



# Global **AIDS** Forum

Gerald R Ford School of Public Policy Integrated Policy Exercise  
January 6-9, 2003

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# IMPORTANT

## COURSEPACK READINGS

All students should read carefully Sections I and II (Administrative Information and Global HIV/AIDS Background) of the Coursepack before the IPE begins. You should also at least look over Sections III to VI, but may want to save a more careful reading until the IPE has begun and you know which topic issue you will be focusing on.

Please note that students are expected to do additional readings and research (outside of the Coursepack) as needed. A good starting point is the IPE course website at: [www.fordschool.umich.edu/ipe2003](http://www.fordschool.umich.edu/ipe2003) which contains a large number of documents and links related to the issue topics.

Also, information contained in the Coursepack, such as key questions and schedules, is subject to change as we continue to work on enhancing the IPE experience for students, faculty, and outside experts. Check the website for important updates.

Be sure to bring your Coursepack to each day's IPE sessions.

## FIRST ASSIGNMENT

Please write a 2-page (maximum length) single-spaced background paper outlining your country or organization's perspective on the state of the global aids crisis and its response so far to the epidemic.

For those representing national governments, please address these following topics: the incidence of HIV/AIDS in your country, national policies/strategies to address the HIV/AIDS crisis locally and globally, and official statements your government has made on the Global Fund to Fight AIDS, Tuberculosis, and Malaria. Based on your research, outline key elements that you would recommend be included in your country's reform proposals for the Global Fund.

For all other participants, provide a brief background of your organization, its mission, and involvement with HIV/AIDS. Also, identify policies and strategies within your organization to address the HIV/AIDS crisis locally and globally. Based on your research, outline key elements that you would recommend be included in your organization's reform proposals for the Global Fund.

**Assignment is due Monday, 6 January 2003 at 2:00 PM.** Please submit the individual assignment via Coursetools.



# Gerald R Ford School of Public Policy

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## THE GLOBAL AIDS FORUM 2003

Members of the Gerald R Ford School of Public Policy,

Whereas HIV/AIDS has killed more than 20 million people, approximately 3 million dying annually from AIDS-related causes, and an estimated 40 million people worldwide inflected with HIV,

Whereas the Global Fund to Fight AIDS, Tuberculosis & Malaria (Global Fund) is a nongovernmental organization dedicated to preventing and treating HIV/AIDS in the world's poorest countries,

Whereas the Global Fund has received only US\$ 2 billion in pledges from government and private contributions, far short of the US\$ 7 billion needed annually,

Whereas the University of Michigan Gerald R Ford School of Public Policy Integrated Policy Exercise provides students with a week long opportunity to work intensively on a policy issue,

The Ford School will host the Global AIDS Forum 2003 from 6 January 2003 to 9 January 2003 in Ann Arbor, Michigan, to address reform initiatives for a more effective Global Fund, including:

1. Finance. To consider mandatory contributions, based on a predefined formula, by United Nations member states to support the Global Fund;
2. Targeting. To consider a general framework on fund distributions from the Global Fund that its both efficient and equitable;
3. Program/Activity Area. To consider new program guidelines that focuses on specific prevention and treatment activities sponsored by the Global Fund;
4. Intellectual Property. To consider radical changes in Intellectual Property Rights that serve to support the development and production of cheaper drugs/vaccines.

Global AIDS Forum 2003 will culminate in a plenary session of United Nations Member States that will affirm or reject the reform proposal arising from the meetings.

*Marina V N Whitman  
6 September 2002*



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# Administrative Information

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## IPE OUTLINE

The Gerald R Ford School of Public Policy is hosting the Global AIDS Forum 2003 to address the current inadequacies of the Global Fund in leading the fight against HIV/AIDS.

### OBJECTIVE

To agree to a comprehensive Global Fund reform proposal, which identifies: a financing mechanism for global AIDS initiatives, a distribution formula for targeting these funds/initiatives, the main programs or activities to focus on, and how intellectual property concerns will be addressed.

### FORMAT

Students representing national governments, nongovernmental organizations, AIDS activists, pharmaceutical companies, and multinational corporations will convene at the Forum to develop and propose changes to the structure and mission of the Global Fund.

### STUDENT GROUPS

#### ❖ *Country/Organization Groups*

Students will be assigned to one of three roles in the IPE: (1) a member of UNAIDS which will lead the forum sessions, (2) a delegate of a United Nations member state, or (3) a representative of a non-profit organization or business group. The following countries and organizations will be represented at the forum:

#### International Organizations & Countries

UNAIDS	India
Australia	Japan
Botswana	Morocco
Brazil	Russia
Canada	South Africa
China	Thailand
European Union	Turkey
Haiti	United States

#### Nonprofits & Businesses

Act Up (US)	GlaxoSmithKline (UK)
Anglo American plc (UK)	Government Pharmaceutical Organization (Thailand)
Bill & Melinda Gates Foundation (US)	Médecins Sans Frontières (France)
Bristol Meyers Squibb (US)	Merck & Co, Inc (US)
Cipla Ltd (India)	Oxfam (UK)
Coca-Cola (US)	Southern African Catholic Bishops Conference (South Africa)
Elizabeth Glaser Pediatric AIDS Foundation (US)	Women Fighting AIDS in Kenya (Kenya)
Family Health International (US)	
FarManguinhos (Brazil)	

#### ❖ *Region / Group of Organizations*

In addition, countries and organizations will be grouped by "region" or "group of organizations" to facilitate the negotiations process. Where possible, regions and groups of organizations are expected to develop a common position and proposal for the four policy roundtables. The regions and groups of organizations are as follows:

International Organizations

UNAIDS

Africa

Botswana  
Morocco  
South Africa

Americas - Developed

Canada  
United States

Americas - Developing

Brazil  
Haiti

Asia - Developed

Australia  
Japan

Asia – Developing

China  
India  
Thailand

Europe

European Union  
Russia  
Turkey

Western Pharmaceuticals

Bristol Meyers Squibb  
GlaxoSmithKline  
Merck & Co, Inc

NonWestern Pharmaceuticals

Cipla Ltd (India)  
FarManguinhos (Brazil)  
Govt Pharmaceutical Organisation  
(Thailand)

NonPharma Multinationals

Anglo American  
Coca-Cola

Advocacy NGOs

Act Up  
Bill & Melinda Gates Foundation  
Oxfam  
Southern African Catholic Bishops Conf.

Service NGOs

Elizabeth Glaser Pediatric AIDS Foundation  
Family Health International  
Médecins Sans Frontières  
Women Fighting AIDS in Kenya

**POLICY ROUNDTABLES**

Policy roundtables will serve as the primary vehicle for discussion. Roundtables on financing, targeting, program / activity area, and intellectual property will be held concurrently to address specific issues related to the Global Fund (Refer to Key Questions for Policy Roundtables).

Each roundtable session should be attended by a minimum number of representatives from each region or group of organizations:

**Minimum number of Roundtable Representatives for Each Region/Group of Organizations**

	UNAIDS	Americas- Developed	Asia - Developed	Europe	Africa	Americas - Developing	Asia - Developing	Service NGOs	Advocacy NGOs	Western Pharma	Nonwestern Pharma	NonPharma MNCs
Financing	4	2	2	3	3	2	3	4	3	2	2	2
Targeting	4	2	2	3	3	2	3	5	6	3	2	2
Program Activity	4	2	2	3	3	2	3	5	5	3	4	2
Intellectual Prop	4	2	2	3	3	2	3	2	2	4	4	2

**GLOBAL AIDS FORUM**  
**MONDAY, 6 JANUARY 2003**

2:00 – 3:30

**Opening Plenary Session**  
Pendleton Room

Welcoming remarks by Rebecca Blank, Dean, Gerald R. Ford School of Public Policy.

