- Dr. Annika Janson, Pediatrician (Swedish, currently based in Dar es Salaam)
- Ms. Karin Kallander, Karolinska Institutet
- Dr. Jaran Erickssen, Karolinska Institutet

More news will be reported in the next issue of *INRUD News*.

- Consultancy for Promoting Rational Use of Drugs. Prof. Amos Massele was granted a consultancy to carry out a baseline study on rational use of drugs for the Mission for Essential Medical Supplies, a nongovernmental organization dealing with procurement of pharmaceutical supplies for some religious group-owned hospitals in Tanzania. The consultancy began in April 2005.

Thailand Core Group

Dr. Chitr Sitthi-amorn

Activities Related to Rational Use of Drugs

- The World Congress of Epidemiology (www.wce2005.org) was held in Bangkok, August 21–25, 2005. The Congress was organized by the International Epidemiological Association (IEA) (Prof. Chitr Sitthi-amorn is IEA President); the College of Public Health; and the Institute of Health Research, Chulalongkorn University. Rational use of drugs was one of the themes featured in the Congress. For example, Kathy Holloway presented on surveillance issues in containing antimicrobial resistance and improving the use of medicines. Other speakers described their experiences of surveillance on resistance at the university hospital and community levels, and how the data were used to inform clinical and public health decisions. Speakers also described their experiences surveying the use of antimalarial drugs in hospitals and communities and how those data were used to evaluate the impact of interventions designed to promote the improved use of antimicrobials. Prof. Ranjit Roy Chaudhury presented his thoughts on the ethical issues in traditional medicine research.
- Chulalongkorn University, through the recommendation of the College of Public Health and the Institute of Health Research, has granted Prof. Chaudhury an honorary doctoral

degree in public health. Prof. Chaudhury has been serving as the UNESCO Chair for the Rational Use of Drugs. The work contributed by the Chair also won a UNESCO award as an example of how the UNITWIN program (UNESCO University Twinning) can be successful.

- During June and July 2005, the College of Public Health, in collaboration with the National Health Security Office, Thailand, organized a three-week course on Health System Financing and Management toward Universal Coverage. Thirty participants, provincial chief medical officers, directors of the Provincial Hospital, and heads of Regional Health Insurance Offices, participated in the short course. The course covered topics related to drug use interventions, including lectures and study visits to relevant organizations in Australia.
- The Pharmaceutical System Research and Intelligence Center, directed by Dr. Sauwakon Ratanawijitrasin, is taking an initiative to support hospitals in Thailand to improve drug use and the quality of care. Activities include drug utilization analysis, benchmarking, and building drug utilization information feedback mechanisms.
- A dissertation-related project titled “The Involvement of Civil Society in a Strategy to Reduce the Use of Antibiotics in the Treatment of Adults with Upper Respiratory Infections from Viral Origins at the Household and Community Levels: A Comparison Study in Congested Community, Thailand Phase 3,” led by Dr. Siritree Sutthajit, a graduate of the College of Public Health, has received funding from Management Sciences for Health to continue the evaluation phase.
- A new book, *Health Insurance: An In-depth Guide*, authored by Dr. Ratanawijitrasin, has been published by Chulalongkorn University Press.

Uganda Core Group

Dr. Paul Waako

Membership as of April 8, 2005

INRUD/Uganda’s membership has continued to grow over the past year, and a number of postgraduate students have shown interest in the INRUD activities. As of April 8, 2005, the membership stands as follows:

1. Dr. Paul Waako (Chairman)
2. Prof. W. W. Anokbonggo
3. Prof. Richard Odoi-Adome
4. Dr. Celestino Obua
5. Dr. Kyegombe
6. Dr. Mawerere
7. Dr. Erisa Owino
8. Dr. Bbosa Godfrey

9. Mr. Dan Kibuule
10. Mr. Paul Kutwabami
11. Mr. Xavier Nsabagasani
12. Dr. Norah Mwebaza
13. Mr. A. Lubega
14. Mrs. Angela Bonabana
15. Ms. Rebecca Mutepkwe

New Responsibilities

Toward the end of last year, Prof. Jasper Ogwal-Okeng was appointed Dean of the Medical School at the newly opened University of Gulu. Dr. Waako took over as Head of the Department of Pharmacology and Therapeutics at Makerere University Medical School.

