Sexual and reproductive health work at WHO

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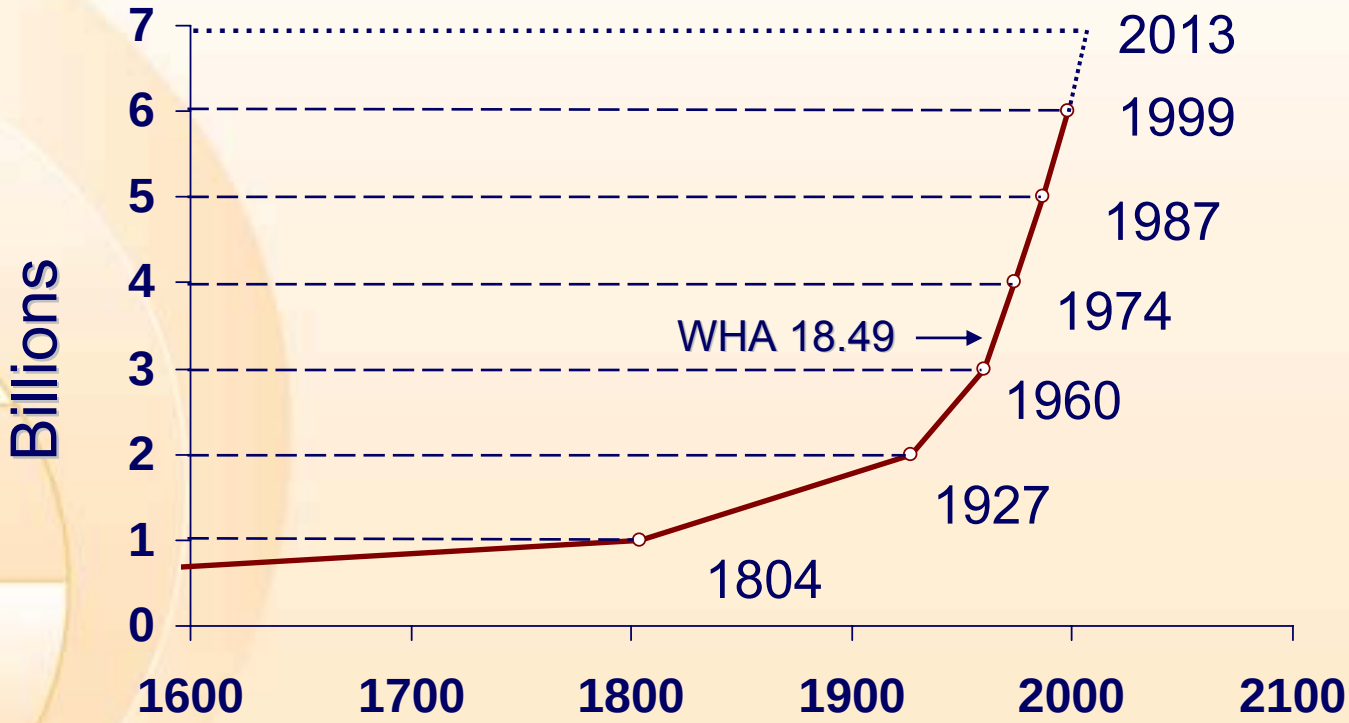
Department of Reproductive Health and Research
World Health Organization

Geneva, 21 March 2007

How it began…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1804
WHA 18.49

HRP's history [1]

"REQUESTS the Director-General to develop further the programme proposed:

(a) in the fields of reference services, studies on medical aspects of sterility and fertility control methods and health aspects of population dynamics; …"

(WHA Resolution 18.49; 1965)

HRP's history [2]

1965: Human Reproduction Unit within existing Division of Family Health *(WHA Resolution 18.49; 1965)*

1972-1988: WHO (Expanded) Special Programme of Research, Development and Research Training in Human Reproduction

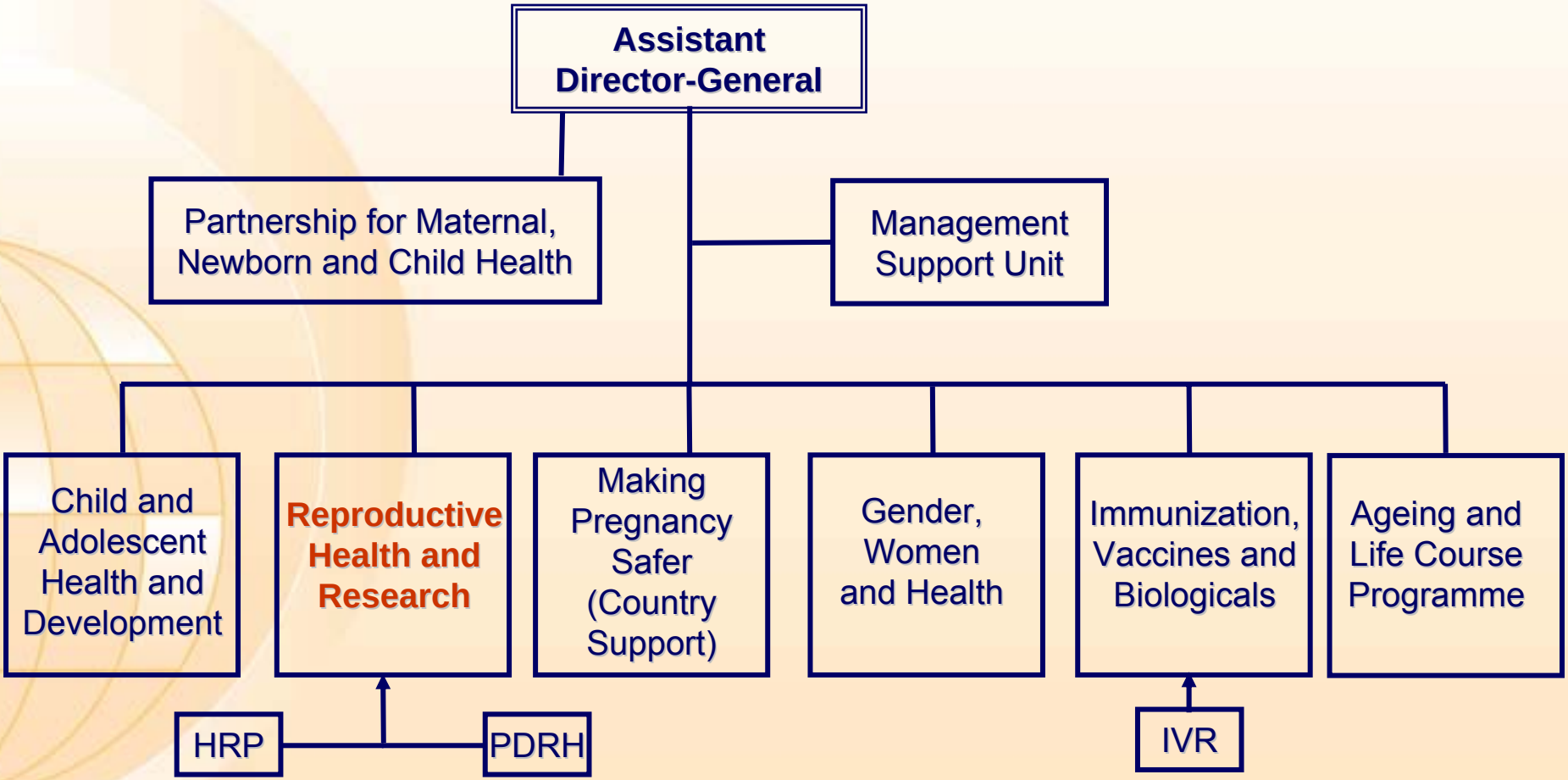
1988-present: UNDP/UNFPA/WHO/World Bank cosponsored Special Programme *(WHA Resolution 41.9; 1988)*

Department of Reproductive Health and Research (RHR)

- Created in November 1998
- Composed of two pre-existing entities
  - UNDP/UNFPA/WHO/World Bank Special Programme of Research, Development and Research Training in Human Reproduction (HRP)
  - WHO Division of Reproductive Health (Technical Support) (RHT)

RHR = RHT (PDRH)+HRP

Family and Community Health Cluster



The International Conference on Population and Development (Cairo, 1994)

The new conceptual framework

"Reproductive health is a state of complete physical, mental and social well-being and not merely the absence of disease or infirmity, in all matters relating to the reproductive system and to its functions and processes..."

