The Environment, Population and Reproductive Health

Estimated Number of Births & Deaths
Resultant Population Increase, Mid-2003
Total Pop., Mid-2003 6.3 billion (G.R. 1.3%)

<table>
<thead>
<tr>
<th>Births No. per year</th>
<th>139,000,000</th>
</tr>
</thead>
<tbody>
<tr>
<td>Deaths No. per year</td>
<td>57,000,000</td>
</tr>
<tr>
<td>Increase No. per year</td>
<td>82,000,000</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Births No. per week</th>
<th>2,673,000</th>
</tr>
</thead>
<tbody>
<tr>
<td>Deaths No. per week</td>
<td>1,096,000</td>
</tr>
<tr>
<td>Increase No. per week</td>
<td>1,577,000</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Births No. per day</th>
<th>381,857</th>
</tr>
</thead>
<tbody>
<tr>
<td>Deaths No. per day</td>
<td>156,571</td>
</tr>
<tr>
<td>Increase No. per day</td>
<td>225,286</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Births No. per minute</th>
<th>265</th>
</tr>
</thead>
<tbody>
<tr>
<td>Deaths No. per minute</td>
<td>109</td>
</tr>
<tr>
<td>Increase No. per minute</td>
<td>156</td>
</tr>
</tbody>
</table>

Calculating the Rate of Population Growth
Birth rate* - Death rate*
Growth rate % = \frac{Birth rate - Death rate}{10}

Population Growth Rates

- Growth Rate (%)Doubling Time (yrs)
  - 4.0 17
  - 3.0 23
  - 2.0 35
  - 1.0 69
  - 0.002 35,000

Estimates of Birth, Death and Growth Rates, Mid-2003

<table>
<thead>
<tr>
<th>Pop.</th>
<th>Births/1000</th>
<th>Deaths/1000</th>
<th>Growth rate (%)</th>
<th>D.T. (yrs)</th>
</tr>
</thead>
<tbody>
<tr>
<td>WORLD</td>
<td>6,314M</td>
<td>22</td>
<td>9 1.3</td>
<td>53</td>
</tr>
<tr>
<td>Africa</td>
<td>861M</td>
<td>38</td>
<td>14 2.4</td>
<td>29</td>
</tr>
<tr>
<td>Asia</td>
<td>3,830M</td>
<td>20</td>
<td>7 1.3</td>
<td>53</td>
</tr>
<tr>
<td>L. America</td>
<td>540M</td>
<td>23</td>
<td>6 1.7</td>
<td>41</td>
</tr>
<tr>
<td>Europe</td>
<td>727M</td>
<td>10</td>
<td>12 -0.2</td>
<td>-</td>
</tr>
<tr>
<td>N. America</td>
<td>323M</td>
<td>14</td>
<td>8 0.5</td>
<td>138</td>
</tr>
</tbody>
</table>
Estimate of Birth, Death & Growth Rates
Mid-2003, Selected Countries

<table>
<thead>
<tr>
<th>Pop.</th>
<th>Births/  Deaths/  Growth  D.T.</th>
<th>Rate (%)</th>
<th>(yrs)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1000</td>
<td>1000</td>
<td></td>
</tr>
<tr>
<td>China</td>
<td>1,289M</td>
<td>13</td>
<td>6</td>
</tr>
<tr>
<td>India</td>
<td>1,069M</td>
<td>25</td>
<td>8</td>
</tr>
<tr>
<td>Russia</td>
<td>145M</td>
<td>10</td>
<td>16</td>
</tr>
<tr>
<td>U.S.</td>
<td>291M</td>
<td>14</td>
<td>9</td>
</tr>
</tbody>
</table>

World Population, 1950-2020 (millions)

<table>
<thead>
<tr>
<th>Year</th>
<th>Less Developed (x1,000,000)</th>
<th>More Developed (x1,000,000)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1950</td>
<td>2,501</td>
<td>1,644 (68%)</td>
</tr>
<tr>
<td>1970</td>
<td>3,610</td>
<td>2,526 (70%)</td>
</tr>
<tr>
<td>1985</td>
<td>4,845</td>
<td>3,671 (76%)</td>
</tr>
<tr>
<td>2003</td>
<td>6,314</td>
<td>5,112 (81%)</td>
</tr>
<tr>
<td>2010*</td>
<td>6,903</td>
<td>5,687 (82%)</td>
</tr>
<tr>
<td>2025*</td>
<td>8,082</td>
<td>6,842 (84%)</td>
</tr>
</tbody>
</table>

