Public Education in Rational Drug Use: a Global Survey

Daphne A. Fresle\textsuperscript{1}  
Cathy Wolfheim\textsuperscript{2}  

Geneva, March 1997

\textsuperscript{1} Action Programme on Essential Drugs  
\textsuperscript{2} Consultant, Action Programme on Essential Drugs
Much research work, particularly in developing countries, at present goes unreported. The reasons for this include the intense competition to publish in the scientific press, and difficulties in matching the research resources of developed countries. The DAP research series was established to provide a forum for the rapid distribution of data and findings relevant to critical areas of drug policy and use. The Action Programme has a firm commitment to national operational research as part of its direct country support. It is also strongly committed to making the findings of such studies widely known and accessible. While every effort is made by the Programme to support studies of the highest possible quality, research skills and resources will vary from country to country. Documents in the DAP research series reflect this variation, and range from reports of very small scale studies, undertaken, with minimal resources, to major global research involving substantive financial, scientific and editorial input.
Acknowledgements

The valuable contribution to this research of the following individuals and organizations is gratefully acknowledged. In particular, we should like to acknowledge our gratitude to the partnership of Health Action International in this survey and to the many respondents from all over the world who took the time and trouble to share their experiences, insights and materials.

Planning and data collection

C. Hodgkin, Health Action International (HAI) European Office, made a significant contribution to the survey planning. She also organized and supervised the role of HAI. Field testing of the survey instrument, as well as its distribution, follow-up and collection, were coordinated by HAI in Amsterdam (R. de Groot, B. Bonemeijer), in collaboration with HAI regional offices in the Western Pacific and Latin America (S. Rani Kaur, R. Lopez Linares). Y. Sook Kwok coordinated responses from Australia. J.A. Reinstein of the World Federation of Proprietary Medicine Manufacturers coordinated responses from members of WFPMM.

Data base

J. Hetzke, WHO/DAP, advised on the development of the survey data base. A. Hemsworth, WHO/DAP, contributed to data entry; she also classified the educational materials received. K. Mason, WHO/CDR, contributed to data analysis.

Respondents

D.V. Aceuedo (Health Action International Mexico, Mexico), J. Addo-Atuah (Lady Pharmacist Association, Ghana), P. Aka and A.V. Fualefac (National Association for the Rational Use of Drugs, Cameroon), S. Aongsomwang (The Coordinating Committee for Primary Health Care of Thai NGOs, Thailand), A. Bal, A. Pilgaokar and R.P. Ravindra (Association for Consumer Action on Safety and Health, India), J.A.C. Barros (Centrode Información y Educación Para el Uso Racional de Medicamentos, Brazil), S.P. Barry (Ministère de la Santé, Guinée), J. Blackburn (University of Saskatchewan, Canada), C. Bower (Institute for Child Health Research, Australia), F. Buhl (Syndicat National de l’Industrie pharmaceutique, France), G. Cannard (Tranquilliser Recovery and New Existence Inc., Australia), J. Castro (Servicios de Medicinas Provida, Peru), V.P. Castro Naranjo (Direccicon seccional de Salud de Antioquin, Colombia), J. Chalker (Save the Children Fund UK, Viet Nam), P. Cody (Diethylstibestrol Action, USA), L. Coper (Pharmaceutical Society of Australia, Australia), Chairperson (Older Person’s Action Centre Inc., Australia), J. Colgan (Orange Base Hospital, Australia), B.S. Dicker (Churches of Christ Home Inc. of W.A., Australia), C. Domecq (Universidad de Chile, Chile), S. Donalson (Commonwealth Department of Human Services and Health, Australia), A. Dulion (Comité d’Education sanitaire et sociale de la Pharmacie française, France), D. Finer and G. Tomson (Karolinska Institutet, Sweden), S. Fogg (Australian Pensioners’ & Superannuants’ Federation, Australia), C. Forshaw (Malawi Essential Drugs Programme, Malawi), S. Forti (Colectivo Interdisciplinario de Estudios de Salud, Mexico), M. Fritz (Swiss Drug Information Centre, Switzerland), E.C. Gooding (Sierra Leone Medical and
Dental Association, Sierra Leone), S. Gustafsson, J.L.G. Nilsson, B. Lisper, E. Olbo and A. Höglund (Apoteksbolaget, Sweden), B. Hill (Eastern Sydney Area Health Service, Australia), B. Hocking and P. Morgan (Schizophrenia Australia Foundation, Australia), M.W. Iaban and P. Swain (South Pacific Consumer Protection Programme, New Zealand), A.H. Ibrahim (Sudan Essential Drugs Programme, Sudan), E.M. Idris and N. Kanr (Consumers’ Association of Penang, Malaysia), K. Jaiok (CACPK, Korea), F. Jèsu (Institut de l’Enfance et de la Famille, France), K.N. Jhaveri (Gandhi-Lincoln Hospital, India), Y. Jhugroo (Institute for Consumer Protection, Mauritius), N. Kiatying-Angsulee (Drug Study Group, Thailand), D. Kiddell (DES Action Canada, Canada), R. Kinuka (Uganda Red Cross Society, Uganda), H. Kortland (Bundesfachverband der Arzneimittel-Hersteller, Germany), G. Kocken (Stichting Nederlands Ontwikkelings-en-Ondersteuningsinstituut, The Netherlands), H. Kous (The Danish Pharmaceutical Association, Denmark), Z. Kovalevska (Club for Consumers Protection, Latvia), H. Kumagai (The Proprietary Association of Japan, Japan), O. Lanza (Acción internacional por la Salud, Bolivia), R. Lauchlan (St Vincent’s Hospital, Australia), A. Lawrence (Combined Pensioners & Superannuants Association of NSW Inc., Australia), H. Linden (Läkemedelsinformationsraet, Sweden), R.L. López (Acción para la Salud, Peru), G. McNerney and P. Morrissey (Illawarra Pharmacists’ Association, Australia), C. McNiven (Consumers Health Forum of Australia, Australia), J.W.F. van Mil (Rijksuniversiteit Groningen, The Netherlands), G. Mitra (Proprietary Association of Great Britain, UK), V.E.R. Monroy (Red Acción Internacional por la Salud OMS/OPS, Colombia), K. Moussa, Ministère de la Santé publique (Côte d’Ivoire), Y.G. Muralidharan (Consumer Rights, Education & Awareness Trust, India), L. Ngang’a (Program for Appropriate Technology in Health, Kenya), C.M. Niekerk (S.A. Pharmacy Council, South Africa), A. Parkes (Commonwealth Department of Veterans’ Affairs, Australia), E. Perch (South Riverdale Community Health Centre, Canada), J. Pertzborn (Iowa Pharmacist’s Association, USA), B. Phelan (Streetwize Comics Ltd., Australia), M. Posada (Accion Para La Salud, El Salvador), S. Rahman (Sabar Jannaya Shasthaya, Bangladesh), M. Ramasamy (Federation of Malaysian Consumers Associations, Malaysia), B. Raspe and J. Schaaber (Buko Pharma-Kampagne, Germany), F. Rathbun (US Nonprescription Drug Manufacturers Association, USA), V. Ribault (Santé et Communication, France), D. Ruth (Monash University, Australia), A. Sax (Berne Declaration, Switzerland), M. Sarkar (Community Development Medicinal Unit, India), J. Seifert (Proprietary Medicines Association of Australia Inc., Australia), C.H. Shashindran and K.R. Sethuraman, (Educators for Quality Update of Indian Physicians, India), A. Smith (British Medical Journal, UK), K. Soenen (Projeckt Farmaka, Belgium), A. Solis (Longhorn Pharmaceutical Association, USA), S. Suryawati (Gadjah Mada University, Indonesia), D. Sweeney (Michigan Department of Public Health, USA), Y. Triswan (Program for Appropriate Technology in Health, Indonesia), G. Voituron (Royal Dutch Association for the Advancement of Pharmacy, The Netherlands), K. Whorlow (National Asthma Campaign, Australia), S.M. Wolfe and S.R. Ahmad (Public Citizen’s Health Research Group, USA), R. Wood (Endometriosis Association, Australia), J. Wright (Rational Health Group, UK), B. Yeager (Instituto de Investigacion Nutricional, Peru), E.V. Zuñiga (Centro Nacional de Información de Medicamentos y Sustancias Tóxicas, Peru).
Comments

Comments on earlier drafts of this report by the following people are gratefully acknowledged: P. Brudon / J. Quick / T. Sodogandji (WHO/DAP), M. Rice (WHO/FPP), C. Hodgkin (Netherlands), J. Hubley (UK).
Executive summary ...................................................................................................i

1. Introduction .................................................................................................. 1
   1.1 Public education: a compelling need ................................................... 1

2. Background to the Survey .......................................................................... 5
   2.1 Rationale................................................................................................. 5
   2.2 Literature review................................................................................... 6

3. Methodology ................................................................................................ 9
   3.1 Study design .......................................................................................... 9
   3.2 Identification of projects........................................................................ 9
   3.3 Study period ........................................................................................ 10
   3.4 Data management ............................................................................... 10
   3.5 Methodological concerns/cautions.................................................... 10

4. Findings .................................................................................................. 13
   4.1 General characteristics of responding projects ................................. 13
       Table 1 - List of responding countries................................................ 13
       Figure 1 - Implementing organizations............................................. 14
   4.2 Project planning................................................................................... 15
       Figure 2 - Reasons for development of project ................................. 16
       Figure 3 - Principal project themes .................................................... 17
       Figure 4 - Project target groups.......................................................... 19
       Figure 5 - Expected outcomes of the programme............................. 20
       Figure 6 - Educational materials developed...................................... 21
   4.3 Implementation ................................................................................... 23
       Figure 7 - “Types” of programmes .................................................... 24
       Figure 8 - Activities and channels of communication used............. 29
       Figure 9 - Implementing personnel.................................................... 30
       Figure 10 - Source of funding............................................................. 31
   4.4 Evaluation ............................................................................................ 31
       Figure 11 - Criteria used to determine impact .................................. 33
       Figure 12 - Problems experienced in implementing projects........... 35
       Table 2 - Lessons learned ................................................................. 37

5. Discussion ................................................................................................... 39
   5.1 Type and rationale of public education activities....................... 39
   5.2 How activities are planned, implemented and evaluated .......... 39
   5.3 Success ratings and cost/benefits of different approaches .......... 42
   5.4 Facilitating and constraining factors ................................................. 42
   5.5 Implementing and supporting organizations and bodies............. 43
   5.6 Areas which require further investigation and/or support .......... 43
6. Conclusions and recommendations.............................................................. 47
  6.1 Funding.................................................................................................. 47
  6.2 Advocacy.............................................................................................. 48
  6.3 Training and tools................................................................................ 49
  6.4 Coalitions/partnerships....................................................................... 50
  6.5 Lack of reporting/evaluation/publication......................................... 52
  6.6 Organized opposition......................................................................... 53
  6.7 Need for supportive infrastructure.................................................... 54
  6.8 Summary conclusion........................................................................... 54

References ............................................................................................................. 57

Annexes
Annex I Title, Duration and Cost listed by Country........................................... 59
Annex II List of Programmes by Country............................................................ 63
Annex III Global Survey on Public Education in Rational Drug Use - Questionnaire................................................. 71

Acronyms
AIDS - Acquired Immunodeficiency Syndrome
DAP - Action Programme on Essential Drugs
EDM - Essential Drugs Monitor
HAI - Health Action International
IEC - Information, education and communication
INRUD - International Network for Rational Use of Drugs
KAP - Knowledge, attitude, practice
MIP - Medicine Information Project
MOH - Ministry of health
NGO - Nongovernmental organization
OTC - Over-the-counter
RUD - Rational use of drugs
STD - Sexually transmitted disease
UNICEF - United Nations Children’s Fund
WHO - World Health Organization
The need for public education in rational drug use

Consumers need information and education on medicines and appropriate treatment-seeking strategies for a number of compelling public health reasons:

- because of the important role of pharmaceuticals in modern health care;

- so that individuals and communities can take responsibility for their health, including decisions on appropriate therapeutic strategies: both a human right and prerequisite for sound decision-making;

- so that as patients they can be informed partners in therapeutic decision making and subsequent drug use: an essential element for optimal therapeutic outcomes since the patient is the final determinant of drug use;

- so that as consumers they have the basic tools for rational and safe direct purchase of medicines, and can put in context the claims of commercial drug promotion: both critical areas in view of the extent of self-medicating and evidence of unethical drug marketing.

Numerous studies point to major misconceptions and misuse of drugs by prescribers, dispensers and consumers. Although modern pharmaceuticals are based on a rational-scientific model, they are distributed, prescribed and used in ways that frequently don’t accord to that model. Pharmaceutical marketing may also contribute to irrational use.

In many parts of the world up to 80% of illness episodes are self-treated with modern pharmaceuticals. Even when consumers use formal health care channels, their decision-making is the ultimate determinant of drugs use. These decisions are influenced by the beliefs of family or friends or the larger community, information from prescribers and dispensers, and promotional material. How medicines are obtained and used is therefore not just about individual choices made by a prescriber or consumer but reflects a matrix of societal, economic and health factors which influence those decisions.

Consumers need access to accurate and understandable information about the potential benefits and risks of medicines in general; how they act within the body; and the limitations of pharmacotherapy and other treatment options. Patients, during a therapeutic or dispensing encounter need information about the risk/benefit of different treatment options, including side-effects.

Study rationale and goals

Public education interventions in rational drug use are rarely published or fully documented. As a result, experience gained cannot be shared or built on. In
order to help close this gap, the WHO Action Programme on Essential Drugs conducted a global survey of this work. The specific objectives were to identify:

- the type and rationale of public education activities undertaken;
- how activities are planned, implemented and evaluated;
- success ratings, including the relative cost/benefit of different approaches;
- facilitating and constraining factors encountered;
- implementing and supporting organizations and bodies;
- areas which require further investigation and/or support;
- how public education can best be taken forward.

The study also aimed to obtain structured information, together with examples of materials, which could contribute to the development of training and resource materials. Data gathered would also provide the framework for an international data base which could be drawn on by countries, organizations and individuals working in the field.

**Methods**

The survey started with a search of standard literature data bases, complemented by an attempt to access information on projects which had not been published (grey literature). The published literature revealed very little on public education in rational drug use, in contrast to a large body of literature on patient adherence to treatment (“compliance”) and descriptive studies of drug use by prescribers and consumers.

In the next phase, a questionnaire was drawn up, pretested and produced in English, French and Spanish. In partnership with a network of health, development, consumer and public interest groups - a strategy was developed to identify projects, to actively solicit their collaboration, and to despatch, collect and initially screen completed questionnaires. Data (103 questionnaires, of which 99 met inclusion criteria), together with examples of materials, were gathered from 38 countries (25 developing, 13 developed).

**Findings**

**General project characteristics**

Responses were received from 38 different countries, 28 developing and 13 developed. 99 projects were entered into the database, 37 from developing and 62 from developed countries. The types of implementing organizations, interventions and target populations varied widely. Implementing organizations included government bodies, NGOs, private non-profit, professional and commercial associations, and academic institutions. The majority of projects were national in scope and ranged from a few months' to some years' duration.

**Planning**

Project planning was often unstructured: most projects selected fairly general themes on the basis of “perceived need,” and target groups were extremely broad, often simply “general public”. Proportionately more developing (43%) than developed (27%) countries based their projects on research, which included
household, consumer and practitioner surveys, focus-group discussions, and observation of sales patterns. Most research was qualitative.

Expected outcomes were equally broad. They included changes in general knowledge and attitudes (the most common); specific behaviour changes; improved communication between practitioner and client; patient adherence to treatment; and government or policy changes. The number of multiple responses suggests that these issues may not have been clearly defined before implementation.

**Implementation**
Project themes varied widely and included general education on rational use of drugs (the most common theme in both developed and developing countries); specific problem drugs; specific illnesses or treatments; and consumer rights and responsibilities. The principal reason for theme selection was “perceived need”. Of the specific problem drugs targeted, developing countries mentioned antidiarrhoeals and antibiotics most frequently, whereas developed countries focused more on benzodiazepines and other sedatives. The most frequently mentioned specific illnesses selected as themes in developing countries were diarrhoea and malaria. The only illness mentioned frequently among developed countries was asthma. This finding is compatible with the types of health problems found in developed and developing countries: specific drugs may present more of a problem in industrialized nations, whereas disease conditions (and the drugs often misused in their control) are more visible in developing countries.

Projects commonly included five or more target groups. Most projects included “general public” in their list; prescribers/pharmacists and other health workers were in second place (often as channels of communication); mothers and children and adolescents were also significant targets.

In developing countries mass media was the most popular channel of communication (76% of projects), followed by workshops (70%) and distribution or display of printed materials (62%). Developed countries concentrated more on printed materials (61% of projects) and next on mass media (56%). Other activities included community meetings, health centre talks, school programmes, traditional or street theatre, puppet shows, and telephone services. Many projects used a mixed approach. Just over half of all projects pretested their materials and nearly all did some revisions.

**Impact Evaluation**
Evaluation was rarely carried out in a systematic manner and focused on activity monitoring rather than impact. Few projects were able to provide evaluation reports.

Despite the low percentage of projects having carried out evaluations, many projects estimated impact. 40% from developing countries judged that their project had met its objectives, compared to 66% from developed countries. 60% of developing countries and 30% of developed countries said the objectives had been partially met. No developing country and only 4% of developed country respondents considered that their project had not been successful.
**Process Evaluation**

Main problems faced by projects were lack of adequate and timely funding, lack of external collaboration and support, poor coordination, shortage of personnel and time, opposition from vested interests (including professional and commercial) and unsupportive legislation. The most frequently listed category of success factor for both developing and developed countries was support by other organizations. Other factors included supportive legislation and support by the media, stable personnel and strong planning.

**Key Lessons**

Key lessons cited were that:

- improved collaboration with professional partners and with target groups is needed;
- better planning, objective-setting and materials development is necessary;
- financial support must be adequate and consistent;
- behaviour change is difficult and long;
- public education in RUD is needed and can work.

**Discussion**

Although the survey gathered much useful data there are remaining lacunae:

- The survey was not successful in describing in any depth motivations for selecting particular themes and activities.

- Although planning groups existed in most projects, and some planning took place, even if this was somewhat loose, there is no sense or description of how it was done.

- There is very little information on the impact of various activities and approaches. Even where structured evaluation is reported to have taken place, few evaluation reports could be obtained. This reflects common difficulties in obtaining reports of IEC activities in the field. Because impact was rarely measured, because coverage data were sparse, and because the costs reported do not appear to be complete programme costs, it is not possible to compare relative costs and benefits. Such comparative data would be very useful in guiding future programmes towards success.

- The data do not show how programmes could be made sustainable and this is surely a key factor if awareness and behavioural change are to be maintained. Many projects pointed to planning difficulties related to sporadic funding and support. They also articulated the need for coalitions or alliances of interests/agencies.

- There is still little information about replicability or the degree to which a programme successfully implemented in one country or environment may be successfully replicated elsewhere or what essential modifications will be necessary. Replication of developed country projects by developing countries should probably be approached with great caution given the huge differences in culture and pharmaceutical sectors.
Conclusions and recommendations

The survey instrument was necessarily a relatively rough tool with which to elicit detailed and sensitive information. However, even with its limitations, it has pointed clearly to general areas of concern.

**Funding**

The lack and sporadic nature of funding is clearly a frequent and major constraint. If community education is to be sustainable it will in most cases be a long-term process that may not yield quickly measurable results. It needs to be regarded as part of a process of community empowerment in which public health imperatives are balanced and complementary to community knowledge, priorities and customs. Funding agencies need to be aware of this, and programme protocols should be explicit about programme goals and intended impact. Creative ways in which countries and implementers themselves can sustainably fund public education programmes are needed.

**Advocacy**

It is difficult to gain support for public education work. Reasons include lack of knowhow, competing priorities, including professional education, and opposition by vested interests. Advocacy is needed at all levels to:

- promote understanding of the need for and rationale of public education in the rational use of drugs and its potential public health and economic contribution to society;
- avoid simplistic, unsustainable and token approaches that contribute little to real community empowerment.

**Training and tools**

Training materials and programmes in this specific area do not yet exist. The availability of tools and courses dedicated to the area could powerfully influence a more structured approach to public education. Organizations or people undertaking this work need clear useable guidelines to help them to better plan and structure their activities, including better definitions of the theme(s), desired outcomes of the project and target audience. Setting priorities is difficult and needs to be based on solid research. Project planners need tools to help them conduct feasible, effective research related to the perceptions and use of drugs, and to the most appropriate channels of communication. Planners also need clear, simple and effective methodologies for pretesting and evaluation. Training courses are needed to strengthen technical skills and promote networking.

**Coalitions and partnerships**

There is an urgent need for supportive coalitions and partnerships. Many different types or organizations have a role to play: professional groups, international agencies, governments, non-governmental organizations and consumer groups, universities and training institutions, schools, the pharmaceutical industry and the media.