Keynote speaker, Stephen Lewis, United Nations Special Envoy for HIV/AIDS in Africa.

Professor Marina v.N. Whitman to provide students with an overview of the Global AIDS Forum.

***Individual background papers due by 2:00 PM.***

3:45 – 5:00

**Country/Organization Meetings**

Anderson ABCD (all country representatives and UNAIDS)  
Rooms 2015 ABCD (all organization representatives)

Students are to meet in their respective country/organization groups to get acquainted with fellow team members, establish small group procedures, and assign roles and responsibilities where appropriate.

The assignment of roles may include: group leader, lead facilitator, chief negotiator, scribe, etc. Responsibilities may include: alliance/coalition building, policy specialist for roundtables, etc.

In addition, groups are expected to share individual background papers, discuss similarities and differences on group positions, and identify any issues where additional research is needed.

UNAIDS is expected to form teams of four for each of the policy roundtables. Teams are to appoint two facilitators, a timekeeper, and a scribe for their respective roundtable.

- Facilitators: Manage the agenda, ensure balanced participation, ensure forum procedures are followed, assist with roundtable maintenance, and facilitate discussion and consensus building.
- Timekeeper: Monitor the pace of the roundtable meetings and ensure forum procedures are followed.
- Scribe: Provide group memory by maintaining notes of the policy roundtable discussions/negotiations.

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**GLOBAL AIDS FORUM  
TUESDAY, 7 JANUARY 2003**

9:00 – 10:30

**Country/Organization Meetings**

Anderson ABCD (all country representatives)  
Rooms 2015 ABC (all organization representatives)

Countries and organizations develop preliminary position statements on the issues being addressed in the forum. Position statements should outline the problem, set objectives, define interests, analyze competing and supporting positions, propose possible options, and provide an informal cost/benefit assessment.

***Country/Organization preliminary position statements due by 10:30 AM.***

10:30 – 12:00

**Region/Group of Organizations Meetings**

Anderson ABCD (all regions)  
Rooms 2015 ABC (all groups of organizations)

Regions and groups of organizations share individual country/organization preliminary position statements. Groups should also divide roles and responsibilities for the policy roundtables and begin working on reform proposals. *(Please note that regions and groups of organizations have minimum representation requirements for the policy roundtables that must be fulfilled).*

Individual countries and organizations that cannot find common ground within their assigned region or group of organizations may submit a dissenting opinion or alternative proposal. Alternatively, countries and organizations may seek to join another region or group of organizations if preferred. Any country or organization that does so must notify the IPE staff.

9:00 – 12:00

**UNAIDS Meeting**

Room 2015 D

UNAIDS to prepare a 45-minute overview of the Global Fund and issues related to the roundtable topics: financing, targeting, delivery, and intellectual property.

***UNAIDS presentation due by 12:00 PM.***

12:00 – 1:00

**First Plenary Session: UNAIDS Debrief**

Anderson ABCD

UNAIDS to present a short overview on the Global Fund and issues related to the roundtable topics.

1:00 – 2:00

**Luncheon Speaker** (Lunch provided)  
Anderson ABCD

Brent Chrite, Director of South Africa Initiatives Office to speak about the role of race and culture in HIV/AIDS prevention and treatment.

2:00 – 5:00

**Region/Group of Organizations Meetings**  
Anderson ABCD (all regions)  
Rooms 2015 ABC (all groups of organizations)

Additional time for regions and groups of organizations to develop reform proposals for each policy roundtable.

***Reform proposals due by 10:00 PM.***

2:30 – 5:00

**UNAIDS Meeting with Outside Expert**  
Room 2015 D

Steve Charnovitz of Wilmer, Cutler & Pickering, to meet with UNAIDS to discuss various negotiations strategies for the policy roundtables. UNAIDS is expected to help the four policy roundtables reach consensus in developing a comprehensive reform proposal for the Global Fund.

**GLOBAL AIDS FORUM**  
**WEDNESDAY, 8 JANUARY 2003**

9:00 – 10:00

**IPE Briefing on Parliamentary Procedures & Agendas**  
Pendleton Room

The IPE staff will provide an overview of parliamentary procedures and agendas for UNAIDS and other forum participants. At least one member from every region/group of organizations in each of the policy roundtables should attend.

9:00 – 10:00

**Coalition Building**  
Room 2015B and Parker Room available for student use

Networking opportunity for all forum participants not attending the IPE Briefing. Regions and groups of organizations are strongly encouraged to develop coalitions to facilitate the negotiations process.

10:00 – 12:00

**Policy Roundtables**  
Pendleton Room (Financing and Targeting)  
Room 2015B (Program/Activity Area)  
Parker Room (Intellectual Property)

Regions and groups of organizations to present reform proposals (and discuss general positions) in each of the four roundtables. UNAIDS to lead discussion, with assistance from the following experts:

Financing: Jim Hines, School of Public Policy  
Targeting: Sioban Harlow, School of Public Health  
Program / Activity Areas: TBD  
Intellectual Property: David Canter, Pfizer

12:00 – 1:00

**Working Lunch** (Lunch provided)

Regions and groups of organizations to update members on the state of the policy roundtable negotiations and outline possible strategies and/or position changes.

Individual countries and organizations are also encouraged to meet separately from their region/group of organizations to discuss their specific interests.

1:00 – 3:00

**Policy Roundtables** (continued)  
Pendleton Room (Financing and Targeting)  
Room 2015B (Program/Activity Area)  
Parker Room (Intellectual Property)

Policy roundtables to discuss and negotiate a common reform proposal.

***UNAIDS press release on the status of negotiations/reform proposal due by 10:00 PM.***

3:00 – 3:15

**Coffee Break**

3:15 – 5:00

**Policy Roundtables** (continued)  
Pendleton Room (Financing and Targeting)  
Room 2015B (Program/Activity Area)  
Parker Room (Intellectual Property)

**GLOBAL AIDS FORUM  
THURSDAY, 9 JANUARY 2003**

9:00 – 10:00	<b>Country/Organization (or Region/Group of Orgs) Meetings</b> Anderson ABCD (all countries/regions) Rooms 2015 ABC (all organizations/groups of organizations) Room 2015 D (UNAIDS)
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Debriefing opportunity for countries and organizations or regions and groups of organizations.

10:00 – 12:00	<b>Policy Roundtables</b> Anderson ABCD (Finance, Targeting) Pendleton Room (Program / Activity Area, Intellectual Property)
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Policy Roundtables to finalize negotiations.

***Roundtable reform proposals due by 2:30 PM.***

12:00 – 1:00	<b>Individual Lunch</b> (Lunch not provided)
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1:00 – 2:00	<b>Country/Organization Meetings</b> Anderson ABCD (all countries/regions) Rooms 2015 ABC (all organizations/groups of organizations) Room 2015 D (UNAIDS)
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Countries and organizations to write and deliver a 3-minute speech regarding their position on the final reform proposal.

Organizations have the option of developing a joint position with another organization where appropriate. Any group with a joint position/speech must notify UNAIDS in advance for scheduling purposes.

UNAIDS should draft a 3-minute speech on the negotiations process and the outcome for each policy roundtable.

