**Public health**

# Making Cairo work

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**The 1994 International Conference on Population and Development set broad new goals for family planning and reproductive health. The resources available to fund these much needed programmes, however, are much smaller than was originally calculated. To divide the limited budgets for the maximum health impact, likely resource flows need to be set against the cost of various family planning and reproductive health interventions. Preliminary analysis suggests that selection of cost-effective delivery of family planning services would still meet much of the need for family planning, and that some progress could be made towards improved control of sexually transmitted diseases.**

The 1994 International Conference on Population and Development (ICPD) meeting in Cairo set out a bold agenda essential to the improvement of women's health and acceleration of the trend towards lower fertility. Fertility rates in many less developed countries have declined rapidly in the past 30 years, largely because of increased access to family planning. This trend will not continue, however, unless support for population activities increases. The ICPD Plan of Action drew attention to the need for investment in several sectors, especially education for women, but it calculated only the cost of provision of family planning, reproductive health, prevention of sexually transmitted diseases and HIV, and collection of better monitoring and assessment data.[1] These programmes together were projected to cost US$17·1 billion by 2000, of which it was estimated that $5·5 billion would be donated by more developed countries.

## What resources are available?

The money available to implement the ICPD Plan of Action comes from national budgets, the international donor community, and money spent by consumers. Donations from the international community rose from $714 million in 1993 to $1·36 billion in 1996,[2] but because of the broader definitions of population activities adopted by the ICPD it is impossible to determine whether this is a real increase or merely the result of changes in accounting. For example, since the Cairo meeting, money given for AIDS prevention has been included under population budgets. Many difficulties with accounting are also associated with tracking the investments that less-developed countries make in the Plan of Action. For example, primary-health-care centres have many functions other than family planning and reproductive health. To further complicate matters, salaries, transport, and buildings costs are commonly recorded under different budget headings. Overall, however, allocations and expenditures by rich nations are far lower than those required to meet the ICPD targets.

In 1997, the United Nations Fund for Population Activities' *State of World Population* concluded: "annual global expenditures are still well below half the $17 billion that the ICPD estimated will be required by 2000."[3] When the targets for 2000 are adjusted for inflation, the results are even more disappointing. Since 1994, slight inflation has occurred in more developed countries, which has raised their projected inflation-adjusted contribution for 2000 from $5·5 billion to $6·4 billion. Exchange rates in many less-developed countries have lost value relative to the dollar (and other currencies in more-developed countries), but this gain is more than offset by rapid inflation. The contribution expected from them will rise from $11·5 billion in 1994 to $39·7 billion in inflation-adjusted dollars for 2000. 80% of the investment by less-developed countries comes from China, India, Indonesia, Mexico, and Iran. The remainder of the less-developed countries will, therefore, have only a few tens of cents per person from domestic budgets to support the whole of reproductive health and family planning. Client payments have been studied least, and information on price elasticity relating to family planning and reproductive health is sparse.

The demand for family planning in developing countries is large and almost certain to rise.[4,5] Investment in HIV prevention is becoming more urgent. The lack of progress in safe motherhood was underscored when WHO raised the worldwide estimate of maternal deaths from 500 000 a year to 585 000. Although meeting the goals set out at Cairo must remain a priority for the international community, the gap between need and available budgets from the donor community (table 1) or the less-developed countries will not be closed in the immediate future. Fortunately, there are practical options for the redesign of the programme that will still meet many ICPD goals.

## Cost of services

Data on all features of the costs of provision of family planning and reproductive health services in less-developed countries are inconsistent and limited (table 2).[6] Data on the cost of family planning are stronger because they can be expressed as the cost per couple-year of protection, which enables different methods and channels of

| Sample countries | Actual donor assistance in 1996 (US$ million), for family planning, AIDS prevention, and reproductive health | Target to meet ICPD estimate for family planning and reproductive health in year 2000 (inflation adjusted US$) |
|---|---|---|
| USA | 638 | 2177 |
| Japan | 94 | 1352 |
| UK | 106 | 380 |
| Total all OECD countries | 1360 | 6678 |

OECD=Organization for Economic Cooperation and Development.