**Reporting/evaluation/publication**

Limited current reporting and the difficulties in accessing existing reports, represent a major constraint for all who are working in this field. Efforts need to be made by implementing and supporting agencies to integrate full reporting into project work.
Evaluation of projects also needs to be strengthened and appropriate evaluation methodologies integrated into project planning. Types of evaluation will vary. Some projects may have community development goals that are unsuitable for classic controlled trial intervention models. Other programmes, with more specific targets, may lend themselves to this.

The lack of published material in this field is a further hindrance. It is important that programme organizers and funders identify ways in which support can be given to write up and publish programme activities.

**Organized opposition**
Some projects cited organized opposition as a major constraint to activities. An open dialogue with such groups may contribute to a more neutral approach, although such opposition can be subtle and not conducted through public debate. Support from international agencies, networks and from the media should be encouraged as this can provide a helpful counterweight.

**Infrastructure**
The need for a supportive infrastructure was cited by many respondents and highlights that public education cannot exist in a vacuum. The use of drugs is powerfully influenced by such issues as drug availability and financing, prescribing behaviour, promotion, legislation and priorities in drug policy. Potential constraints represented by an unsupportive infrastructure need to be investigated and understood by project planners.

**Summary**
There is a well evidenced and compelling need for public education in the appropriate use of drugs, with potential benefits to the individual, the community and policy-makers.

It is perhaps understandable that in developing countries, facing a huge range of constraints and priority problems in regulating and rationalizing the pharmaceutical sector, public education in RUD may be perceived to have lower priority than some other areas of pharmaceutical policy. However, it is more difficult to explain the lack of commitment by developed countries to systematic and structured public education in rational drug use, given the potential economic and public health benefits. This situation prevails although public education is included as a core component in most national drug policy documents.

This situation may have a number of causes, such as doubts about the value of public education in itself; the fact that decisions on programme planning and priorities in the government health sector are usually taken by health professionals who may have entrenched paternalistic attitudes in medicine. It may also be linked to a belief that commercial information on medicines fully meets consumer needs, although such information is generally intended to stimulate rather than rationalize drug use, and fails to provide the comparative information needed for appropriate drug use.

This WHO/DAP study tries to elucidate the range and some of the core issues relating to public education in rational drug use. The review of the published literature revealed very little information about implemented projects on public education in rational drug use. The substantial response to the survey
questionnaires demonstrates that many projects and activities have been and are being carried out in the field, despite not being accessible through the usual channels.

The study partly succeeded in its objectives. It collected many data and materials in a poorly documented field; although this can only be considered a small sample of work currently underway. It gathered useful information on the problems facing programmes and the lessons that they have learned in planning and implementing programmes. And it pointed to some key lacunae in programme work. However, the necessary limitations of the survey methodology meant that many of the underlying motivations for activities, the “how” and “why”, could not be fully identified or understood. Nor was it possible to determine relative cost-benefits of different approaches.

Some of the interventions and projects described in the study indicate that public education can contribute to more appropriate drug use. However, these activities worldwide suffer a shortage of support, a shortage of expertise, and a shortage of funds. A vicious circle then results, in which all too often the projects are poorly planned, weakly implemented, and not evaluated rigorously enough to satisfy future funders, who then give less support. But that is only one side of the coin. Much greater understanding is needed by supporting agencies that the impact of public education strategies may be incremental and move along a continuum of awareness raising, knowledge creation, community empowerment and behavioural change. This may be difficult to evaluate in the short-term - particularly using classical methodologies.
1. **Introduction**

1.1 **Public education: a compelling need**

Is education of the community in the use of medicines a necessity, or is it just a luxury - the "icing on the cake" - to be considered when all other aspects of a national drug policy are in place? Can most countries afford to undertake such education when so many problems of supply and access remain unsolved in the pharmaceutical sector? Is it perhaps a priority only for the more wealthy parts of the world? Or should the question be posed differently? Can countries afford NOT to commit themselves to such community education if health is to be improved and resources used rationally? These are key questions facing countries and development organizations.

The general public needs information and education on medicines and appropriate treatment seeking strategies for a number of compelling public health reasons:

- because of the important role of pharmaceuticals in modern health care;

- so that individuals and communities can take responsibility for their health, including decisions on appropriate therapeutic strategies: both a human right and prerequisite for sound decision-making;

- so that as consumers they have the basic tools for rational and safe direct purchase of medicines, and can put in context the claims of commercial drug promotion: both critical areas in view of the extent of self-medication and evidence of unethical marketing practices;

- so that as patients they can be informed partners in therapeutic decision making and subsequent drug use: an essential element for optimal therapeutic outcomes since the patient is the final determinant of drug use.

**Rights/responsibilities**

Community responsibilities and rights in health care have been articulated in many international gatherings. For example the Alma Ata Declaration\(^1\) states: “People have the right and duty to participate individually and collectively in the planning and implementation of their health care”. The Ottawa Charter\(^2\) recognizes the “community as the essential voice in matters of its health” and calls for a reorientation of health services towards health promotion; and power sharing with “other sectors, other disciplines and, most importantly, with people themselves”.

**Misuse of drugs**

Community rights and responsibilities must be underpinned by education and information. Many studies point to major misconceptions and misuse of drugs by prescribers, dispensers and consumers. Research from such countries as
Ethiopia, Ghana, India, Kenya, Papua New Guinea and the Philippines shows that consumers in general know very little about the drugs they use, their effects and their basic mechanisms. Other studies show that although modern pharmaceuticals are based on a rational-scientific model, in practice, they are distributed, prescribed and used in ways that frequently don’t accord with that model.

Pharmaceutical marketing to prescribers, dispensers and consumers may contribute to irrational use. Unethical marketing of drugs is widespread in developing countries and although standards have improved in developed countries, recent studies have found continuing problems, such as false and misleading claims, switch campaigns and commercial promotion disguised as scientific trials.

Consumers: the ultimate decision-makers
Self-medication, in both industrialized and developing countries, is the most common reaction to perceived symptoms. Global sales of products which are traditionally considered as OTC (over-the-counter, non prescription) drugs accounted for roughly 17% of the world pharmaceutical market (sales value) in 1993. Three quarters of these sales were in Europe, Japan and the United States of America.

However, these figures do not reflect the full picture. OTC medicines are generally less expensive than prescription medications so that the relative volume consumed is greater than 17% of total sales. More significantly, self-medication has many manifestations which are not reflected in OTC sales data. These include the use of traditional medicines, the stocking and re-use of prescription drugs, and the direct purchase of prescription medications by consumers. Household survey and other community based studies in Africa, Asia and Latin America have found that up to 80% of illness episodes are self-treated with modern pharmaceuticals.

Prescription drugs are widely available from a variety of sources which include street peddlers, traditional healers and unlicensed stores. In many developing countries, prescription-only drugs are also routinely available direct to consumers even from licensed pharmacies due to lack of state regulatory enforcement capacity.

Even when consumers use formal health care channels, their decision-making and not that of the health care provider, is the ultimate determinant of drug use. Once they have a prescription, patients decide whether to buy the drugs or not, whether they are going to buy all the items on the prescription or only some of them. In doing so they may need to decide what items are important and worth buying. Patients also decide whether and when to take the medicines, whether to continue taking them if side effects occur or symptoms disappear, and what to do with any unused medicines.

These decisions are influenced by the beliefs of family or friends or the larger community. Pharmacists are often the health professionals with closest contact to the public and may be a key source of advice. Physicians and other prescribers may have an indirect impact on consumer decisions, particularly if a patient was initially introduced to a product through a prescription. And, of course, the promotional material of drug manufacturers is intended to influence consumer
choice. How medicines are obtained and used is therefore not just about individual choices made by a prescriber or consumer but reflects a matrix of societal, economic and health factors which influence those decisions.

**The role of public education**

Public education has an important role to play to influence these decisions positively. Consumers need access to accurate and understandable information about the potential benefits and risks of medicines in general; how they act within the body; the limitations of pharmacotherapy and other treatment options. Patients during a therapeutic or dispensing encounter need information about the risk/benefit of different treatment options, including side-effects.

This report of a WHO global study of current work in public education in rational drug use examines who and what is being targeted; who is doing the work, how and why; what are the needs and lessons learned; where could we go from here. The study attempts to contribute to the body of knowledge in what is an under-reported and neglected field so that countries, organizations and individuals embarking on public education initiatives can maximize their chances of success, draw on the work and experience of others, and truly contribute to community empowerment.
2. Background to the Survey

2.1 Rationale

During the Action Programme’s operational and country support work the need to learn from and share other countries’ and organizations’ experience in the area of public education in Rational Drug Use became evident; yet regular searches of the published literature revealed little information. However, it was apparent from informal channels of communication and the Action Programme’s own country work and global contacts, that many unpublished interventions were taking place. The DAP Informal Consultation on Public Education in Rational Drug Use strongly endorsed and supported the need for a comprehensive review of existing activities, both to provide guidelines for future educational programmes and to identify needs for future research and evaluation studies.

It was therefore decided to conduct a global survey that would commence with a search through standard data bases, complemented by an attempt to access information on projects which had not been published (grey literature) or which had not been documented. The objectives were to identify:

- the type and rationale of public education activities undertaken;
- how activities are planned, implemented and evaluated;
- success ratings, including the relative cost/benefit of different approaches;
- facilitating and constraining factors encountered;
- implementing and supporting organizations and bodies;
- areas which require further investigation and/or support;
- how work can best be taken forward.

The study aimed to obtain structured information, and examples of materials, which could later be synthesized, evaluated, and contribute to the development of training and resource materials.

The Global Survey was also intended to provide the framework for an international information base on public drug education programmes, which would allow DAP to significantly strengthen its collaboration in this area within WHO and with other agencies and partners.

*Public education (in rational drug use) includes: patient instruction at the time of illness in the appropriate use of prescribed/dispensed drugs and instruction of the public at large, or specific target groups, in the principles and practical application of appropriate drug use, including non-drug therapies.*
2.2 Literature review

The first stage of the project was a search of the published literature on public education in the rational use of drugs (RUD). This was completed in February 1995 and covered searches on material published from 1988 onwards.

The literature search confirmed the continued scarcity of accessible information. Although numerous descriptive studies (KAP-knowledge/attitude/practice) concerning RUD issues have been conducted, such as those reported in DAP’s Research Series, there are very few documented descriptions of public education interventions in the rational use of drugs. Some of the sources included in the review - in particular articles from the Essential Drugs Monitor (EDM) and Health Action International (HAI) News - are short descriptive pieces or announcements of ongoing projects, and not detailed reports, and are not generally cited in standard databases.

In contrast to the lack of reported public educational studies, many of the interventions and intervention studies described in the literature are aimed at changing the drug utilization patterns of prescribers, or at influencing what is described as “patient compliance”. It is important to make a distinction here between “compliance” and “RUD education”. The former refers to the adherence of an individual to a prescribed treatment regimen, whereas the latter concerns the judicious, appropriate, and safe use of medications, whether prescribed or purchased over-the-counter. The substantial body of literature on compliance has been reviewed elsewhere and was not included in the literature review.

Furthermore, as though to underscore the small number of public education interventions on RUD, many descriptive studies of drug use in Africa, Asia, Latin America, Europe and the Western Pacific highlight and recommend the need for education of the population in the correct use of medicines and the dangers associated with their improper use.

The projects discussed in the literature can be classified into five categories, based on the type of interventions used. The principal interventions are:

- direct contact (patient counselling or home visits). This includes interpersonal communication training for pharmacists or health workers;
- leaflets or package inserts;
- mass-media campaigns;
- school education;
- publications to consumers and health workers.

*Databases used: Medline; African Index Medicus; Lilacs (the index of the Pan American Health Organization). Journals used: American Journal of Hospital Pharmacy; American Journal of Pharmaceutical Education; American Pharmacy; Annals of Internal Medicine; British Journal of Clinical Pharmacology; British Journal of General Practice; British Journal of Prevention and Social Medicine; British Medical Journal; Drug Intelligence and Clinical Pharmacy; Health Education Reports; Health Education Research; Health Policy and Planning; Health Promotion International; Quarterly on Community Health Education; Lancet; Medical Journal of Australia; New England Journal of Medicine; Social Science and Medicine. WHO sources: Bulletin of the World Health Organization; Essential Drugs Monitor; World Health Forum; DAP’s reference collection. Keywords: Communication; drug use; medication use; public education; school health education.
Other approaches included audiotapes and street theatre, in combination with printed materials.

In strong contrast to the scanty body of published interventions, it was apparent from informal channels of communication and from the Action Programme’s own country work that many activities were taking place that were not reported in any standard published outlets. It was therefore decided to seek additional information about ongoing or recently completed projects via questionnaire.
3. Methodology

3.1 Study design

The study is predominately descriptive. The study instrument - a questionnaire - contains closed and multiple-choice questions. The instrument was pretested, and produced in three languages (English, French and Spanish) (Annex 3). It covered the general project characteristics (type of implementing organization, duration, location); project planning, development and rationale; target groups and expected behaviour changes; materials developed and on what basis; pretesting; channels of communication; implementers; evaluation of reach and impact; facilitating and constraining factors; problems experienced and lessons learned; financing sources; and follow-up.

In planning research, there is a tension between the need to gather sufficient and accurate data, and the risk of developing an overwhelmingly long questionnaire. To address this tension, the study questionnaire was designed with a combination of closed and open-ended questions. Closed questions, with limited possible answers, were used wherever feasible to help generate precise information. For ease of response, the number of open questions was kept to a minimum. Nevertheless, open questions allow the respondent a chance to describe issues, problems, successes, and lessons learned in their own words, and are essential to the quality of the data collected. They were therefore included despite predictable problems of subjectivity and comparability.

3.2 Identification of projects

Identification strategy

A strategy to identify projects; to actively solicit their collaboration; and to despatch, collect and initially screen completed questionnaires; was developed in partnership with Health Action International. HAI is a global network of health, development, consumer and other public interest groups, in over 70 countries on all continents, working for a more rational use of drugs. Most importantly, a good number of their member organizations are involved in public education activities. DAP selected HAI as a partner in the study knowing that the wide network would lead to better identification and follow-up of responding projects at country level; in a very real sense this network helped the study get closer to the field.

Regional, and in some cases, country coordinators from HAI and from essential drugs programmes identified relevant projects and undertook to collect, screen, and follow-up questionnaires. The regional coordinators also translated responses, where necessary.
Inclusion criteria

Projects were included if they had been carried out since 1988, and if a principal thrust was a public education intervention on the rational use of drugs. This means that some projects included in the study encompassed other activities but had an important component of public education on RUD. Extremely broad projects (such as general health education), as well as descriptive research projects were excluded.

Final sample

It was initially assumed that between 40 and 50 projects would respond to the questionnaires sent out; this number would have been sufficient for the analysis of qualitative information. However, 103 responses were received, of which 99 were included in this analysis.

3.3 Study period

The survey was carried out over a period of 18 months, from July 1994 to December 1995. The original time estimate of one year was extended due to the slow turnaround/response time for the pretest questionnaires, late responses, and most importantly the large number of responses to the questionnaires.

3.4 Data management

Responses were entered into a computerized database using the programme EpiInfo5. The choice of this programme was in some senses a tradeoff in a situation of limited possibilities. In order to allow interested parties to access the raw data, the software for the database needed to conform to a few fundamental criteria: it had to be easy to learn and to use, require relatively little memory, be well-known, be accessible to potential users in developing countries, and belong in the public domain. There are few software packages available to analyse qualitative data, and few to analyse quantitative data that meet the above criteria. EpiInfo5, despite a small number of shortcomings does meet the criteria and was found to be an excellent choice. Additional information provided in textual format, as well as tables describing materials developed and training activities carried out, were catalogued in a word-processing programme.

Closed and multiple-choice questions were analysed by frequency and are reported as percentages. All free-answer questions were sorted in the database and categorized by hand; these are indicative of trends and are presented in approximate terms. In some cases (target groups, themes, activities, materials, etc.) percentages cited do not add up to 100 due to the possibility of multiple answers. Separate analyses were made for developing and developed countries.

3.5 Methodological concerns/cautions

Partnership with an established network enabled the survey to attain a very high response rate and to identify small-scale projects that would not otherwise have
been accessible. Since much of the public education work currently undertaken consists of such projects, this proved to be an effective approach. However, even with an active collaborative network it was not possible to obtain a full response rate. Some quite major campaigns for which materials already exist in DAP, could not be included in the survey data because despite all efforts, the questionnaire was not returned. This particularly applied to some very large projects. Other groups, known to be active in this field, were not willing to participate in the study, despite encouragement by network coordinators. Reasons included political sensitivity of project work, lack of time (and possibly interest), and lack of identification with the study aims.

The type of questionnaire developed, and the means of recruiting respondents revealed some shortcomings in the methodology. First, there was a wide variation in the quality of information provided by respondents. Second, many questionnaires had to be returned to the respondents because sections had been overlooked or for further information that the coordinators knew to be available but which had not been included; this delayed the turn-around time for responses. Third, it proved difficult to elicit information from respondents on more than one activity even when coordinators knew that multiple projects existed. Fourth, as a consequence of the slow turnaround, the cutoff point for accepting returned questionnaires was extended several times. And lastly, the large number of responses (exceeding expectations by 100%) meant that more time than anticipated was spent on data collection, screening and analysis and less on quality control.
4. Findings

This section presents an analysis of the data. After a short description of the general characteristics of responding projects, the findings are presented according to the stages of a programme intervention: planning, implementation, and evaluation. Data for developed and developing countries are reported separately. In the narrative, percentages for developing countries are listed first, in bold characters.

- The section on **planning** includes a description of the bases upon which projects were developed, who participated in their development, what themes were selected for the project and how, and who were the principal target groups. It also examines the question of whether the project drew on existing models or replicated another project.

- The section on **implementation** presents the most common types of activities carried out and channels of communication used by the responding projects. It also looks at the reported reasons for having selected the activities and channels, who actually carried out the work, how much it cost, and who paid for it.

- The section on **evaluation** describes the impact or results of the responding projects, the criteria used to evaluate this impact, the lessons learned, and the factors that facilitated or hindered success.

### 4.1 General characteristics of responding projects

<table>
<thead>
<tr>
<th>Developing</th>
<th>Developed</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bangladesh</td>
<td>Latvia</td>
</tr>
<tr>
<td>Bolivia</td>
<td>Malawi</td>
</tr>
<tr>
<td>Brazil</td>
<td>Malaysia (2)</td>
</tr>
<tr>
<td>Cameroon</td>
<td>Mexico (2)</td>
</tr>
<tr>
<td>Chile</td>
<td>Peru (4)</td>
</tr>
<tr>
<td>Colombia (2)</td>
<td>Republic of Mauritius</td>
</tr>
<tr>
<td>Côte d’Ivoire</td>
<td>Sierra Leone</td>
</tr>
<tr>
<td>El Salvador C.A.</td>
<td>South Africa</td>
</tr>
<tr>
<td>Ghana</td>
<td>Sudan</td>
</tr>
<tr>
<td>India (5)</td>
<td>Thailand (2)</td>
</tr>
<tr>
<td>Indonesia (2)</td>
<td>Uganda</td>
</tr>
<tr>
<td>Kenya</td>
<td>Viet Nam</td>
</tr>
<tr>
<td>Korea</td>
<td></td>
</tr>
</tbody>
</table>

Table 1: List of responding countries

Figures in brackets represent number of responding projects.
Responding countries

Responses were received from 38 different countries: 25 developing and 13 developed (see Table 1). A total of 103 questionnaires were received, of which 4 were excluded because they did not meet inclusion criteria. Thus 99 projects were entered in the data base: 37 from developing and 62 from developed countries. The types of implementing organizations, interventions, and target populations varied widely, and followed no particular system.

Only about one-quarter (24.3%) of the reporting projects in developing countries were completed, as were close to half (43.5%) of those from developed countries; the remainder are ongoing. Half (51% developing and 42% developed country projects) lasted or are planned to last more than three years. Other projects lasted from one to two or two to three years (see Annex 1). In developed countries, there were some very short projects, lasting less than two months (seven or 11%). These were from the USA, Canada, and Australia, and with the exception of Australia’s SHAPE campaign, were all mass-media based public awareness events. However, the four such projects from Australia are part of the national strategy on medications awareness, and should not be considered as isolated activities.

Implementing organizations

Implementing organizations are given in Figure 1. In addition to the main listed categories, academic institutions, hospitals, and a self-help group were included in the category “other”.

The above analysis was based on the categories ticked by respondents, and gives only a partial picture. A second breakdown of the organization types, based on title and affiliation, reveals that consumer organizations represent 46% of the implementing organizations in developing countries, and 18% of those from developed countries. Ten projects (16%) from developed countries were implemented by organizations related to the pharmaceutical industry. No
developing country projects reported such affiliations. Associations of pharmacists or pharmacies were the main implementing agencies for one developing country project (thus 3%) and 10 (16%) developed country projects.