*United Nations Medium Projection

Population Projections, Selected Countries (Millions)

<table>
<thead>
<tr>
<th>Year</th>
<th>World</th>
<th>Africa</th>
<th>Asia</th>
<th>Latin America</th>
<th>Europe</th>
<th>North America</th>
</tr>
</thead>
<tbody>
<tr>
<td>1994</td>
<td>5,607</td>
<td>700</td>
<td>3,392</td>
<td>470</td>
<td>728</td>
<td>290</td>
</tr>
<tr>
<td>2003</td>
<td>6,314</td>
<td>861</td>
<td>3,830</td>
<td>540</td>
<td>727</td>
<td>323</td>
</tr>
<tr>
<td>2010</td>
<td>6,903</td>
<td>979</td>
<td>4,235</td>
<td>591</td>
<td>731</td>
<td>333</td>
</tr>
<tr>
<td>2025</td>
<td>8,082</td>
<td>1,288</td>
<td>4,965</td>
<td>697</td>
<td>715</td>
<td>376</td>
</tr>
</tbody>
</table>

Momentum of World Population Growth

<table>
<thead>
<tr>
<th>Year in which the world attains replacement fertility</th>
<th>World population at replacement stabilization (x1,000,000)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2000-2005</td>
<td>5.9</td>
</tr>
<tr>
<td>2020-2025</td>
<td>8.4</td>
</tr>
<tr>
<td>2040-2045</td>
<td>12.0</td>
</tr>
</tbody>
</table>

Figure 2.13 World population projections, 2000–2150
Urban Populations (Millions)

<table>
<thead>
<tr>
<th></th>
<th>1970</th>
<th>2001</th>
<th>2015</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sao Paolo</td>
<td>8</td>
<td>18</td>
<td>21</td>
</tr>
<tr>
<td>Mexico City</td>
<td>9</td>
<td>18</td>
<td>20</td>
</tr>
<tr>
<td>Shanghai</td>
<td>11</td>
<td>13</td>
<td>14</td>
</tr>
<tr>
<td>Mumbai</td>
<td>6</td>
<td>17</td>
<td>23</td>
</tr>
<tr>
<td>Calcutta</td>
<td>7</td>
<td>13</td>
<td>17</td>
</tr>
<tr>
<td>Jakarta</td>
<td>4</td>
<td>11</td>
<td>17</td>
</tr>
<tr>
<td>Beijing</td>
<td>7</td>
<td>11</td>
<td>12</td>
</tr>
</tbody>
</table>

Urban Areas Larger Than 5 Million People

<table>
<thead>
<tr>
<th></th>
<th>Developing Countries</th>
<th>Developed Countries</th>
</tr>
</thead>
<tbody>
<tr>
<td>1970</td>
<td>11</td>
<td>9</td>
</tr>
<tr>
<td>2000</td>
<td>37</td>
<td>11</td>
</tr>
</tbody>
</table>
Contraceptive Prevalence: Developing Countries (Approximate %)

<table>
<thead>
<tr>
<th></th>
<th>1960</th>
<th>1995</th>
</tr>
</thead>
<tbody>
<tr>
<td>15-49</td>
<td>5%</td>
<td>50%</td>
</tr>
</tbody>
</table>

Percent of married women 15-49 using modern methods of contraception

<table>
<thead>
<tr>
<th>Region</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sub-Saharan Africa</td>
<td>13</td>
</tr>
<tr>
<td>Latin America and the Caribbean</td>
<td>62</td>
</tr>
<tr>
<td>Asia (excluding China)</td>
<td>44</td>
</tr>
<tr>
<td>Europe</td>
<td>51</td>
</tr>
<tr>
<td>North America</td>
<td>72</td>
</tr>
</tbody>
</table>