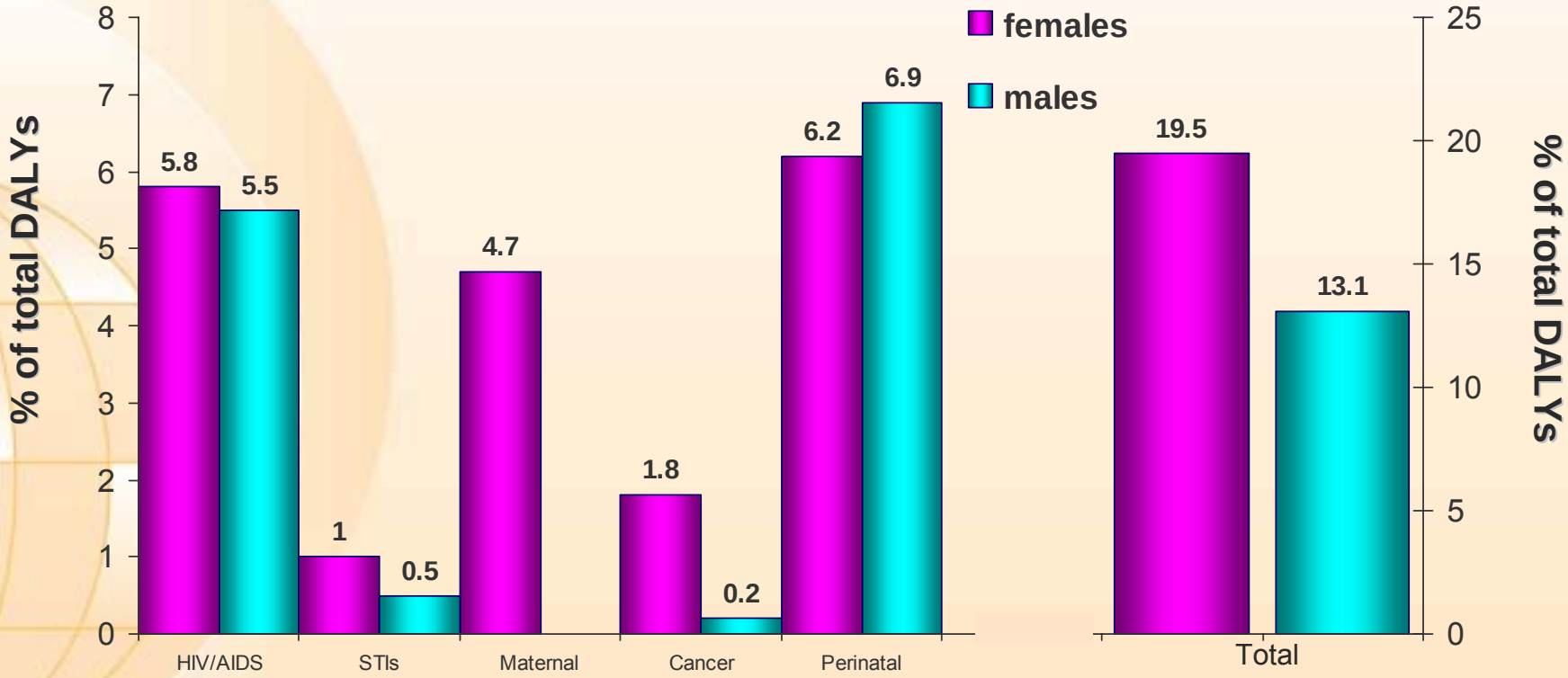
(ICPD Programme of Action, paragraph 7.2)

Overall goal

"All countries should strive to make accessible through the primary health-care systems, reproductive health to all individuals of appropriate ages as soon as possible and no later than the year 2015."

(ICPD Programme of Action, para. 7.6)

Reproductive ill-health accounts for substantial portions of global burden of disease



(Source: World Health Report, 2004)

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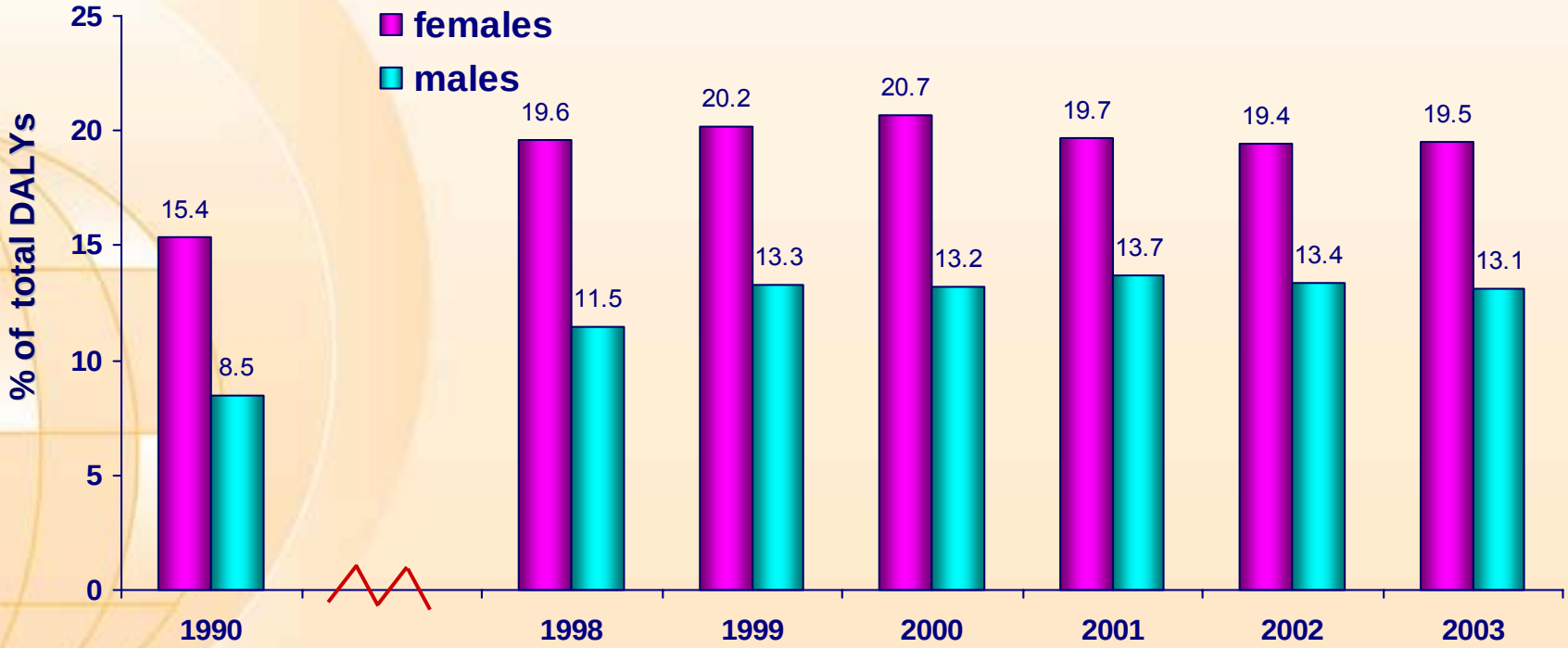
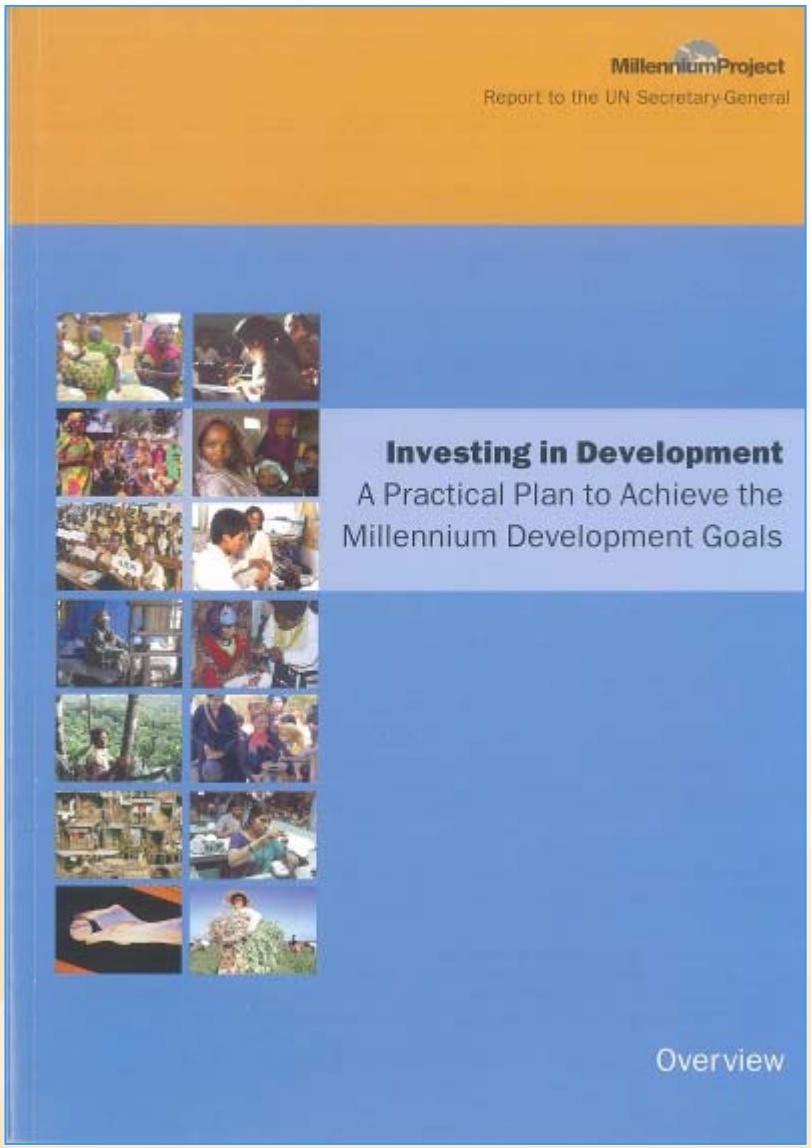
Reproductive ill-health as proportion of global burden of disease shows no sign of declining



(Source: The Global Burden of Disease, 1996 and World Health Reports, 1999-2004)

Millennium Development Goals

I. Eradicate extreme poverty and hunger
II. Achieve universal primary education
III. Promote gender equity and empowerment of women
IV. Reduce child mortality
V. Improve maternal health
VI. Combat HIV/AIDS, malaria and other diseases
VII. Ensure environmental sustainability
VIII. Develop a global partnership for development



"Sexual and reproductive health – essential for reaching the Goals"

(pages 82-84)