Scope

The majority of projects in both developing and developed countries were national in scope (62/69%). Only 21% of developing and 18% of developed countries targeted urban areas. No project targeted only rural areas.

Language of respondents

Some 60% of developing country questionnaires were completed in English, 30% in Spanish, and 3% in French. Developed country questionnaires were in English in over 90% of cases, with a few French and Dutch, and one Latvian.

4.2 Project Planning

Planning groups

Projects generally reported the existence of planning groups (88%). The most frequent members of these groups were pharmacists/dispensers (75/72%), followed by prescribers (69/54%), communication experts (50/52%) and target group or other community representatives (50/54%). Most planning groups comprised more than one type of member; over half had four or more categories represented.

Reasons for the project

Reported reasons for project development are listed in Figure 2. The majority of projects (90%) mentioned "perceived need" to address a problem as a principal reason for developing the project.

Some one-third of the projects were based on research. Proportionately more developing (43%) than developed (27%) countries based their projects on research, which may be due to the influence of external support and consultants. These studies were either qualitative or quantitative, and included household surveys, consumer surveys, focus-group interviews, surveys of practitioners, and observation of sales patterns. Most research was qualitative; the quantitative research that was carried out was nearly always in conjunction with a qualitative study. There appears to be no correlation between the use of research and the type of projects, nor between the use of research and the country where the project takes place. However, nearly all respondents (88%) reporting to have based their project on research also listed "perceived need" as an important reason. This may indicate that the research was carried out in order to support or justify the perceived need.
The questionnaire did not ask for elaboration on the types or results of research carried out, nor how this research was used in project planning. Nonetheless, there are several examples that can be described here:

- One project to maximize the role of community pharmacists in controlling asthma (Illawarra, Australia) simultaneously surveyed consumers who were buying a particular type of inhaler, and prescription drug sales for asthma. These data together revealed specific management deficiencies on the parts of consumers, pharmacists and doctors, and helped orient the project’s messages and activities.

- The Medicine Information Project in Australia used (and continues to use) focus groups with volunteer “Medicine Information Persons” to determine the general and specific content of future topics to be covered.

- The South Pacific Consumer Protection Programme based the development of their project on a needs analysis.

- The Uganda Red Cross, which supports the IEC component of the national essential drugs management programme, conducted an extensive Knowledge-Attitude-Practice (KAP) study to help plan the third phase of the programme.

- The Kenya Essential Drugs Programme, which aimed to correct misperceptions about drugs and their use, carried out qualitative research to determine the knowledge, attitudes, and practices of the target population.

- The French project "L'Enfant, sa Famille, et les Médicaments" (Child, Family, and Medicines) held a colloquium in 1993 to gather, present and discuss research relevant to the consumption of medicines by children. These research papers have been published, and the results of one survey of children’s views on medicine and health care were produced in popular form (as an
illustrated brochure) for the use of pharmacists. Apart from the brochure, it is not clear exactly how or whether the results of these studies - which range from sociology approaches to pharmacology studies to psychoanalytic descriptions - were later applied.

Just under 30% of projects drew inspiration from other projects, or used others as models. These range from the very specific ("previous DES Awareness Week models", "Streetwize comics model") to the general (HAI-Europe networking project "RUD in Baltic countries").

**Themes**

Project themes varied widely and are shown in Figure 3. Additional themes included safety (keeping drugs out of the reach of children), traditional medicine, and the exploration of alternatives to medication for certain conditions.

In developing countries, many projects had two themes, whereas in developed countries projects were more likely to have only one. This is interesting in the light of the greater proportion of developing country projects which report that they are based on research. It may be that the research carried out was to determine how to best communicate particular (predetermined) themes, rather than the more basic question of which theme to select.

---

Footnote: These figures may not give a total picture, as demonstrated by two situations within the present study. The questionnaire includes a corresponding question which asks the respondent if there are other projects which have replicated their activities or used them as a model. One project in the Netherlands responded to the question about replication by ticking "yes" and describing the Swiss telephone information line. However, the Swiss project responded that they did not replicate or draw on an existing model. A note from a staff member of HAI, familiar with both projects, was able to clear up the mystery by specifying the Swiss had visited the Dutch project but did not replicate it. A similar situation exists between two African countries: the Kenya EDP project reports that the Uganda Red Cross replicated their project, whereas the latter said they did not replicate another project nor draw on models. These discrepancies may also be a function of the background knowledge of the persons filling out each questionnaire, or a function of the understanding of the words "model after" and "replicate."
Of the specific problem drugs that were targeted, developing countries mentioned antidiarrhoeals and antibiotics most frequently (India, Malaysia, Uganda, Peru), whereas developed countries focused more on benzodiazepines and other sedatives (Australia, Germany, Netherlands). The most frequently-mentioned specific illnesses selected as themes in developing countries were diarrhoea and malaria. The only illness mentioned frequently among developed countries was asthma. This finding is compatible with the types of health problems found in developed and developing countries: specific drugs may present more of a problem in industrialized nations, whereas disease conditions (and the drugs often misused towards their control) are more visible in developing countries.

The principal reason for theme selection “perceived need” matches that reported for initial project development. This need was sometimes perceived by the organizing institution itself, and may even reflect the charter or mandate of the institution. This is exemplified by the Pharmacy Self-Care Programme, conducted by the Pharmaceutical Society of Australia. This professional society recognized that in order for the self-care movement to be successful, pharmacists needed to take a bigger role in primary health care and public health, and that changing the behaviour of pharmacists was part of the Society’s charter. Self-care programmes sponsored by national associations of pharmacists, usually in collaboration with national industry associations or individual procurement manufacturers are becoming increasingly wide-spread, in developed countries. Publicity for the movement and consumer education materials on self-care is found in a growing number of pharmacies.

The frequency of “perceived need” may also reflect the interest and concerns of the institution that people’s needs are not being met. It should be pointed out that the wording of the free-answers allows a good deal of latitude for interpretation, and some of the answers that were construed as perceived need may actually belong to a different category. For example, “most common illnesses, complaints...by the target group” was interpreted for this study as perceived need, but could reflect the results of research.

The third most common reason for selecting a theme was related to the recommendations of an advisory group, or board, internal or external. These advisory groups may be consumer groups, the planning group of the project, special interest groups, or an editorial staff member. A small number of projects mentioned basing their selection on existing data or on a literature search.

**Target groups**

Target groups covered a wide range and are shown in Figure 4. Projects commonly (38/42%) reported five or more target groups. Relatively few (11/24%) had only one specific group in mind. Most projects (89/56%) included “general public” in their list. Prescribers/pharmacists (57/52%) and health workers (59/44%) vied for second place, nearly exclusively as a secondary target, or as a channel for reaching the consumer. Mothers were targeted between 35-47% of the time, and other groups range from 5-39%.
Findings

Figure 4

Expected outcomes

Respondents were requested to identify the specific behaviour changes or outcomes expected as a result of the project. All projects listed at least one expected outcome; over half of the projects listed two; four projects listed up to five. These outcomes fall into six general categories:

- changes in general knowledge or attitudes;
- changes in specific behaviour of the target audience;
- changes in prescribing behaviour;
- improved communication between practitioner and client;
- patient adherence to treatment (“compliance”);
- government or policy changes.

The distribution of expected outcomes is shown in figure 5.

Changes in general knowledge and attitude account for about one-half of all expected outcomes for both developing and developed countries. Some examples include "create a critical attitude", "change of attitude regarding self-medication", "safe and effective use of non-prescription medicines", and "raise consumer awareness".

Specific behaviour changes were the next most frequently-mentioned, and were slightly more prevalent in developing countries. Some of the specific behaviours listed are: "discourage drug sharing"; "viewers ask for additional information"; "parents follow instructions on labels"; "to obtain written advice"; "keep iron
supplements in childproof containers and out of the reach of children”; and “reduce treatment-seeking from quacks”.

The remaining categories varied in their order of importance. Some developing countries included an emphasis on changing prescribing behaviour, whereas developed countries focused more on improved communication between practitioners and clients. However, all developing country projects that intended to change prescribing behaviour did so as part of a larger set of objectives that demonstrate the logical association between prescriber behaviour and consumer behaviour. Some examples are: raising the awareness of health professionals in general (Thailand) and pharmacists in particular (South Africa); gaining the voluntary participation of doctors in the prescription of generic drugs (again Thailand); ensuring more rational prescribing that leads to lower drug expenditures (Cameroon); and more appropriate prescription, dispensing and consumption (Brazil).

For developing countries, policy and legislation were mentioned fourth most frequently, whereas for developed countries this category took sixth place. This difference is coherent with the situations in which many countries find themselves today. Developed countries are likely to have strong legislation and strictly controlled policies. However, improvements in the industrialized world have not been matched in developing countries where human and financial resources are scarce for regulatory development, enforcement and monitoring.

Materials developed

The great number and variety of educational materials developed by the responding projects are shown in Figure 6. Materials categorized as “other” include promotional material for health professionals, audio cassettes, buttons, stickers, and information cards.

Over half of the developing country projects produced five or more types of educational materials, whereas developed countries were more likely to have from one to five types.
Materials were developed by interdisciplinary teams of people, usually made up of project personnel, health professionals, and a specialist in education, health education, or communication. Public affairs staff and journalists are also mentioned. No difference was found between the types of people involved in materials development between developing and developed countries.

Just over half of all projects report having pretested their materials before using them, and of these, nearly all did some revisions. For developing countries, by far the most frequent revisions concern language and images; these were mentioned 11 and eight times respectively, by 13 responding projects. Language was simplified, clarified, or changed to allow better understanding by the target audience. For developed countries, changes include improving technical details, changing the type of material used, and changing the layout to be more attractive or understandable.

78% of developing and 94% of responding developed country projects sent samples of their materials. Very few posters were received, despite reports that nearly half of the projects had developed them. Most of the materials sent were leaflets, booklets, brochures and videos. Examples include:

* These have been catalogued by project identification number and are available in the DAP offices.
• a Netherlands brochure on medications for women entitled "Women don't have to swallow everything". This brochure encourages women to take a critical view of the medications they are prescribed or advised to take, and to become an informed partner in therapeutic decisions;

• an attractive booklet, with questions and answers for discussion, to be used as a complement to radio broadcasts on RUD in Peru. The same project produced (among other materials) a booklet on popular medicine and natural cures, or alternatives to medicines. This includes both generic names and brand names where appropriate, for ease of identification;

• cartoon booklets from several projects: Some of these give standard, general messages such as "consult the health centre" and "follow the health worker's advice". Streetwize comics, however, from Australia, is an example of a closely-targeted comic that attempts to combine confrontational and educational approaches. It targets what may be considered a marginal group, and addresses problems of drugs and safe sex using very explicit graphics and language.

• materials for pharmacists: a project in France sent booklets of home-care cards ("fiches info-patients"), to be filled out by a pharmacist when dispensing a medication. The Prescribing Awareness Programme (Australia) developed drug information sheets for pharmacists, to help them to give adequate information to customers.

• innovative sets of materials:
  
  ▪ The Medicine Information Project (Australia) sent a set of materials, many in six languages (see box, page 28). These included pamphlets, stories (to be used as case studies or examples of MIP successful interventions), sample presentations for the volunteer peer counsellors, and checklists of questions that older persons should discuss with their physician about medication use. Another Australian project, *Talking Medicines*, produced an entire kit to help community leaders organize a RUD campaign, with sections on campaign background, the consumer, the pharmacist, the doctor, the community worker, and suggested seminars to give. A further Australian project, to promote the consumption of folic acid before pregnancy, produced a series of recipe cards for high-folate foods. A project in the USA to limit iron poisoning in children produced visually powerful stickers for pill bottles, to encourage the safekeeping of iron tablets.

  ▪ Projects in both Belgium and Latvia developed information "pill-boxes", modeled after the *Med-Sense* project; these are considered innovations in the light of their use. The Belgian project adapted the pill-boxes to the needs of students, and used them in conjunction with information stands and a quiz. Latvia, a country with little recent history of liberal public education, began with an out-of-the ordinary approach to education on RUD.

---

* The episodes of Streetwize Comics reviewed for this survey included sketches on the use of "recreational" drugs and on the use of medications for chronic conditions such as epilepsy.
• Videos:

  - An NGO in Peru made a video of TV interviews focusing on changing attitudes to self-medication and developing preventive care, for use in clubs for the retired and school programmes.
  - Another Peru video, shown in community kitchens and group meetings, targeted mothers of children under five and the inappropriate use of drugs in infant diarrhoea.
  - US OTC manufacturers produced video consumer information on such subjects as how to administer drugs to children, and warnings about potential poisoning with overuse of iron supplements.
  - One Australian eight minutes looped video for use in shopping centres and health fairs targeted better communication between the elderly and health professionals; another aimed at the same audience, dealt with common problems in the use of medicines.
  - Both Australia and the US developed videos as part of school education kits.
  - Projects in countries, such as Bolivia and Colombia, developed videos intended to raise public awareness of national drug policy activities and aims.
  - The street theatre group in Germany used video to record a collection of skits.

4.3 Implementation

Project types

Responding projects are categorized into seven main categories, based primarily on their principal activities, with supporting information from the project title, description, and additional information provided. These categories represent the principal approach of the project, although most projects had several activities. Categorization is based on a composite of responses to several questions and is therefore subjective. The categories are: pharmacist training; mass media; school programmes; consumer publications; mixed approaches; innovations; telephone service.

A small number of projects fell into more than one category; these were counted twice. For example, a project may have a strong focus on mass-media, but also carry out several other important types of activities thus qualifying it to be counted a second time under "mix". The distribution of projects across these categories may be seen in Figure 7.
Pharmacist training
Training of pharmacists was a principal theme in a small number of projects. Examples include the Netherlands, where a broad-based project to improve the quality of prescribing and dispensing encouraged dialogue between pharmacists and physicians, and trained them to better communicate with their patients. The Illawara Pharmacy Association (Australia), trained pharmacists in communication skills with the specific objective of helping patients to better manage their asthma.

Mass-media
Mass-media was a principal focus in both developing and developed country projects (approximately 27% / 20%). The Lady Pharmacist’s Association of Ghana used mass-media (radio, television, and newspaper) in conjunction with health centre talks and some school health education. A consumer organization in El Salvador published press articles, broadcast radio programmes and television spots, in addition to participating in a televised debate and holding community meetings. A non-governmental organization in Mexico used mass-media to promote community meetings and a medical school conference, while HAI Mexico and the National Institute of Consumers conducted a similar set of activities focused on Michoacan State (see box overleaf).

DES Action, a private non-profit organization in the USA, produced a public service announcement for television and eight for radio to raise awareness about in-utero exposure to DES (a synthetic oestrogen). DES Action Canada used radio spots and newspaper articles as part of a larger effort that included posters and fact sheets for professionals. The National Corporation of Swedish Pharmacies used both printed materials and mass-media in their annual campaigns (Dementia, Diabetes, Skin diseases). The Pills and Older Persons’ Project (POPP) in Australia used radio spots and newspaper articles, complemented by a relaxation video, to raise the awareness of older persons about drug use and other options. Another Australian project, Tranquilizer Recovery and New
Findings

Existence (TRANX), targeted the decreased use of benzodiazepines and increased access to counselling via newspaper articles, radio and television programmes. The National Asthma Campaign in Australia used, among other approaches, a well-known cricket player as a central character in a mass-media effort.

Michoacan, Mexico holds a campaign: Towards the Rational Use of Drugs

Given evidence of an overabundant use of medications by the general population, of an over-prescription of medications by medical doctors, and of unethical drug promotion, a non-governmental organization in one state of Mexico embarked on a short but intense educational campaign. Participants in the planning were prescribers, government officials, community members, students, the media, and communication experts.

The campaign targeted the general public, but also prescribers and medical students. Materials developed included posters, leaflets, press articles, slides, radio and television programmes, and posters for doctors. Many of the printed materials were displayed at points of prescription; others were used during 3-day seminars held at the local medical school. The mass-media broadcasts lasted for three months, with increasing intensity just prior to the medical school conferences.

Feedback after the campaign was very positive. Medical professionals and students expressed increased awareness of the problems. The pharmacology curriculum of the local university was revised. Articles published in the local and national press suggested a significant change in general knowledge about rational drug use.

School projects

School education programmes are mainly found in developed countries. The Medi-Studt project in Belgium focused on secondary school students, with an "info-pill-box", information stands, and a quiz about topics of particular interest to that age group (see box overleaf). The Michigan Model of Comprehensive School Health Education targeted primary school children and adolescents. It aimed to raise awareness of health problems and reduce risk behaviours related to alcohol and tobacco use, STDs, and AIDS. Teachers were trained to add these issues to their ongoing health education components, and parallel manuals were designed for teachers and parents.

The Good Use of Medicines (Le Bon Usage des Médicaments) project in France produced a widely disseminated teaching kit for 9-11 year olds, containing cartoon and exercise booklets, a poster and teaching notes.

Two additional projects in the USA targeted younger school children. "Tex's Team" in Texas used pharmacy students to teach groups of 8-9 year-olds about drug safety and compliance. "Katy's Kids" in Iowa took a similar approach, where members of the Young Pharmacists Committee worked with children 5-7 years of age to encourage them to take responsibility for their health and ask questions of the pharmacist. Their talks to classes were complemented by the showing of a video and by newspaper articles.
"Far-Well" and "Medi-Studt"
The best medicine for students - Belgium

Students are "open" to new information; learning is their job. Students are also prone to using medications, especially in order to study well during examination time.

Knowing this, the higher-educational institutions (non-university) in Belgium requested Projekt Farmaka, a non-profit independent organization, to assist. The result, designed and developed by a planning group consisting of a pharmacist, prescribers and students, was an innovative "pill-box" of information destined for distribution in schools and student clubs. The choice of subject matter in these "pill-boxes" was based on the most common illnesses and complaints, and on the most commonly-used medicines by students. The main message? "Use a medicine ONLY WHEN IT IS NEEDED."

But activities went far beyond the simple distribution of the "pill-boxes". Information stands were set up during school breaks and at lunch time, with displays and posters. In order to get a "pill-box", a student had to complete a quiz form with five pertinent questions. Workshops were held with the students to discuss the information. Mass-media also participated, with radio interviews and television announcements.

The campaign was well-timed. It was held during the examination period, when students are prone to taking vitamins and "pep pills", and to having sleep-related problems. The students were particularly open to discussions about medications, and wanted to learn more. Some schools have established a "medicines panel" to disseminate additional information about problem drugs, and to discuss issues like sports and diet. Other schools are organizing question-answer sessions focusing on medications.

The "pill-box" concept was innovative and sparked people's curiosity. The materials could be improved, to be sure, and future campaigns will take into consideration more of the students' views on content, in addition to design.

Publications to consumers
Publications to consumers were by far the most commonly-mentioned types of interventions by developed countries. These include a wide range of materials and a variety of projects. For example, a university-based project on pharmaceutical care in the elderly in the Netherlands provided leaflets on self-management of asthma to be distributed by pharmacists (along with counselling). A non-prescription drug manufacturers' association in Germany produced patient brochures on the care of minor illnesses and indications to be distributed at points of prescribing and points of dispensing. Despite their source, these brochures included no product information. A similar type of association in the US produced leaflets to educate parents about child dosing; these leaflets were distributed in conjunction with a television news release. The same association produced an eight-page insert in Readers' Digest to promote the correct, safe, and responsible use of over-the-counter medications. This was followed by a secondary distribution to the public via pharmacies, consumer groups, and ethnic organizations.

A consumer group in the United Kingdom distributed leaflets about general RUD issues in adult day schools, and another in the USA regularly mails out a health newsletter called "Worst Pills Best Pills News". Projects in two developed countries, Australia and Japan, and several developing countries, produced comic booklets for their consumer audiences.
Although many developing country projects developed good printed materials for consumers, very few used publications to consumers as a principal approach; this is likely due to lower literacy levels and to greater difficulties in distribution.

**Mixed approaches**
Projects were categorized as "mixed" when several approaches were used with equal importance, none of them seeming to dominate a set of activities. An equal proportion of developing and developed country projects fall into this category. For example, the Health Financing for Primary Health Care project in Viet Nam used posters, radio programmes, television spots, television programmes, and health worker training to promote the rational use of antibiotics and the use of pills over injections. The Uganda Red Cross Society used a combination of workshops, training courses, street theatre, printed materials, school health education, and various mass-media channels to promote general education about RUD. The Pharmaceutical Society of Australia's self-care programme used a similar mix, with health centre talks and place-of-dispenser information instead of street theatre. Hello IPSS, in Peru, is partly a telephone service, but it also promotes RUD information through mass-media, slide shows, and posters. Similarly, Med-Smart, a multi-focused approach to the quality use of medicines in Western Australia, established a telephone service to be used in support of a community development approach with home visits, village meetings, and health worker training.