Percent of married women 15-49 using modern methods of contraception

<table>
<thead>
<tr>
<th>Country</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>China</td>
<td>83</td>
</tr>
<tr>
<td>Thailand</td>
<td>70</td>
</tr>
<tr>
<td>Russia</td>
<td>49</td>
</tr>
<tr>
<td>Nigeria</td>
<td>9</td>
</tr>
<tr>
<td>Uganda</td>
<td>18</td>
</tr>
<tr>
<td>South Africa</td>
<td>55</td>
</tr>
</tbody>
</table>

Health Benefits of Contraception

- 187 M unintended pregnancies
- 60 M unplanned births
- 105 M abortions
- 2.7 M infant deaths
- 215,000 pregnancy-related deaths
- Still an additional 201 million women with unmet need

1974 Population Conference, Bucharest

North-South Debates
Western Nation Imperialism

1984 Population Conference, Mexico City

U.S. Stance: Free Market Systems
Population Growth Not An Issue
Abortion (With Catholic Church)

Developing Country Concerns Re: Population
International Conference on Population and Development (ICPD)
(Cairo, September, 1994)

**Major Issues:**
- Population
- Environment
- Human Rights
- Empowerment of Women
- Women’s Sexual & Reproductive Health & Rights

Cairo - The Setting
- 15,000 Attendees
- 3,700 Delegates from 179 Countries and 8 Observer Delegations
- 4 Presidents, 7 Prime Ministers, 5 Vice Presidents, Many Parliamentarians
- 1,200 Nongovernmental Organizations (NGOs)
- 4,200 Journalists

Brundtland of Norway

“Morality becomes hypocrisy if it means accepting mothers suffering or dying in connection with unwanted pregnancies and illegal abortions, and unwanted children living in misery ..”

Environmental Issues

**Conflicts Between Developed and Less Developed Countries**
- Developed Countries
- Consumption Patterns
- Industrialization
- Pollution

Environmental Issues (cont.)

Less Developed Countries
- Population
- Deforestation
- Loss of Top Soil
- Early Industrialization - Pollution
- Urbanization

Water Issues
- Projections for the future are daunting
- Again, impact heaviest on the poorest countries
- Increases in population numbers play a major role
ICPD Programme of Action

Overall emphasis on sustainable development, humanitarian goals, and status of women rather than on demographic targets

Empowerment of Women

“The empowerment and autonomy of women and the improvement of their political, social, economic and health status is a highly important end in itself ...”

Empowerment of Women

Economic Equity:
Access To Jobs, Equal Pay

Health Equity:
Right to Reproductive and Sexual Health

Political, Legal, Educational and Social Equity

Abortion in Cairo

“In no case should abortion be promoted as a method of family planning ...
All governments ...are urged ...to deal with the health impact of unsafe abortion as a major public health concern...
In circumstances in which abortion is not against the law, such abortion should be safe.”

Human Rights

“These [human] rights rest on the recognition of the basic rights of all couples and individuals to decide freely and responsibly the number, spacing and timing and to have the information and means to do so and the right to attain the highest standard of sexual and reproductive health ... free of discrimination, coercion and violence ..”

Reproductive Health Issues

Family Planning Services
Prevention, Diagnosis and Treatment of STDs and HIV/AIDS
Adolescent Sexuality and Pregnancy
Maternal Mortality
Abortion
### Family Planning Services

Make Available All Effective and Safe Methods of Contraception On A Voluntary Basis With Full Informed Consent

<table>
<thead>
<tr>
<th>Oral Contraceptives</th>
</tr>
</thead>
<tbody>
<tr>
<td>IUDs</td>
</tr>
<tr>
<td>Injectables &amp; Implants</td>
</tr>
<tr>
<td>Barrier Methods</td>
</tr>
<tr>
<td>Periodic Abstinence</td>
</tr>
<tr>
<td>Sterilization Procedures</td>
</tr>
</tbody>
</table>

### STDs and HIV/AIDS

Gonorrhea and Syphilis
- Chlamydia
- Herpes
- Trichomonas
- Monilia
- HPV
- HIV/AIDS

### STDs and HIV/AIDS (cont.)

Prevention Education
- Condom Use
- Women-Controlled Methods

Diagnosis and Testing Issues
- Treatment Issues

### Adolescent Sexuality and Pregnancy

The Issue Worldwide, Particularly in Urban Areas
- The Controversies
- “The Rights, Duties and Responsibilities of Parents”

### Maternal Mortality

500,000 Deaths Annually, 98% in LDCs
- MM Ratios 10-100 Times Those in Developed Countries
- LDCs: 100-1000/100,000 Livebirths
- US: 8/100,000 Livebirths
Maternal Mortality (cont.)