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"To this end we commit ourselves to:

…

(g) Achieving universal access to reproductive health by 2015, as set out at the International Conference on Population and Development, integrating this goal in strategies to attain the internationally agreed development goals, including those contained in the Millennium Declaration, …"

The final recognition of the role of sexual and reproductive health in achieving MDGs

"...I am therefore recommending the incorporation of these commitments [*i.e. those agreed at the 2005 World Summit*] into the set of targets used to follow up on the Millennium Declaration. This includes: … a new target under Goal 5: to achieve universal access to reproductive health by 2015; …"

Report of the Secretary-General on the work of the Organization,
General Assembly Sixty-first Session, 2 October 2006

The WHO global reproductive health strategy was adopted by WHO's Member States in May 2004

An overview of the strategy paper

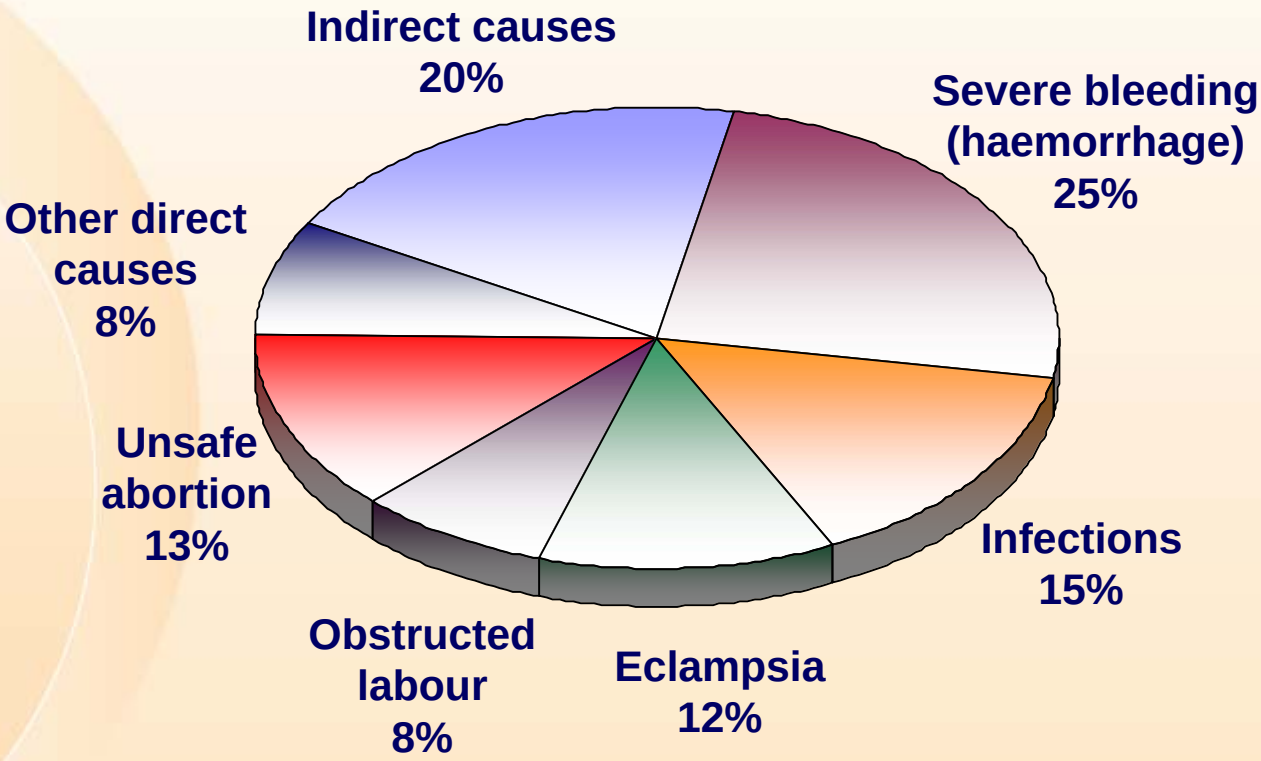
Guiding principle: human rights
Core aspects of reproductive and sexual health services

1. Improving antenatal, perinatal, postpartum and newborn care
2. Providing high-quality services for family planning, including infertility services
3. Eliminating unsafe abortion
4. Combating sexually transmitted infections including HIV, reproductive tract infections, and cervical cancer
5. Promoting sexual health

Maternal and perinatal health today

- 529,000 women die each year during pregnancy, childbirth and postpartum period (> 99% in developing countries)
- over 300 million women suffer from short-term or long-term illness brought about by pregnancy and childbirth
- lifetime risk of maternal death in Africa is 1 in 16
- each year nearly 3.3 million babies are stillborn
- 4 million babies die during first 28 days of life (three quarters in the first 7 days)

Causes of maternal death[a]



[a] Total is more than 100% due to rounding.

(Source: World Health Report, 2005)

Maternal and perinatal health research completed during 1995-2005 with leading participation of WHO

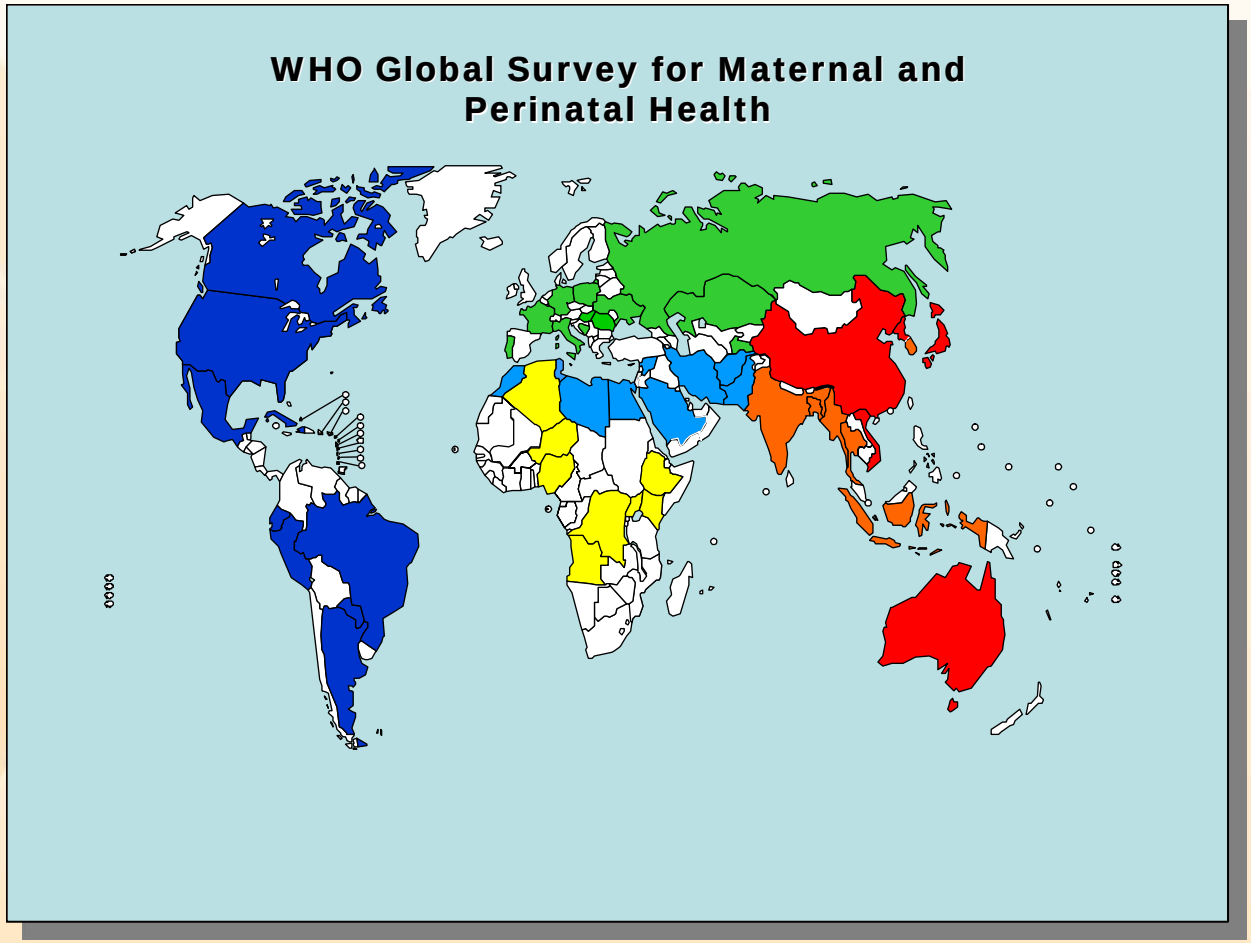
	Countries	Women	Status
Antenatal care	5	24 678	Published (2001)
Prevention of postpartum haemorrhage	9	18 530	Published (2001)
Treatment of pre-eclampsia (MAGPIE trial)	28	10 141	Published (2002)
Caesarean section	5	149 206	Published (2004)
Epidemiology of preterm delivery and IUGR	4	38 319	Published (2004)
Prevention of pre-eclampsia (calcium supplementation)	6	8 325	Published (2006)
WHO Reproductive Health Library	2	77 765	Published (2007)
Long term follow-up of infants:			
Calcium trial I	1	591	Published (1997)
Magpie trial	19	3 283	Published (2007)
Calcium trial II	2	800	Submitted
Total	25 *	331 638	