2:00 – 3:15	<b>Second Plenary Session</b> Pendleton Room
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Organizations to have an opportunity to make a 3-minute (max) statement on the reform proposal.

3:15 – 3:30	<b>Coffee Break</b>
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3:30 – 4:30	<b>Third Plenary Session</b> Pendleton Room
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Countries to vote on the final reform proposal with each delegation making a 3-minute (max) speech outlining its position.

4:30 – 5:30	<b>Closing Plenary Session</b> Pendleton Room
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Feedback on final roundtable reform proposals by outside expert (TBD).

Closing remarks by Dean Blank and Professor Whitman.

5:30 – 6:00

**IPE Evaluation**  
Pendleton Room

Students to fill out and submit IPE evaluation form.

6:00 – 8:00

**IPE Banquet & Awards**  
Ballroom

## PROVISIONAL AGENDAS FOR PLENARY SESSIONS

### OPENING PLENARY SESSION: MONDAY 6 JAN 03

- 2:00 Opening remarks by Rebecca M Blank, Dean, Gerald R. Ford School of Public Policy Henry Carter Adams Collegiate Professor of Public Policy
- 2:10 Keynote address by Stephen Lewis, United Nations Special Envoy for HIV/AIDS in Africa
- 3:00 IPE introductions by Marina v.N. Whitman, Professor of Business Administration and Public Policy

### FIRST PLENARY SESSION: TUESDAY, 7 JAN 03

- 12:00 Professor Whitman to open the first plenary session and introduce the UNAIDS group to forum participants
- 12:05 UNAIDS to provide a short overview on the Global Fund and issues related to the roundtable topics
- 12:40 Questions and Answers on the UNAIDS presentation

### SECOND PLENARY SESSION: THURSDAY, 9 JAN 03

- 2:00 UNAIDS to open the second plenary session and provide an opportunity for organizations to address the forum. The organizations are scheduled to speak in the following order:

1. Act Up (US)
2. Anglo American plc (UK)
3. Bill & Melinda Gates Foundation (US)
4. Bristol Meyers Squibb (US)
5. Cipla Ltd (India)
6. Coca-Cola (US)
7. Elizabeth Glaser Pediatric AIDS Foundation (US)
8. Family Health International (US)
9. FarManguinhos (Brazil)
10. GlaxoSmithKline (UK)
11. Government Pharmaceutical Organization (Thailand)
12. Médecins Sans Frontières (France)
13. Merck & Co, Inc (US)
14. Oxfam (UK)
15. Southern African Catholic Bishops Conference (South Africa)
16. Women Fighting AIDS in Kenya (Kenya)

Adjustments in the schedule will be made to reflect joint speeches.

### **THIRD PLENARY SESSION: THURSDAY, 9 JAN 03**

3:30 UNAIDS to open the third plenary session and comment on the activities of the past three days. UNAIDS to summarize the activities/outcomes of the four policy roundtables.

UNAIDS to conduct a formal vote on the reform proposal. Countries are expected to say, "Yeah" or "Nay" to the proposal and outline reasons for their position. Countries are scheduled to speak in the following order:

1. Australia
2. Botswana
3. Brazil
4. Canada
5. China
6. European Union
7. Haiti
8. India
9. Japan
10. Morocco
11. Russia
12. South Africa
13. Thailand
14. Turkey
15. United States

### **CLOSING PLENARY SESSION: THURSDAY, 9 JAN 03**

4:30 Professor Whitman to close the Global AIDS Forum and welcome outside evaluators to comment on the process and outcome of the IPE.

4:35 Outside Evaluators provide feedback to students on the reform proposal

5:30 Students to fill out IPE evaluation forms.



## KEY QUESTIONS FOR THE POLICY ROUNDTABLES

### FINANCE

1. How much money is needed for the Global Fund to be effective in addressing the current global AIDS crisis?
2. Should the U.N. require mandatory contributions from United Nations member states to support the Global Fund? If so, how should the Fund determine the appropriate assessment on each individual country?
3. As an alternative to assessments on member countries, should the U.N. mandate some form of global tax on certain types of economic activity or financial transaction. If so, what sort of tax should it be?
4. If it does not impose mandatory assessments or taxes, how should the the required resources required for the Fund be raised? Voluntary contributions from member states? Grass-roots fundraising? Public-private partnerships?
5. What specific measures can the Fund take to encourage greater financial support from the public and private sectors?
6. Any additional agenda issues/solutions?

### TARGETING

1. Should the Global Fund be used to address the HIV/AIDS crisis only in the world's poorest countries? Or should it also fund activities and programs in middle income and/or OECD countries as well?
2. Does it make more sense for the Fund to target specific groups with its limited resources to maximize impact? Please justify answer.
3. If "targeting" is used, what groups should the Fund target?
  - Demographic groups, such as: men, women, children, young people, pregnant women and their infants, mothers, economically active population, etc?
  - Occupational groups, such as: health care workers, teachers, policeman, prostitutes, truck drivers, etc
  - Other vulnerable populations, such as: intravenous drug users, prisoners, migrant populations, men who have sex with men, people living under armed conflict, etcPlease outline a targeting strategy, if appropriate, such as prioritizing groups in a particular order. Also, provide a percentage breakdown of how you would allocate Fund resources to your targeting strategy.
4. Any additional agenda issues/solutions?