High Incidence of Home Deliveries, Particularly in Rural Communities, with TBA, Relative or No-One in Attendance

Maternal Mortality: Causes
- Obstructed Labor/Ruptured Uterus
- Postpartum Hemorrhage
- Toxemia/Eclampsia
- Postpartum Sepsis
- Abortion Complications
- Role of Age and Parity

Maternity Care Interventions: Emergency Obstetrical Care
- Transfusions
- Parenteral Antibiotics
- Cesarean Section
- Treatment of Abortion

Abortion
Incidence Worldwide:
- 40-50 Million

Estimated Deaths Annually From Unsafe Abortions:
- 60,000-110,000

Single Most Controversial Issue in Society Today

Global Summary, HIV/AIDS Pandemic, December 2002

- People living with HIV/AIDS: 42 million
- Children<15: 3.2 million
- People newly infected, 2002: 5 million
- AIDS deaths in 2002: 3.1 million

Adults and children estimated to be living with HIV/AIDS as of end 2002

Total: 42 million
Estimated number of adults and children newly infected with HIV during 2002

Total: 5 million

Estimated adult and child deaths from HIV/AIDS during 2002

Total: 3.1 million

About 14,000 new HIV infections a day in 2002

- More than 95% are in developing countries
- 2000 are in children under 15 years of age
- About 12,000 are in persons aged 15 to 49 years, of whom:
  - almost 50% are women
  - about 50% are 15-24 year olds

Women and AIDS

"...It is only when women can speak up, and have a full say in decisions affecting their lives, that they will be able to truly protect themselves -- and their children -- against HIV."*

*UN Secretary-General Kofi Annan

Women and AIDS

- The vulnerability of women
- 12-13 African women infected per 10 men
- The threat to sex workers
- The threat to spouses
- Relationship with F.P. programs
- The role of prevention
  - Safe sexual practices
  - Microbicides & condoms (male & female)
  - Vaccines

The AIDS Orphan Tragedy

- An estimated 12-14 million children have lost one or both parents
- Loss of the mother is particularly devastating
- Educational, food, housing and nurture needs are grossly neglected
Factors that influence the spread of HIV

- **Viral Factors**
  - HIV-1 strains
  - Viremia

- **Local Genital Factors**
  - Presence of STDs
  - Male circumcision
  - Use of vaginal products

- **Sexual Behavior**
  - Rate of partner exchange
  - Sexual mixing patterns
  - Type of intercourse
  - Net of and rate of contact with core groups
  - Level of condom use

- **Demographic Factors**
  - % sexually active age groups to other age groups
  - Male to female ratio
  - Urban/rural%
  - Migration patterns

- **Economic and Political Factors**
  - Level of poverty
  - War and social conflicts
  - Status of transport and mobility of population
  - Performance of health care system
  - Response to epidemic

By 2010, Botswana, South Africa and Zimbabwe will all be experiencing negative population growth.


Population of Zimbabwe, With and Without AIDS: 2010

Leading causes of death globally, 1999

- 1 Ischaemic heart disease 12.7
- 2 Cerebrovascular disease 9.9
- 3 Acute lower respiratory infections 7.1
- 4 HIV/AIDS 4.8
- 5 Chronic obstructive pulmonary disease 4.2
- 6 Perinatal conditions 4.0
- 7 Diarrhoeal diseases 3.0
- 8 Tuberculosis 1.9
- 11 Malaria