* Some countries have been involved in more than one study

Maternal and perinatal health research ongoing with leading participation of WHO

	Countries	Women	Status
Prevention of preeclampsia (anti oxidants)	4	1365	Data analysis
Treatment of asymptomatic bacteriuria	4	1500	Ongoing
Treatment of postpartum haemorrhage	4	900	Ongoing
Prevention of preeclampsia (treatment of hypertension)	6	2000	Initiated
WHO Global Survey of Maternal and Perinatal Health			
- Latin America	8	97 184	Published and further analysis ongoing
- Africa	7	81 961	Data analysis

WHO Global survey



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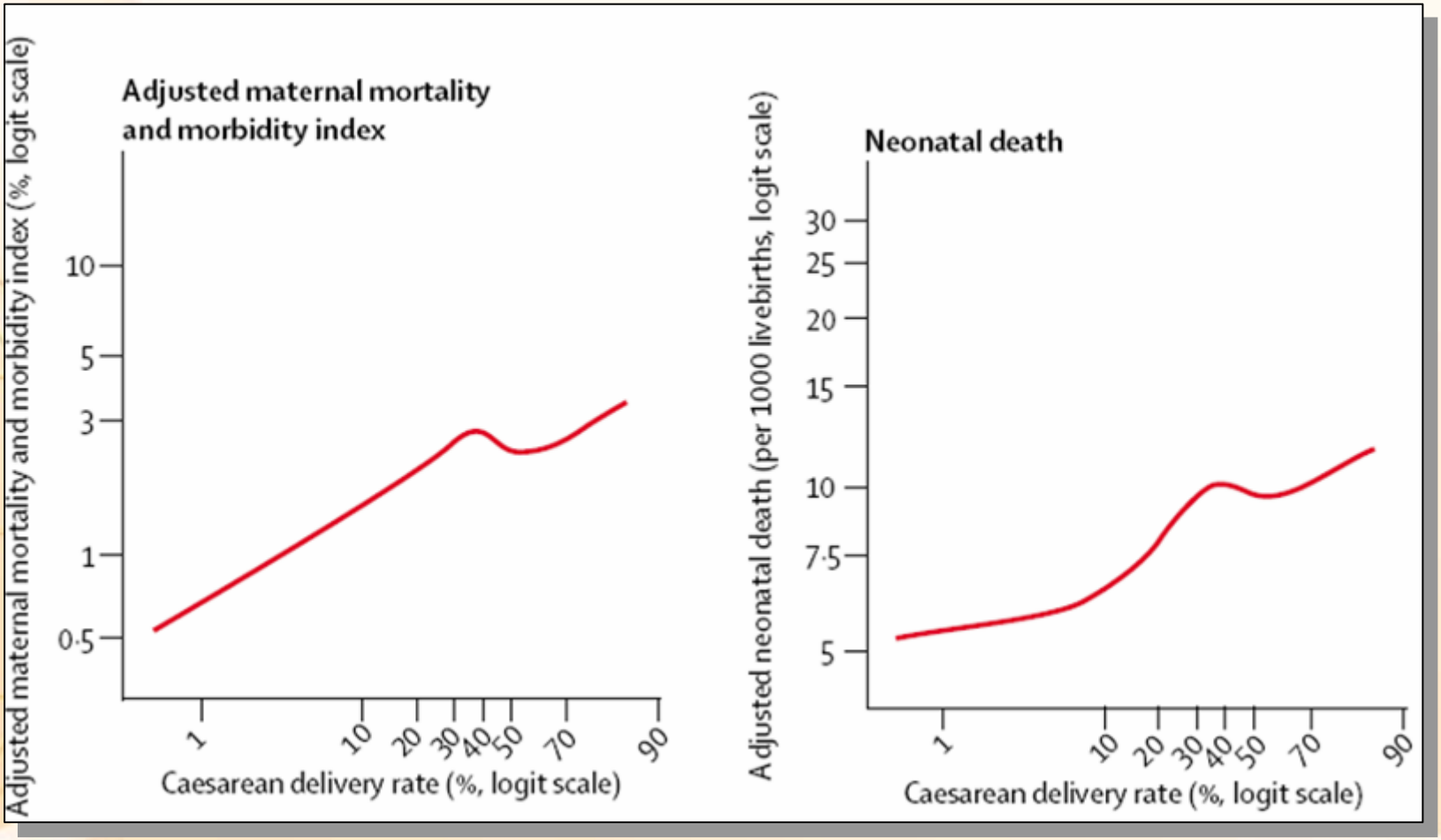
2005 Global Survey results – Latin America (n= 97095 deliveries)



Relationship between caesarean delivery and intrapartum fetal death according to fetal presentation

	n / N	OR (95% CI)
Cephalic Presentation		
Vaginal delivery (Reference level)	**242/61870**	**1.0** (1)
Elective CD vs. Vaginal delivery	**35/11300**	**0.7 (0.4 – 1.0)**
Intrapartum CD vs. Vaginal delivery	**73/16543**	**1.3 (0.9 – 1.7)**
Breech and Other Presentations		
Vaginal delivery (Reference level)	**53/547**	**1.0** (2)
Elective CD vs. Vaginal delivery	**18/1874**	**0.3 (0.1 – 0.5)**
Intrapartum CD vs. Vaginal delivery	**14/2043**	**0.2 (0.1 – 0.4)**

(1) odds ratios adjusted by gestational age, maternal age, education, previous stillbirth or neonatal death, vaginal bleeding in 2nd half of pregnancy, other medical conditions, type of onset of labour (induced/not induced) and country.

(2) odds ratios adjusted by gestational age and type of onset of labour (induced/not induced).

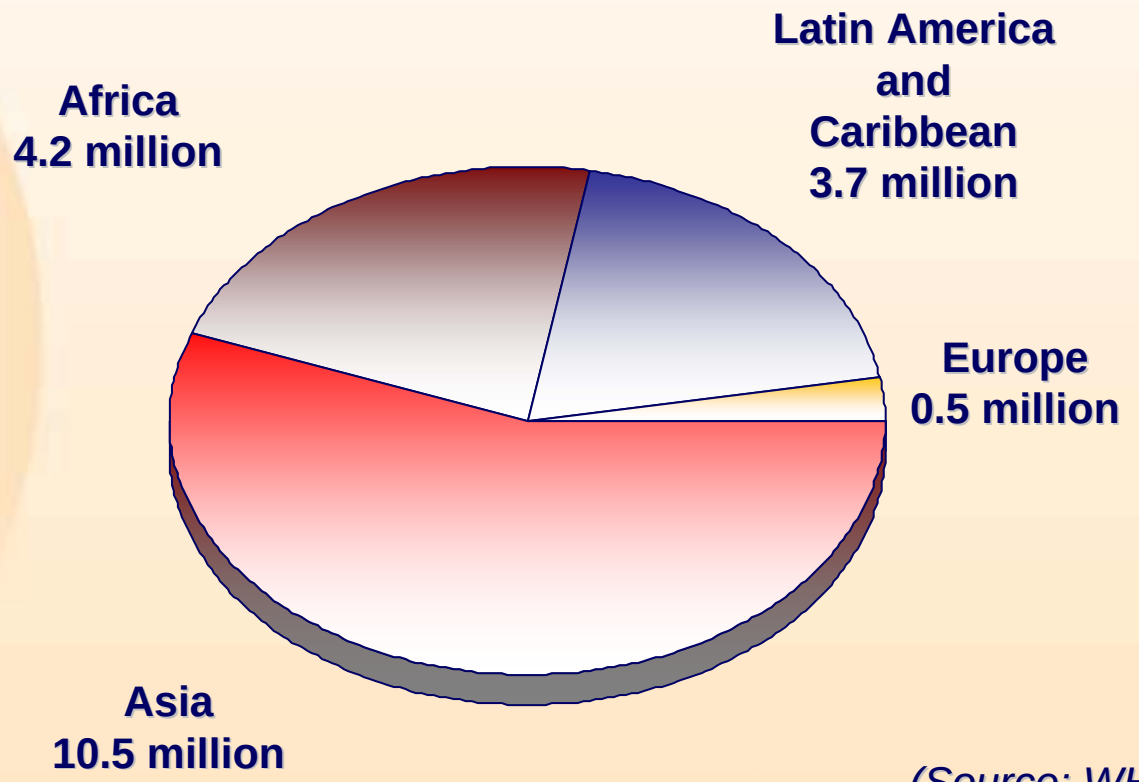
Relationship between caesarean delivery and neonatal death according to fetal presentation at delivery

	n / N	OR (95% CI)
Cephalic Presentation		
Vaginal delivery (Reference level)	231/61299	1.0 (1)
Elective CD vs. Vaginal delivery	87/11237	1.7 (1.3 – 2.2)
Intrapartum CD vs. Vaginal delivery	107/16434	2.0 (1.5 – 2.6)
Breech and Other Presentations		
Vaginal delivery (Reference level)	36/421	1.0 (2)
Elective CD vs. Vaginal delivery	33/1846	0. 7 (0.4 – 1.3)
Intrapartum CD vs. Vaginal delivery	33/2021	0.6 (0.3 – 1.0)

(1) Odds ratios adjusted by gestational age, hypertensive disorders, any anaesthesia during labour and type of facility. (2) Odds ratios adjusted by gestational age.