In June 2005, Prof. Anokbonggo was appointed Chairman of Board of National Medical Stores of Uganda for the second term.

Last March, Prof. Anokbonggo and Dr. Waako were appointed to serve on the national task force charged with formulating a National Policy on Traditional and Complementary Medicines.

In July, Associate Prof. Odoi-Adome was re-appointed Head of the Department of Pharmacy at Makerere University Medical School.

Ongoing Activities

- A proposal to hold a national post-ICIUM conference has been submitted to the WHO country office for possible funding.
- A proposal on antimicrobial resistance surveillance has been written and funding is being sought.
- Five manuscripts from the phase III projects completed last year are being prepared.
- The members of the group are involved in the development of the Regional Technical Resource Centre for Training and Research on Medicines. This regional collaborative initiative is meant to supplement national efforts in critical areas of capacity building and research. The countries covered in this initiative are Uganda, Kenya, Tanzania, and Rwanda. To date, we have developed training manuals for In-Service Training on Supply Management of Antiretroviral Therapy in the East African Region.

Recent Publications of Interest

Short-Course Therapy for Community-Acquired Pneumonia in Paediatric Patients

Shamim Qazi

Department of Child and Adolescent Health and Development,
World Health Organization, Geneva, Switzerland

Reference: *Drugs* 2005; 65(9):1179–92

Abstract

Studies conducted over the past few years on the treatment of pneumonia have provided data on the basis of which decisions concerning the duration of therapy can be made. Results from most studies conducted on hospitalized patients using the conventional methods for diagnosing pneumonia have methodological problems, which make it difficult to draw definite conclusions. Despite these limitations, the overall trend of these descriptive studies shows that a therapy of 5 days is as effective as the longer course of 7–14 days typically prescribed for children up to the age of 12 years. Data for duration of antibacterial therapy for infants under 2 months of age hardly exist. Evidence suggests that a shorter course of antibacterial therapy—3 days—is effective for the treatment of

community-acquired, non-severe ambulatory pneumonia in immunocompetent children age 2–59 months. Shorter duration therapy offers several potential advantages, including prevention of the emergence of antimicrobial resistance, lower health care costs, improved adherence to therapy, and fewer adverse effects. There is a need to improve the evidence base for the optimum duration of therapy for children hospitalized with severe pneumonia.

Comment

This important study provides a brief but comprehensive overview of the rationale and evidence base for recommending shorter courses of antibiotic therapy for non-severe community-acquired pneumonia and collecting further data to justify reducing the length of treatment for severe hospitalized cases. These results were presented at the Second International Conference on Improving Use of Medicines in 2004 (www.icium.org) and formed the basis for a WHO-endorsed recommendation from conference participants to conduct research to carefully test the effectiveness of implementing shorter-duration therapy for pneumonia and other infections. As summarized by Qazi, there is evidence that shorter therapy may reduce carriage of resistant organisms, lower the burden of cost to patients and health systems, and improve treatment adherence. INRUD and members of the React network (see

page 1) should encourage a continued focus on developing the evidence base for shorter-duration therapy as well as large-scale trials to evaluate the impacts of interventions to change clinical practice in this area.

—Dennis Ross-Degnan

Resisting Medicines: A Synthesis of Qualitative Studies of Medicine Taking

Pandora Pound,¹ Nicky Britten,² Myfanwy Morgan,³ Lucy Yardley,⁴ Catherine Pope,⁵ Gavin Daker-White,¹ and Rona Campbell¹

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²Institute of Clinical Education, Peninsula Medical School, Exeter, UK; ³Department Public Health Sciences, Guy's, King's, and St Thomas', London, UK; ⁴School of Psychology, University of Southampton, UK; ⁵School of Nursing and Midwifery, University of Southampton, UK