Leading causes of death in Africa, 1999

- 1 HIV/AIDS 10.3
- 2 Acute lower respiratory infections 9.1
- 3 Malaria 7.3
- 4 Diarrhoeal diseases 5.9
- 5 Perinatal conditions 4.9
- 6 Measles 3.4
- 7 Tuberculosis 3.2
- 8 Cerebrovascular disease 3.0
- 9 Ischaemic heart disease 2.4
- 10 Maternal conditions


<table>
<thead>
<tr>
<th>Country</th>
<th>Predicted life expectancy</th>
<th>Loss in life expectancy due to HIV/AIDS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Botswana</td>
<td>72.1</td>
<td>8.3</td>
</tr>
<tr>
<td>Zimbabwe</td>
<td>71.8</td>
<td>7.2</td>
</tr>
<tr>
<td>South Africa</td>
<td>69.0</td>
<td>7.1</td>
</tr>
<tr>
<td>Kenya</td>
<td>70.6</td>
<td>7.9</td>
</tr>
<tr>
<td>Zambia</td>
<td>68.8</td>
<td>7.6</td>
</tr>
<tr>
<td>Côte d’Ivoire</td>
<td>64.9</td>
<td>5.3</td>
</tr>
<tr>
<td>Madagascar</td>
<td>60.3</td>
<td>6.4</td>
</tr>
<tr>
<td>Malawi</td>
<td>55.7</td>
<td>5.6</td>
</tr>
<tr>
<td>Ghana</td>
<td>62.8</td>
<td>6.1</td>
</tr>
<tr>
<td>CAR</td>
<td>58.3</td>
<td>6.7</td>
</tr>
<tr>
<td>Togo</td>
<td>55.9</td>
<td>6.2</td>
</tr>
<tr>
<td>Cameroon</td>
<td>53.4</td>
<td>7.3</td>
</tr>
</tbody>
</table>

Source: U.S. Census Bureau, 2003
**Total Orphans, 34 Study Countries**

<table>
<thead>
<tr>
<th>Year</th>
<th>AIDS Orphans</th>
<th>Orphans of Other Causes</th>
<th>Total Orphans</th>
</tr>
</thead>
<tbody>
<tr>
<td>1990</td>
<td>3.6 million</td>
<td>18.6 million</td>
<td>22.2 million</td>
</tr>
<tr>
<td>2000</td>
<td>15.8 million</td>
<td>18.9 million</td>
<td>34.7 million</td>
</tr>
<tr>
<td>2010</td>
<td>30.2 million</td>
<td>14.0 million</td>
<td>44.2 million</td>
</tr>
</tbody>
</table>

**Infectious Disease Control**

**Basic Principles 1:**

- Modes of transmission
- Stages of the epidemic
- Epicenters/ “hot zones” Concept of “core transmitters”
- Those most likely to transmit/Those most likely to contract (“TMLTC”)

**HIV Transmission**

**Global Summary**

<table>
<thead>
<tr>
<th>Type of Exposure</th>
<th>Efficiency per single exposure</th>
<th>Percent of global total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Blood transfusion</td>
<td>&gt;90%</td>
<td>5%</td>
</tr>
<tr>
<td>MTCT</td>
<td>20-40%</td>
<td>10%</td>
</tr>
<tr>
<td>Sexual intercourse:</td>
<td>- vaginal: 0.1% - 1.0%</td>
<td>80%</td>
</tr>
<tr>
<td></td>
<td>- anal: -75% -5%</td>
<td>-75% -5%</td>
</tr>
<tr>
<td>Injecting drug use</td>
<td>0.5% -1.0%</td>
<td>5%</td>
</tr>
<tr>
<td>Health Care</td>
<td>&lt;1.0%</td>
<td>.01%</td>
</tr>
</tbody>
</table>

**RISK POPULATIONS**

- Commercial sex workers
- Male migrant workers (e.g. truckers, construction workers, seafarers, urban skilled and unskilled)
- Military/police
- Civil servants
- Men who have sex with men (MSM)
- Injecting drug users
- University students
- STD patients (private and public sector)
- Youth (young men and women), single women

**RISK LOCATIONS**

- Brothels, bars, hotels, massage parlors, beauty salons, night clubs
- Truck stops, border crossings, bus terminals, train stations
- Military bases/Harbors
- Video parlors
- Worksites (mines, construction sites)
Supporting Elements for an HIV/AIDS Program