Estimated annual numbers of unsafe abortion, around the year 2000

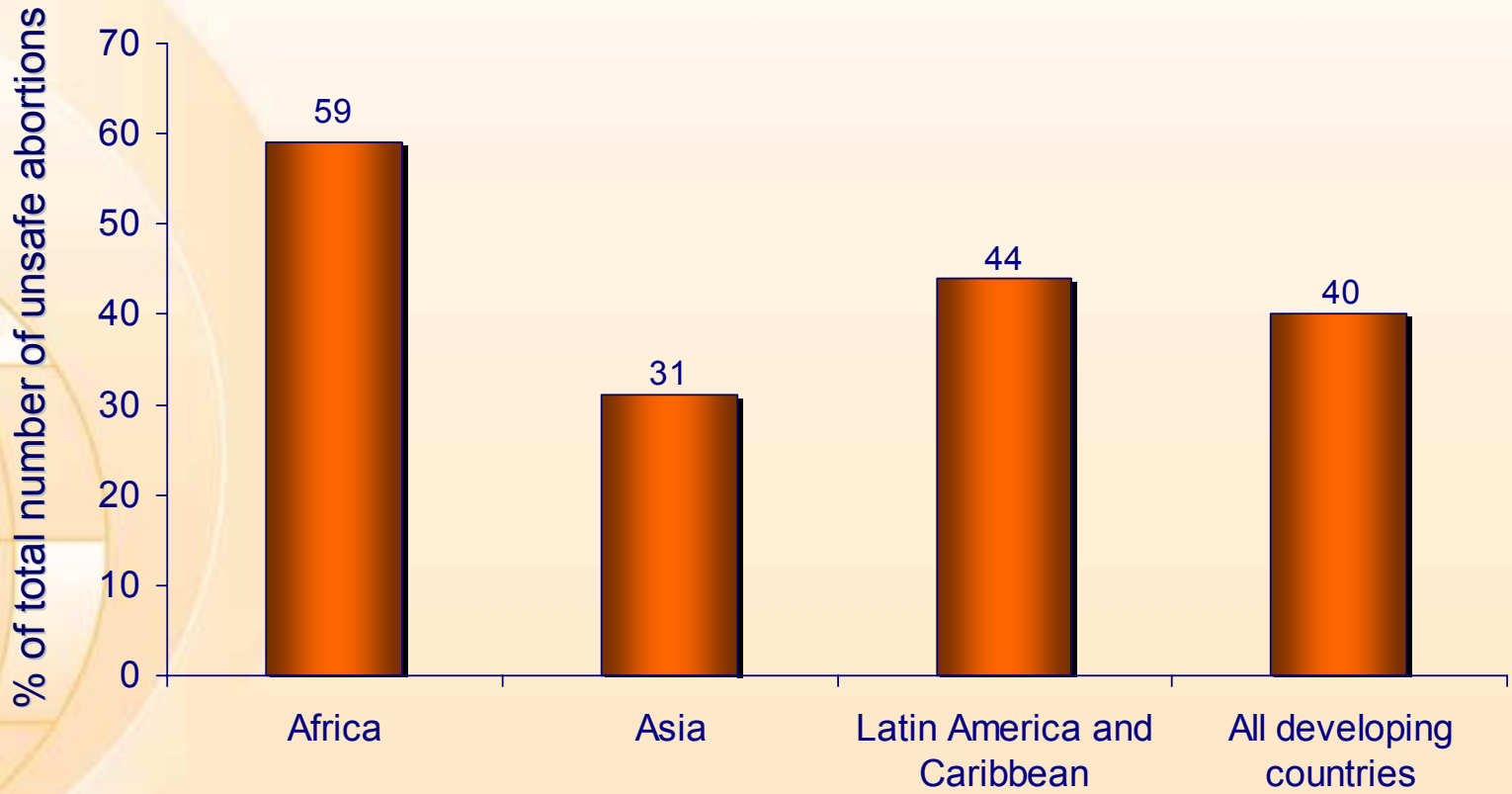
Total number of unsafe abortions = 19 million
(Total number of abortions = 46 million)



(Source: WHO, 2004)

Estimated proportions of unsafe abortions among 15-24 year olds, around the year 2000

Total number of unsafe abortions = 19 million

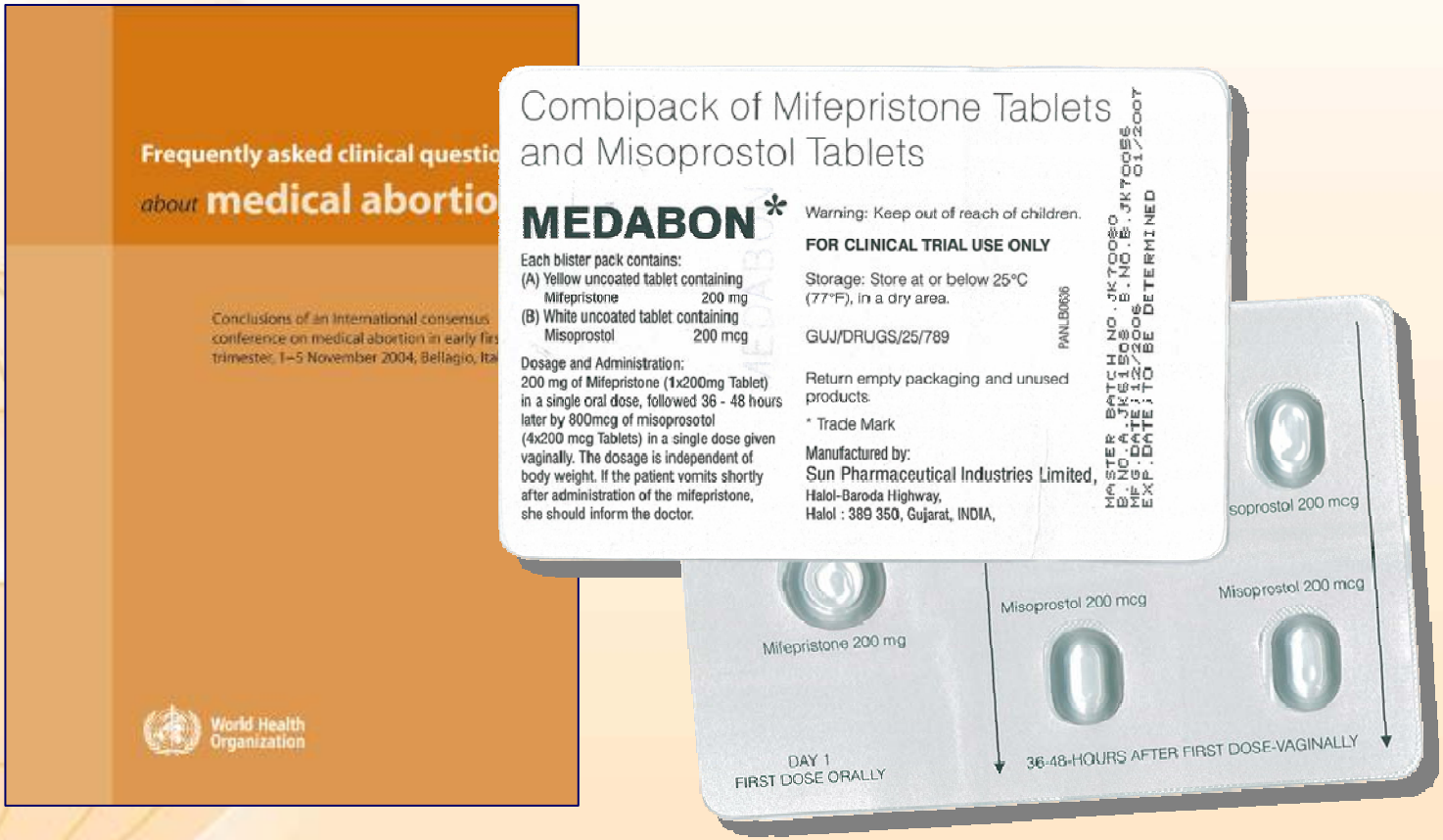


(Source: WHO, 2004)

Preventing unsafe abortion

- Estimating incidence of abortion (jointly with Guttmacher Institute) and public health impact of unsafe abortion (mortality and morbidity)
- Providing guidance on management of complications of unsafe abortion, including guidance on post-abortion contraception
- Improving technologies and interventions for provision of safe abortion
- Assisting implementation of technical and policy guidance on safe abortion for health systems
- Supporting countries in the development of policies and programmes to reduce unsafe abortion and improve access to safe abortion and quality post-abortion care

Getting research into practice



- Cambodia
- Ethiopia
- Ghana
- India
- Moldova
- Mongolia
- Nepal
- Romania
- Russia
- South Africa
- Tunisia
- Turkey
- Ukraine
- Viet Nam