**Innovations**

---

**Raising public awareness and calling for public action via street theatre in Germany**

'I've seen your theatre bus; it is wonderful!'  "Let me tell you what happened to ME..." "BRAVO! Please let me sign your petition to send to drug company X." Such are the comments that follow the BUKO Pharma-Kampagne street theatre performances across Germany. This grassroots NGO, funded by the Lutheran Church and the European Community, recruits actors from all over the country to perform in principal shopping areas during peak hours, and in local assembly halls or schools in the evenings. Flyers and information booklets about a selected topic are also distributed, and members of the audience may have the opportunity to sign protest cards or a petition. During the day, a pertinent slide-show may be shown in the theatre bus; evening ("inside") performances are often followed by a slide show and lecture/discussion.

The themes of the street theatre performances vary from general education about rational drug use, to the very specific issue of decreasing the use of benzodiazepines (sedatives), to raising the public’s awareness of certain actions of pharmaceutical companies in developing countries. Themes are developed according to the priorities of the BUKO Pharma-Kampagne, and are discussed by a multidisciplinary planning group consisting of pharmacists, medical doctors, community members and street theatre performers (often social/political activists).

The medium of street theatre was selected in order to reach the "common people", whom the group feels may be difficult to reach via printed materials only. The success of this activity depends largely on the commitment and motivation of the actors. BUKO Pharma-Kampagne puts on 1-2 tours per year, with 30 performances per tour; each performance reaches between 10-50 people. They judge their success by the reaction of the audiences, and claim that besides funding, their only real constraint is bad weather.

---

A few projects stood out as innovations. For example, the Buko Pharma-Kampagne street theatre in Germany used (and still uses) activist actors in street theatre presentations (see box above). Although street theatre is traditional in many developing countries, it is unusual in developed societies.
Findings

You and Your Medicines, public education on over-the-counter medicines in the United Kingdom, developed materials for low-literate consumers in collaboration with an adult literacy programme. This is an example of an innovative means of sharing scarce resources: the public education programme wanted a vehicle to reach a particular population, and the literacy programme benefited by having a subject of interest to their participants. Finally, the Medicine Information Project trained elderly volunteers as peer educators in Australia (see box). Peer education has been used by other public education programmes such as family planning and AIDS control; however, it is an unusual approach to use for the elderly.

Medicine Information Persons: Elderly Australians help one another

Older persons have very particular health problems, and are often inclined to taking an unusual number of medications to combat them. This population may also be easily influenced by mass-media, and accurate, unbiased information is not always available.

The Combined Pensioners and Superannuants Association, a consumer organization for older persons, was aware of these problems and carried out focus group research to see what could be done about them. The result was the development of a peer education programme using ordinary community members selected from senior’s groups (age 55 years and over). These volunteers receive five days of participatory training by project staff in such topics as: consumer rights and responsibilities (re doctors, the health system, hospital discharge); specific medications (e.g. those that contribute to incontinence; tranquilizers); problem-solving skills; assertiveness; presentation skills; and active listening. The training is ongoing, with one “update” day each quarter.

After the initial training, the peer educators (called Medicine Information Persons, or MIPs) are provided leaflets on subjects of particular interest, such as getting a good night’s sleep; using cheaper brands of medicines, and questions to ask the doctor or pharmacist. The MIPs then give community talks, and discuss with their peers over a cup of tea or in other informal settings.

The MIPs are selected from a range of populations, including different ethnic and language groups (Greek, Spanish, Turkish, Italian, Australian Aborigine), people of low literacy level, and disabled persons. These MIPs are credible. They can both provide information in a culturally- and age-sensitive manner, and model desired behaviours. A proper impact evaluation has not been carried out for lack of funds, however monthly reports of activities and published MIP reports (which make excellent reading) indicate that the MIPs are well-accepted and that the project is moving towards success.

Telephone service

Seven responding projects have developed telephone services as a main part of their activities. Only two of these were in developing countries, most likely due to obvious issues of development and availability of telephones. Hello, IPSS takes care of your health, in Peru, publicized their telephone line through television spots, radio interviews, and workshops for health professionals. The project was overwhelmed by the telephone responses and had to expand to handle the calls effectively. The Sierra Leone Medical and Dental Association held a weekly one-hour radio phone-in programme called What the doctor says.

Tele-info Medicines in the Netherlands provided health information to individuals outside of a pharmaceutical setting; what began as an experiment organized by a consumer organization was finally taken over by a pharmacist association in order to meet the great demand. DES Action Canada publicized their telephone line over the mass-media during DES-Awareness Week and got an excellent response. Med-Smart, in Australia, established a telephone advisory service for medication inquiries, and a telephone reminder service for “at risk” consumers. Finally, Switzerland established a phone service to provide the public with independent information about medicines. This project has found a secondary
benefit in that consumers educate themselves before calling in order to ask appropriate and intelligent questions.

**Distribution of activities and channels used**

Activities and channels of communication listed are shown in figure 8.

*Mass-media includes (% of mass-media); Radio (89%), TV (64%), Newspaper (68%), Other (32%)

**NOTE:** Percents are not mutually exclusive.

Mass-media responses included radio, television, newspaper and cinema. Of these, radio was the most widely used in developing countries, and newspapers in developed countries. This may be because television is an expensive medium (in all countries) and in many developing countries has a limited reach. No response included cinema.

Just under half of developing country projects mentioned using training courses, community meetings, and/or health centre talks. This may be a reflection of available channels in the developing world, or of the seeming emphasis on prescriber behaviour. Developed countries, on the other hand, had an even distribution across these activities, and had a much bigger “other” category. This included such activities as a slide show in a mobile bus, direct mail, peer educators, “open house” activities at hospitals and pharmacies, and audio tapes. Most projects (70/53%) conducted five or more activities. No developing country project had only one activity, and the distribution was fairly even across a low range (8-16%) for two to four activities.
Reasons for choice of activities

The reasons for choosing to conduct certain activities were clear. "Reach" (the proportion of the target population who are accessible through a certain activity or channel) was by far the most frequently-cited reason, with “cost” (affordability) and “available expertise” following closely. This holds for both developing and developed country projects. "Opportunity for cooperation" played an important role for both types of country; however “credibility” and “tradition” were much stronger reasons for developed countries than for developing. Consistent with other questions having the possibility of selecting more than one response, about half of the projects cited two, three, or four reasons for having chosen their particular activities; over 40% gave five or more reasons for doing so.

Persons carrying out the work

Implementing personnel are shown in Figure 9.

[Bar chart showing implementing personnel by category for both developing and developed countries]

The greatest proportion of projects had only one (14/39%) or two (30/23%) groups of people involved in actually implementing the activities.

Funding

Sources of funding were diverse, and are shown in Figure 10. Developing country projects were most commonly funded by international organizations or international NGOs; together these provided nearly two-thirds of the funding sources. This was the most likely source of funding if activities were implemented by the same organization or NGO. Less than 10% reported receiving funding from the ministry of health. Contrary to these figures, about one-third of developed countries reported receiving at least partial funding from the ministry of health, one quarter from a professional association, and another 15% from private nonprofit bodies related to the pharmaceutical industry. Most (65/53%) projects reported only one funding source.
Reported project costs had an enormous range, from a few thousand US dollars (Ghana, India, Mexico) to over a million dollars (Australia, Netherlands). Given the differences in types and numbers of activities, in coverage (see below), and in project duration, it is not possible to make a useful cost comparison. Moreover, many reported costs may reflect only partial reality. For example, a three-month mass-media campaign on RUD in Mexico is reported to have cost only US$ 2,000; this most certainly does not include costs of personnel, nor the costs of producing printed materials and radio and television broadcasts. To effectively evaluate costing, a follow-up survey would need to be carried out. A list of project costs and duration may be found in Annex I.

### 4.4 Evaluation

This section of the questionnaire aimed to i) determine the degree to which impact had been assessed and the methodology used, and ii) gather information that would help guide other project planners towards success and avoidance of problems. These are discussed under impact evaluation and process evaluation.

#### Availability of evaluation reports and general findings

Of those projects reported as completed, just over half have conducted a formal evaluation, and from 18% to 27% of those still ongoing have done so. However, only 11 developed and two developing country projects sent a copy of their evaluation; this strongly reflects difficulties encountered in communication and public education work to obtain written reports from national and local projects.

Evaluations varied in objectives. Few attempted to measure impact. Most looked at the reach and progress of project activities. The following are examples of evaluations as reported by responding projects.

- The Swedish project, *Young People and Medicines*, carried out a careful evaluation that focused on the implementation of the project activities (how much education on prescription drugs was carried out at various levels of the
school system). It did not look at acquired knowledge or new behaviours on the part of the ultimate target audience.

- An “evaluation” sent by a consumer NGO in Bolivia is actually a progress report.

- A journal article about a project in Peru (Study-intervention on morbidity and use of drugs) describes the study in considerable detail but does not identify impact on behaviour.

- A Canadian project, Wise Use of Medicines Campaign, gives a qualitative description of apparent behaviour changes on the part of elderly individuals, but also states that "the extent to which (these behaviour changes have) occurred requires further measurement".

- Australia’s Be Wise with Medicines Month, 1992, sent a very comprehensive review and evaluation report. This campaign consisted of several of the projects listed as individual respondents to the present survey, including the SHAPE campaign, the Medicines Information Project (MIP) and the Pills and Older Persons Project (POPP). The evaluation encompassed the progress, reach and behavioural impact of activities carried out. Interestingly, although implementation was excellent and reach was relatively high, the "Omnibus Survey" showed a moderate level of awareness acquired (consistent with other public awareness campaigns) but no effect on current behaviours.

- The Hai Phong Health Financing Project in Viet Nam provided another example of a comprehensive evaluation. Although this project is multi-faceted, a separate evaluation was conducted of its Information-Education-Communication (IEC) component. This project communicated four very specific messages through a variety of channels. The evaluation consisted of household interviews, in-depth interviews, and focus group discussions. It attempted to assess exposure to messages, the relative effectiveness of the different channels used, the quality of the messages, and changes in behaviour. The project time was too short (4 months) to effectively change behaviour. However, the evaluation was able to measure the first three indicators. The results for using health workers and mass-media (mainly radio and commune loudspeakers) as channels for RUD information in rural Viet Nam are encouraging.

**Impact Evaluation**

Despite the low percentage of projects having carried out evaluations, about two-thirds of developing country projects and three-quarters of developed countries responded to the request for an estimate of project results. Two-thirds of all responding projects offered suggestions concerning factors facilitating success, constraining factors, and problems and lessons learned during implementation.

Of those respondents, 40% from developing countries judged that their project had met its objectives, compared to 66% of those from developed countries. 60% and 30% said the objectives had been partially met. No developing country and only 4% of developed country respondents felt that the project had not been successful. These estimates were chiefly determined through informal
assessments and surveys. In developing countries these were primarily household surveys, whereas developed countries had a variety of survey types, including surveys carried out in schools and pharmacies. A few projects observed sales patterns of particular drugs or categories of medicines. Some additional methods of assessment included counting the number of telephone calls to the information line, tallying requests for project materials, and measuring process indicators (e.g. implemented activities).

**Criteria for evaluation**
Developing country projects based their evaluations on proportions of reported changes in knowledge (54%) and behaviour (43%). However, few respondents actually sent evaluations that included behaviour change. Developed country projects used more frequently the criterion of exposure to messages and materials (40%). This is consistent with the finding that developing country projects were more likely to use household surveys. There is a fairly even distribution across certain other criteria, such as change in consumer satisfaction, or change in sales patterns.

Additional criteria used in particular cases include changes in legislation, feedback from participating pharmacists, and audience response. For example, legislation was mentioned by the "Safety in Medicines" campaign in the USA and by the Consumer Education project in Malaysia. Feedback from participating pharmacists was measured by the French project on patient information cards and by a project discouraging black-market medicines in Côte d’Ivoire. Several different versions of audience response were reported, including applause to the Buko street theatre performances in Germany, feedback from students in Mauritius, and requests for information about DES in Canada.

**Coverage**
Coverage of project activities seemed to be difficult for most respondents to estimate. This is shown by the fact that approximately half of all respondents ticked "don’t know", and that only 41% of developing and 20% of developed countries listed a coverage figure or estimate. This lack of coverage information also makes it difficult, if not impossible, to estimate the cost-effectiveness of a given project or intervention.
Of those projects able to measure coverage, responses covered a wide range, for example "15% of pharmacists" (France); "about 50% of NGOs" (India); "70% of parents" (Indonesia); "40% of pharmacists" (Australia); "91% of public schools [in the state where the project was implemented] participated" (USA). One project reported having exceeded the expected target. Other projects listed numbers of people contacted, classes held, or participating pharmacies.

Coverage estimates should also be compared with other indicators, such as the number of printed materials developed and distributed. For example, a primary health care programme in Bolivia reported that the coverage was "national; many reached". However, only 10 000 of the twice-yearly leaflets, 5 000 copies of comics for children, and 1 000 annual copies each of two posters were produced. A project in Mexico reached 3 000 community pharmacies with 3 000 copies of a calendar; however, only 300 copies of a poster for the general public were distributed. Other projects, reporting to be national in scope, produced only 5 000 copies of posters (Malawi), or 90 000 copies of a newsletter (USA). In projects of large geographic and social scope, these are inadequate quantities to have any national or exposure.

**Process Evaluation**

*Problems in implementation*

Problems encountered by projects in implementing activities are shown in Figure 12. These relate to lack of adequate and timely funding, control/coordination, opposition by the pharmaceutical industry, personnel/time, and motivation to change. However, the order of importance varied greatly between developing and developed country projects. Perhaps unsurprisingly, the most common implementation-related problem reported by developing countries was a lack of adequate and timely funding. Developed country projects listed funding problems in second place, but had more difficulties with sufficient personnel and time to carry out planned activities.

Developing country projects experienced problems of coordination and control, and what was described as "interference from the drug industry". These categories were not important for developed country projects (only one developed country mentioned problems with the drug industry). An important proportion of developing country projects reported problems concerning motivation to change on the part of the target audience. This is expressed as "difficult to change pharmacists' behaviour"; "behaviour change is slow"; "knowledge is not practiced"; and "resistance by doctors". A few developing country projects mentioned such problems as an inappropriate project design, or having too great a response and being unable to manage it.
Constraints to success

Constraints are defined as any factors which inhibit or limit the implementation of public education activities. Respondents were requested to report both external and internal constraints to project success.

- Internal constraints
  The implementation-related problems were reflected fairly consistently in the listings of internal and external constraints to success. For developing and developed countries alike, funding/resources was listed as the first most common internal constraint. Time is a very important internal limiting factor for developed country projects. A third constraint, for both developing and developed countries, is lack of internal coordination, or the presence of internal discord and disagreement.

- External constraints
  The most frequently-mentioned and important external constraint was lack of external collaboration and support. This category includes such responses as the "lack of recognition by powerful professional groups"; "slow response from Ministry of Health (MOH)"; the lack of inclusion of the topic in formal school curricula; bureaucracy; and "GPs were not involved". These comments represent about one-third of all external constraints, mentioned by developing and developed countries alike.

Inadequate funding/resources represents the third most important external constraint for developing countries, and the second most important for developed country projects.

The lack of external collaboration and support is closely related to two other external constraints, carrying equal importance for developing and developed country projects: competing forces and unsupportive legislation. The former includes incentives given by other organizations (for instance to get health workers to focus on other projects); drug company marketing or lobbying, and "organized opposition to the project". Examples of legislation-related constraints
include "lack of appropriate legislation regarding drugs"; "ill-defined legislation";
and change in regulation. (Unfortunately these last comments remain opaque, as
the respondents did not elaborate on their statements.)

Facilitating factors
Factors contributing to success, or facilitating factors, are defined as any factors
which stimulate, provide, or promote a fertile environment for public education.
For this survey, external factors which contribute to success fell into the
categories of support by other organizations, support by the media, and
supportive legislation, while internal factors related more to funding, strong
planning, stable personnel, and internal cooperation.

By an overwhelming margin, the most frequently-listed category of external
"success" factor for both developing and developed country projects is support
by other organizations. This includes support from the ministry of health, from
various health services, from a narcotics control board, from collaborating
institutions such as a literacy group or community groups, and from professional
groups such as pharmacists or medical and allied health professionals.

Eight developed country projects, from Australia, Sweden and the USA, and one
developing country project (Mexico) presented an apparent contradiction. While
they found that having collaboration and support from some source was a
facilitating factor, these projects also felt constrained by the lack of collaboration
and support from a different source. For example, one project said "MOH
support" was a facilitating factor, but that "having government partners would
have helped". Another project said they had support from a literacy group and
the Plain English campaign, but not from their MOH; a third had support of the
MOH for the research component of their project but ran into apathy on the part
of medical school authorities. This indicates that even projects with external
support do not always perceive it as adequate.

With the exception of funding, most of the constraints and problems discussed
earlier were further supported in the lists of internal and external factors that
contributed to success. Other external factors listed repeatedly include
supportive legislation, and support by the media.

Internal cooperation had a significant influence on the success of a project.
However, the most important facilitating factors were reported to be competent,
sufficient, and stable personnel to plan and carry out the work, and strong
planning of the project. Other responses of consequence included having distinct
objectives, a clear understanding of the problem, and committed staff and
volunteers. It is worth emphasizing that the factors contributing to success
seemed to have the same importance whether the project was carried out in a
developing or a developed country. This will be important when formulating
recommendations and guidelines for future projects.
Lessons learned

Respondents listed up to three lessons learned during the planning and implementation of the projects, shown in Table 2. Not surprisingly, these lessons reflect once again the problems encountered, the constraints, and the factors contributing to success.

Table 2  Lessons learned

<table>
<thead>
<tr>
<th>Reported lessons</th>
<th>Developed countries (%)</th>
<th>Developing countries (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Improve collaboration with professional partners</td>
<td>20</td>
<td>22</td>
</tr>
<tr>
<td>Increase collaboration with the target group</td>
<td>9</td>
<td>6</td>
</tr>
<tr>
<td>Improve message and materials development</td>
<td>5</td>
<td>4</td>
</tr>
<tr>
<td>Good planning and clear objectives are essential</td>
<td>18</td>
<td>12</td>
</tr>
<tr>
<td>Financial support must be adequate and consistent</td>
<td>4</td>
<td>3</td>
</tr>
<tr>
<td>Public education can work</td>
<td>16</td>
<td>21</td>
</tr>
<tr>
<td>There is a need for public education on RUD</td>
<td>6</td>
<td>12</td>
</tr>
<tr>
<td>Behaviour change is difficult and long</td>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td>Other</td>
<td>18</td>
<td>16</td>
</tr>
<tr>
<td></td>
<td>96</td>
<td>68</td>
</tr>
</tbody>
</table>

The most consistently-mentioned category of lessons learned, for both developed and developing country projects, is the need for better collaboration with professional partners. Some expressions of this are: "must work with professional associations"; "contact all partners in advance"; "must have...prescriber support"; "outside educators should be consulted"; "need participation of all sectors involved in drug use". This is consistent with the most frequently-encountered project constraint.

Another frequently-mentioned category of lesson, for both developing and developed countries, deals with the need for better planning and clear objectives. This planning includes a clear knowledge of the health problem, as well as the need to allocate sufficient time and personnel for research. Other lessons learned include a need for better collaboration with the target group, and the recognition that behaviour change is difficult and long-range.

It is significant that not all lessons learned were based on negative experience. On the contrary, the second most frequent category of lessons learned for developing countries and the third most common for developed is that public education on rational drug use can work. A primary health care project in Bolivia says, "It is possible to get the community to take responsibility for their health". The campaign on RUD in Bangladesh says, "Continuous, logical insistence to producers on rational/ethical production WORKS", and "(these) activities are a good example of effective lobbying". The Safety of Medicines campaign in the USA learned that "Commercial, consumer, and professional interests can be brought together", and the Medicine Information Project in
Australia says, "Empowering consumers can drive change at all levels of the health system".

Mirroring these reports of success is a small but important category of lessons learned: **there is a need for education on RUD.** This is expressed by projects in Cameroon, Chile, Colombia, India, Malaysia, Sierra Leone; Australia, Germany, New Zealand, Switzerland, and the USA.
5. Discussion

This section discusses the implications of some of the data gathered and reported in section 4, their contextual significance, and lacunae, in the light of the project goals outlined in section 2.1.

5.1 Type and rationale of public education activities

There were fewer differences between programme types in developed and developing countries than might have been expected. One was the relatively higher proportion of publications to consumers in developed countries; an unsurprising finding considering lower literacy levels in developing countries. This was balanced by a higher use of the mass media (particularly radio) in developing countries.