### PROGRAM / ACTIVITY AREA

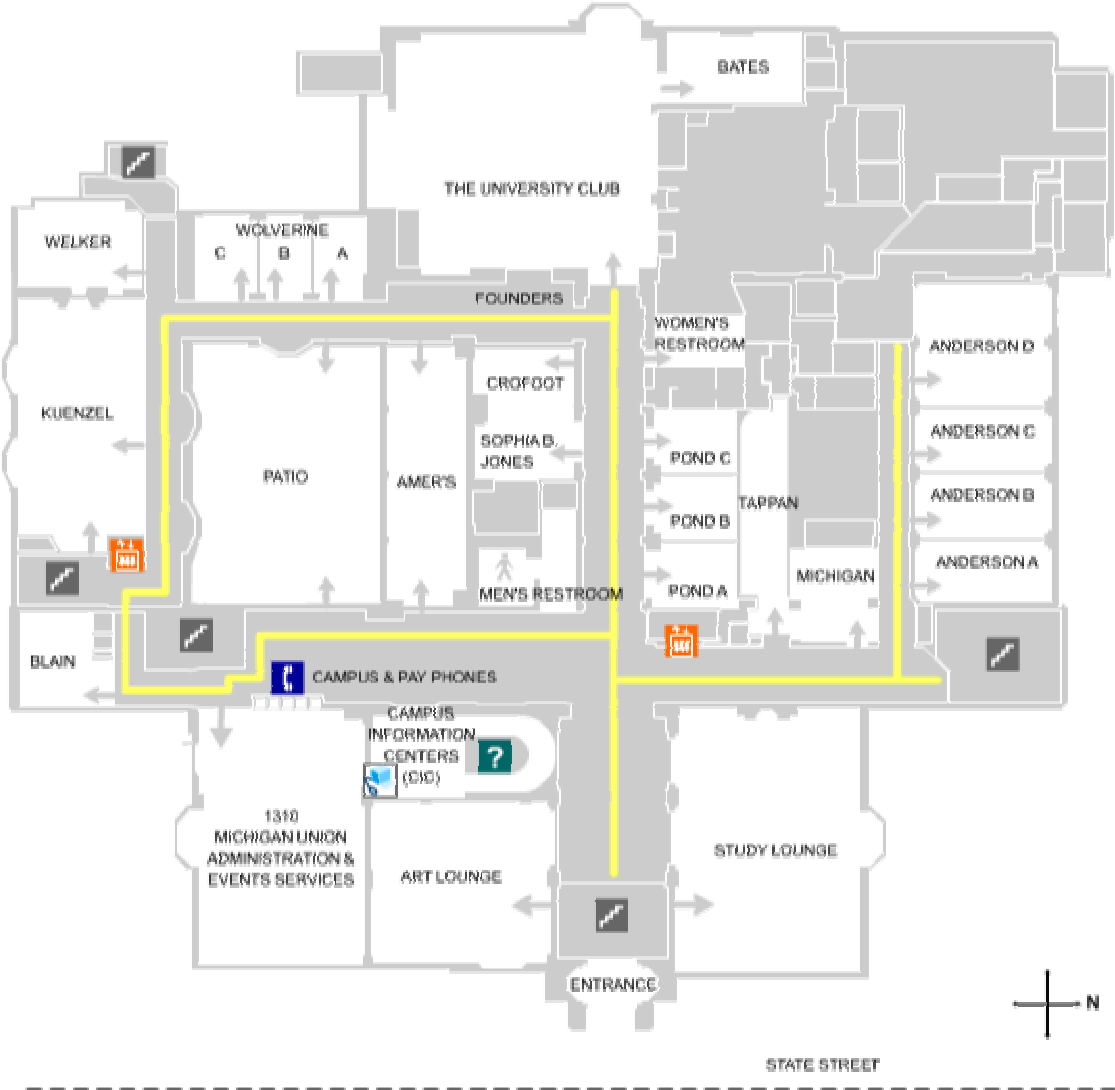
1. Which program or activity areas should the Global Fund focus on: prevention, treatment, vaccines, or some combination? Please justify strategy and provide supporting evidence of effectiveness of proposed solution.
2. How would you design implementation and delivery mechanisms for the chosen programs/activities in order to maximize their effectiveness? Be sure that your responses to both (1) and (2) are sensitive to economic, cultural, and infrastructure issues.
3. Any additional agenda issues /solutions?

## **INTELLECTUAL PROPERTY**

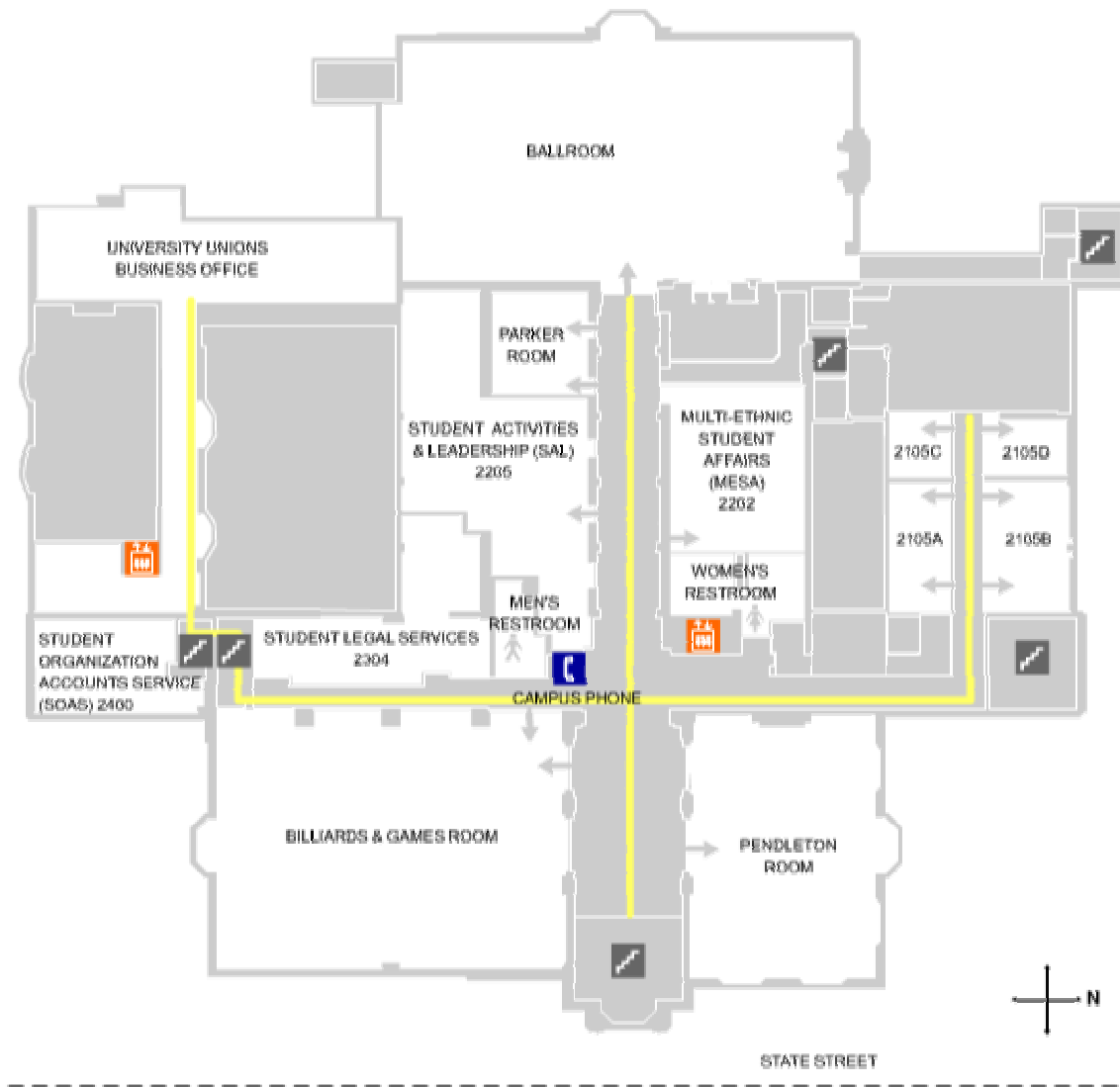
1. Should developing countries be granted a particularly generous interpretation of the multilateral agreement on protection of intellectual property (TRIPS) to allow them to manufacture or import inexpensive generic versions of patented drugs and thus reduce the cost of Global Fund programs?
2. Should developing countries be granted a complete waiver of patent protection provisions for all AIDS medications, both existing and yet to be developed? Or should some limitations be imposed to provide incentives for further research and innovation in that field? In short, how would you implement any waiver arrangements?
3. How would you define “developing countries” for this purpose? Would you extend the provisions you have designed to countries that do not meet the definition of “developing” but are experiencing or threatened by a major AIDS epidemic?
4. Any additional agenda issues /solutions?

# MAP OF MICHIGAN UNION

## FIRST FLOOR



## SECOND FLOOR



# **RULES OF PROCEDURE**

(Modified from the United Nations General Assembly Special Session on HIV/AIDS Organizational Arrangements)

## **President**

1. The forum shall take place under the presidency of Marina v.N. Whitman, Professor of Business Administration and Public Policy, University of Michigan.

## **General Committee**

2. The General Committee shall consist of the President and the IPE graduate student instructors.

## **UNAIDS: Joint United Nations Programme on HIV/AIDS**

3. UNAIDS will serve as the host organization of the Forum, facilitating discussion and managing minor administrative affairs.
4. Facilitators for UNAIDS will represent the President at the Plenary Sessions and Policy Roundtables should the President not be in attendance.