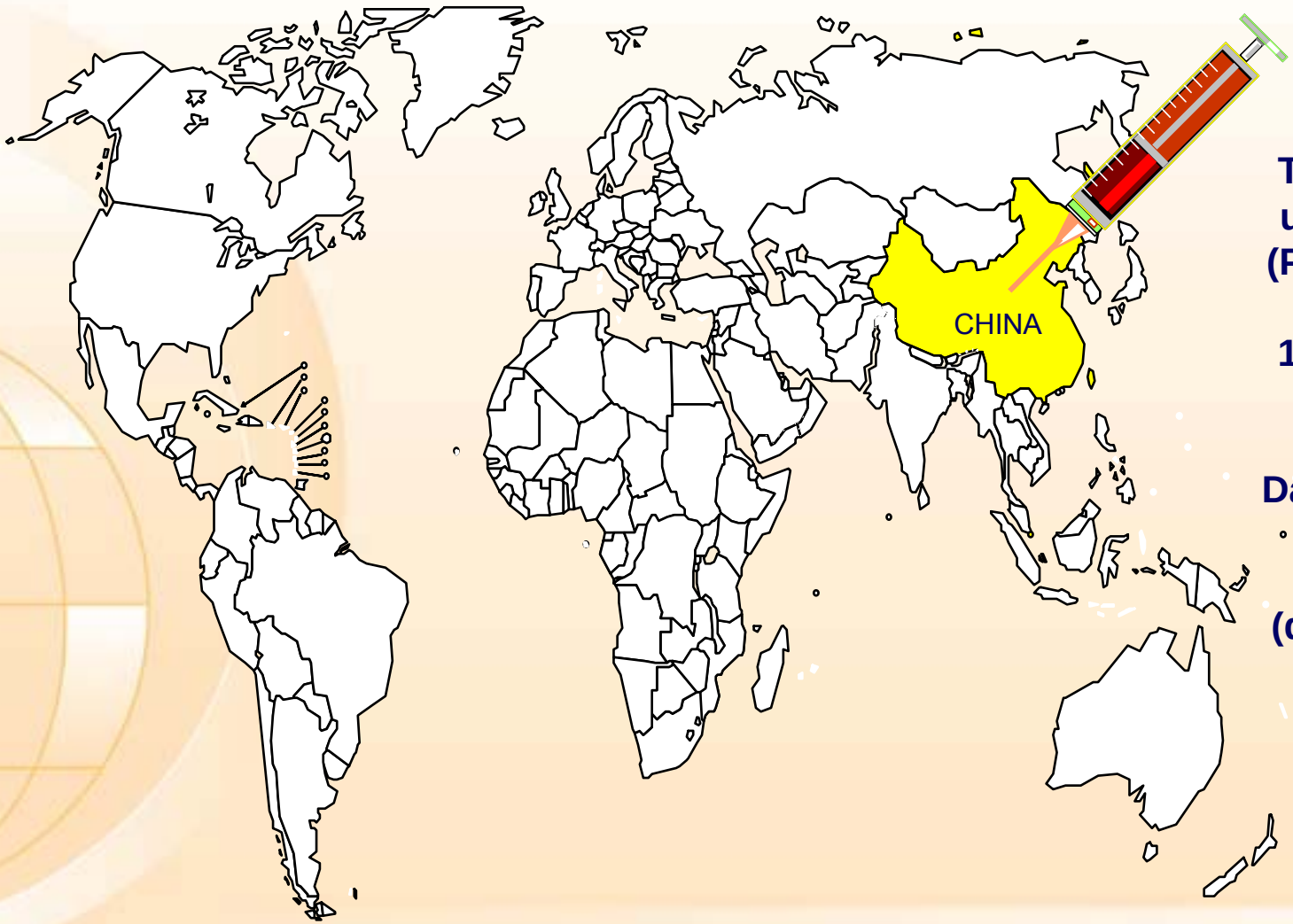
"It is estimated that up to 100 000 maternal deaths could be avoided each year if women who did not want children used effective contraception."

(Marston and Cleland, 2003, quoted in World Health Report 2005)

Unmet needs in contraceptive hardware

- Methods for dual protection (including improved barrier methods)
- Reversible methods for men
- Postcoital methods for repeated use during the cycle
- Improved hormonal methods for women
- Long-acting, non-hormonal methods for women

Towards a male hormonal contraceptive



Testosterone undecanoate (Phase III trial)

1045 couples recruited

Data collection completed in mid-2006 (data analysis ongoing)

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Important new knowledge about safety/efficacy of hormonal fertility-regulating methods

- Oral contraceptives and cancer (benefits and risks)
- Oral contraceptives and cardiovascular disease
- Oral contraceptives and breast cancer
- DMPA and breast cancer
- Safety and efficacy of mifepristone
- Third-generation oral contraceptives and venous thromboembolism
- Long-term safety and efficacy of contraceptive implants (Norplant®, Jadelle® and Implanon®)

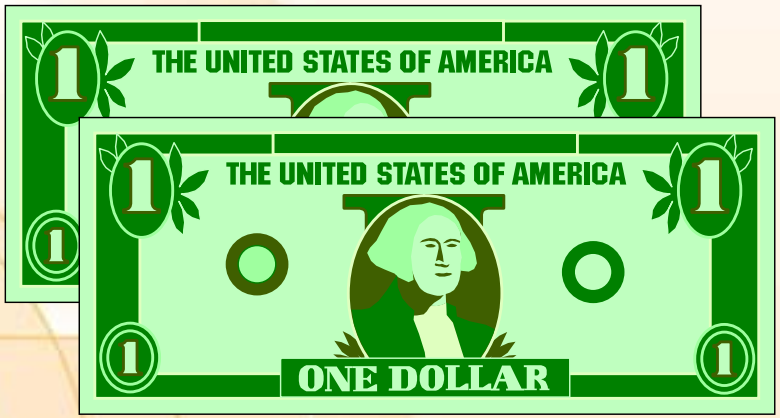
The epidemic of sexually transmitted diseases

- 340 million new cases of curable STIs annually
- more than 186 million ever-married women (15-49 years) in developing countries are infertile
- over 500,000 deaths (fetal and neonatal) due to syphilis each year
- 4.1 million [3.4 million - 6.2 million] people became newly infected with HIV in 2006 (more than half of them were young people, 15-24 years; progressive "feminisation" of epidemic)
- 2.8 million [2.4 million - 3.3 million] people died of AIDS in 2006
- cervical cancer is most common cause of cancer deaths among women in developing countries (some 200,000 deaths each year)

Research on the prevention of sexually transmitted infections — Selected examples

- Female condoms: comparative effectiveness for pregnancy prevention with male condoms (China, Nigeria, Panama, South Africa)
- Microbicides:
  - product development (identification of potential new products; safety monitoring of trials of potential microbicides)
  - capacity building for microbicide research and for regulatory decision-making
- Mother-to-child transmission of HIV