School projects (particularly in developed countries) featured as a significant category of programme. Materials on rational use of drugs for children and students are a welcome trend, although with the exception of Sweden, none of the material submitted was fully national. Materials targeting children were frequently developed in collaboration with industry or pharmacy associations. School kits sent as samples by respondents tended, unsurprisingly, to partly reflect their source. Most had little focus on benefits/risks of drug versus therapies. Many omitted some fundamental information, such as that the same active substance may be sold under a variety of brand names, for a variety of prices; or material to help children look critically at commercial promotion.

Some activities showed that materials, products, or approaches used elsewhere could be innovatively adapted. The Medi-Studt project (described on page 26) provided an interesting example of how a project originally developed in another context for adults, could be adapted to spark the curiosity of students. A long running summer street theatre project in Germany - a medium more common in developing countries - provided an example of another innovative approach. Other projects - such as Tele-info medicines in the Netherlands, showed how activities could grow from a small beginning and gain long term professional support, if they caught the public interest and met a real need.

5.2 How activities are planned, implemented and evaluated

Again, the reported differences between developing and developed country projects were relatively few. A greater proportion of reported developed country projects have been completed; proportionately more developing than developed country projects were based on research; and the principal themes varied slightly between the two categories of countries. Developing countries were more likely to use a mix of channels for the activities, while developed countries had a greater tendency for single-channel approaches and for innovation.
Planning

Although planning groups were nearly universal, planning itself was often quite loose. Most projects selected fairly general themes; these were most often selected on some basis of perceived need. Project by project, it may appear that those whose development and theme selection were based on research were better planned and conducted. Nevertheless no correlation was found between having carried out preliminary research and the self-assessment of having met project objectives.

Target groups

Target groups were usually extremely broad, more often than not simply "general public". Similarly, expected outcomes or behaviour changes were also broad (changes in general knowledge) and numerous. The number of multiple responses suggests that these issues may not have been clearly defined before the project was underway. This is an important finding with respect to the possible outcomes of public education.

A common goal of public education and communication is to change some behaviour or set of behaviours of a particular group of people. Behaviour change, however, takes place along a continuum that begins with awareness of an issue or problem and culminates in adopting a new behaviour that will address or solve that problem. The stages between these poles are described in various ways, and include such steps as acquiring necessary knowledge, feeling responsible, acquiring skills and means, feeling capable or empowered, and being predisposed to try and then to adopt a new behaviour. The experience of communication and marketing demonstrates that interventions to raise awareness and change knowledge - early stages in the continuum - may be effective even if aimed at a large, unspecified target audience. However, having a very specific target group is a predictor of a successful intervention to change behaviours. It may be surmised that most of the responding projects in this study have too broad a target audience to be particularly effective. Alternatively, it could also be that the projects are at a relatively early stage in the continuum of behaviour change, or were intended primarily to empower communities rather than to change specific behaviour; which would be consistent with the expected outcomes described below.

Objectives

Similar to the choice of a broad, general target audience this emphasis on very broad project objectives may indicate lack of definition or where most projects find themselves along the continuum of behaviour change. As discussed earlier, in the description of stages of behaviour change, positive changes in general knowledge and attitude are most likely to be prerequisites of changes in behaviour. However, as is known from the vast experience with public education on smoking cessation, seatbelt and helmet wearing, and drinking while driving, correct knowledge and attitude are only the beginning, and are not sufficient in themselves to produce behaviour change.
Materials

Activities were numerous and varied, as were the number and types of materials produced. The most common activities were the distribution of printed materials, conducting training courses, and promotion via mass-media. From the questionnaires it was not possible to judge the quality of the activities carried out, but about half of the projects reported having pretested their materials with the target audience, which may be a good indicator of quality control, if the process was methodical and rigorous.

The proliferation of materials in developing country projects may be cause for concern. Although a multi-channel approach to public education is commendable and may lead to an increased exposure to messages, there is often a tension between having a few, well-developed and used complementary materials, and a large number of relatively unconnected ones. Experience shows that many public education projects consider the production of materials as an end-point rather than a middle stage in the development and implementation of project activities. Such a focus on materials’ production for its own sake may be inadvertently promoted by funding and supporting agencies, and senior managers, for whom it may represent a concrete and tangible “proof” of activity. The final evidence, of course, is in the use made of the materials rather than the materials themselves, but an assessment of this would require visits to projects and observation of activities.

Pretesting

Although just over half of projects reported pre-testing materials, a substantial proportion omitted this critical step in materials development. The importance of pretesting was highlighted by the fact that almost all materials undergoing this process were subsequently revised. Lack of pretesting is a common weakness in health education programmes, probably partially at least linked to the lack of training that health professionals receive in the need and skills to communicate information in lay language.

The responses do not permit an assessment of the quality of the pretesting methodology. Nevertheless, accumulated field experience demonstrates that this methodology is often lax and rarely rigorous. This may be due to the lack of qualified staff available, especially in developing countries, or to the lack of clear standardized methodologies, or to a combination of both. The development of relatively simple methodologies may be helpful in improving this process.

It is difficult and perhaps inappropriate to make a judgement on the quality of an educational material divorced from the setting and manner in which it is used. Nevertheless, the quality of the materials sent by respondents varied widely when judged by recognized communication principles: common weaknesses included too many messages and the overuse of scare tactics; others appeared to require a good deal of training in their use.

Evaluation

Project evaluation usually focused on the progress of activities rather than on their impact, and was rarely carried out in a systematic manner. The weakness of evaluation, as reported by respondents, confirmed the findings of the literature
review. Many projects estimated through informal assessments that they had reached or partially reached their objectives. The only correlation found between characteristics of planning and an assessment of success was between perceived need and having met objectives: those projects based on perceived need were much more likely than other projects to report having met the objectives of the project. There was no association between project success and the reported reasons for project development, nor with the various themes, general or specific.

The above correlation is interesting, but it may in reality demonstrate the situation that arises when a project neglects the crucial step of defining objective criteria, standards, or indicators for evaluation. If these criteria are not defined (and ideally measured) before project activities are implemented, any ensuing evaluation of impact risks being biased. This risk is especially high if the evaluations are conducted as informal assessments.

The lack of submitted project and evaluation reports reinforce the observation that lack of documentation makes it difficult, if not impossible, for projects to learn from each other’s experience, whether nationally, regionally or internationally. Although some projects operate in politically sensitive areas in which non-documentation of activities and approaches may be a deliberate decision; for most projects this would not be so.

5.3 Success ratings and cost/benefits of different approaches

Despite the lack of formal evaluations, success has been perceived by all types of projects: whether at the community-level, activities aiming at changes in legislation, and industry-supported activities. Such a positive evaluation is promising, however it also has to be weighed against identified limitations in project planning, evaluation and reporting. The issue is how to provide guidance to prospective projects to strengthen planning (including carrying out formative research), to build evaluation into the project or programme strategy, and to ascertain that the various factors for success are incorporated and monitored.

The lack of formal evaluation and of cost data meant that an analysis of the cost/benefit of different approaches could not be undertaken. This is an important area of work for future research, although the wide variations in socio-cultural contexts mean that inter-country comparisons should be made with caution.

5.4 Facilitating and constraining factors

Unsurprisingly, facilitating and constraining factors and lessons learned tended to be mirror images. They reflected the difficulties that many projects have in obtaining funding, which may in turn be linked to the low priority given to public education, and to weaknesses of project planning, implementation and evaluation.
Support by outside bodies was depicted as critical by projects in developed and developing countries. It clearly demonstrates the importance of gaining support during the planning and development phase of a project. It also suggests the increased chances of failure if a project is attempted in isolation from the critical support systems. Evidently, advocacy and networking at all levels (international, regional, country) need strengthening to provide a more supportive framework, particularly since some projects reported opposition from professional and commercial interests; and others the need to change an unsupportive infrastructure. These and other issues, which are interlinked, are discussed more fully in Section 6, Conclusions and Recommendations.

In an extensive list of constraining factors, it does seem surprising that only one developing country mentioned sufficient personnel as a problem. Long experience has demonstrated to DAP and to other programmes working in the field of public education that there is a marked lack of qualified and available personnel in this field. This lack is particularly evident in developing countries, where those few qualified persons are heavily solicited by the numerous health and social development projects. The responses to the present survey may be due to different cultural concepts of time and stress, or they may indicate more realistic distribution of responsibilities in developing countries.

5.5 Implementing and supporting organizations and bodies

In general there were few major differences in data between projects in developed and developing countries. However, two important differences did emerge. The first concerned implementing agencies. Nongovernmental organizations (NGOs) were the principal implementers of projects in developing countries, whereas developing country projects were more likely to be implemented by private non-profit organizations or academic institutions. The developing/developed country differences clearly arise from the structural and economic differences between the two categories of countries. NGOs are traditionally strong and active in developing countries, especially where the government sector is weak and there is little available local cash. Funding comes from the outside and often drives national activities. On the other hand, developed countries have stronger, well-funded pharmaceutical associations or other private non-profit organizations and a greater number of well-developed and funded academic institutions.

The second difference concerned funding. Developing country projects were much more likely to be funded by international organizations or international NGOs, whereas developed country projects were funded primarily by ministries of health and by professional associations. This is not surprising, given the frequently-encountered situation of a poorly-funded ministry of health in developing countries. It is nonetheless an articulate expression of the potential influence of international organizations and NGOs on public education activities, and underscores the importance of maintaining and strengthening their roles.
5.6 Areas which require further investigation and/or support

The study succeeded in collecting data on organizations that support and/or implement RUD public education projects; as well as project types, locations, duration and costs; on what basis projects were planned; what materials were produced; and the main activities carried out. It was also very successful in gathering information about facilitating and constraining factors, and lessons learned; these will be crucial to defining methods for new projects to promote, prevent, or deal with them.

Motivations

This very rich data set still leaves some areas blank. It was not successful, for example, in describing in any depth the motivations implementers may have had for selecting particular themes and activities. In other words, it is not clear why people are doing what they are doing.

Planning

Second, although planning groups existed in most projects, and some planning took place, even if this was somewhat loose, there is no sense or description of how the planning was done.

Impact

Third, there is very little information on the impact of various activities and approaches. Even where structured evaluation is reported to have taken place few evaluation reports were received, reflecting common experience in the field when seeking reports of IEC activities. This is unfortunate, for public education programmes are often accused of a lack of rigour in their work, leading to a questioning of their value and consequent difficulties in obtaining support for such programmes. It is perhaps understandable that many of the small organizations, struggling with resource constraints, might consider that available time and expertise should be devoted to implementation rather than to reporting and evaluation. The latter might be seen, however erroneously, as an exercise of more academic than practical value. However, even the larger programmes, with the notable exception of the Australian and Viet Nam projects, appeared weak in this area. It should be possible to build systematic monitoring and evaluation into even small projects - and certainly all large projects - if methodologies are kept simple, awareness raised of the necessity and project benefits of such work, and simple guidelines made easily accessible. More work must be done to report on and evaluate the impact of interventions if existing work is to be strengthened, successful approaches replicated and public education to receive the necessary support.

Cost-benefits

At present, because impact is rarely measured, because coverage data is so sparse and varied, and because the costs reported do not appear to be complete programme costs, it is not possible to compare relative costs and benefits. Such comparative data would be very useful in guiding future programmes towards success.
**Structural factors**

How medicines are obtained and used is influenced by many societal and structural factors, such as traditional practices and beliefs, adequate regulation of the drug market, or drug promotion. But we do not know the relative impact of such factors on the possible success of given public education strategies, nor do we know the extent to which structural changes may exert a positive or negative influence on the chances of initiating and successful implementing public education programmes. The national drug policy indicators, developed by the Action Programme on Essential Drugs,55 are one tool that will help to map correlations between upward or downward shifts in different components of drug policy implementation.

The data do not show how programmes could be made sustainable and this is surely a key factor if awareness and behavioural change are to be maintained. Many projects pointed to planning difficulties related to sporadic funding and support. They also articulated the need for coalitions or alliances of interests/agencies. Building alliances across a broad range of actors may be projected to correlate not only with successful programmes in the short term but with the likelihood of their continued support and sustainability. However, data are needed to support this assumption.

**Replicability**

We still have little information about replicability or the degree to which a programme successfully implemented in one country or environment may be successfully replicated elsewhere, or what essential modifications will be necessary. Replication of developed country projects by developing countries should probably be approached with great caution given the huge differences in culture and pharmaceutical sectors. The culturally specific nature of consumer education and the need for materials to faithfully reflect visual and linguistic community realities, imply that replication without adaptation, at least of printed materials, will be an ineffective approach. However, this is already being done (without formative research into the material’s acceptability or relevance) by some projects.
6. Conclusions and recommendations

The DAP survey instrument was necessarily a relatively rough tool with which to elicit detailed and sensitive information, even with some personal follow-up by regional/national coordinators. However, even given its limitations, it has pointed clearly to general areas of concern of current programme implementers, and to important lacunae.

The survey findings are noteworthy for the general concordance among participants concerning factors whose presence or absence constituted major facilitating factors or constraints, namely funding, internal/external coalitions and partnerships, personnel/time, entrenched opposition, and infrastructure. The data also highlight some striking lacunae concerning issues which the researchers consider to constitute major blocks to effective work in public education. The most important of these are: the inadequate documentation and evaluation of projects; the lack of relevant training and technical tools (this was peripherally mentioned by some projects); and the pervasive silence concerning the tension between individual community perceptions/priorities and public health goals/priorities determined by policy makers or health professionals. Many, if not all of these issues are interlinked, with one constraint leading inevitably to another.

6.1 Funding

The lack of adequate and timely funding cited by so many projects is clearly a frequent and major constraint for activities. There are many indications that the impact of public education work is incremental and that it requires sustained and repeated effort to move from awareness raising, to changes in knowledge and eventually behaviour. It is difficult, if not impossible, to set up long-term, sustainable public education activities when access to funding is only sporadic and short-term. In DAP’s experience - reinforced by many of the survey findings - key aspects of public education work, such as: formative research; comprehensive strategic planning; prioritization of achievable targets; materials pre-testing; monitoring, and most specifically evaluation (see below); are overlooked or skimped. Lack of funding is undoubtedly a contributory, although not the only, factor leading to this situation.

There appears to be a type of vicious cycle in that the low priority currently given to public education is sometimes justified by the weaknesses in programme development, implementation and evaluation, resulting in continued funding limitations. This also leads in turn to a human resource shortage, especially in developing countries, in which community organizations and health personnel choose to work in other areas which are perceived to have higher chances of impact, sustainability and value.
Funding bodies, other partners and implementing organizations need to understand that if community education is to be sustainable it will in most cases be a long-term process, that may not yield superficially desirable, quick and quantitatively measurable results. Rather it needs to be regarded as part of a process of community empowerment in which public health imperatives are balanced and complementary to community knowledge, priorities and custom. There is a strong tendency to equate materials’ development with community education. This creates a pressure on implementers to prioritize posters, leaflets and other tangible signs of programme activity that can be presented and quantified, over less concrete activities, such as the development of community networks and training community educators and facilitators. It is the latter that are more likely to bring about enduring gains. Protocols need to be explicit about programme goals and intended impact, and advocacy is needed to help organizations working in this area to be more realistic about expected outcomes.

If public education is to be properly researched, backed by the necessary tools and knowledge, effective and sustainable, it requires adequate resources. Such programmes may be funded by the state, by international organizations, by professional associations, universities, NGOs and industry, all of whom can also function as implementing agencies and channels. Discussion is needed to identify more creative and sustainable ways in which public education programmes can be resourced. These might include:

- a tax on commercial drug information budgets to provide independent information to consumers and to support community projects;
- incentives to dispensers to develop community education projects or extend individual counselling particularly in countries where dispensing is covered under social insurance schemes;
- independent consumer information for sale at a price that covers recurrent costs;
- community education projects as a core component in professional curricula;
- education in medicinal drug use in all primary and secondary school curricula

A mix of funding sources, strategies and partnerships will provide the most secure base for sustainable activities.

6.2 Advocacy

In DAP’s country support experience, even where adequate and sustained funding is available - for example in the context of fully funded support programmes to national drug policy or essential drugs project implementation - it may still prove difficult to mobilize sufficient commitment and human resources to implement public education programmes which are adequately researched, planned, conducted, monitored and evaluated. Reasons include lack of knowhow; the greater difficulties of conducting such programmes compared with professional education; competing priorities; opposition by vested interests (both commercial and professional); and the low priority given to community empowerment by a governing or professional elite, which may even find this threatening.
Much greater advocacy is needed at international, regional and national levels to promote the need for and rationale of public education in RUD; to create understanding of its potential public health and economic contribution to society; and to avoid simplistic, unsustainable and token approaches that contribute little to real community empowerment and understanding but simply pay lip-service to the very real information and educational needs of the community in this important area.

It should be recognized that in some countries it may only be possible for a very small scale project to be undertaken, probably by a national NGO. Such projects, even with easily recognizable constraints, are worthy of support as an opportunity to learn and to increase knowledge. Constraints may well be matched by advantages in that small scale projects can be more easily developed in partnership with the community and targeted to meet needs and perspectives identified by the community itself. Funding bodies should also be aware that education in the community and behavioural change may be a very slow and cumulative process, not always lending itself to easy measurement through rapid pre- post-intervention research methodologies (see above).

### 6.3 Training and tools

In many developing countries, particularly in Africa, public education activities are often difficult to get off the ground due to lack of trained personnel with experience in planning, formative research and materials development. The potential impact of some projects, undertaken by committed public and professional bodies, NGOs and community groups, is compromised by lack of basic skills and knowledge in communication principles and materials development. Even where project staff are highly qualified in health related fields, lack of communications training and experience may make them loath to embark on public educational programmes, or inadequate in related planning and implementation. This can result in projects with unrealistic approaches and targets.

Opportunities for short-term training and access to simple, practical tools are needed to facilitate programme formative research and development, particularly for small scale, community-based programmes. These would help to develop a critical mass of professionals and community leaders with skills in developing and implementing community education programmes. In DAP’s experience there is great demand for such training and tools. At present no such courses exist in the area of public education in rational drug use, although such short courses have been developed in the field of family health and child survival, mainly in departments of communication in American and European (UK, Belgium) universities.

Manuals are available on how to develop general health communication programmes, or family planning and child survival strategies. However, experience shows that it is often difficult for programme planners and implementers to adapt these easily to the area of drug education, particularly for small scale activities operating on a limited budget. The availability of tools and courses dedicated to work in this area could powerfully influence a more structured approach to public education.
Organizations or people who intend to carry out public education projects need clear usable guidelines to help them better plan and structure their activities, including better definitions of the theme(s), the desired outcomes of the project, and the target audience. Setting priorities is difficult and the choice of the above elements must be based on solid research. Project planners need tools to help them conduct feasible, effective research related to the perceptions and use of drugs, and to the most appropriate channels of communication and public education. Project planners and implementers need clear, simple and effective methodologies for pretesting, and for making decisions based on the results of the testing. They also need simple methodologies to evaluate the impact of interventions of public education on RUD.

International development organizations, NGOs and academic institutions should collaborate to develop an international training course at which present and potential implementers of public education programmes could strengthen communication skills, and in turn transfer skills to national colleagues through local training programmes. The INRUD/DAP workshops on rational drug use (which currently contain a very small public education component), the DAP sponsored training course in drug management at Aberdeen, and the Guide to Good Prescribing training programme are good examples of this approach, which also contributes strongly to effective networking.

6.4 Coalitions/partnerships

The need for supportive coalitions and partnerships was one of the key issues highlighted by survey respondents. There is substantial evidence of the effectiveness of current coalitions of development related NGOs, such as HAI, or groupings of academic/non-profit/international agency coalitions, such as INRUD. However, as survey respondents pointed out, there remains a great unmet meet for supportive coalitions in public education in RUD: this is true both at the national and international levels. At present there is little coordination or joint strategy planning in this area between the major development organizations. These bodies, with their respective strengths, access to funds and areas of expertise, could greatly strengthen such work through more coordinated action.

At the national level many organizations are working in relative isolation and could strengthen work, particularly long-term sustainability, through a broader partnership base. However, it has to be said, that such partnerships may not be easily established. Organizations may have partly conflicting objectives and priorities, be competing for funds, and are sometimes more concerned with preserving "turf" than in organizational alliances. International and professional organizations can be particularly guilty in this respect but NGOs can also fence off their activities from potential partners. Strategies need to be developed, particularly among the major donors, to facilitate coalition building and joint projects.

Many of the survey respondents cited the need for partnerships with professional bodies. In the promotion of coalitions of partners care needs to be taken to ensure that they are not hijacked by powerful interests, less interested in the community’s own perception of needs and empowerment and more
concerned with "marketing" behaviour considered desirable by the dominant group. The experience of the multi-disciplinary PHARM Committee in Australia could provide useful guidance and insights in this area. Training in RUD public education should include a component of networking and setting up these partnerships.