Table 1: **Targets and realities**

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| Method | Cost (US$ adjusted for inflation) | Comments |
|---|---|---|
| Subsidised marketing | 2·51 per CYP | Weighted average based on 9 million CYPs from 11 countries |
| Family planning clinics | 7·14 per CYP (excluding sterilisation) | Weighted average based on 4·5 million CYPs from five countries |
| | 4·55 per CYP (clinics also offer sterilisation) | Weighted average based on 32 million CYPs from 11 countries |
| Voluntary sterilisation | 2·17 per CYP | Weighted average based on 56·6 million CYPs from eight countries |
| Maternal tetanus immunisation | 0·57–2·40 per completed immunisation | Indonesia |
| | 27–225 per neonatal death averted | |
| Breastfeeding promotion | 190–805 per diarrhoea death averted | Mexico and Honduras |
| Obstetric care | 0·48–1·50 per person | Sub-Saharan Africa and Egypt |
| | 4800–66 000 per maternal death averted | |
| MVA for treatment of incomplete abortion | 2·94–5·24 per case | Kenya |
| MVA for safe abortion | 2·31–5·68 | |
| Dilation and curettage | 4·33–79·23 | Tanzania and Mexico |
| Syphilis screening and treatment | 26–48 per case averted | Kenya |
| | 418 per death averted | Bolivia |
| Gonococcal ophthalmia | 1·40–22·00 per case averted | |
| HIV prevention among prostitutes | 8–12 per case averted | Kenya |
| Breast cancer screening and treatment | 362 000 per death averted | Egypt |
| Cervical cancer screening and treatment | 86 000 per death averted | Egypt |

MVA=manual vacuum aspiration; CYP=couple-year of protection.

Table 2: **Cost of family planning and reproductive health services**

distribution to be compared.[7] Data on control of sexually transmitted diseases and prevention of HIV have no convenient measurement, but such interventions are clearly sensitive to the prevalence of the diseases and whether services are aimed at core groups or the general population. Studies of the cost of safe motherhood have begun but are incomplete.

### *Combination of costs and resources*

Ten administrative and policy changes are suggested to make limited resources go further, many based on the experiences of the past 25 years.

First, adequate supplies of essential commodities need to be secured. Many donors understandably see the buying of such supplies as a costly, open-ended commitment. Family planning is impossible, however, without low-cost, high-quality contraceptives, and sexually transmitted diseases cannot be controlled without appropriate antibiotics. Without such supplies, many features of family planning and reproductive health services will be little more than good intentions. A globally competitive industry (which has recovered its investment and development costs in the wealthy more developed countries) will, in time, produce high-quality, low-cost contraceptives. The difficulty lies not in production but in making products affordable to vulnerable populations. Local production does not help and, because of rapid inflation in less-developed countries during the 1990s, the cost of raw materials for hormonal contraceptives has risen disproportionately. Fortunately, donors, such as the US Agency for International Development, traditionally make bulk purchases of contraceptives for government programmes. Clear polices still need to be developed by the United Nations and other donors to ensure that large national government organisations working in poor countries (such as mission hospitals, or programmes to subsidise the marketing of contraceptives) can also draw on free supplies of contraceptives.

Control of sexually transmitted diseases has a key role in slowing the spread of HIV, as well as being important in itself, and the international community needs to consider the bulk purchase of antibiotics. Logistic failures and corruption can thwart donations, but a useful precedent exists for immunisation, for which governments and donors purchase vaccines in bulk at a few cents per dose through a revolving fund managed by the United Nations Children's Fund.

Second, people who can pay should pay. Even poor people commonly spend more on their own health care than governments do on their behalf. In India, Egypt, Thailand, and the Philippines, household private expenditures for health greatly exceed government expenditures.[8] The limited data available for Africa and other poor areas, however, suggest that only a small proportion of the total costs of family planning and reproductive health care can be recovered from consumers. Nevertheless, the small sums of money involved are generally sufficient incentives to front-line workers, be they stall holders or community-based workers. Unfortunately, with many of the current subsidised programmes, consumers in the highest income groups pay little or nothing for contraceptives, although they are willing and able to pay more.[9–11]

Third, the most cost-effective programmes should be supported. Costs vary widely for the same services within and between the public and private sectors. Antenatal care and delivery in Egypt has an almost four-fold range of cost in public-sector hospitals caring for low-risk women. For family planning, the subsidised sale of contraceptives (also called social marketing) is more cost-effective than clinic-based or community-based distribution.[12] Subsidised sales use the existing retail infrastructure found in nearly all countries, and, therefore, programmes can be put into place rapidly. Subsidised sales are often appropriate to meet the needs of young people. Given limited resources and the need for cost recovery, subsidised sales should play a larger part in family-planning. Many women who attend specialised family planning clinics could use subsidised products, which would free precious clinic time to meet the needs of young people for family planning and control of sexually transmitted diseases.