## **General Assembly**

5. The Assembly shall consist of the Member States of the United Nations.

## **Level of representation**

6. Member States and observers are urged to be represented at the forum at the highest political level.

## **Special delegations to the forum**

7. Representatives of civil society, people living with HIV/AIDS or representatives of their associations, as well as young people's organizations, and representatives of the private sector are encouraged to participate in the forum.

## **Accreditation of civil society representatives**

8. Accreditation of civil society representatives to the forum shall be open to:
  - (a) Non-governmental organizations which enjoy consultative status in accordance with the United Nations Economic and Social Council resolution 1996/31 of 25 July 1996;
  - (b) Non-governmental organizations which are members of the Programme Coordination Board of the Joint United Nations Programme on HIV/AIDS (UNAIDS);
  - (c) Non-governmental organizations invited by the General Committee.

## **Schedule of plenary meetings**

9. The forum shall consist of a total of four plenary meetings, as follows:
  - (a) Monday, 6 January 2003, from 2 p.m. to 3:30 p.m.
  - (b) Tuesday, 7 January 2003, from 12 p.m. to 1 p.m.
  - (c) Thursday, 9 January 2003, from 2 p.m. to 3:15 p.m.
  - (d) Thursday, 9 January 2003, from 3:30 p.m. to 4:30 p.m.
  - (e) Thursday, 9 January 2003, from 4:30 p.m. to 5:30 p.m.

The afternoon meeting on Thursday will be devoted to the adoption of the outcome document and the closing of the forum, following oral presentations by the UNAIDS facilitators of the four roundtables on the summaries of the discussions.

#### **Provisional agendas for the plenary sessions**

10. The General Committee shall prepare the provisional agendas for the plenary sessions in consultation with UNAIDS and Member States.
11. Changes to the provisional agendas will be considered by UNAIDS only if such requests are received 4 hours before the start of the plenary meeting.

#### **Key questions for the policy roundtable meetings**

12. The General Committee shall prepare the key questions for the roundtable meetings in consultation with UNAIDS and Member States.
13. Changes to the discussion topics (as outlined in the key questions) will be considered by UNAIDS only if such requests are received 2 hours before the start of the roundtable meeting.

#### **Rules of debate and procedure for plenary and policy roundtable meetings**

14. Plenary and roundtable meetings shall be held in public unless the President decides that exceptional circumstances require that the meeting be held in private. The President shall determine the participation of private meetings beyond that of the Member States of the United Nations.
15. No delegate may address the forum without having previously obtained the permission of the President. The President shall call upon speakers in the order in which they signify their desire to speak. The President may call a speaker to order if his/her remarks are not relevant to the subject under discussion.
16. The President may limit the speaking time, as appropriate, prior to the start of the meeting sessions.
17. During the discussion of any matter a Member may rise to a point of order and the point of order shall be immediately decided by the President. A delegate may appeal against the ruling of the President, in which case the appeal shall immediately be put to the vote. A Member rising to a point of order may not speak on the substance of the matter under discussion, but on the point of order only.
18. During the discussion of any matter, a Member may move the suspension or the adjournment of the meeting. Such motions shall not be debated, but shall immediately be put to a vote. For purposes of these Rules, "suspension of the meeting" means the temporary postponement of the business of the meeting and "adjournment of the meeting" the termination of all business until another meeting is called.
19. During the discussion of any matter a Member may move the adjournment of the debate on the item under discussion. In addition to the proposer of the motion, one speaker may speak in favour of, and one against, the motion, after which the motion to adjourn the debate shall be immediately put to the vote.
20. A Member may at any time move the closure of the debate on the item under discussion whether or not any other delegate has signified his wish to speak. If request is made for

permission to speak against closure, it may be accorded to not more than two speakers, after which the motion shall be immediately put to the vote. If the Assembly decides in favour of closure, the President shall declare the debate closed.

21. The following motions shall have precedence in the following order over all other proposals or motions before the meeting, except a point of order:
  - (a) To suspend the meeting;
  - (b) To adjourn the meeting;
  - (c) To adjourn the debate on the item under discussion; and
  - (d) For the closure of the debate on the item under discussion.
22. A Member may move that parts of a proposal or of an amendment shall be voted on separately. If objection is made to the request for division, the motion for division shall be voted upon. Permission to speak on the motion for division shall be given only to two speakers in favour and two speakers against. If the motion for division is carried, those parts of the proposal or of the amendment which are subsequently approved shall be put to the vote as a whole. If all operative parts of the proposal or the amendment have been rejected, the proposal or the amendment shall be considered to have been rejected as a whole.
23. When an amendment to a proposal is moved, the amendment shall be voted on first. When two or more amendments to a proposal are moved, the forum shall first vote on the amendment deemed by the President to be furthest removed in substance from the original proposal, and then on the amendment next removed therefrom, and so on, until all the amendments have been put to the vote. Where, however, the adoption of one amendment necessarily implies the rejection of another amendment, the latter amendment shall not be put to the vote. If one or more amendments are adopted, the amended proposal shall then be voted upon. If an amendment to a proposal has been accepted by the original proposer, such an amendment shall be deemed to be an integral part of the original proposal and no separate vote shall be required thereon. A motion is considered an amendment to a proposal if it merely adds to, deletes from or revises part of that proposal. A motion which constitutes a substitution for a proposal shall be considered as a proposal.
24. If two or more proposals are moved, the Assembly shall first vote on the proposal deemed by the President to be furthest removed in substance from the proposal first presented and then on the proposal next removed therefrom, and so on, until all the proposals have been put to the vote, unless the result of a vote on a proposal makes unnecessary any other voting on the proposal or proposals still outstanding.
25. A motion may be withdrawn by its proposer at any time before voting on it has commenced, provided that the motion has not been amended or, if amended, that the proposer of the amendment agrees to the withdrawal. A motion thus withdrawn may be reintroduced by any delegate.
26. When a proposal has been adopted or rejected, it may not be reconsidered at the same session unless the Assembly, by a two-thirds majority of the Members present and voting, so decides. Permission to speak on a motion to reconsider shall be accorded only to two speakers opposing the motion, after which it shall immediately be put to a vote. The correction of a clerical or arithmetical error in any document concerning a proposal which has already been adopted shall not be considered as requiring the reopening of the debate on such proposal by a two-thirds majority vote.

## **Rules of voting**

27. Each Member shall have one vote in the Assembly. For the purposes of these Rules, the phrase "Members present and voting" means Members casting a valid affirmative or negative vote. Members abstaining from voting are considered as not voting.
28. Decisions by the Assembly in plenary session shall be made by a two-thirds majority of the Members present and voting.
29. The Assembly shall vote by roll-call, which shall then be taken in the English alphabetical order of the names of the Members. The name of the Member to vote first shall be determined by lot.
30. Prior to the beginning of voting, non Members may make a statement to the Assembly. Roll-call of non-Members shall be taken in the English alphabetical order of the names.
31. After the President has announced the beginning of voting, no delegate shall interrupt the voting except on a point of order in connexion with the actual conduct of voting.
32. During the roll call, Members cast a valid affirmative or negative vote followed by a brief explanation of vote.
33. In addition to the cases provided for elsewhere by these Rules, the Assembly may vote on any matter by secret ballot if it has previously so decided by a majority of the Members present and voting, provided that no secret ballot may be taken on budgetary questions.