Many different types of organizations are and could be involved in supporting or conducting public education work. Each has a logical role to play and guidance on these roles would be useful to project planners and to the organizations themselves.

- **Professional groups**, such as pharmacist or medical associations can influence the roles of their members; gain commitment to the concept of public education; contribute to materials development and community or school projects; and provide channels of communication for public education materials.

- **International organizations**, such as WHO and UNICEF, can play an important role in advocacy sensitizing governments and collaborating partners to the need to include public education strategies in national drug policies and strategies; in providing technical support to projects; in producing manuals and training materials; in promoting the training of key staff; and in helping developing country projects to obtain adequate and timely funding.

- **Governments**, represented by ministries of health, can ensure that consumer education is included in all drug-related policies and activities, and that concrete action is taken for systematic and sustainable implementation. They can help make the link between public education and prescriber education, to ensure that the two are parallel, consistent, and given equal importance. Finally, they can influence legislation to create a supportive environment for effective public education.

- **Non-governmental organizations and consumer groups**, as evidenced in this report, play a large and critical role in designing, implementing, and supporting public education activities. Their independence allows them to address issues that may be socially, politically or commercially sensitive for others; and their roles and skills in this area should be recognized, supported and strengthened.

- **Universities and training institutions** should actively support public education work through: a commitment to communications training of students; acting as project partners, particularly in the provision of research and evaluation expertise; and by raising awareness of the link between good prescribing practice and appropriate use of drugs by consumers.

- **Schools** are natural partners in this area. Children are logical targets for such education. They are highly receptive to information and to new ideas. A well structured course could create a lifetime’s understanding of the benefits and risks of medicines and core information about their use. Although NGOs, professional organizations and others in a number of countries have developed materials for school drug education - many quite widely used - they are not formally integrated into the school curriculum. Much more needs to be done to promote children’s education on medicines.
• **The pharmaceutical industry** is already a major provider of consumer drug information materials and also financially supports many of the initiatives undertaken by pharmacy and other professional associations. The OTC industry (Non-prescription drug manufacturers associations) was quite well represented in the survey and there are many indications that its information provision role is rapidly expanding, particularly with the trend to move prescription drugs to an OTC category. However, there may be a thin or even non-existent line between the provision of drug information or educational materials, and commercial promotion. Drug promotion is intended to lead to consumer demand, and this may not always be rational from a cost/benefit or public health viewpoint. Problems related to unethical drug promotion are prevalent in developing countries and need to be carefully considered and monitored. Survey respondents also pointed to opposition by the industry to some campaigns. The challenge will be to draw on the undoubted communication skills and experience of industry, while ensuring that industry contributions do not promote inappropriate drug use or block access to independent comparative information about drugs, including the use of non-pharmaceutical therapies.

• The **media** play a powerful role in highlighting important health and pharmaceutical issues. They are able to give a public voice to different stakeholders so that - theoretically at least - a balanced coverage is possible. However, this balance may be compromised by advertising or proprietorial interests, desire for a newsworthy story, or simple lack of scientific information and understanding. Every effort should be made to include the media as fully informed partners in public education programmes and to provide them with accessible information that they can easily process for a wider audience. Support from the media can “make” or “break” campaigns (one of the “lessons” learned by responding projects).

6.5 Lack of reporting/evaluation/publication

**Lack of reporting**

Lack of reporting or easy accessibility to reports on projects has serious consequences both for national implementers, potential partners, funding (see above) and general understanding of the importance and evolution of public education work. The extremely limited number and nature of reports obtained by DAP in support of completed survey questionnaires, mirrors the difficulty experienced in its country support work in obtaining documentation on even well known country projects. Reporting weaknesses were also demonstrated in how some questionnaires were completed, possibly linked to staff turnover, and inadequacies of project files. In view of the current relatively limited scale of public education in RUD, the absence of such documentation represents a serious constraint for all who are working in the field. It is, of course, understandable that often hard pressed projects wish to devote the bulk of their efforts to implementation. But without some form of structured reporting, both of process and impact, experience gained can be easily lost. This is a particular problem given the often sporadic nature of funding and the frequent changes in personnel of many programmes and organizations.
Lack of evaluation

The type of evaluation will be determined by project capacity (both staffing and funding) and project goals. Many projects will have diffuse community development goals that may be unsuitable for a rigorous intervention-type (pre-post, control) evaluation. However evaluation has to be built into all projects at the planning process, and underpinned by an understanding of what is appropriate to the circumstances and the project goals. There are many indications that this is a very weak area currently in public education work in general, with confusion between process and impact evaluation. Criticism of what is regarded as a “soft” or less than rigorous approach is very adversely affecting possibilities of support for needed programmes. Advocacy is needed to promote awareness of the legitimacy of different evaluation approaches, so that programme implementers are not “bullied” into adopting inappropriate models from other scientific disciplines. However, some programmes with very specific targets, will lend themselves to a type of controlled trial intervention model, and this can be usefully pursued. Training and guidance needs to be offered to programme implementers, who may have little background in evaluation models, in the need for and how to integrate an appropriate evaluation methodology into their work, and give the rationale for this choice in programme reporting.

Lack of published articles

The lack of published literature in this field is a major hindrance to its development (see above). Publication in peer reviewed journals is increasingly difficult, with a major bias towards “positive” programmes following a quite narrow “interventionist” model. Moreover, programme implementers may be short of time; they may also lack experience in producing written descriptions of programme approaches and findings. It is important that programme organizers and funders identify ways in which support can be given to write up and publish programme activities. Producing an article acceptable for publication requires considerable time and editorial skills, which may not be easily available. Some networks (e.g. INRUD) and some organizations (e.g. DAP) have developed strategies to provide editorial support for projects to write up their work. This approach needs to be much more broadly based and actively pursued.

6.6 Organized opposition

Organized opposition to activities - whether by professional or commercial interests - was cited by some respondents as a major constraint. This may be very difficult to counteract although open dialogue with some groups can contribute to a more neutral approach. Such opposition can be subtle and not conducted through public debate. Support from international agencies and from international and national networks can be vital in providing a counterweight to organized opposition. Support from the media has proven to be highly effective in a number of national RUD consumer campaigns. However, media support in some countries may be difficult to obtain in an area of considerable political and commercial sensitivity. Reported experience from other countries can be useful in helping to diffuse or partially neutralize organized opposition - the more
mainstream, recognized and reported public education activities become the easier they will be to promote and defend.

6.7 Need for supportive infrastructure

The lack of/need for a supportive infrastructure was cited by many respondents and highlights once again that public education cannot exist in a vacuum. The use of drugs by both consumer and health professionals is powerfully influenced by such issues as sources of drug availability and financing, prescribing behaviour, promotion, legislation and priorities in drug policy. It has been argued that in an unsupportive infrastructure public education may be a waste of time. This view seems unnecessarily defeatist and in the broader sense there are examples of consumer campaigns successfully contributing to infrastructural changes (such as legislation) that open the way to a more supportive environment for other public education activities. Perhaps the potential constraints represented by an unsupportive infrastructure underscore the critical necessity for programme planners to understand and investigate the presence of such constraints during the activity planning process. This highlights again the fact that educational activities do not take place in a vacuum but within a context in which people’s beliefs, practices and structural constraints have to be understood and taken into account.

6.8 Summary

There is a well evidenced and compelling need for public education in the appropriate use of drugs, with potential benefits to the individual, the community and policy-makers.

It is perhaps understandable that in developing countries - facing a huge range of constraints and priority problems in regulating and rationalizing the pharmaceutical sector - public education in RUD may be perceived of lower priority than some other areas of pharmaceutical policy. However, it is more difficult to explain the lack of commitment by developed countries to systematic and structured public education in rational drug use, given the potential economic and public health benefits. With the exception of Australia, no country - developed or developing - has undertaken a structured public educational programme, targeting all members of the community and developed by a coalition of stakeholders. This situation prevails despite the fact that public education is now included as a core component in the majority of national drug policy documents.

This lack of commitment may derive from a number of causes, such as doubts about the value of public education in itself, the fact that decisions on programme planning and priorities in the government health sector will usually be taken by health professionals who may have entrenched paternalistic attitudes in medicine i.e. the doctor knows best; patients should just “comply”. The large volume of literature on “compliance” interventions points to this.

It may also be linked to a belief that commercial information on medicines fully meets consumer needs, although such information is generally intended to
stimulate rather than rationalize drug use, and due to its commercial origin, fails to provide the comparative information needed for appropriate drug use.

This study tries to elucidate the range and some of core issues relating to public education in rational drug use. The review of the published literature revealed very little information about implemented projects on public education in rational drug use. The substantial response to the survey questionnaires demonstrated that many projects and activities have been and are being carried out in the field, despite not being accessible through the usual channels.

The study partly succeeded in its objectives. It collected a considerable amount of data and materials in a poorly documented field; although this may only be a small sample of work currently underway. It gathered useful information on the problems facing programmes and the lessons that they have learned in planning and implementing programmes. And it pointed to some key lacunae in programme work. However, the necessary limitations of the survey methodology meant that many of the underlying motivations for activities, the “how” and “why”, could not be fully identified or understood. Nor, with the incomplete data received, was it possible to determine relative cost-benefits of different approaches.

Some of the interventions and projects described in the study indicate that public education can contribute to more appropriate drug use. Certainly the respondents themselves were very positive about the impact of their work. However, these activities worldwide suffer a shortage of support, a shortage of expertise, and a shortage of funds. A vicious circle then results, in which all too often the projects are poorly planned, weakly implemented, and not evaluated rigorously enough to satisfy future partners, who then give less support. But that is only one side of the coin. Much greater understanding is needed by supporting agencies that the impact of public education strategies may be incremental and move along a continuum of awareness raising, knowledge creation, community empowerment and behavioural change. This may be difficult to evaluate in the short-term - particularly using classical methodologies - and care is needed that we do not “throw out the baby with the bathwater” in an attempt to evaluate impact with scientific rigour.
References

2 Health Promotion, the Ottawa Charter, Geneva, World Health Organization, 1986
19 Lexchin J. Deception by Design: pharmaceutical promotion in the third world. Penang, Consumers International Regional Office for Asia and the Pacific. 1995


## Annex I - Title, Duration and Cost listed by Country

### Developing Countries

<table>
<thead>
<tr>
<th>Country</th>
<th>Title</th>
<th>Duration</th>
<th>Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bangladesh</td>
<td>Campaign on awareness of RUD</td>
<td>&gt;3yr</td>
<td>$2.5 mill. 1984-1995</td>
</tr>
<tr>
<td>Bolivia</td>
<td>Primary health care: focus on RUD, consumer rights and advocacy</td>
<td>&gt;3yr</td>
<td>$50,000 per/yr</td>
</tr>
<tr>
<td>Brazil</td>
<td>Centre of information and education for RUD</td>
<td>ND</td>
<td>$50,000 global work for 2yr</td>
</tr>
<tr>
<td>Cameroon</td>
<td>Project to promote awareness on the RUD in the community</td>
<td>&gt;3yr</td>
<td>ND</td>
</tr>
<tr>
<td>Chile</td>
<td>Education of drugs to out-patients</td>
<td>&gt;3yr</td>
<td>part of curricula</td>
</tr>
<tr>
<td>Colombia</td>
<td>Drug supply management and promotion of RUD in health facilities</td>
<td>&gt;3yr</td>
<td>Col$ 198,000,000</td>
</tr>
<tr>
<td>Côte d’Ivoire</td>
<td>Medicines are not to be bought on the street (EDP)</td>
<td>6-12mo</td>
<td>ND</td>
</tr>
<tr>
<td>El Salvador</td>
<td>Rational use of drugs</td>
<td>2-3yr</td>
<td>ND</td>
</tr>
<tr>
<td>Ghana</td>
<td>Public education on the dangers of misuse and abuse of drugs</td>
<td>&gt;3yr</td>
<td>1994 annual health ed. event: $4,400</td>
</tr>
<tr>
<td>India</td>
<td>Promote RUD; make available essential drugs and information</td>
<td>&gt;3yr</td>
<td>Rs 21,000,000 since 1986</td>
</tr>
<tr>
<td></td>
<td>People’s drug information project</td>
<td>&gt;3yr</td>
<td>Rs 1,000,000</td>
</tr>
<tr>
<td></td>
<td>Workshop on medicine, media, and consumer education</td>
<td>6-12m</td>
<td>workshop: Rs 50,000 pamphlet: Rs 2,500</td>
</tr>
<tr>
<td></td>
<td>Health education through regular columns in newspaper/magazines</td>
<td>ND</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Drug information</td>
<td>2-6m</td>
<td>Rs 7,000</td>
</tr>
<tr>
<td>Indonesia</td>
<td>Improving the knowledge and skills in selecting OTC medicines</td>
<td>1-2yr</td>
<td>OTC medicines $600</td>
</tr>
<tr>
<td></td>
<td>Maternal health &amp; child survival concepts &amp; practices in Indonesia</td>
<td>1-2yr</td>
<td>$194,901</td>
</tr>
<tr>
<td>Kenya</td>
<td>EDP: misconceptions, promote RUD</td>
<td>2-3yr</td>
<td>ND</td>
</tr>
<tr>
<td>Korea</td>
<td>Workshop on separation of prescription from dispensing</td>
<td>6-12mo</td>
<td>over $ 10,000</td>
</tr>
<tr>
<td>Latvia</td>
<td>Awareness-raising about drug promotion; RUD concepts</td>
<td>&gt;3yr</td>
<td>$1,000 from donor plus own resources</td>
</tr>
<tr>
<td>Malawi</td>
<td>IEC activities of Malawi ED Programme</td>
<td>&gt;3yr</td>
<td>ND</td>
</tr>
<tr>
<td>Malaysia</td>
<td>Consumer education</td>
<td>&gt;3yr</td>
<td>ND</td>
</tr>
<tr>
<td></td>
<td>Know your medicine campaign</td>
<td>2-3yr</td>
<td>publications M$5,000</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>posters/materials</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>M$ 3,500</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>exhibitions M$ 3,000</td>
</tr>
</tbody>
</table>

ND = no data
### Mauritius
- Consumer education in secondary schools
  - Duration: 6-12m
  - Cost: ND

### Mexico
- Workshops to disseminate information on problem drugs and RUD
  - Duration: 1-2yr
  - Cost: $30,800 (includes research, and video)
- RUD campaign
  - Duration: 2-6m
  - Cost: $2,000

### Peru
- “Hello, IPSS takes care of your health” (information and medical education)
  - Duration: >3yr
  - Cost: $1,030,431 for 19mo (see addendum)
- Study-intervention on morbidity and use of drugs during infant diarrhoea
  - Duration: 1-2yr
  - Cost: ND
- Intervention to diminish inappropriate use drugs
  - Duration: 1-2yr
  - Cost: $112,282
- Education on RUD for health workers and general public
  - Duration: >3yr
  - Cost: ND

### Sierra Leone
- Why Tin Di Dokta Say (What the doctor says)
  - Duration: >3yr
  - Cost: $20 weekly

### S. Africa
- Patient education
  - Duration: ND
  - Cost: R 400,000

### Sudan
- IEC/public education on proper use of drugs, River Nile State
  - Duration: >3yr
  - Cost: $100,000

### Thailand
- Pharma movement for change and development (policy level)
  - Duration: >3yr
  - Cost: ND
- “Trade-name free hospitals movement”
  - Duration: >3yr
  - Cost: ND

### Uganda
- Uganda Red Cross Society EDP, IEC component
  - Duration: >3yr
  - Cost: 3rd phase 1992-95: DKK 3,660,000

### Viet Nam
- Primary health care - improve quality of care, RUD
  - Duration: 2-3yr
  - Cost: total IEC bud: £6,000 CHW training budget £30,000
- Mediating medicines - consumer drug information in the Vietnamese market place
  - Duration: >3yr
  - Cost: ND

### Developed Countries

<table>
<thead>
<tr>
<th>Country</th>
<th>Title</th>
<th>Duration</th>
<th>Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>Australia</td>
<td>Pharmacy self-care programme (public awareness &amp; pharmacy training)</td>
<td>&gt;3yr</td>
<td>$A mill. per/yr</td>
</tr>
<tr>
<td></td>
<td>Pills and older persons project (including “be wise with medicine”)</td>
<td>1-2yr</td>
<td>$A 205,000</td>
</tr>
<tr>
<td></td>
<td>Streetwize comic on pharmaceutical health and RUD</td>
<td>1-2yr</td>
<td>$A 182,700 (breakdown avail.)</td>
</tr>
<tr>
<td></td>
<td>Raise awareness of risks assoc. with longterm benzodiazepine use</td>
<td>&gt;3yr</td>
<td>$A 120,000 annual budget</td>
</tr>
<tr>
<td></td>
<td>Prescribing awareness programme</td>
<td>&gt;3yr</td>
<td>routine function; “cost neutral”</td>
</tr>
<tr>
<td></td>
<td>Maximizing the role of community pharmacist in a regional asthma strategy</td>
<td>2-3yr</td>
<td>$A 6,579.50</td>
</tr>
<tr>
<td></td>
<td>Attempt to influence hypnotic and sedative drug use</td>
<td>6-12m</td>
<td>$A 84,000</td>
</tr>
<tr>
<td></td>
<td>Leaflet endometriosis drug</td>
<td>&gt;3yr</td>
<td>ND</td>
</tr>
<tr>
<td></td>
<td>Too much of a good thing?</td>
<td>6-12m</td>
<td>ND</td>
</tr>
</tbody>
</table>

ND = no data
<table>
<thead>
<tr>
<th>Country</th>
<th>Program Description</th>
<th>Duration</th>
<th>Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>Australia</td>
<td>Talking medicines</td>
<td>6-12m</td>
<td>$A 200,000</td>
</tr>
<tr>
<td></td>
<td>Med-smart: multi-focused approach to quality use of medicines</td>
<td>1-2yr</td>
<td>$A 26,733</td>
</tr>
<tr>
<td></td>
<td>(MIP)</td>
<td>&gt;3yr</td>
<td>$A 397,300</td>
</tr>
<tr>
<td></td>
<td>Efficacy of the heartwise programme</td>
<td>1-2yr</td>
<td>$A 135,000</td>
</tr>
<tr>
<td></td>
<td>Be wise with medicines, Eastern Sydney</td>
<td>&lt;2m</td>
<td>part of large, multi-faceted campaign</td>
</tr>
<tr>
<td></td>
<td>Antipsychotic medicines: a coordinated education programme</td>
<td>1-2yr</td>
<td>$A 91,000</td>
</tr>
<tr>
<td></td>
<td>A cup of tea, my pharmacist, and me</td>
<td>2-3yr</td>
<td>$A 45,000</td>
</tr>
<tr>
<td></td>
<td>Shape campaign</td>
<td>&lt;2m</td>
<td>$A 1.6 mill.</td>
</tr>
<tr>
<td></td>
<td>Design and content of labels on OTC medicines</td>
<td>2-6m</td>
<td>$A 65,000</td>
</tr>
<tr>
<td></td>
<td>Folate before pregnancy</td>
<td>1-2yr</td>
<td>$A 62,427</td>
</tr>
<tr>
<td></td>
<td>“Go on the attack against asthma, prevent it. Don’t just relieve it”</td>
<td>&lt;2m</td>
<td>$A 380,197</td>
</tr>
<tr>
<td></td>
<td>Asthma action plan card</td>
<td>6-12m</td>
<td>$A 106,350</td>
</tr>
<tr>
<td></td>
<td>“Your opportunity to win over asthma”</td>
<td>&lt;2m</td>
<td>$A 190,810</td>
</tr>
<tr>
<td>Belgium</td>
<td>Far-Well; Medi-studt (information box for students/children)</td>
<td>1-2yr</td>
<td>$13,400 (rough est.)</td>
</tr>
<tr>
<td>Canada</td>
<td>DES awareness week: “Are you DES-informed?”</td>
<td>&lt;2m</td>
<td>ND</td>
</tr>
<tr>
<td></td>
<td>Wise use of medication: health promotion</td>
<td>&gt;3yr</td>
<td>CND$51,000</td>
</tr>
<tr>
<td></td>
<td>Mr Finley’s pharmacy programme</td>
<td>&gt;3yr</td>
<td>video: CND$35,000 - books: $2,000/yr</td>
</tr>
<tr>
<td>Denmark</td>
<td>Den rette dosis-en bgg om medicin (a book about medicine)</td>
<td>1-2yr</td>
<td>ND</td>
</tr>
<tr>
<td>France</td>
<td>Patient information record cards (fiches info-patients)</td>
<td>&gt;3yr</td>
<td>ND</td>
</tr>
<tr>
<td></td>
<td>Child, family, and medicines</td>
<td>&gt;3yr</td>
<td>330,000FF colloquia and proceedings</td>
</tr>
<tr>
<td></td>
<td>Sound use of medicines (le bon usage du médicament)</td>
<td>&gt;3yr</td>
<td>ND</td>
</tr>
<tr>
<td></td>
<td>Health and medicines</td>
<td>1-2yr</td>
<td>250,000FF (112,000 personnel; 138,000 materials)</td>
</tr>
<tr>
<td>Germany</td>
<td>Buko Pharma-Kampagne street theatre group</td>
<td>&gt;3yr</td>
<td>DM15,000 per tour</td>
</tr>
<tr>
<td></td>
<td>Buko Pharma-Kampagne - Pharma-brief</td>
<td>&gt;3yr</td>
<td>printing/postage DM7,000; write/edit DM15,000</td>
</tr>
<tr>
<td></td>
<td>Patient brochures; neutral information on minor ailments</td>
<td>ND</td>
<td>ND</td>
</tr>
<tr>
<td>Japan</td>
<td>RUD comic</td>
<td>&gt;3yr</td>
<td>4 mill. Yen per/yr</td>
</tr>
</tbody>
</table>

