Sexual and reproductive health research at WHO

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World Health Organization
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“Health is a state of complete physical, mental and social well-being and not merely the absence of disease or infirmity.”

7 April 1948
“In order to achieve its objective, the functions of the Organization shall be:

(a) to act as the directing and co-ordinating authority on international health work;

... (n) to promote and conduct research in the field of health;

...”

(WHO Constitution, Article 2)
How it began...
How it began…[2]

“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)
How it began…[2]

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


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

→ part of Department of Reproductive Health and Research since 1998
HRP's mandate

“To coordinate, promote, conduct and evaluate international research in human reproduction”

(WHA Resolution 41.9; 1988)
How can contraceptive use be increased?

- Development of new and improvement of existing methods
- Improving access to existing methods
Once-a-month injectables developed by HRP

**Mesigyna®**
- 50 mg norethisterone enantate
- + 5 mg estradiol valerate

**Cyclofem®**
- 25 mg medroxyprogesterone acetate
- + 5 mg estradiol cypionate
Bleeding patterns experienced by injectable users at 1 year of use

Depo-provera

- Regular pattern
- Irregular pattern
- Amenorrhoea

Cyclofem

- Regular pattern
- Irregular pattern
- Amenorrhoea

% users

0 20 40 60 80 100

% users

0 20 40 60 80 100
“Emergency contraceptives are methods which women can use after intercourse to prevent pregnancy.”

(from Consensus Statement on Emergency Contraception, Bellagio, April 1995)
Lower pregnancy rate after levonorgestrel

<table>
<thead>
<tr>
<th>Group</th>
<th>Number of women</th>
<th>Observed pregnancies</th>
<th>Pregnancy rate (95% CI)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yuzpe</td>
<td>979</td>
<td>31</td>
<td>3.2% (2.2, 4.5)</td>
</tr>
<tr>
<td>LNG</td>
<td>976</td>
<td>11</td>
<td>1.1% (0.6, 2.0)</td>
</tr>
</tbody>
</table>

The difference in pregnancy rate was statistically significant.

Availability of levonorgestrel preparations for emergency contraception (as of October 2004)

- Norlevo
- Postinor-2
- Both preparations
- Others
Mifepristone research

- pregnancy termination (first and second trimester)
- cervical ripening
- menses induction
- ovulation blocking
- luteal contraception
- emergency contraception
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
How can contraceptive use be increased?

- Development of new and improvement of existing methods
- Improving access to existing methods
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 Norplant®
## Cumulative net probabilities (se) of discontinuation and continuation rates per 100 women at 10 years of use*

<table>
<thead>
<tr>
<th>Event</th>
<th>TCu 380A</th>
<th>Multiload 375</th>
<th>p-value</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Total pregnancy</strong></td>
<td>3.4 (0.5)</td>
<td>5.3 (0.7)</td>
<td>0.029</td>
</tr>
<tr>
<td>- Intrauterine</td>
<td>2.7 (0.5)</td>
<td>5.2 (0.7)</td>
<td>0.002</td>
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<tr>
<td>- Ectopic</td>
<td>0.8 (0.3)</td>
<td>0.1 (0.1)</td>
<td>0.011</td>
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<tr>
<td><strong>Expulsions</strong></td>
<td>11.2 (1.0)</td>
<td>14.8 (1.2)</td>
<td>0.023</td>
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<tr>
<td><strong>Total medical removals</strong></td>
<td>29.2 (1.4)</td>
<td>28.9 (1.5)</td>
<td>0.80</td>
</tr>
<tr>
<td>- Pelvic inflammatory disease</td>
<td>0.4 (0.2)</td>
<td>0.5 (0.2)</td>
<td>0.82</td>
</tr>
<tr>
<td><strong>Continuation rate</strong></td>
<td>40.1 (1.3)</td>
<td>37.4 (1.3)</td>
<td>0.14</td>
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<tr>
<td><strong>Woman-years</strong></td>
<td>10,164</td>
<td>10,014</td>
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* Interim data, cut-off July 2002
Trends in use of contraception