Our commitment to research capacity strengthening



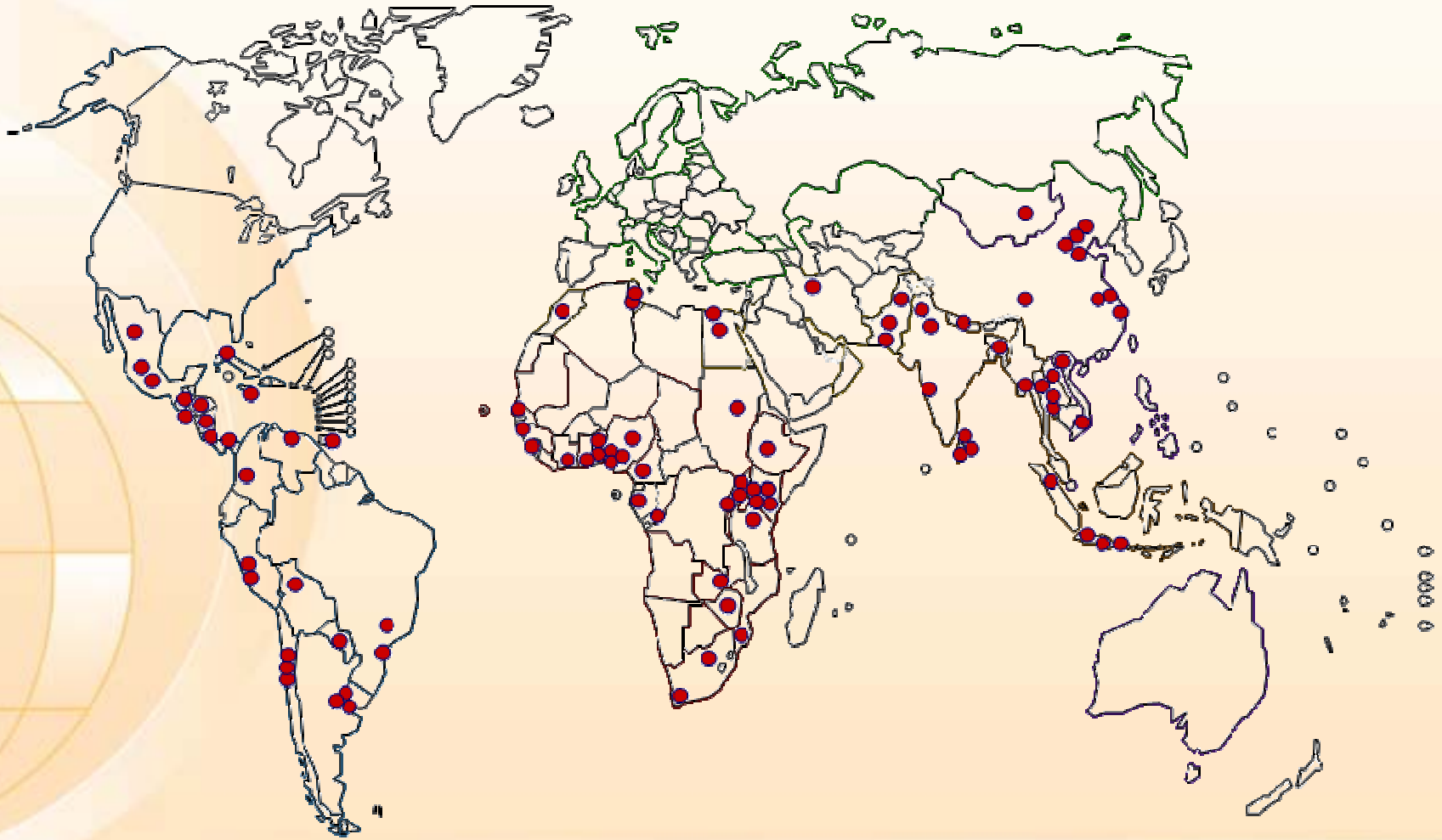
US$ 2

Research and development

US$ 1

Research capacity strengthening

Distribution of research capacity strengthening grants awarded since 1990



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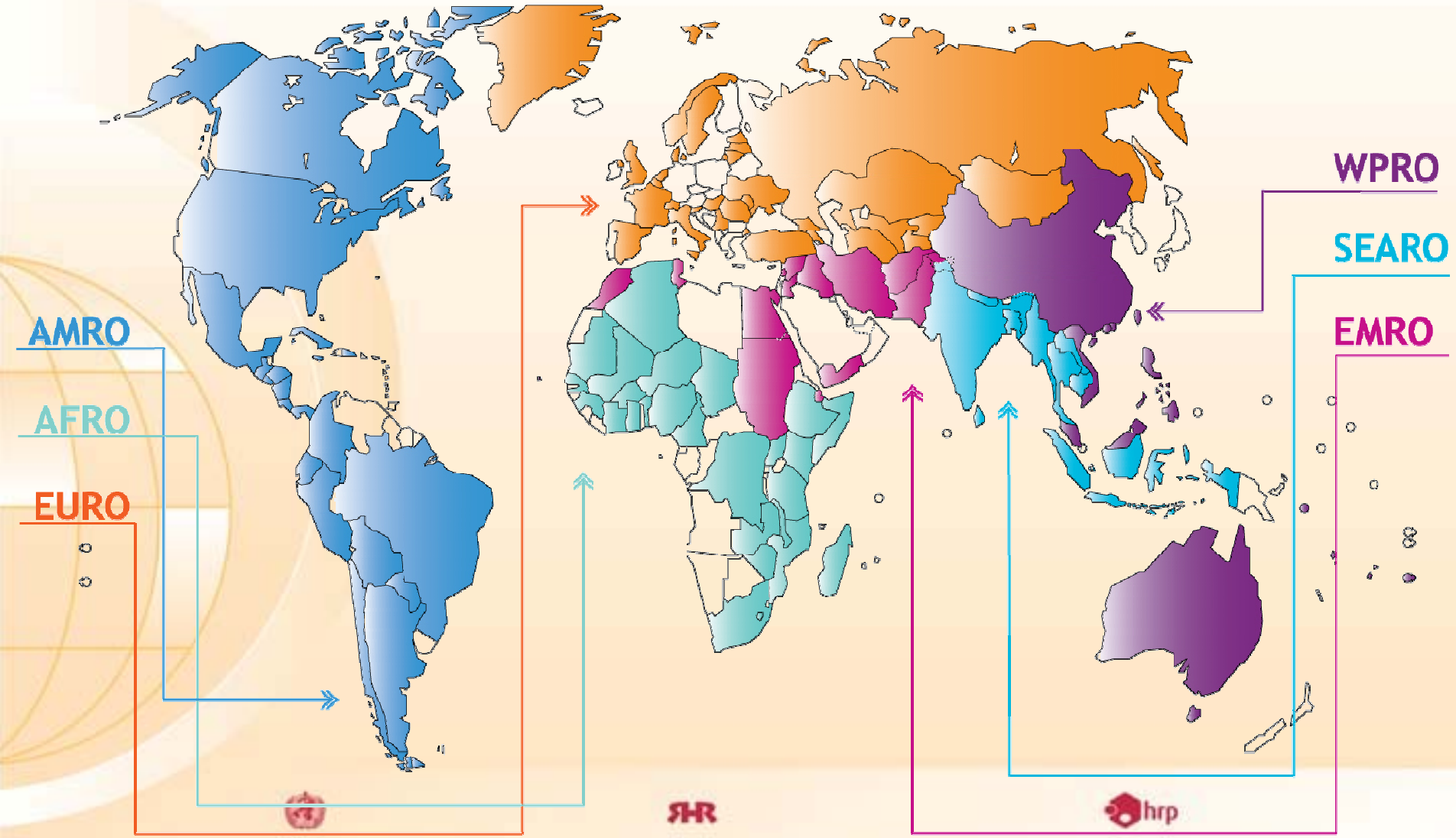
Countries collaborating with the Programme

2006, n=107 countries



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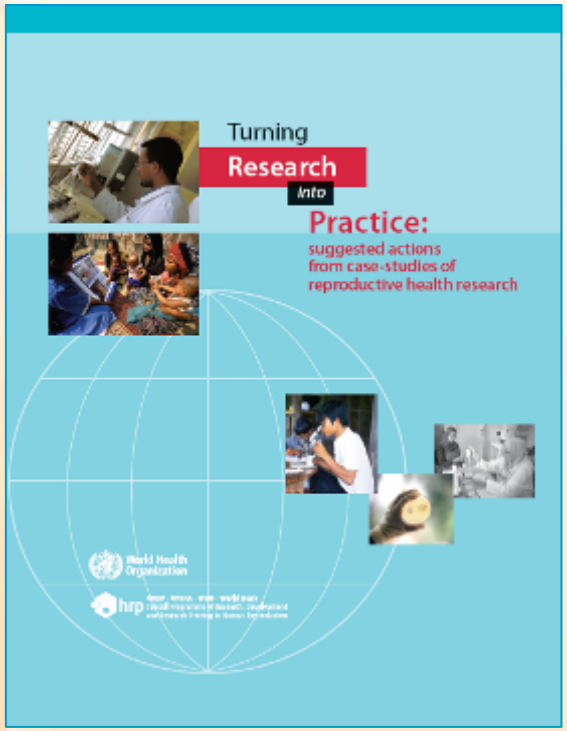
Bridging the know-do gap

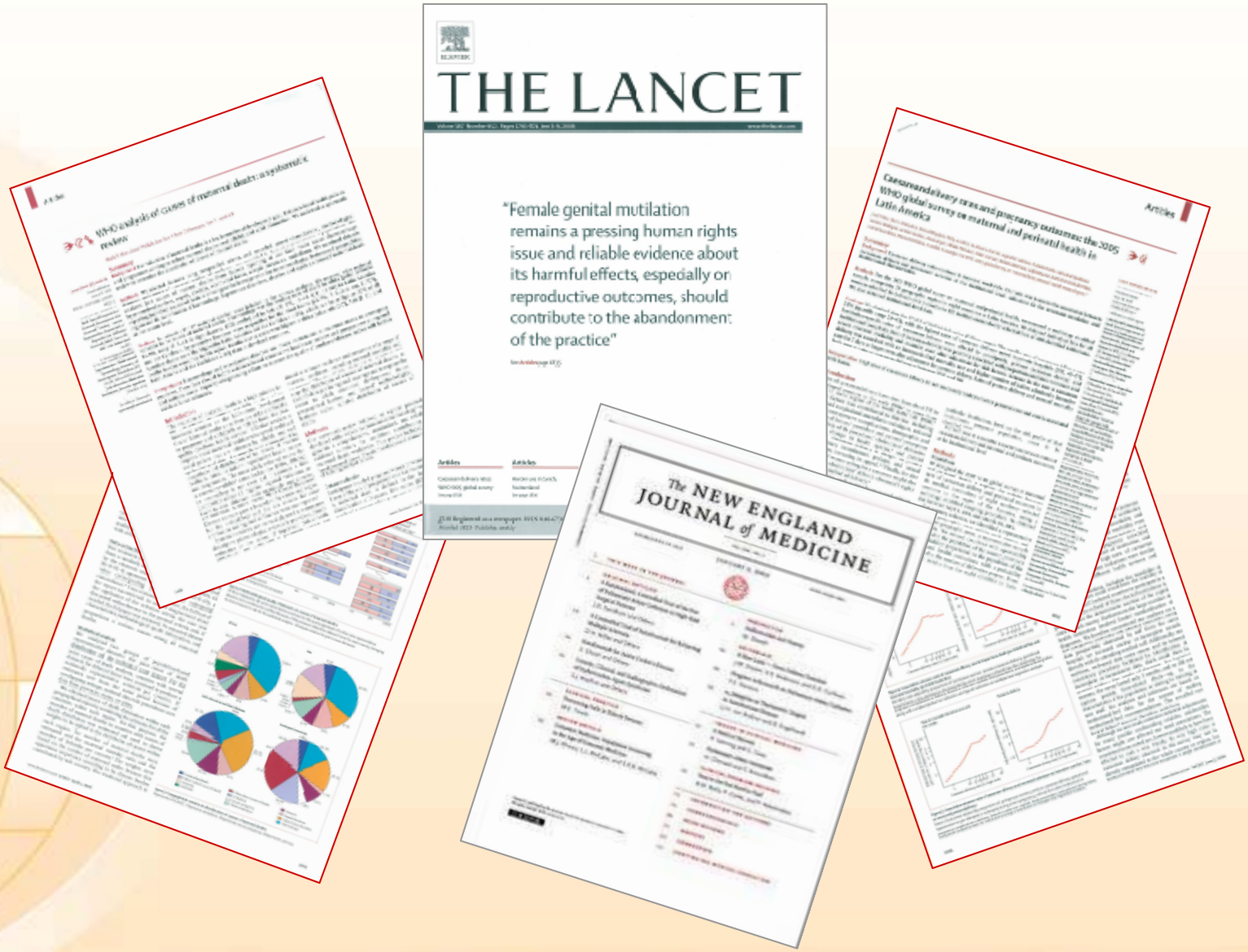


Turning

Research

Into

Practice



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The policy brief - the essence of research findings and their policy implications

"The internet is an effective means of providing sex and reproductive health education to young people in China"

Widely acclaimed guidance materials in high demand

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Authoritative responses to concerns of Member States

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WHO Statement
Carcinogenicity of combined hormonal contraceptives and combined menopausal treatment

September 2005

In June 2005, the International Agency for Research on Cancer (IARC) convened a meeting of experts to review the scientific evidence on the carcinogenic risks to humans posed by combined estrogen-progestogen contraceptives (COCs) and combined estrogen-progestogen menopausal menopausal therapy. The outcome of will be an IARC Monograph, to be published

This was an update of a similar review under on these formulations and published as a graph in 1999.[2] At that time, COCs were "carcinogenic to humans" (Group 1) and menopausal menopausal therapy as "possibly humans" (Group 2B). On the basis of the cumulated since then, this new review confir sification of COCs and changed the classific bined hormonal menopausal therapy to "c humans" (Group 1).