ND = no data
<table>
<thead>
<tr>
<th>Country</th>
<th>Programme</th>
<th>Duration</th>
<th>Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Netherlands</strong></td>
<td>Apotheek voor de Klaas (pharmacy in primary schools)</td>
<td>&gt;3yr</td>
<td>ND</td>
</tr>
<tr>
<td></td>
<td>Tele-info medicines</td>
<td>&gt;3yr</td>
<td>f. 250,000 /yr</td>
</tr>
<tr>
<td></td>
<td>Farmacotherapy-consultation project</td>
<td>&gt;3yr</td>
<td>f. 3.5 mill. /yr</td>
</tr>
<tr>
<td></td>
<td>Pharmaceutical care in asthma and the elderly</td>
<td>2-3yr</td>
<td>f. 350,000 for 4yr</td>
</tr>
<tr>
<td><strong>New Zealand</strong></td>
<td>South Pacific consumer protection programme</td>
<td>&gt;3yr</td>
<td>ND</td>
</tr>
<tr>
<td><strong>Sweden</strong></td>
<td>The year of diabetes - 1991</td>
<td>1-2yr</td>
<td>SEK 6 mill.</td>
</tr>
<tr>
<td></td>
<td>The year of asthma -1992</td>
<td>1-2yr</td>
<td>SEK 7,500,000</td>
</tr>
<tr>
<td></td>
<td>The year of skin diseases - 1993</td>
<td>1-2yr</td>
<td>ND</td>
</tr>
<tr>
<td></td>
<td>The year of dementia - 1994</td>
<td>1-3yr</td>
<td>SEK 350,000 (1992); 1,080,000 (1993); 1,000,000 (1994)</td>
</tr>
<tr>
<td></td>
<td>Young people and medicines</td>
<td>&gt;3yr</td>
<td>approx. SEK 7 mill.</td>
</tr>
<tr>
<td><strong>Switzerland</strong></td>
<td>Medi-minus, medi-minus forte</td>
<td>2-3yr</td>
<td>ND</td>
</tr>
<tr>
<td></td>
<td>Written drug information for public provided in consumer journal</td>
<td>&gt;3yr</td>
<td>direct costs “low”</td>
</tr>
<tr>
<td></td>
<td>Phone service for public providing independent info about medicine</td>
<td>2-3yr</td>
<td>“very low”</td>
</tr>
<tr>
<td><strong>UK</strong></td>
<td>Safety of medicines campaign</td>
<td>1-2yr</td>
<td>£10,000 adverts; £3,200 materials</td>
</tr>
<tr>
<td></td>
<td>You and your medicines</td>
<td>&gt;3yr</td>
<td>£5,000 production; £2,500 testing; £1,500 staff</td>
</tr>
<tr>
<td></td>
<td>Medicines education project; leaflet distribution &amp; adult education schools</td>
<td>&gt;3yr</td>
<td>ND</td>
</tr>
<tr>
<td></td>
<td>Ongoing medicines education project</td>
<td>&gt;3yr</td>
<td>ND</td>
</tr>
<tr>
<td></td>
<td>A book on prescription medicines for the general public</td>
<td>&gt;3yr</td>
<td>ND</td>
</tr>
<tr>
<td><strong>USA</strong></td>
<td>DES Action: PSA for tv and radio about in-utero exposure to DES</td>
<td>1-2yr</td>
<td>$6,000 (all staff time volunteer)</td>
</tr>
<tr>
<td></td>
<td>Child dosing</td>
<td>&lt;2m</td>
<td>$35,000 ($15,000 video; $20,000 pamphlet)</td>
</tr>
<tr>
<td></td>
<td>Consumer education insert in Reader’s Digest, plus reprint distribution</td>
<td>ND</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Iron poisoning</td>
<td>&lt;2m</td>
<td>$40,000</td>
</tr>
<tr>
<td></td>
<td>Worst pills best pills news</td>
<td>&gt;3yr</td>
<td>ND</td>
</tr>
<tr>
<td></td>
<td>Michigan model for comprehensive school health education</td>
<td>&gt;3yr</td>
<td>manuals $20 package K-8 @ $4,000 donated material</td>
</tr>
<tr>
<td></td>
<td>Tex’s team</td>
<td>ND</td>
<td>$2,000 init. cost-most costs start up</td>
</tr>
<tr>
<td></td>
<td>Katy’s kids</td>
<td>&gt;3yr</td>
<td>$10,000-$20,000 to produce</td>
</tr>
</tbody>
</table>

All US$ unless otherwise indicated.
Annex II - List of Programmes by Country

Developing Countries

BANGLADESH

Campaign on awareness of rational use of drugs
Sk. Sazedur Rahman, Health for All (Sabar Jannaya Shasthaya), 4 Green Square, Green Road, Dhaka-1205, Tel: 8802 500 383, Fax: 8802 863 567/833 182

BOLIVIA

Primary health care focus on: rational drug use, breast feeding, consumers rights and advocacy
Dr Oscar Lanza, Accion internacional por la Salud, Avda Iturralde, Zona de Miraflores, La Paz, Tel: 591 2 322 986

BRAZIL

Centre of information and education for rational drug use
Mr Jose Augusto C. Barros, Centrode Información y Educación Para el Uso Racional de Medicamentos/R.Dos Coelhos s/n, 50070-050 Boa Vista, Recife PE, Tel: 55 81 231 5961, Fax: 55 81 231 6271

CAMEROON

Project to promote awareness on the rational use of drugs in the community
Mr Peter Aka / Mr Anu Vincent Fualefac, National Association for the Rational Use of Drugs, P.O. Box 281, Buea, Tel: 237 32 22 97

CHILE

Education on drugs to out-patients
Professor Catalina Domecq, Universidad de Chile, Facultad de Ciencias Quimicas y Farmaceuticas, Casilla 233, Correo 1, Santiago, Tel: 56 2 737 8920

COLOMBIA

Drug supply management and promotion of RUD in health facilities (Centro de defensa del consumidor, El Salvador sistema integral de insumos hospitalarios esenciales)
Ms Vistoria P. Castro Naranjo, Dirección seccional de Salud de Antioquia, Carrera 56A No. 51-30, Medellín, Tel: 57 4 511 0028, ext. 117, Fax: 57 4 512 8729

Promoción del uso racional de los medicamentos
Mr Víctor Eduardo Ruíz Monroy, Red Acción Internacional RAIS por la Salud OMS/OPS, Carrera 18 No. 48-87, Tel: 287 3503, Fax: 245 1879

CÔTE D’IVOIRE

Un medicament ne s’achete pas dans la rue - Medicament essentiel
Ministère de la Santé publique, B.P. V4, Abidjan, Tel: 225 320 888

EL SALVADOR

Rational use of drugs
Ms Margarita Posada, Acción Para La Salud en El Salvador (APSAL), Avenida San Jose, 322 Colonia El Refugio, San Salvador, Tel: 503 225 7168
GHANA

An ongoing public educational programme on the dangers of the misuse and abuse of drugs
Mrs Joyce Addo-Atuah, Lady Pharmacist Association of Ghana (LAPAG), P.O. Box 2133, Accra, Tel: 233 21 77 49 45

INDIA

Promote rational therapeutics & make available essential drugs & information
Mr Manidip Sarkar, Community Development Medicinal Unit (CDMU), 86C, Dr. Suresh Sarkar Road, Calcutta 700014, Tel: 91 33 245 2363, Fax: 91 33 249 2803

People’s drug information project
Dr Arun Bal / Dr Anil Pilgaokar / Dr R.P. Ravindra, Association for Consumer Action on Safety and Health (ACASH), Servants of India Society, 2nd Floor, 417 Sardar Vallabhbhai Patel Road, Bombay 400 004, Tel: 91 22 388 6566

Evolving a consensus on health rights and responsibilities of citizens through a workshop on medicine, media and consumer education
Dr C.H. Shashindran / Dr K.R. Sethuraman, Educators for Quality Update of Indian Physicians (EQUIP), 5, Rue Suffren, Pondicherry 605 001, Tel: 91 413 37278, Fax: 91 413 38132

Health education through regular columns in newspaper and magazines
Dr Ketan N. Jhaveri, Medical Superintendent, Gandhi-Lincoln Hospital, Deesa 385 535, North Gujarat, Tel: 91 274 420 844, Fax: 91 274 420 172

Drug information
Mr Y.G. Muralidharan, Consumer Rights, Education & Awareness Trust (R.) (CREAT), 239, 5th “C” Main, Remco Layout, Vijayanagar, Bangalore 560 040, Tel: 91 812 338 2314

INDONESIA

Improving the knowledge and skills in selecting OTC medicines using a small-group active learning method
Dr Sri Suryawati, Dept Clinical Pharmacology, Faculty of Medicine, Gadjah Mada University, Yogyakarta 55281, Tel/fax: 62 274 563596

Maternal health and child survival concepts & practices in Indonesia
Yanti Triswan, PATH, Tifa Building, Suite 1102, Jl. Kuningan Barat 26, Jakarta 12710, Tel: 62 215 200 737, Fax: 62 215 200 621

KENYA

Essential drug programme - To deal with predominate misconceptions and concerns in drug use - to encourage consumers to comply in use of drugs
Ms Lorna Ngang’a, Ministry of Health, Drugs Department (with technical assistance from Program for Appropriate Technology in Health (PATH)), P.O. Box 76634, Nairobi, Tel: 254 2 568331, Fax: 254 2 566714

KOREA

Workshop on separation of prescription from dispensing
Mr Kim Jaiok, CACPK, 603 Pierson Bld., Chorgroku, Shimmunro-aga 89, Seoul, Tel: 82 5 739 5441/5530, Fax: 82 5 736 5514

LATVIA

To arouse the awareness of the society about the growing drug promotion in Latvia as well as to develop ideas about the rational use of drugs
Mr Zinta Kovaleva, Club for Consumer’s Protection, Valm Str 32 - 417A, Riga LV 1080, Tel: 371 2 221 267
MALAWI

IEC activities of Malawi Essential Drugs Programme
Mr C.J. Forshaw, Malawi Essential Drugs Programme, c/o WHO Representative, P.O. Box 30390, Lilongwe 3, Tel/Fax: 265 78 40 62

MALAYSIA

Consumer education (book about “Do’s and Don’ts of Medicines”)  
Mr Encik Mohd Idris / Mr Narinder Kanr, Consumer’s Association of Penang, 228 Macalister Road, Penang 10400, Tel: 60 2293 511, Fax: 60 2298 106

Know your medicine campaign
Ms Maheswary Ramasamy, Executive Director, Federation of Malaysian Consumers Associations (FOMCA), No. 8, Jalan SS 1/22A, 47300 Petaling Jaya, Selangor Darul Ehsan, Tel/Fax: 60 3 776 2009

MAURITIUS

Consumer education in secondary schools
Mr Yousouf Jhugroo, Director, Institute for Consumer Protection (ICP), 2nd floor, Hansrod Bldg, Jummah Mosque Street, Port Louis, Tel: 230 242 0892/ 230 242 6262, Fax: 230 242 4436

MEXICO

Workshops to disseminate information on problem drugs and the importance of rational drug use
Ms Silvana Forti, Colectivo Interdisciplinario de Estudios de Salud A.C. (CIESAC), Carlos Pellicer 123 - Prados del Mirador, C.P. 76070, Queretaro, Tel: 52 463 42 132051

Campaign: towards rational drug use
Dra Dolores Vicencio Aceuedo, HAI Mexico, Aptdo Postal 62-A Pátzcuaro, 61600 Michoacán, Tel: 52 434 2 3926

PERU

“Hello, IPSS takes care of your health” - a system of orientation, information and medical education
Dra. Edith Vizcarra Zuñiga, ALO! IPSS - CENAMYT, Av. Larco 670 Miraflores, Lima, Tel: 51 14 444 8 444, Fax: 51 14 444 8 668

Study intervention on morbidity and use of drugs
Mr Roberto Linares López, Accion para la Salud, Centro Latino Americano del Instituto de Higiene Tropical, Heidelberg University, Aptdo 126, Chimbote, Tel: 51 44 321484

Intervention to diminish the inappropriate use of drugs during infant diarrhoea
Ms Beth Yeager, Instituto de Investigacion Nutricional, Avda la Universidad, s/n Aptdo 18-0191, Lima 17, Tel: 51 14 369123

Education on rational drug use for health workers and the general public
Mr Josefa Castro, Director, Servicios de Medicinas Provida, General Garzon 2170 Jesus María, Lima, Tel: 51 14 635990, Fax: 51 14 633911

SIERRA LEONE

What the doctor says (why tin di dokta say)
Dr E.C. Gooding, The Ag. President, Sierra Leone Medical and Dental Association, P.O. Box 850, Freetown

SOUTH AFRICA

Patient education - “don’t take the right medicine the wrong way”, “when receiving medicines you have certain rights”
Mr C.M. Niekerk, S.A. Pharmacy Council, Box 40040 Arcadia 0007, Pretoria, Tel: 27 12 211 477, Fax: 27 12 211 492
**SUDAN**

IEC plan on public education on proper drug use in the River Nile State
Professor A.H. Ibrahim, Programme Coordinator, Sudan Essential Drugs Programme, c/o WHO Representative, P.O. Box 2234, Khartoum, Tel: 249 11 776282, Fax: 249 11 776471

**THAILAND**

Pharma movement for change and development - aim at policy level to change the regulation system of drugs in Thailand
Ms Niyada Kiatying-Angsulee, Drug Study Group, 11/156 Soi Kalina 2, Charansanctwong 13, Bangkok 10160, Tel: 66 2 410 2382/3, Fax: 66 2 410 6271

Generic names campaign including the “trade-name free hospitals movement”
Ms Saree Aongsomwang, The Co-ordinating Committee for Primary Health Care of Thai NGOs (CCPN), 211/2 Soi Thanakarn Akarnsongkro 3, Ngam Wongwan Road, Nonthaburi 11000, Tel: 662 952 50 62

**UGANDA**

Uganda Red Cross Society - Essential Drugs Programme - information, education and communication component
Ms Rose Kinuka, P.O. Box 494, Kampala, Tel: 256 41 258 701/2, Fax: 256 41 258 184

**VIET NAM**

Health financing for primary health care - to improve quality of care, rational drug use, at commune health stations in Hai Phong (covering 1.6 million people) and improving the public use of drugs
Dr John Chalker, Save the Children Fund UK, 218 Doi Can Street, Hanoi, Tel: 844 325 319, Fax: 844 325 073

**Developed Countries**

**AUSTRALIA**

Pharmacy self care program - integrates health information and awareness of health issues for public; training and education for pharmacist and pharmacy staff, to support the information
Ms Leone Coper, Pharmaceutical Society of Australia, P.O. Box 21, Curtin ACT 2605, Tel: 61 6 281 1366, Fax: 61 6 285 2869

Pills and older persons project (POPPS), including: September health and pharmaceutical education strategy, “be wise with medicines” campaign (SHAPE)
Chairperson, Older person’s Action Centre Inc., Ross House, 2nd Floor, 247-251 Flinders Lane, Melbourne, Tel: 61 3 650 4709

Streetwize comic on pharmaceutical health and the rational use of medicine
Ms Beth Phelan, Streetwize Comics Ltd., 2/111 Moore St, Leichhardt NSW 2040, Sydney, Tel: 61 2 560 3244, Fax: 61 2 560 3170

Raise community awareness about the risks associated with long term benzodiazepine use (sleeping pills)
Ms Gwenda Cannard, Director, TRANX (Tranquilliser Recovery and New Existence) Inc., 2 Rutland Road, Box Hill VIC 3128, Perth, Tel: 61 9 899 6079, Fax: 61 9 899 5657

Prescribing awareness program - this is a pharmaceutical feedback program
Dr Andrew Parkes, Commonwealth Department of Veterans’ Affairs, P.O. Box 21, Woden ACT 2606, Tel: 61 6 289 6159

Maximizing the role of community pharmacists in a regional asthma strategy
Mr Gerry McInerney / Mr Philip Morrissey, Illawarra Pharmacists’ Association, 68 Terolalong Street, Kiama NSW 2533, Tel: 61 42 321 046, Fax: 61 42 331 105/295 724
An attempt to influence hypnotic and sedative drug use
Ms Roberta Lauchlan, St Vincent’s Hospital, Victoria Street, Darlinghurst NSW 2010,
Tel: 61 2 361 20 92, Fax: 61 2 361 22 49

Production of leaflets about drugs used in the treatment of endometriosis
Ms Ros Wood, Endometriosis Association, 37 Andrew Crescent, South Croydon 3136,
Tel: 61 3 870 0536, Fax: 61 3 870 3007

Too much of a good thing
Ms Sarah Fogg, Australian Pensioners’ & Superannuants’ Federation (AP&SF), Level 6,
8-24 Kippax Street, Surry Hills NSW 2010, Tel: 61 2 281 4566, Fax: 61 2 281 5951

Talking medicines community education kit
Ms Sarah Fogg, Australian Pensioners’ & Superannuants’ Federation (AP&SF), Level 6,
8-24 Kippax Street, Surry Hills NSW 2010, Tel: 61 2 281 4566, Fax: 61 2 281 5951

Med-smart: a multi-focused approach to quality use of medicines
Ms Barbara Susan Dicker, Churches of Christ Home Inc. of W.A., 22 Plantation Street,
Mt. Lawley WA 6050, Tel: 61 9 271 7844, Fax: 61 9 271 6002

Medicine information project (MIP)
Ms Annee Lawrence, Project Officer, Combined Pensioners & Superannuants Association of NSW Inc. (CPSA), Level II, 35 York Street, Sydney NSW 2000, Tel: 61 2 262 6722, Fax: 61 2 262 6120

A randomised controlled trial of the “efficacy of the heartwise program in the non-drug and drug management of patients with hypercholesterolemia”
Dr Denise Ruth, Monash University, Dept. of Community Medicine, 867 Centre Road, East Bentleigh VIC 3165, Melbourne, Tel: 61 3 579 3188/ 61 3 342 8549, Fax: 61 3 342 8548

Be wise with medicines - activities in Sydney’s Eastern suburbs in support of the national medications awareness strategy
Ms Brenda Hill, Health Promotion and Multicultural, Eastern Sydney Area Health Service,
c/o Royal South Sydney Hospital, Joynton Ave., Zetland, Sydney NSW 2017,
Tel: 61 2 697 8146, Fax: 61 2 697 8143

Antipsychotic medications: a coordinated education programme
Mr Paul Morgan / Mrs Barbara Hocking, Schizophrenia Australia Foundation, 223 McKean Street,
North Fitzroy VIC 3068, Tel: 61 3 9482 4387, Fax: 61 3 9482 4871

“A cup of tea, my pharmacist and me - can extended communication make the difference?”
Ms Jan Colgan, Orange Base Hospital, Pharmacy Department, P.O. Box 319, Orange NSW 2800,
Tel: 61 6 363 5214

Shape campaign
Ms Sue Donalson, Pharmaceutical Benefits Branch, Commonwealth Department of Human Services and Health, G.P.O. Box 9848, Canberra ACT 2601, Tel: 61 6 289 7602,
Fax: 61 6 289 8846

The impact of changing the design and content of labels on OTC medicines
Ms Juliet Seifert, Proprietary Medicines Association of Australia Inc., Floor 11, 65 Berry Street,
North Sydney NSW 2060, Tel: 61 2 922 5111, Fax: 61 2 959 3693

Pharmaceuticals project - this project is much broader than public education. Our aim is to assess the impact of changes in pharmaceuticals policy on consumers
Ms Carol McNiven, Consumers Health Forum of Australia, P.O. Box 52, Lyons ACT 2606,
Canberra , Tel: 61 6 281 0811, Fax: 61 281 0959

Folate before pregnancy
Dr Carol Bower, Institute for Child Health Research, P.O. Box 855, West Perth 6872,
Tel: 61 9 340 8694, Fax: 61 9 388 3414