A decision under this Rule by the Assembly whether or not to vote by secret ballot may only be taken by a show of hands; if the Assembly has decided to vote on a particular question by secret ballot, no other mode of voting may be requested or decided upon.

34. When the Assembly votes by secret ballot, the ballot itself and the check of the number of ballot papers shall take place in plenary meeting. Unless the Assembly determines otherwise the counting of votes shall take place in a separate room to which delegations shall have access. This counting shall take place under the supervision of the President of the Assembly.

## **Policy roundtables**

35. Four interactive roundtables shall be held concurrently, as follows:

Wednesday, 8 January 2003, from 10 a.m. to 12 p.m.

Wednesday, 8 January 2003, from 1 p.m. to 5 p.m.

Thursday, 9 January 2003, from 10 p.m. to 12 p.m.

36. The chairpersons of the four roundtables shall be elected from UNAIDS. The chairpersons of the round tables will present orally their summaries of the discussions, during the concluding plenary meeting of the forum.

37. A number of issues to be discussed in the roundtables are outlined:

Round table 1: Financing

Round table 2: Targeting

Round table 3: Program / Activity Areas

Round table 4: Intellectual Property



38. The roundtables shall be open to Members, observers, as well as entities of the United Nations system and accredited civil society representatives.
39. Rules of debate and vote from the plenary sessions shall apply to the roundtable sessions. Decisions by the roundtable, however, shall be made by the majority of the Members present and voting.

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# Global HIV/AIDS Background

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### The Global HIV/AIDS Epidemic

July 2002

The HIV/AIDS epidemic has claimed over 20 million lives and more than 40 million people are estimated to be living with HIV/AIDS worldwide. HIV/AIDS cases have been reported in all regions of the world, but most people living with HIV/AIDS (96%) reside in developing nations, where most AIDS-related deaths occur. The nations of sub-Saharan Africa have been particularly hard-hit.<sup>1,2</sup> AIDS is now a leading cause of death worldwide.<sup>3,4</sup> HIV/AIDS is also considered a threat to the economic well-being and social and political stability of many nations.

#### Current Global HIV/AIDS Statistics

- During 2001, an estimated 5 million people became newly infected with HIV.<sup>2</sup>
- There were an estimated 3 million AIDS-related deaths in 2001.<sup>2</sup> Of these, 1.1 million were women and 580,000 were children under 15.<sup>2</sup>
- AIDS is the number one cause of death in Africa, and the fourth leading cause of death globally.<sup>3,4</sup>
- Worldwide, most HIV-positive individuals are unaware they are infected.<sup>1</sup>

#### Impact on Women, Children, & Young People

- Women comprise an increasing proportion of adults living with HIV/AIDS, rising from 41% in 1997 to 50% in 2001.<sup>2,5</sup> In sub-Saharan Africa, women represent more than half (58%) of all people living with HIV/AIDS.<sup>2,6</sup> Gender inequalities in social and economic status and access to medical care increase women's vulnerability to HIV/AIDS.<sup>5</sup>
- Teens and young adults have been particularly affected.<sup>7</sup> Young people ages 15-24 account for 42% of new HIV infections and represent almost a third of the global total of people living with HIV/AIDS.<sup>7,8</sup> Infection rates are five times higher among young women than young men in some African countries.<sup>5,7</sup>
- At the end of 2001, an estimated 14 million children under age 15 were alive who had lost one or both parents to AIDS<sup>2</sup>; 90% of these children live in sub-Saharan Africa.<sup>9</sup>

#### Impact by Region

The major route of HIV transmission worldwide is heterosexual sex, but risk factors for HIV vary around the world. In many regions of the world, men who have sex with men, injection drug users, and sex industry workers have been particularly affected.<sup>1</sup>

Several regions and countries have been particularly hard-hit by the HIV/AIDS pandemic (see Figure 1). Even in areas where HIV incidence has leveled, such as the U.S., there are increasing numbers of people living with HIV/AIDS and continued risk of HIV infection in many communities.<sup>10,11</sup> The regions most affected by HIV/AIDS include:

- **Sub-Saharan Africa.** Sub-Saharan Africa has 71% (28.5 million) of the population living with HIV/AIDS but only 11% of the world's population.<sup>2,12</sup> In some sub-Saharan African nations, up to a third of adults are estimated to be infected with HIV.<sup>1,6</sup> South Africa has the largest number of people living with HIV/AIDS in the world (5 million).<sup>6</sup>

- **Latin America & The Caribbean.** About 1.9 million adults and children were living with HIV/AIDS in Latin America and the Caribbean at the end of 2001, 200,000 of whom were newly infected with HIV in that year.<sup>2,13</sup> Twelve countries in this region have an estimated HIV prevalence of 1% or more.<sup>13</sup> In Haiti and the Bahamas, 6% and 3.5% of adults are estimated to be HIV-positive.<sup>13</sup> HIV/AIDS prevalence rates in the Caribbean are second only to those in sub-Saharan Africa.<sup>2</sup>
- **Eastern Europe & Central Asia.** The epidemic is growing fastest in this region.<sup>2,14</sup> Driven largely by injection drug use, HIV prevalence rates have risen sharply over the last several years in the newly independent states of the former Soviet Union. The estimated number of people living with HIV/AIDS in Eastern Europe/Central Asia was 1 million at the end of 2001.<sup>2,14</sup>
- **Asia & The Pacific.** At least two countries in the region – Cambodia and Thailand – have HIV prevalence rates above 1% among 15 to 49 year olds.<sup>15</sup> There are increasing concerns about the spread of the epidemic in China, India, and elsewhere.<sup>8,15,16</sup> In India, close to 4 million adults and children were already living with HIV/AIDS at the end of 2001.<sup>2,15</sup>

Figure 1: AIDS Prevalence & Incidence by Region<sup>2,8,17</sup>

Region	Adult Prevalence Rates	Total (%) Living with HIV/AIDS end of 2001	Newly Infected in 2001
<b>Global Total</b>	<b>1.2%</b>	<b>40 million (100%)</b>	<b>5 million</b>
Sub-Saharan Africa	9.0%	28.5 million (71%)	3.4 million
South & South-East Asia	0.6%	5.6 million (14%)	800,000
Latin America	0.5%	1.5 million (4%)	130,000
North America	0.6%	950,000 (2%)	45,000
East Asia & Pacific	0.1%	1 million (2%)	270,000
Eastern Europe & Central Asia	0.5%	1 million (2%)	250,000
Western Europe	0.3%	550,000 (1%)	30,000
North Africa & Middle East	0.3%	500,000 (1%)	80,000
Caribbean	2.3%	420,000 (1%)	60,000
Australia & New Zealand	0.1%	15,000 (<1%)	500