A summary of the new review by IARC was Lancet Oncology this month.[3] The evidenc this recent review is not new, but was publ years ago and was assessed by scientific time and widely discussed in the media. It dating of the IARC classification that is new.

IARC regularly convenes groups of internat to evaluate the carcinogenic risks to humar variety of agents, combinations of agents a Their conclusions are published in the IARC series. It is important to note that IARC ate the overall risk-benefit profile of compo health terms, even in terms of overall cance pounds that have a protective effect on som increase the risk of some others.

Combined oral contraceptives

As stated in IARC's review, the use of C slightly the risk of cancer, increasing it in so vix, breast, liver), decreasing it in others (ovary). Some of these data refer to olde

COC preparations. Assessments based on risk-benefit calculations are carried out by different teams within WHO. Several WHO committees work on creating evidence-based

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WHO STATEMENT
ON HORMONAL CONTRACEPTION AND BONE HEALTH

July 2005

Steroid hormonal contraceptives, including oral contraceptives, injectables and implants, are highly effective and widely used. These contraceptives have important health benefits, including contraceptive and non-contraceptive benefits, and some health risks. For most women, the health benefits of use clearly exceed the health risks. Questions have been raised regarding the association between use of one particular hormonal contraceptive, depot medroxyprogesterone acetate (DMPA), and the risk of bone loss. In response, WHO convened a consultation in Geneva, on 20-21 June 2005, to assess current evidence on the relationship between the use of steroid hormonal contraceptives and bone health.

Bone health may be influenced by many factors including pregnancy, breastfeeding and use of hormonal contraceptives. The principal clinical outcome of interest with regard to bone health is the occurrence of fracture. Bone mineral density (BMD) measurements are commonly used to assess fracture risk, but the accuracy of measurements can be influenced by changes in body composition, including changes in lean body mass and fat. Furthermore, fracture risk is related to many factors, BMD being only one of them. The relationship between decrease in BMD and increase in fracture risk has been best studied in postmenopausal women, among whom the risk of any fracture increases approximately 1.5 fold for each standard deviation (SD) decrease in BMD. There is little information on the impact of BMD changes in young age groups on fracture risk later in life.

Combined methods of contraception

The use of current formulations of combined oral contraceptives (COCs) may have some small effects on BMD that are unlikely to be of clinical significance. Adolescent COC users may gain less BMD compared with adolescent non-users while perimenopausal users generally have increased BMD compared with perimenopausal non-users. A number of studies have investigated the risk of fracture among postmenopausal women in relation to past use of COCs, but the findings are inconsistent. Data for other combined hormonal contraceptives, such as combined injectables, vaginal rings and skin patches, are scarce or non-existent.

Progestogen-only methods of contraception

With regard to progestogen-only methods, data on levonorgestrel implants suggest no adverse effect on BMD. Other low-dose progestogen-only contraceptives such as pills, other implants and the levonorgestrel-releasing intrauterine device do not appear to have an effect on BMD, although data for these methods are limited.

The use of DMPA for contraception produces a hypo-estrogenic state in women; some studies have shown that this is associated with a decrease in BMD. The weight of data indicates that DMPA use reduces BMD in women who have attained peak bone mass, and impairs the acquisition of bone mineral among those who have not yet attained peak bone mass. The magnitude of effect on BMD is similar across a variety of studies. Cross-sectional studies show lower BMD in longer-term DMPA users by approximately 0.5 SD at hip and spine compared with non-users. In longitudinal studies, adults (≥18 years) and adolescents (menarche to <18 years) both lost around 5 to 7 percent (approximately 0.5 SD) of BMD at the same sites, after 2 years of continuous use of DMPA. The rate of loss appeared to decrease over time.

When DMPA use is discontinued, BMD increases again in women, regardless of age, except for those who have reached menopause. Among adults, BMD values appear to return to those of comparable non-DMPA users over a period of 2 to 3 years. It is not clear whether the loss in BMD among adolescent users of DMPA prevents attainment of potential peak bone mass. There remains a concern that older women who reach the menopause while still using DMPA may no longer have the opportunity to regain BMD before entering the period of bone loss normally associated with the postmenopause.

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Statement on hormonal contraception and risk of STI acquisition

July 2005

A study published by Morrison et al i transmitted infection (STI) among wo medroxyprogesterone acetate (DMPA using hormonal methods of contrace Maryland, USA. Results did not sugg chlamydial or gonococcal infection a hormonal contraception. For women chlamydial infection (95% confidenc contraceptive methods. However, the differences in populations of users a finding.

Subsequently, WHO's systematic rev modifies the risk of acquiring a STI w Guideline Steering Group who conclu guidance, namely: there are no restri acquiring a STI.

Reference:

1. Morrison CS, Bright P, Wong EL, Kwok C contraceptive use, cervical ectopy, and 2004;31:561-567.

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Hormonal Contraception and HIV: Science and Policy

Africa Regional Meeting

Nairobi 19-21 September 2005

STATEMENT

The World Health Organization Headquarters Office and Regional Office for Africa, in partnership with the Reproductive Health and HIV Research Unit of the University of Witwatersrand in South Africa (a WHO Collaborating Centre), International Planned Parenthood Federation Africa Region and Family Health International (FHI), convened a meeting of 72 representatives from 17 francophone, lusophone and anglophone sub-Saharan African countries on "Hormonal Contraception and HIV: Science and Policy".

The participants included policymakers and programme managers involved with family planning, sexual and reproductive health, and HIV/AIDS, women's health advocates, people living with HIV and scientists and clinicians involved with family planning and HIV research. They were joined by 13 representatives from international donor and non-governmental organizations and agencies. The goal of the meeting was to promote evidence-based discussion and decision-making in response to new information on any potential association between hormonal contraceptive use and the acquisition of HIV.

The meeting reviewed data and information on the association between use of hormonal contraception and the risk of acquiring HIV infection. This included a review of previously published information as well as new data that are expected to be made public in the next few months.

- A study published in 2004 on a cohort of sex workers followed over many years in Mombasa, Kenya, showed that users of hormonal contraception have a 1.5-fold (combined oral contraceptives [COCs]) to 1.8-fold (depot-medroxyprogesterone acetate [DMPA]) higher risk of acquiring HIV infection compared with non-users. Other studies conducted among sex workers have found similarly elevated risks. However, it is not known whether such risks also apply to clients of family planning services, whose overall risk of acquiring HIV is typically lower than that of sex workers.
- Two new studies (one in Uganda, Thailand and Zimbabwe, the other in South Africa) pending publication conducted among clients of family planning services found no overall increase in risk of acquiring HIV infection in women who used hormonal contraception compared with women who used non-hormonal contraception or no contraceptive method.

The following recommendations were made by the meeting:

1. There should be no restrictions on the use of COCs and DMPA by women at risk of acquiring HIV, consistent with the current WHO *Medical Eligibility Criteria for Contraceptive Use* guidelines. However, participants suggested that the WHO Family Planning Working Group at its next meeting review the classification regarding women at high individual risk of HIV infection to assess whether some caution on use of these methods may be appropriate, though the participants acknowledged that the benefits of using COCs or DMPA to prevent unintended pregnancy would in the majority of cases offset any excess risk of acquiring HIV infection.

2. Women and their partners are strongly encouraged to protect against unintended pregnancy, STIs and HIV, using condoms alone or in addition to another contraceptive method ("dual protection"). The use of male or female condoms is recommended whenever there is any possibility of exposure to STIs, including HIV. Programmes to promote dual protection should be actively supported.

www.who.int/reproductive-health/

Department of Reproductive Health and Research
World Health Organization

UNFPA

Strategic Partnership Programme

S P P

Goal

to improve support to countries
through the implementation of evidence-based norms
and tools for reproductive health

Overall objective

to promote sexual and reproductive health
through the application of evidence-based practices and
informed policy and decision-making in health interventions

What the partnership should achieve

1. introduce systematically, selected practice guides
to improve sexual and reproductive health (SRH), initially in family planning and sexually transmitted and reproductive tract infections (STIs/RTIs)

   support dissemination, adaptation and adoption
of guidelines within countries through UNFPA Country Technical Services Teams (CSTs) and Country Offices, WHO Regional Offices and Country Offices

2. strengthen technical capacity
through orientation and backstopping in SRH, including maternal health

   enhance linkages between creation
of evidence-based tools and implementation
to improve programmes and service delivery

Expected outcomes

1. Adoption of tools and up-scaling of evidence-based practices

2. Improved quality of reproductive health care services, particularly in family planning, STIs/RTIs, and maternal health

Evidence-based tools

Family planning

Maternal and newborn health

STI/RTI control

Further information on SRH guidelines including online electronic versions:
www.who.int/reproductive-health - Further information on SPP activities: mbizvom@who.int

World Health Organization

Reproductive Health and Research

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