Geoff Marsh (Australian cricketer) television campaign “Go on the attack against asthma. Prevent it, don’t just relieve it”
Ms Kristine Whorlow, Chief Executive Officer, National Asthma Campaign, 4/615 St. Kilda Road,
Melbourne Vic 3004, Tel: 61 3 9254 3666, Fax: 61 3 9254 3640
Asthma action plan card
Ms Kristine Whorlow, Chief Executive Officer, National Asthma Campaign,
4/615 St. Kilda Road, Melbourne Vic 3004, Tel: 61 3 9254 3666, Fax: 61 3 9254 3640

Commonwealth games campaign 1994 “Your opportunity to win over asthma”
Ms Kristine Whorlow, Chief Executive Officer, National Asthma Campaign,
4/615 St. Kilda Road, Melbourne Vic 3004, Tel: 61 3 9254 3666, Fax: 61 3 9254 3640

BELGIUM

Far-well® / Medi-studt® (information box specially designed for students/school children)
Mr Kris Soenen, Projeckt Farmaka, J Vervaenestraat, 14, 9050 Gent, Tel: 32 9 230 0303,
Fax: 32 9 231 7617

CANADA

DES awareness week - 16-22 April 1995, theme: “Are you DES-informed?”
Ms Dawn Kiddell, DES Action Canada, 5890 Monkland, # 203, Montreal, Quebec H4A 1G2,
Tel: 1 514 482 3204, Fax: 1 514 482 1445

Wise use of medication: a health promotion approach to community programming for safe
medication use with and for seniors
Ms Elsie Perch, South Riverdale Community Health Centre, 1091 Queen Street East, Toronto,
Ontario M4M 1K7, Tel: 1 416 469 3917, Fax: 1 416 469 3442

Mr Finley’s pharmacy programme
Dean Jim Blackburn, College of Pharmacy and Nutrition, University of Saskatchewan, Saskatoon,
Saskatchewan S7N 0W0, Tel: 1 306 966 6328, Fax: 1 306 966 6377

DENMARK

“Den rette dosis - en bgg om medicin” (the correct dose - a book about medicine)
Mr Henrik Kous, The Danish Pharmaceutical Association, Bredgade 54, 1017 Copenhagen K,
Tel: 33 76 7600, Fax: 33 76 7699

FRANCE

Fiches info-patients (patient information record cards)
Ms Annick Dulion, CESSPF, 4 avenue Ruysdaël, 75008 Paris, Tel: 33 1 40 53 74 00,
Fax: 33 1 46 22 47 20

L’enfant, sa famille et les médicaments
Dr Frédéric Jèsu, Institut de l’enfance et de la famille (IDEF), 3, rue Cop Héron, 75001 Paris,
Tel: 33 1 40 39 90 03, Fax: 33 1 40 26 59 53

Le bon usage du médicament: encourager une consommation rationnelle des
médicaments dès le plus jeune âge, au travers d’une action d’information en milieu
scolaire
Mme Françoise Buhl, Syndicat National de l’Industrie Pharmaceutique, 88, rue de la Faisanderie,
75782 Paris CEDEX 16, Tel: 33 45 03 88 90, Fax: 33 45 03 88 42

Elaboration d’un document pedagogique d’education pour la santé intitulé “médicaments
et santé”
Ms Vera Ribault, Santé et communication, 153 rue de Charonne, 75011 Paris, Tel: 33 43 562 515

GERMANY

Buko pharma-Kampagne - street theatre group
Mr Baruin Raspe / Mr Jörg Schaaber, Buko Pharma-Kampagne, August-Bebel-str. 62,
33602 Bielefeld, Tel: 49 521 60550, Fax: 49 521 63789

Buko pharma-Kampagne - pharma-brief
Mr Baruin Raspe / Mr Jörg Schaaber, Buko Pharma-Kampagne, August-Bebel-str. 62,
33602 Bielefeld, Tel: 49 521 60550, Fax: 49 521 63789

Patient brochures - neutral information on minor diseases
Dr Hermunn Kortland, Bundesfachverband der Arzneimittel-Hersteller, Uhierstr. 71-73, 53173 Bonn, Tel: 49 228 957 4532, Fax: 49 228 957 4590

JAPAN

Distribution of cartoon brochure for education of general public on proper use of drugs
Mr Hiroshi Kumagai, The Proprietary Association of Japan (PAJ), Kyodo Building, 3F, 13-4, Nihonbashiki-Kodenma-cho, Chuo-ku, Tokyo 103, Tel: 81 3 3667 9481, Fax: 81 3 3667 9483

NETHERLANDS

Apotheher voor de klas - pharmacists in primary schools
Mr G. Voituron, Royal Dutch Association for the Advancement of Pharmacy, Alexanderstraat 11, 1514 JL Den Haag, Tel: 31 70 362 4111

Geneesmiddel infolijn - tele-info medicines
Mr G. Voituron, Royal Dutch Association for the Advancement of Pharmacy, Alexanderstraat 11, 2874 JL Den Haag, Tel: 31 70 362 4111

Farmacotherapie - consultation project educating health professionals about RUD
Mr Geert Kocken, Stichting O & O, Bosscheweg 57, Berkel-Enschot 5056 KA, Tel: 31 13 339 007

Pharmaceutical care in asthma and the elderly
Mr J.W.F. van Mil, Rijksuniversiteit Groningen, WG Social Pharmacy and Pharmacoeconomics, Ant Deusinglaan 2, Groningen, Tel: 31 50 633291, Fax: 31 50 633311

NEW ZEALAND

South Pacific consumer protection programme
Ms Mamamunao Winnie Iaban / Mr Peter Swain, SPCPP, P.O. Box 43-148, Winuiomata, Tel: 4 4 564 8317

SWEDEN

Mediating medicines - consumer drug information in the Vietnamese market place
Mr David Finer / Mr Göran Tomson, Unit of International Health Care Research, Department of International Health and Social Medicine, Karolinska Institutet, S-17177 Stockholm, Tel: 46 8 311590

The year of dementia 1994
Mr Stefan Gustafsson / Mr J. Lars G. Nilsson, Apoteksbolaget, S-105 14 Stockholm, Tel: 46 8 454 7000

Year of asthma in Swedish pharmacies in cooperation with health care centres and hospitals
Ms Britta Lisper / Ms Eva Olbo, Apoteksbolaget, S-105 14 Stockholm, Tel: 46 8 454 7000, Fax: 46 8 454 7257

Young people and medicines (sv. ungdom och läkemedel). An action programme to educate and guide young people about the proper use of medicines
Mr Hans Linden, Secretary General, Swedish Medicines Information and Communication Council, Läkemedelsinformationsraet (LIR), P.O. Box 1136, 111 81 Stockholm, Tel: 46 8 723 5000, Fax: 46 8 205 511

The skin year 93
Mr Lars G. Nilsson, Apoteksbolaget (The National Corporation of Pharmacies), 105 14 Stockholm, Tel: 46 8 454 7000, Fax: 46 8 545 7230

The diabetes year 1991
Ms Aina Höglund, Apoteksbologet AB, 10514 Stockholm, Tel: 46 8 454 7000, Fax: 46 8 454 7510

SWITZERLAND

Medi-minus, medi-minus forte
Ms Anna Sax, Berne Declaration, P.O. Box 177, 8031 Zurich, Tel: 41 1 271 6425,
Annex II

Fax: 41 1 272 6060

Written drug information for the public provided in a consumer journal
Mr M. Fritz, Swiss Drug Information Centre, Postfach 124, 4007 Basel, Tel: 41 61 692 51 40, Fax: 41 61 692 87 11

Telephone service for the public which provides independent information about all kinds of medicines
Mr M. Fritz, Swiss Drug Information Centre, Postfach 124, 4007 Basel, Tel: 41 61 692 51 40, Fax: 41 61 692 87 11

UNITED KINGDOM

Safety of medicines campaign
Mr Gopa Mitra, PAGB, Vernon House, Sicilian Avenue, London WC1A 2QH, Tel: 44 171 242 8331, Fax: 44 171 405 7719

You and your medicines
Mr Gopa Mitra, PAGB, Vernon House, Sicilian Avenue, London WC1A 2QH, Tel: 44 171 242 8331, Fax: 44 171 405 7719

An ongoing medicines education project involving leaflet design and distribution, and adult education day schools
Mr John Wright, Rational Health Group, 38 Newport View, Headingley, Leeds LS6 3BX

Ongoing medicines education project involving leaflet design and distribution and adult education day schools
Dr John Wright, Rational Health Group, 38 Newport View, Headingley, Leeds LS6 3BX

A book on prescription medicines for the general public
Mr Anthony Smith, Medical Editor, British Medical Journal, BMA House, Tavistock Square, London WC1H 9JP, Tel: 441 71 387 4499, Fax: 441 71 383 6418

UNITED STATES OF AMERICA

Public service announcement (PSA) for television and radio about exposure in utero to the synthetic estrogen diethylstilbestrol (DES)
Ms Pat Cody, DES Action, 1615 Broadway, Suite 510, Oakland, CA 94612, Tel: 1 510 465 4011, Fax: 1 510 465 4815

Child dosing
Mr Frank Rathbun, US Nonprescription Drug Manufacuters Association, 1150 Connecticut Ave., N.W., Washington, D.C. 20036, Tel: 1 202 429 9260, Fax: 1 202 223 6835

Eight-page consumer education insert in Nov. 1994 Reader’s Digest, plus major reprint distribution
Mr Frank Rathbun, US Nonprescription Drug Manufacuters Association, 1150 Connecticut Ave., N.W., Washington, D.C. 20036, Tel: 1 202 429 9260, Fax: 1 202 223 6835

Iron poisoning
Mr Frank Rathbun, US Nonprescription Drug Manufacuters Association, 1150 Connecticut Ave., N.W., Washington, D.C. 20036, Tel: 1 202 429 9260, Fax: 1 202 223 6835

Worst pills best pills news
Mr Sidney M. Wolfe / Mr Syed Riznanuddin Ahamad, Public Citizen’s Health Research Group, 2000 P Street, N.W., Washington, D.C. 20036, Tel: 1 202 833 3000, Fax: 1 202 463 8842

Michigan model for comprehensive school health education
Mr Don Sweeney, Michigan Department of Public Health, 3423 N.M.L. King, Lansing, Michigan 48909, Tel: 1 517 335 8390, Fax: 1 517 335 8395

Tex’s team (teaching elementary children about medicine) medical/drug compliance and safety program for 3rd grade
Ms Angela Solis, Longhorn Pharmaceutical Association (LPhA), University of Texas, College of Pharmacy, Austin, Texas 78712, Tel: 1 512 471 1737, Fax: 1 512 471 8783
“Katy’s kids” - a medication education program for children (kindergarten - 2nd grade)
Ms Jennifer Pertzborn, Iowa Pharmacist’s Association, 8515 Douglas Avenue, Suite 16,
Des Moines, Iowa 50322, Tel: 1 515 270 0713, Fax: 1 515 270 2979
Annex III - Global Survey on Public Education in Rational Drug Use - Questionnaire
GLOBAL SURVEY ON PUBLIC EDUCATION IN RATIONAL DRUG USE

A research project of the:

Action Programme on Essential Drugs
World Health Organization
20, Avenue Appia
CH-1211 Geneva 27
Switzerland

undertaken in collaboration with:

Health Action International
Jacob van Lennepkade 334 T
1053 NJ Amsterdam
Netherlands
INSTRUCTIONS FOR COMPLETING THE QUESTIONNAIRE

Of interest to this survey are all public education projects or initiatives carried out within the past five years (since 1989). This includes but is not limited to national projects, local projects, formal education (schools), informal education, advertising, mass-media, and training.

Please complete one copy for each separate project or initiative. (Note: if several activities were undertaken as part of one project, they should be together on one questionnaire.) Use the three continuation sheets at the end of the questionnaire for any additional information or where space in the questionnaire is insufficient for your answer.

If you have any queries or require further information to complete the questionnaire, please contact your regional/country study coordinator.

This questionnaire should be completed in English. Please complete every section. If the requested information is not known or is not available to you, please indicate this in writing or, where relevant, tick the appropriate box.

Please write as clearly as possible and use ink or typewriter.

IMPORTANT: Kindly attach two examples of all publication materials developed during the course of the education project. If these cannot be sent with the questionnaire, please note this under section 2.8 and give appropriate date for mailing.

Questionnaire completed by:  Name: __________________________________________

                                Address: _______________________________________

                              Signature: _______________________________________

                               Date: _______________________________________

1. **General information**

1.1 Title of project (or one-sentence description)

1.2 Organization responsible for project

   Name of organization: _______________________________________________________

   Address: __________________________________________________________________

   City/Country: _____________________________________________________________

   Telephone/fax: _____________________________________________________________

   Contact person: ____________________________________________________________

   Type of organization (tick one):
   - ☐ Ministry of Health (MOH)
   - ☐ other government ministry
   - ☐ Non-Governmental Organization (NGO)
   - ☐ commercial
   - ☐ professional association
   - ☐ private non-profit organization
   - ☐ other (specify)

1.3 Location of project:

   1.3.1 ☐ country-wide
   - ☐ local
   - ☐ regional

   1.3.2 ☐ rural
   - ☐ urban
   - ☐ both

1.4 Status of project: ☐ completed ☐ ongoing
1.5 Duration (or planned duration):

- [ ] less than two months
- [ ] two to less than six months
- [ ] six to less than 12 months
- [ ] 12 months to less than two years
- [ ] two years to three years
- [ ] more than three years

beginning________________ end______________________

2. Project planning and development

2.1 Why was this project developed? (tick as many as apply)

- [ ] perceived need
- [ ] request by MOH
- [ ] request by educational institutions
- [ ] research studies
  - [ ] qualitative
  - [ ] quantitative
- [ ] other (describe below)

2.2 Was there a planning group?

- [ ] yes
- [ ] no

If yes, please describe the composition of the group: (tick as many as apply)

- [ ] pharmacists/dispensers
- [ ] prescribers
- [ ] government officials
- [ ] commercial interests
- [ ] other community members
- [ ] students
- [ ] media
- [ ] communication experts
- [ ] teachers/trainers
- [ ] target group representatives
- [ ] other (describe below)
2.3 Did this project replicate another project or draw on existing models?
☐ yes ☐ no
If yes, which project or model? ______________________________________________

2.4 What were/are the principal themes of the project?
☐ general education about rational use of drugs ________________________________
☐ specific problem drugs (please name them) ________________________________
☐ specific illnesses, treatment regimens, or health-related problems (please name them)

☐ consumer rights and responsibilities ________________________________
☐ other (explain): _________________________________________________________
____________________________________________________________________________

2.5 How were these themes selected? (if unknown, tick ☐ don’t know)
____________________________________________________________________________
____________________________________________________________________________

2.6 What specific behaviour change(s) did/do the planners intend to see happen as a result of this project? (What were/are the project objectives?)
____________________________________________________________________________
____________________________________________________________________________

2.7 Who are the target group(s) of the project? (tick as many as apply)
☐ mothers ☐ prescribers/pharmacists
☐ fathers ☐ health workers
☐ adolescents ☐ slum dwellers
☐ primary school children ☐ teachers
☐ elderly ☐ ethnic minorities
☐ women’s groups ☐ other (explain)___________________________________________
☐ general public _____________________________________________

2.8 What educational materials were developed for the project?
- posters  - radio spots
- leaflets  - radio programmes
- comics  - television spots
- newspaper articles  - television programmes
- flipcharts  - songs/jingles
- puppets  - scripts for theatre
- slides and audio  - other (describe)

IMPORTANT: PLEASE SEND TWO SAMPLES OF ALL MATERIALS DEVELOPED (printed materials, videos, radio broadcasts, scripts, puppets, etc.)

- enclosed  - not enclosed

If it is not possible to send these with this questionnaire, please indicate when they will be mailed and to whom mailing costs should be reimbursed: ____________________________

2.8.1 Who participated in the materials development? (Please list by functional title, add names if desired.)

2.8.2 Were the materials pretested?  - yes  - no

2.8.3 If yes, with whom? (types of individuals or groups; location)

2.8.4 Were the materials revised after pretesting?  - yes  - no
2.8.5 If yes, what changes were made? Please describe briefly.

________________________________________________________________________
________________________________________________________________________
________________________________________________________________________
________________________________________________________________________

3. Implementation of the project

3.1 What activities and means of communication were used?

☐ workshops
☐ training (please complete additional information on page 8)
☐ community meetings
☐ health centre talks
☐ traditional or street theatre
☐ puppet shows
☐ display or distribution of printed materials
☐ place of prescriber information
☐ place of dispenser information
☐ school health education programmes
☐ promotion via mass media:
  ☐ radio
  ☐ television
  ☐ newspaper
  ☐ cinema
  ☐ other (describe) ____________________________________________

☐ other activities/means of communication (please describe)

________________________________________________________________________
________________________________________________________________________
________________________________________________________________________
3.2 On what basis was it decided to conduct these activities and use these means of communication? (Tick as many as apply)

- cost (affordable)
- expertise available
- reach (many people would see/hear)
- request by MOH or other agency
- tradition (people are used to getting information this way)
- novelty (new approach)
- credibility of channel
- logistics (supplies, transport, equipment available)
- opportunity for cooperation with partners
- other (explain)

3.3 Who carried out the above activities (tick as many as apply)

- national Ministry of Health staff
- health workers
- professional association members
- lay volunteers
- NGO staff, including church and community organizations
- teachers
- media staff
- other (describe)
3.4 Please fill in the table on this and the following page for further descriptions of the activities and channels. Use one row for each material or activity. List up to two target audiences and up to three collaborating organizations per material or activity.

<table>
<thead>
<tr>
<th>Printed materials (type, description)</th>
<th>Target audience</th>
<th>Number copies distributed</th>
<th>Collaborating organizations</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Radio/TV materials (type, description)</th>
<th>Target audience</th>
<th>Frequency of transmission</th>
<th>Collaborating organizations</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Theatre/puppet shows (description)</th>
<th>Target audience</th>
<th>No. of performances; est. audience</th>
<th>Collaborating organizations</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

3.4 (continued)
### School interventions
(brief description)

<table>
<thead>
<tr>
<th>Target audience</th>
<th>Teaching hours using project material</th>
<th>Collaborating organizations</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Training activities (brief description)</th>
<th>Types of people trained; number trained</th>
<th>Content and duration of training</th>
<th>Collaborating organizations</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

4. **Monitoring and evaluation** (for projects which have been completed)

(Some projects have undergone formal evaluations. Most have not. Nonetheless, those who worked on the project will be able to assess, based on their experience, the success, impact, and problems.)

4.1 Did the project meet its objectives? □ yes □ partially □ no □ don't know
4.2 How was this determined? (by household survey, place-of-purchase survey, observation of sales patterns, informal assessment, etc.)

4.3 What criteria were used to determine the impact? (tick as many as apply)

- proportion of reported behaviour change
- proportion of knowledge change
- change in drug sales patterns
- change in consumer satisfaction
- exposure to project messages and materials
- other (explain)

4.4 Was there a formal evaluation?  

- yes  
- no  

(if yes, please attach a copy)

4.5 Please summarize from the evaluation, or attempt to estimate the following:

4.5.1 What was the coverage of the project? (What proportion of the target audience was reached?) If unknown please tick

- don't know

4.5.2 What problems were experienced in developing and implementing the project?
4.5.3 What factors outside the project contributed to its success or lack of success? (examples: change of legislation, increase or decrease of available drugs, support of the ministry of health)

External factors which contributed to success:


External constraints:


4.5.4 What factors within the project contributed to its success or lack of success? (examples: strong planning, adequate and timely funding, stable personnel)

Internal factors which contributed to success:


Internal constraints:


4.5.5 What are the most important lessons learned from planning and implementing this project?

1.

2.

3.

4.6 Are follow-up activities planned? Underway? Please describe:

5. Financial support

5.1 How much did this project cost? (specify in what currency). Please provide breakdown for each activity/material, if appropriate.

If unknown, please tick □ don’t know
5.2 What was/is the source of funding? Please include full names and addresses. If you do not wish to provide the name of the funder(s), please tick the appropriate boxes below.

- [ ] MOH
- [ ] church, mosque or religious organization
- [ ] international organization
- [ ] local NGO
- [ ] commercial interest
- [ ] international NGO
- [ ] professional association
- [ ] bilateral agency
- [ ] other (explain) __________________________________________________________

Name(s) and address(es): _____________________________________________________
____________________________________________________________________________
____________________________________________________________________________
____________________________________________________________________________
____________________________________________________________________________
____________________________________________________________________________

6. Project replication

Are there other groups who have adapted your project or used it as a model in developing their own projects?

- [ ] yes
- [ ] no
- [ ] don't know

If yes, please provide the name(s) and address(es):
____________________________________________________________________________
____________________________________________________________________________
____________________________________________________________________________
____________________________________________________________________________
____________________________________________________________________________
Additional Information
Additional Information
Additional Information