Expanding access to injectable contraceptives

Background

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World Health Organization
Geneva, 15 June 2009
Contraceptive prevalence by method: world and development groups

Source: UN, World Contraceptive Use 2007
## Contraceptive prevalence by method and by region

<table>
<thead>
<tr>
<th>Region</th>
<th>Traditional method</th>
<th>Condom</th>
<th>IUD</th>
<th>Injectable/implant</th>
<th>Pill</th>
<th>Male sterilization</th>
<th>Female sterilization</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sub-Saharan Africa</td>
<td></td>
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<td>Northern Africa (excl.</td>
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<tr>
<td>Sudan)</td>
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<tr>
<td>Asia</td>
<td></td>
<td></td>
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<td></td>
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<tr>
<td>Latin America &amp; Caribbean</td>
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</tr>
</tbody>
</table>

Source: UN, World Contraceptive Use 2007
Number of injectable users worldwide

- Over 35 million women use injectables for contraception (*UN Population Division, 2007*)

- Tentative estimates:
  - 28 million use DMPA (*13 million, 10 years ago*)
  - 6 million use once-a-month injectables
  - Less than 1 million use NET-EN
Prevalence of injectable contraceptive use among women aged 15-49, married or in union, 2007

Source: UN, World Contraceptive Use 2007
Injectable contraceptive use as % of modern method use among women aged 15-49, married or in union, 2007

Source: UN, World Contraceptive Use 2007
What influences use of injectables?

- Women's acceptability: knowledge / misinformation on benefits and side-effects, position of women's groups
- Clinicians' perspectives: perception, experience, champions
- Method availability: method choice, cost, reimbursement scheme, access to services, regulatory bodies, manufacturers' marketing strategies, legal environment, foreign aid
Injectable contraceptive preparations

- **Progestogen-only**
  - DMPA 150mg, IM every 3 months
  - Depo subQ 104mg, SC every 3 months
  - NET-EN 200mg, IM every 2 months

- **Combined estrogen-progestogen**
  - DMPA 25mg + E2 cypionate 5mg, IM 1/month
  - NET-EN 50mg + E2 valerate 5mg, IM 1/month
  - Dihydroxyprogesterone acetophenide 150mg + E2 enanthate 10mg (or half-dose), IM 1/month
  - 17α-hydroxyprogesterone caproate 250mg + E2 valerate 5mg IM, 2 inj first month, then 1/month
Injectable contraceptives

- Highly effective – if used per schedule
  - 8 different methods with 4 different injection schedules
- Safe in healthy women
  - Exclude pregnancy
  - Measure BP (*DMPA use doubles risk of stroke in hypertensive women*)
  - Temporary contraindications
    - during early postpartum when risk of VTE is increased (avoid combined methods during first three weeks postpartum)
    - while breast-feeding (delay DMPA until 6 weeks postpartum, combined injectables until 6 months postpartum)
  - Counselling for side-effects: vaginal bleeding, weight changes, delay in return to fertility
Injectable contraceptives

- **Contraindicated in women with chronic conditions**
  - Cardio-vascular disease
    - Ischemic heart disease
    - Stroke
    - DVT/PE
    - Migraine headaches
    - Diabetic vascular disease (nephropathy, retinopathy)
  - Breast cancer (current or past)
  - Liver diseases (severe cirrhosis, hepatocellular adenomas, hepatomas)

- **Contraindicated in women with multiple risk factors for cardio-vascular disease** (over 35 y/o and smoking, diabetes, hypertension)
How frequent are these conditions among women of reproductive age?
Age-standardized mortality rate, ages 15-44, by region and broad cause group

ASDR per 1000 women aged 15-44 years, 2004

- HIV and TB
- Maternal conditions
- Other communicable and nutritional diseases
- Cardiovascular diseases, cancers and diabetes
- Other noncommunicable diseases
- Injuries

Regions:
- High income
- Western Pacific
- Americas
- Europe
- Eastern Mediterranean
- South-East Asia
- Africa
Ten leading causes of death in women aged 15-44 years by country income group, 2004

<table>
<thead>
<tr>
<th>Rank</th>
<th>Cause</th>
<th>World</th>
<th>Low income countries</th>
<th>Middle income countries</th>
<th>High income countries</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Deaths (000s)</td>
<td>Percent</td>
<td>Deaths (000s)</td>
<td>Percent</td>
</tr>
<tr>
<td>1</td>
<td>HIV/AIDS</td>
<td>682</td>
<td>19.2</td>
<td>494</td>
<td>22.3</td>
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<td>2</td>
<td>Maternal conditions</td>
<td>516</td>
<td>14.6</td>
<td>434</td>
<td>19.5</td>
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<tr>
<td>3</td>
<td>Tuberculosis</td>
<td>228</td>
<td>6.4</td>
<td>161</td>
<td>7.3</td>
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<tr>
<td>4</td>
<td>Self-inflicted injuries</td>
<td>168</td>
<td>4.7</td>
<td>94</td>
<td>4.3</td>
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<tr>
<td>5</td>
<td>Road traffic accidents</td>
<td>132</td>
<td>3.7</td>
<td>40</td>
<td>1.8</td>
</tr>
<tr>
<td>6</td>
<td>Lower respiratory infections</td>
<td>121</td>
<td>3.4</td>
<td>40</td>
<td>1.8</td>
</tr>
<tr>
<td>7</td>
<td>Ischaemic heart disease</td>
<td>104</td>
<td>2.9</td>
<td>64</td>
<td>2.9</td>
</tr>
<tr>
<td>8</td>
<td>Fires</td>
<td>101</td>
<td>2.9</td>
<td>32</td>
<td>1.5</td>
</tr>
<tr>
<td>9</td>
<td>Stroke</td>
<td>77</td>
<td>2.2</td>
<td>32</td>
<td>1.5</td>
</tr>
<tr>
<td>10</td>
<td>Violence</td>
<td>61</td>
<td>1.7</td>
<td>32</td>
<td>1.5</td>
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<tr>
<td></td>
<td>Lower respiratory infections</td>
<td>25</td>
<td>2.1</td>
<td></td>
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</tr>
</tbody>
</table>
Maternal mortality ratios 2005
(maternal deaths per 100,000 live births)
Age-standardized rate of DALYs, ages 15-44, by region and broad cause group.

Major causes of disease burden for women aged 15-44 years

- High Income
- Western Pacific
- Europe
- Americas
- Eastern Mediterranean
- South-East Asia
- Africa

- HIV, TB and malaria
- Other infectious and parasitic diseases
- Maternal and nutritional conditions
- Cardiovascular diseases and cancers
- Neuropsychiatric conditions
- Sense disorders
- Other noncommunicable diseases
- Injuries
Provision of injectables by community health workers needs special attention

- Counselling for side-effects (vaginal bleeding disturbances, amenorrhea, weight gain, delay in return of fertility)
- Screening of women with pre-existing conditions or on medications
- Possibility of pregnancy
- Safe injection technique – for client and for provider
- Possibility of confusion between different injectables (stock-outs, public and private sectors)