- **Policy Reform**
  (government commitment, allocation of resources, dealing with discrimination, stigma)
- **Biomedical Research**
  (STD Diagnostics, microbicides, Mother to child transmission interventions, preventive and therapeutic vaccines)
- **Social Science Research**
- **Surveillance (biologic and behavioral)**
- **Improved distillation and use of research and “lessons learned”**

Global Response: Successes

- At project level, we have evidence of sustained behavior change to reduce the risk of HIV transmission, resulting in decreased HIV and STD prevalence
- At national level, we have two categories of success:
  - Preventing a major epidemic
    (Senegal, Philippines, Indonesia)
  - Reducing an existing severe epidemic
    (Uganda, Thailand, Zambia, Dominican Republic)

Key Elements of the Uganda Response to HIV/AIDS

- Strong political commitment starting in 1986 which encouraged all political leaders to speak out on AIDS at all opportunities
- Free press encouraged to print candid, powerful articles on AIDS-intensive ongoing use of mass media (radio, TV, soap operas, etc)
- Reliable ongoing national seroprevalence data which was routinely disseminated
Key Elements of the Uganda Response to HIV/AIDS

- Condom social marketing program was initially resisted by government, now openly endorsed
- Multiple “AIDS in the workplace” programs (implemented by Federation of Ugandan Workers-banks, breweries, military, police, etc.)

Derived from E. Marum-USAID/CDC

Key Elements of the Uganda Response to HIV/AIDS

- Consistent outreach to young people (use of radio, Straight Talk clubs, etc.)
- Orphans program with strong commitment to keep children in communities and not support institutions, includes microenterprise efforts.
- Staffing for AIDS programs was strongly supported, attracting the best and the brightest

Derived from E. Marum-USAID/CDC

Key Elements of the Uganda Response to HIV/AIDS

- Active, well supported research programs with international collaborations (AIDS vaccines, mother to child transmission, TB, pneumococcal vaccine, Vitamin A, mass STD Rx, etc)
- Ongoing, consistent, reliable donor support, averaging $18 million/year

Derived from E. Marum-USAID/CDC

Major Challenges for HIV/AIDS Programs

- Political will
- Resource limitations
- Absorptive capacity
- Stigma
- Prevention versus care
- Drugs
- Mitigating the impact of the pandemic
- Urgent need for new technologies

Estimated Costs for Care

<table>
<thead>
<tr>
<th></th>
<th>Low</th>
<th>High</th>
</tr>
</thead>
<tbody>
<tr>
<td>Palliative care</td>
<td>30</td>
<td>43</td>
</tr>
<tr>
<td>Treatment of opportunistic infections</td>
<td>151</td>
<td>216</td>
</tr>
<tr>
<td>HIV testing in treatment sites</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>Prophylaxis of opportunistic infections</td>
<td>15</td>
<td>22</td>
</tr>
<tr>
<td>Service delivery cost (in- and outpatient visits)</td>
<td>748</td>
<td>1,068</td>
</tr>
<tr>
<td>Care for orphans</td>
<td>175</td>
<td>250</td>
</tr>
<tr>
<td>Subtotal care (without HAART)</td>
<td>1,123</td>
<td>1,604</td>
</tr>
<tr>
<td>HAART (at 1,400 US$ ppy)</td>
<td>462</td>
<td>923</td>
</tr>
<tr>
<td>HAART lab cost</td>
<td>166</td>
<td>331</td>
</tr>
<tr>
<td>Subtotal HAART</td>
<td>627</td>
<td>1,254</td>
</tr>
<tr>
<td>Total Care</td>
<td>1,750</td>
<td>2,858</td>
</tr>
</tbody>
</table>

The Cost of Care

- In Brazil, > 2/3 of pharmaceutical budget devoted to ARVs covering less than 20% of those infected. This $350 million is $20 million more than the annual USAID budget for HIV/AIDS
- Treating all 36 million infected persons would cost $36 billion at the lowest price frame ($1000/p/y)
Resource Needs and Gaps