Reference: *Social Science & Medicine* 2005; 61:133–55

Abstract

The study aimed to synthesize qualitative studies of lay experiences of medicine taking. Most studies focused on the experience of those not taking their medicine as prescribed, with few considering those who reject their medicines or accept them uncritically. Most were concerned with medicines for chronic illnesses. The synthesis revealed widespread caution about taking medicines and highlighted the lay practice of testing medicines, mainly for adverse effects. Some concerns about medicines cannot be resolved by lay evaluation, however, including worries about dependence, tolerance, and addiction; the potential harm from taking medicines on a long-term basis; and the possibility of medicines masking other symptoms. Additionally, in some cases medicines had a significant impact on identity, presenting problems of disclosure and stigma. People were found to accept their medicines either passively or actively, or to reject them. Some were coerced into taking medicines. Active accepters might modify their regimens by taking medicines symptomatically or strategically, or by adjusting doses to minimize unwanted consequences or to make the regimen more acceptable. Many modifications appeared to reflect a desire to minimize the intake of medicines, and this was echoed in some peoples' use of nonpharmacological treatments to either supplant or supplement their medicines. Few discussed regimen changes with their doctors. The researchers conclude that the main reason why people do not take their medicines as prescribed is not because of failings in patients, doctors, or systems, but because of concerns about the medicines themselves. On the whole, the findings point to considerable reluctance to take medicine and a preference to take as little as possible. The authors argue that peoples' resistance to medicine taking needs to be recognized and that the focus should be on developing ways of making medicines safe, as well as identifying and evaluating the treatments that people often choose in preference to medicines.

Comment

In recent years, a great deal of attention has been focused globally on increasing access to medicines. While concerns about lack of access to treatments for HIV, TB, and malaria have driven this issue, it is also true that much of the world's population lacks access to essential medicines to treat chronic illness. This careful review of qualitative research on medicine taking reminds us that achieving the optimal clinical benefits of medicines is not simply a matter of expanding access. Many people do not take medicines as prescribed, and the reasons for this resistance to medicines are complex and varied. Research on this topic has been very uneven, with definitions and perspectives that vary widely and often reflect a medical rather than a patient-centered focus. The authors provide a useful conceptual road map to develop a broader understanding of lay perceptions in medicine taking, including different patient styles of medication acceptance and the importance of safe medicines and safe prescribing.

—Dennis Ross-Degnan

The Impact of China's Retail Drug Price Control Policy on Hospital Expenditures: A Case Study in Two Shandong Hospitals

Qingyue Meng,^{1,2} Gang Cheng,¹ Lynn Silver,^{2,3} Xiaojie Sun,¹ Clas Rehnberg,⁴ and Göran Tomson^{2,4}

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Reference: *Health Policy and Planning* 2005; 20(3):185–96

Abstract

In China, 44.4 percent of total health expenditures in 2001 were for pharmaceuticals. Containment of pharmaceutical expenditures is a top priority for policy intervention. Control of drug retail prices was adopted by the Chinese government for this purpose. This study aims to examine the impact of this policy on the containment of hospital drug expenditures, and to analyze contributing factors.

This is a retrospective pre-/postreform case study in two public hospitals. Financial records were reviewed to analyze changes in drug expenditures for all patients. A tracer condition, cerebral infarction, was selected for in-depth examination of changes in prices, utilization, expenditures, and rationality of drugs. In the two hospitals, a total of 104 and 109 cerebral infarction cases, hospitalized respectively before and after the reform, were selected. Prescribed daily dose was used for measuring drug utilization, and the contribution of price and utilization to changes in drug expenditures were decomposed. Rationality of drug use postreform was reviewed based on published literature.