Fourth, the most cost-effective methods of family planning need promotion. Intrauterine devices and voluntary sterilisation are the most cost-effective methods of family planning, but their immediate costs put them out of reach for poor people. South Korea and Taiwan overcame this difficulty in the 1960s and 1970s with voucher systems for private physicians. People seeking intrauterine devices or sterilisation went to government health centres where they received coupons and a list of private doctors, certified as experts in the required services. The client paid the private doctor a small fee, and the doctor sent the coupon to the government, who paid a cash subsidy. The government needed to invest in training, but not in capital to build facilities. In addition, the client's fee virtually eliminated the possibility of coercion, and the client, even though poor, was empowered by being given a choice of health professionals, which ensured the quality of services.[13]

| Region | Number of fertile women | Number of users of modern methods of contraception | Scenario A ($16/CYP) | Scenario B (Mixed NGO and public sector) |
|---|---|---|---|---|
| Less-developed world | 933 million | 457 million | $8·6 billion/year | $3·5 billion/year |
| Less-developed world (excluding China) | 686 million | 246 million | $4·6 billion/year | $2·1 billion/year |
| Less-developed world at 70% contraceptive use | 686 million | 480 million | $9·0 billion/year | $3·7 billion/year |

CYP=couple-year of protection; NGO=non-governmental organisation.

Table 3: **Impact of selecting cost-effective family planning services assuming current 70% contraceptive prevalence**

Fifth, medical policies and guidelines should be science based. WHO has reviewed and liberalised guidelines for the provision of contraceptives,[14] and out of date restrictions (eg, on the prescription and follow-up of oral contraceptives, or timing of insertion of intrauterine devices) must be abandoned.[15] In Bangladesh, for example, field workers use injectable contraceptives, whereas in India this popular and effective method is excluded from the government programme. Delegation of the syndromic treatment of sexually transmitted diseases to appropriate-level health staff is also urgently needed.

Sixth, the public-health problems associated with abortion need to be confronted. No country has reached or approached replacement-level fertility without a substantial number of abortions, and none has brought maternal mortality to a low level with access to safe abortion.[16] Abortion up to 10 weeks after the last menstrual period can be done by vacuum aspiration. This equipment has been validated, and is safely used in primary-health care in developing countries as a self-financing approach. In countries where the law or medical practice condemns the use of unsafe techniques, substantial improvements in women's health and decreases in cost can be obtained for the treatment of incomplete abortions in public or private hospitals. Women who have had safe or unsafe abortions who are offered contraceptive advice use contraception with more than average frequency.

Seventh, communications should be exploited. Expansion of broadcasting is changing the world. In upper Egypt, for example, 80% of people watch television even though many do not own one. Modern communications are as powerful in poor countries as in rich countries.[17] Radio, television, and other media should be used to spread information on family planning and reproductive health. A clear brand image, attractive logos for contraceptives, appropriate packaging with instructions, and advertising in all appropriate media are important. Accurate informed reporting of population and health issues improves knowledge and influences behaviour.

Eighth, too many pilot projects should be avoided. Family planning programmes are well understood and have a convenient quantitative endpoint in cost per couple-years of protection. Much has been learned about what contributes to high-quality, sex-sensitive services. The basic features of AIDS prevention are also well established,[18] although a useful quantitative measure of achievement, such as cases of HIV infection averted, is lacking. Operations research is needed in areas such as the role of self-diagnosis of sexually transmitted diseases, or the ability of clients, especially adolescents, to pay for treatment. Large numbers of pilot projects, however, are difficult to justify. They dilute precious skills and money, build up frustration, and risk the overburdening of the governments' and non-governmental organisations' administrative systems. Based on returns from seven of ten countries surveyed, the Netherlands Interdisciplinary Demographic Institute has identified more than 6400 separate family-planning and reproductive-health projects, some of which are subdivided in the field. Common sense suggests that this number is probably too large. Given the current constraints on funding, donors should not fund pilot projects in family planning or reproductive health unless such projects contribute to the design of programmes that can be brought to scale within foreseeable budgets.