Annual Estimated Needs and Available Funding for sub-Saharan Africa for HIV/AIDS Prevention and Care in FY 2000

<table>
<thead>
<tr>
<th>Estimated Amount needed (USAID funding) in FY2000</th>
<th>Other USG (CDC)</th>
</tr>
</thead>
<tbody>
<tr>
<td>$1.2–$2 billion Prevention</td>
<td>$99 million</td>
</tr>
<tr>
<td>$34 million Care</td>
<td>$75 million</td>
</tr>
<tr>
<td>$2.5–$4.4 billion Total</td>
<td>$500 million</td>
</tr>
</tbody>
</table>

1 USAID worldwide HIV spending is $200 million in FY 2000.
2 Includes all donors, lending agencies and host country public sector. Does not include foundations or personal out-of-pocket expenditures.
3 Of this amount, approximately $415 million is funded through developed country grants and loans and $85 million derives from host country governments, primarily for inpatient care costs.

Reproductive Health and HIV/AIDS Programs

- Increased vulnerability of girls and women
- Mutual goals and messages (high rates of pregnancies and HIV infections, particularly in young women and girls)
- “No missed opportunities”
- Recognize extensive FP infrastructure compared to HIV

HIV prevalence rate among teenagers in Kisumu, Kenya, by age

<table>
<thead>
<tr>
<th>Age (years)</th>
<th>Boys</th>
<th>Girls</th>
</tr>
</thead>
<tbody>
<tr>
<td>15</td>
<td>8.3</td>
<td>0</td>
</tr>
<tr>
<td>16</td>
<td>17.8</td>
<td>0</td>
</tr>
<tr>
<td>17</td>
<td>3.4</td>
<td>2.3</td>
</tr>
<tr>
<td>18</td>
<td>22</td>
<td>6.8</td>
</tr>
<tr>
<td>19</td>
<td>33.3</td>
<td></td>
</tr>
</tbody>
</table>


Percentage of women who are mothers or pregnant by the end of their teens, 1990-1998

<table>
<thead>
<tr>
<th>Age (years)</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>15</td>
<td>0</td>
</tr>
<tr>
<td>16</td>
<td>2</td>
</tr>
<tr>
<td>17</td>
<td>5</td>
</tr>
<tr>
<td>18</td>
<td>10</td>
</tr>
<tr>
<td>19</td>
<td>20</td>
</tr>
</tbody>
</table>

Source: Demographic and Health Surveys, various countries

In sub-Saharan Africa, HIV Prevalence is much higher among young females than among males of their same age cohort as is seen in Rwanda, 1997.

All over sub-Saharan Africa HIV prevalence for young women is higher than in young men as is seen in this urban center of Zambia.

Perceived advantages for the use of FP Settings

- Access to women
- May improve contraceptive compliance
- Burden of disease
- STDs have implications for choice of contraceptives
- Impact of STDs on HIV transmission
- Cost and time effective
- Holistic approach to patient

Perceived obstacles for the use of FP Settings

- Dilution of resources (staff, costs, time)
- Stigma
- Physical space for pelvic exam
- Access to commodities
- Partner referral issues
- Lack of STD diagnostics for asx women
- Deficiencies of syndromic approach to vaginal discharge
- Public health impact—is this the most critical population?

Age Distribution of Reported AIDS Cases and Age Specific Contraceptive Prevalence

Limitations of Family Planning Settings

“...inherently weak interventions for often the wrong populations...”

- Behavior Change
  - (dual protection-can it work?)
- STI management
  - significant number of asx cases
  - vaginal discharge syndromic algorithm lacks sensitivity and specificity

What Family Planning Programs Can Do-1

- Determine phase of epidemic and risk potential for impending generalized epidemic
- Determine profile of Family Planning Clients—considering both dual protection messages and STI management
- Expand counseling, condom distribution and promotion (focus on couples, men)
What Family Planning Programs Can Do-2

• Generate demand and extend contraceptive and condom use through social marketing
• Broaden use of mass media by integrating HIV/AIDS messages with family planning messages
• During policy dialogue, include HIV/AIDS
• Increase outreach to youth
• Recognize special needs of HIV positive women (contraception, abortion, MTCT)