Drug expenditures for all patients still increased rapidly in the two hospitals after implementation of the pricing policy. In the provincial hospital, drug expenditures per patient for cerebral infarction cases declined, but not significantly. This was mainly attributable to reduced utilization. In the municipal hospital, drug expenditure per patient increased by 50.1 percent after the reform, mainly due to greater drug utilization. Three- to fivefold higher drug expenditure per inpatient day in the provincial hospital was caused by use of more expensive drugs. Of the top 15 drugs for treating cerebral infarction cases after the reform, 19.5 percent and 46.5 percent of the expenditures, in the provincial and municipal hospitals, respectively, were spent on drugs with prices set by the government. A large proportion of expenditures for the top 15 drugs—at least 65 percent and 41 percent in the provincial and municipal hospitals, respectively—was spent on allopathic drugs without an adequate evidence base of safety and efficacy supporting use for cerebral infarction.

Control of retail prices, implemented in isolation, was not effective in containing hospital drug expenditures in these two Chinese hospitals. Utilization, more than price, determined drug expenditures. Improvement of rational use of drugs and correcting the current incentive structure for hospitals and drug prescribers may be important additional strategies for achieving containment of drug expenditures.

Comment

Much global attention has been focused on strategies for increasing access to essential medicines in recent years, and

escalating medicine prices have received particular attention from governments, advocacy groups, and the public. Some argue that in order to increase access, governments should control the prices of essential medicines. This flawed but provocative article illustrates why such an approach in isolation may not be enough and may even work in ways that are counterproductive. The flaws in the article have to do with its sample of a single provincial and a single municipal hospital; a pre-/postreform design that cannot account adequately for pre-existing trends when examining the impact of price controls; and its focus on prescribing for a single, relatively infrequent condition—cerebral infarction. Nevertheless, the results illustrate how policies may provoke unanticipated changes. After national and municipal governments introduced price controls on some medicines, the prices of these medicines did appear to go down. However, overall expenditures actually appeared to increase, because of shifts to newer medicines with uncontrolled prices and higher overall rates of prescribing. Furthermore, a majority of prescribing was for medicines that have weak evidence for use in the target condition. The policy lesson is that physicians and hospitals that have strong incentives to maintain profits will find creative ways to circumvent price control policies, and, as a result, access to essential medicines by patients may actually not improve. It is important to integrate medicine policies that address not only medicine prices, but also financial incentives, formulary design, insurance coverage, and quality of prescribing.

—Dennis Ross-Degnan

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INRUD Bibliography

The *INRUD Drug Use Bibliography* is an annotated bibliography of published and unpublished articles, books, reports, and other documents related to drug use, with a special focus on developing countries. It now contains more than 5,000 entries and is updated regularly. Submissions of materials for the database are welcome.

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.

Inside the Back Page

New INRUD Board Elected

With the expansion in the number of INRUD groups, a new board was elected at the end of last year. The groups were separated into four regions: the Southeast Asian Regional group; the Western Pacific group; the Sub-Saharan Africa group; and the Americas and Europe.

The coordinator of each INRUD group voted for 13 of the candidates, with the proviso that each voter had to vote for least two from each of the four regions. The 13 board members chosen were those with the most votes.

These board members will hold their appointments for four years, until January 1, 2009. There are also two ex-officio members of the Board—the rational drug use focal person in WHO/EDM and the INRUD Coordinator, who is currently with Management Sciences for Health (MSH). The two ex-officio members will change whenever there is a change in their positions in the host organizations.

The new INRUD Board as elected is—

Asia and Pacific

Southeast Asian group

Bangladesh:	Azad Chowdhury
Indonesia:	Sri Suryawati
Nepal:	K. K. Kafle
Thailand:	Chitr Sitthi-amorn

Western Pacific group

China:	Cherry Wang Qing
Newcastle Australia:	David Henry
Philippines:	Bobby Rosadio

Sub-Saharan Africa

Ghana:	David Ofori-Adjei
Nigeria:	Biola Mabadeje
Tanzania:	Amos Masele
Uganda:	Willy Anokbonggo

The Americas and Europe

Harvard/Boston University:	Dennis Ross-Degnan
Karolinska Institutet:	Göran Tomson

Kathy Holloway from WHO/EDM and John Chalker from MSH are the two ex-officio members on the board.

Note: Since the elections, the China group has replaced its focal person, Cherry Wang Qing, so she is no longer an INRUD Board member. Until she is replaced there will be 14 board members.

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

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