#### Multi-Sectoral Impact of AIDS

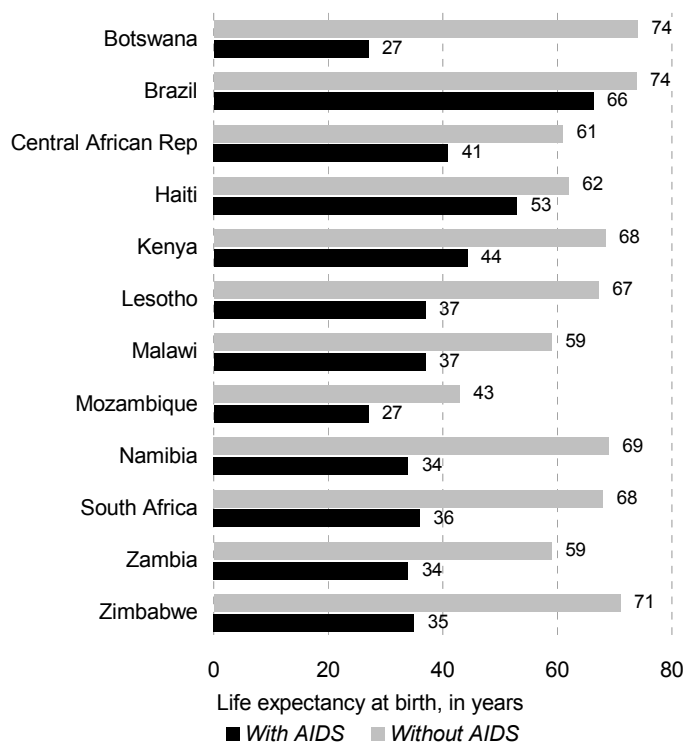
The global HIV pandemic has had a profound, multi-sectoral impact on the structure of many nations, affecting their development and economic growth, communities, households, and individuals:

- AIDS has been declared a development crisis by the World Bank.<sup>18</sup> In countries with prevalence rates of 20% or more, reductions of as much as 2.6% of gross domestic product (GDP) annually are possible.<sup>19</sup> The workforce of nations

has been affected, weakening economies and depleting skilled workers.<sup>19</sup> By 2020, over 25% of the labor force in some sub-Saharan African countries may be lost to AIDS.<sup>20, 21</sup>

- The education sector is also threatened, as AIDS claims the lives of thousands of teachers and schools are forced to close.<sup>22</sup> UNAIDS reports that as many as 1 million children and young people in sub-Saharan Africa lost their teachers to AIDS in 2001.<sup>22,23</sup>
- Increasing demand for health care services is overwhelming the public health infrastructure in many developing countries. In sub-Saharan Africa, direct medical costs of AIDS are estimated at US\$30 per capita, when overall health budgets are less than \$10 per person.<sup>19</sup>
- HIV/AIDS is significantly affecting the population structures of highly-impacted countries, including their population sizes and age distributions.<sup>3,19,24</sup>
- HIV/AIDS has also affected life expectancy. By 2010, life expectancies in many highly-affected countries could drop below 30 in some countries, reversing steady gains over the last century.<sup>3,24</sup> (See Figure 2.)

**Figure 2: Projected Impact on Life Expectancy in Selected Countries, 2010<sup>3,24</sup>**



### The Global Response

- Scarce resources and political constraints have limited many nations' ability to implement scientifically-based prevention interventions.<sup>1</sup> In addition, most people with HIV in the developing world do not have access to treatment, including antiretroviral therapy and other medications needed by people with HIV, due to their high prices and to limited healthcare infrastructure.<sup>1,25,26</sup>

- UNAIDS has estimated that \$7-10 billion is needed annually to effectively respond to the global HIV/AIDS epidemic.<sup>27,28</sup> A subsequent analysis found that \$9.2 billion will be required to be spent in 135 low- and middle-income countries by the year 2005<sup>29</sup>; another study found that \$13.6-\$15.4 billion should be spent in 83 selected low- and middle-income countries by the year 2007, rising to \$20.6-\$24.9 billion by 2015.<sup>30</sup>
- Estimates of current spending on HIV/AIDS in developing countries range from \$1.5 to \$2.8 billion.<sup>27,31</sup>
- In FY 2002, estimated U.S. federal spending on global HIV/AIDS efforts is expected to total \$1 billion or 7% of overall federal HIV/AIDS spending (\$14.7 billion).<sup>31,32</sup> The U.S. made the first commitment (\$100 million in FY 2001) by a government to the recently created Global Fund to Fight AIDS, TB, and Malaria. In FY 2002, the U.S. committed \$200 million.<sup>31,32</sup> Additional contributions are pending Congressional approval.

### Endnotes

- UNAIDS, *AIDS Epidemic Update*, December 2001.
- UNAIDS, *Global Estimates of HIV/AIDS Epidemic as of End 2001*, July 2002.
- U.S. Census Bureau, *The AIDS Pandemic in the 21st Century: The Demographic Impact in Developing Countries*. XIII International AIDS Conference, Durban, South Africa, July 9-14, 2000.
- WHO, *World Health Report (Annex Table 2 Deaths by cause, sex and mortality stratum in WHO Regions estimates for 2000)*, 2001.
- UNAIDS, *Gender and HIV/AIDS (Fact Sheet)*, June 2001.
- UNAIDS, *Sub-Saharan Africa (Fact Sheet)*, July 2002.
- Summers, T., Kates, J., Murphy, G., *The Tip of the Iceberg: The Global Impact of HIV/AIDS on Youth*, Kaiser Family Foundation, July 2002.
- UNAIDS, *AIDS Epidemic Update*, December 2001.
- USAID, *Children on the Brink*, 2000.
- CDC, *A Glance at the HIV Epidemic*, 2002.
- Kates J, Sorian R, Crowley J, Summers T., "Critical Policy Challenges in the Third Decade of the HIV/AIDS Epidemic", *AJPH*, Vol. 92, No. 7, July 2002.
- Population Reference Bureau, *2001 World Population Data Sheet*.
- UNAIDS, *Latin America and the Caribbean (Fact Sheet)*, July 2002.
- UNAIDS, *Eastern Europe and Central Asia (Fact Sheet)*, July 2002.
- UNAIDS, *Asia and the Pacific (Fact Sheet)*, July 2002.
- UNAIDS, *HIV/AIDS: China's Titanic Peril*, June 2002.
- UNAIDS, *Report on the Global HIV/AIDS Epidemic*, July 2002
- World Bank, *Intensifying Action Against HIV/AIDS in Africa: Responding to A Development Crisis*, 2000.
- UNAIDS, *The Impact of HIV/AIDS (Fact Sheet)*, July 2002.
- UNAIDS, *UNAIDS Releases New Data Highlighting the Devastating Impact of AIDS in Africa (Press release)*, June 25, 2002.
- Committee of World Food Security, United Nations, *The Impact of HIV/AIDS on Food Security*, May 2001.
- World Bank, *Education and HIV/AIDS: A Window of Hope*, 2002.
- Piot P., *Testimony to a hearing on "Halting the Global Spread of HIV/AIDS: the Future of U.S. Bilateral and Multilateral Responses."* Committee on Foreign Relations of the United States Senate; 2002.
- US Census Bureau, unpublished data, 2002.
- UNICEF/UNAIDS/WHO/MSF, *Sources and prices of selected drugs and diagnostics for people living with HIV/AIDS*, May 2002.
- UNAIDS, *HIV/AIDS Care and Support (Fact Sheet)*, July 2002.
- UNAIDS, *Report to the UNAIDS Programme Coordinating Board on the State of HIV/AIDS Financing*, May 2002.
- UNAIDS, *Meeting the Need (Fact Sheet)*, July 2002.
- Schwartzlander, B., et al., "Resource Needs for HIV/AIDS", *Science*, Vol.292, No.5526, June 2001.
- World Health Organization, Commission on Macroeconomics and Health, *Investing in Health for Economic Development*, December 2001.
- Alagiri, P., Summers, T., Kates, J., *Global Spending on HIV/AIDS in Resource-Poor Settings*, Kaiser Family Foundation, July 2002.
- Alagiri, P., Summers, T., Kates, J., *U.S. Spending on Global HIV/AIDS*, Kaiser Family Foundation, July 2002.