Ninth, people with quantitative management skills and business-like capacity to mount large-scale programmes should be used. Private-health professionals should be more involved in provision of family-planning choices, including intrauterine devices and voluntary sterilisation. Many countries have allopathic and traditional medical practitioners, as well as midwives and nurses, in private practice. The ICPD endorsed greater use of non-governmental organisations. Governments, the United Nations Fund for Population Activities, the World Bank, and other donors should expand contracts with experienced non-governmental organisations and organisations with a proven record of providing high-quality, cost-effective services. New services are arising that manage resources efficiently, track service data and finances efficiently and professionally, and have the capacity to scale schemes up to a national level. Organisations such as FEMAP in Mexico and Marie Stopes International in Asia, Africa, and Latin America, are developing comprehensive clinics for family planning, maternal and child health, and reproductive health, the running costs of which can be wholly or largely recovered from user fees. Such clinics still require capital for start-up costs, but they have great potential, and non-governmental and international donors should explore provision of the needed capital as a cost-effective way of fulfilling the government mission to take services to the poor.

Tenth, certain features of the ICPD Plan of Action should be recalculated. The total budget at Cairo may be nearly correct, but good management depends on use of the most up to date information. The availability of new data should encourage recalculation of several of the costed items in the Cairo Plan of Action, globally and regionally, perhaps beginning with sub-Saharan Africa.

## Conclusions

Consumer payments and improved programme management will still leave most family planning and reproductive health programmes in Africa and south Asia in need of long-term subsidy. Self-sufficiency in these areas is not possible. Donors cannot provide technical assistance on the assumption that money to sustain programmes will come from somewhere else. There is nowhere else.

If the donor community and governments were to support a broad combination of public, national government organisation, and private-sector family planning services, with emphasis on cost-effectiveness, then more of the demand for family planning could be met. Scenario A in table 3 assumes an expansion of current programmes at a cost of $18·7 per couple-year or protection (adjusted for inflation; about $16 per couple-year of protection was used

in calculation of the family planning programmes in 1994 for the ICPD). Scenario B assumes a policy change that involves a balance between ministries of health and the part played by the private sector and non-governmental organisations, with more resources going to new, more cost-effective, and well-managed institutions. For simplicity a third of couples are assumed to choose voluntary sterilisation ($2·17 per couple year of protection), a third to choose reversible methods purchased though subsidised sales, and a third to be served at $18·7 per couple-year of protection, as in the original ICPD cost projections. Scenario B costs 40% of scenario A. If the Peoples Republic of China continues to meet the costs of family planning and reproductive health from its domestic budgets, and the Organization for Economic Cooperation and Development funds are focused on the poorest less-developed nations, then even the disappointingly low budgets available after Cairo can be stretched to meet more of the demand for family planning. (In table 3 the cost of family planning at 70% contraceptive prevalence needed to achieve replacement-level fertility is also calculated.) Adoption of new polices will leave funds to work towards comprehensive reproductive health care, perhaps beginning with improved diagnosis and treatment of sexually transmitted diseases.

Selection of priorities in an era of austerity will require new approaches from established donor and recipient organisations. Some governments may be reluctant to pass funds donated from outside the country to the private sector, or to non-governmental organisations. Some medical elites may resist the non-clinical distribution of oral contraceptives, or involvement of traditional medical practitioners in family planning—for example, the medical practitioners who provide the health care to most of the rural population of India. Also, although the ICPD had a broad agenda that touched on most features of women's health and social status, the costed programmes relate only to family planning, prevention of AIDS and sexually transmitted diseases, and safe motherhood, along with certain technical issues, such as censuses. Many of the key improvements that need to be made, such as the education of women, must be met not from those budgets traditionally labelled as population, but from the social sector. In 1991, the total population budget amounted to 1·3% of the overseas aid given by the Organization for Economic Cooperation and Development; and in 1996, after the broader definitions were made, the proportion was 2·5%. There are compelling arguments for the establishment of the 20/20 policy noted at Cairo, in which 20% of the national budgets and 20% of overseas aid would be directed towards health, education, and the social sectors.

An evidence-based approach to the allotting of scarce resources is imperative, but in the last analysis the decisions to be made were ethical, such as principles of equity, responsibilities to future generations, and whether the argument that "the population explosion is over"[19] is true or false because the last doubling of numbers of human beings, still to take place in the 21st century, has the greatest potential for exceeding biological limits on human activity. Current United Nations median long-term population projections assume a total fertility rate of 2·1 by 2050, leading to a final projected global population of 10·8 billion. Without adequate support for family planning, even this projection will not be met.

The much enlarged budgets that the ICPD showed are needed must be pressed for. At the same time, however, careful analysis is needed of available resources and cost of provision of services. Only with this kind of clarity will it be possible for those involved in international family planning and reproductive health to combine a genuine concern for the individual with the obligation to help as many people as possible.

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