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)
The core ICPD goal

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

(ICPD Programme of Action, para. 7.6)
WHO's work in sexual and reproductive health

Overall objective

"To contribute, through research and support to programme development, to a reduction in morbidity and mortality related to sexual and reproductive health, and to implementation of accessible, equitable and high-quality reproductive health services in countries."
WHO's work in sexual and reproductive health research

- Family planning
- Maternal and newborn health
- Reproductive tract and sexually transmitted infections
- Prevention of unsafe abortion
- Sexual health
- Cross-cutting areas
  - gender and reproductive rights
  - poverty alleviation
  - achieving MDGs
  - health sector development

World Health Organization
Reproductive Health and Research
UNDP • UNFPA • WHO • World Bank
Special Programme of Research, Development and Research Training in Human Reproduction
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<tbody>
<tr>
<td>Family planning*</td>
<td>+</td>
<td>+++</td>
<td>+++</td>
<td>+++</td>
<td>+++</td>
</tr>
<tr>
<td>Maternal and perinatal health</td>
<td>(+)</td>
<td>+++</td>
<td>++</td>
<td>+</td>
<td>+</td>
</tr>
<tr>
<td>RTIs*</td>
<td>+++</td>
<td></td>
<td>+++</td>
<td>+</td>
<td></td>
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<tr>
<td>Abortion</td>
<td>+++</td>
<td>+</td>
<td>++</td>
<td>+</td>
<td></td>
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<tr>
<td>Adolescents</td>
<td>+</td>
<td></td>
<td>+++</td>
<td>+</td>
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<tr>
<td>Human rights</td>
<td></td>
<td></td>
<td></td>
<td>+</td>
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<tr>
<td>FGM and vaginal practices</td>
<td>+</td>
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<td>+</td>
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<tr>
<td>Comprehensive SRH services</td>
<td></td>
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*These areas overlap in relation to research on dual protection methods
Using the Strategic Approach for strengthening quality of care in reproductive health services
The “political” framework of sexual and reproductive health

- International Conference on Population and Development (ICPD), Cairo, 1994
- Fourth World Conference on Women (FWCW), Beijing, 1995
- ICPD + 5, New York, 1999
- FWCW + 5, New York, 2000
- Millennium Conference, New York, 2000
Millennium Development Goals

- Eradicate extreme poverty and hunger
- Achieve universal primary education
- Promote gender equity and empowerment of women
- Reduce child mortality
- Improve maternal health
- Combat HIV/AIDS, malaria and other diseases
- Ensure environmental sustainability
- Develop a global partnership for development
Reproductive health is absent from the Millennium Development Goals (MDGs)
"Outgoing Agriculture Secretary Ann Veneman said Tuesday that in her new job as head of the U.N. Children's agency she will focus on promoting education and health rather than on social issues such as reproductive health and sex education."

"She said the issues of reproductive health and education were not relevant 'to the mission of UNICEF'."

(from Seattle Post-Intelligencer, 18 January 2005)
The Bush administration may withhold funds from a World Health Organization program because it is doing research on the abortion pill mifepristone, also known as RU-486, a spokesman said yesterday...

...“We are looking at that program in terms of whether that is consistent with Kemp-Kasten,” State Department spokesman Richard Boucher said...

(The Washington Post, 8 November 2002)
"Sexual and reproductive health — essential for reaching the Goals"
(pages 82-84)
Research and research capacity building are essential to reach the MDGs

"Any strategy to meet the Millennium Development Goals requires a special effort to build scientific and technological capacities in the poorest countries"

HRP’s commitment to research capability strengthening

US$ 2
Research and development

US$ 1
Research capability strengthening
Our network of 50 WHO Collaborating Centres
Countries collaborating with the Programme
2003, n=99 countries
“If you think research is expensive, try disease.”

(Mary Lasker)