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# AIDS epidemic update

*December 2002*



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AIDS epidemic update: December 2002





<b>Number of people living with HIV/AIDS</b>	<b>Total</b>	<b>42 million</b>
	Adults	38.6 million
	Women	19.2 million
	Children under 15 years	3.2 million
<b>People newly infected with HIV in 2002</b>	<b>Total</b>	<b>5 million</b>
	Adults	4.2 million
	Women	2 million
	Children under 15 years	800 000
<b>AIDS deaths in 2002</b>	<b>Total</b>	<b>3.1 million</b>
	Adults	2.5 million
	Women	1.2 million
	Children under 15 years	610 000

## INTRODUCTION

*The AIDS epidemic claimed more than 3 million lives in 2002, and an estimated 5 million people acquired the human immunodeficiency virus (HIV) in 2002—bringing to 42 million the number of people globally living with the virus.*

As the world enters the third decade of the AIDS epidemic, the evidence of its impact is undeniable. Wherever the epidemic has spread unchecked, it is robbing countries of the resources and capacities on which human security and development depend. In some regions, HIV/AIDS, in combination with other

crises, is driving ever-larger parts of nations towards destitution.

The world stood by as HIV/AIDS swept through these countries. It cannot be allowed to turn a blind eye to an epidemic that continues to expand in some of the most populous regions and countries of the world.

### Progress towards realizing the Declaration of Commitment

The Declaration of Commitment on HIV/AIDS is a potential watershed in the history of the HIV/AIDS epidemic. Adopted by the world's governments at the Special Session of the United Nations General Assembly on HIV/AIDS in June 2001, it established, for the first time ever, time-bound targets to which governments and the United Nations may be held accountable.

UNAIDS and its Cosponsors have established a set of yardsticks for tracking movement towards those targets. Work on the first report measuring progress against these indicators starts in 2003, and will be based on progress reports provided in March 2003 by the 189 countries that adopted the Declaration.

Already, though, there is substantial evidence of progress. More countries are recognizing the value of pooling resources, experiences and commitment by forging regional initiatives to combat the epidemic. Examples are multiplying, among them the following:

The Asia Pacific Leadership Forum, which is tasked with improving key decision-makers' knowledge and understanding of HIV/AIDS and its impact on different sectors of society.

Members of the Commonwealth of Independent States have developed a regional Programme of Urgent Response to the HIV/AIDS epidemic, which government leaders endorsed in May 2002.

In mid-2002, the Pan-Caribbean Partnership against HIV/AIDS signed an agreement with six pharmaceutical companies as part of wider-ranging efforts to improve access to cheaper antiretroviral drugs.

In sub-Saharan Africa, 40 countries have developed national strategies to fight HIV/AIDS (almost three times as many as two years ago), and 19 countries now have National AIDS Councils (a six-fold increase since 2000).

Additional resources are being brought to bear by the new Global Fund to Fight AIDS, Tuberculosis and Malaria, which has approved an initial round of project proposals, totalling US\$616 million, about two-thirds of which is earmarked for HIV/AIDS. Governments and donors have pledged more than US\$2.1 billion to the fund.

But the world lags furthest behind in providing adequate treatment, care and support to people living with HIV/AIDS. Fewer than 4% of people in need of antiretroviral treatment in low- and middle-income countries were receiving the drugs at the end of 2001. And less than 10% of people with HIV/AIDS have access to palliative care or treatment for opportunistic infections.

In many countries, especially in sub-Saharan Africa and Asia, competing national priorities inhibit allocation of resources to expand access to HIV/AIDS care, support and treatment. Unaffordable prices remain the most commonly cited reasons for the limited access to antiretroviral drugs. Insufficient capacity of health sectors, including infrastructure and shortage of trained personnel, are also major obstacles to health service delivery in many countries.

In Eastern Europe and Central Asia, the number of people living with HIV in 2002 stood at 1.2 million. HIV/AIDS is expanding rapidly in the Baltic States, the Russian Federation and several Central Asian republics.

In Asia and the Pacific, 7.2 million people are now living with HIV. The growth of the epidemic in this region is largely due to the growing epidemic in China, where a million people are now living with HIV and where official estimates foresee a manifold increase in that number over the coming decade. There remains considerable potential for growth in India, too, where almost 4 million people are living with HIV.

In several countries experiencing the early stages of the epidemic, significant economic and social changes are giving rise to conditions and trends that favour the rapid spread of HIV—for example, wide social disparities, limited access to basic services and increased migration.

Best current projections suggest that an additional 45 million people will become infected with HIV in 126 low- and middle-income countries (currently with concentrated or generalized epidemics) between 2002 and 2010—unless the world succeeds in mounting a drastically expanded, global prevention effort. More than 40% of those infections would occur in Asia and the Pacific (currently accounts for about 20% of new annual infections).

### Pinning down HIV trends

The most common measure of the HIV/AIDS epidemic is the *prevalence* of HIV infections among a country's adult population—in other words, the percentage of the adult population living with HIV. Prevalence of HIV provides a good picture of the overall *state* of the epidemic. Think of it as a still photograph of HIV/AIDS. In countries with generalized epidemics, this image is based largely on HIV tests done on anonymous blood samples taken from women attending antenatal clinics.

But prevalence offers a less clear picture of recent *trends* in the epidemic, because it does not distinguish between people who acquired the virus very recently and those who were infected a decade or more ago. (Without antiretroviral treatment, a person might survive, on average, up to 9–11 years after acquiring HIV; with treatment, survival is substantially longer.)

Countries A and B, for example, could have the same HIV prevalence, but be experiencing very different epidemics. In country A, the vast majority of people living with HIV/AIDS (the prevalent cases) might have been infected 5–10 years ago, with few recent infections occurring. In country B, the majority of people living with HIV/AIDS might have been infected in the past two years. These differences would obviously have a huge impact on the kind of prevention and care efforts that countries A and B need to mount.

Similarly, HIV prevalence rates might be stable in country C, suggesting that new infections are occurring at a stable rate. That may not be the case, however. Country C could be experiencing higher rates of AIDS mortality (as people infected a decade or so ago die in large numbers), and an *increase* in new infections. Overall HIV prevalence rates would not illuminate those details of the country's epidemic.

So a measure of HIV *incidence* (i.e. the number of new infections observed over a year among previously uninfected people) would help complete the picture of current trends. Think of it as an animated image of the epidemic.

The problem is that measuring HIV incidence is expensive and complicated—to the point of it being unfeasible at a national level and on a regular basis in most countries.

None of this means, however, that recent trends are a mystery. Regular measurement of HIV prevalence among groups of young people can serve as a proxy, albeit imperfect, for HIV incidence among them. Because of their age, young people will have become infected relatively recently. Significant changes in HIV prevalence among 15–19- or 15–24-year-olds can therefore reflect important new trends in the epidemic.

The steadily dropping HIV prevalence levels in 15–19-year-olds in Uganda, for example, indicate a reduction in recent infections among young people, and provide a more accurate picture of current trends in the epidemic (and, in this instance, of the effectiveness of prevention efforts among young people).

## REGIONAL HIV/AIDS STATISTICS AND FEATURES, END OF 2002

Region	Epidemic started	Adults and children living with HIV/AIDS	Adults and children newly infected with HIV	Adult prevalence rate (*)	% of HIV-positive adults who are women	Main mode(s) of transmission (#) for adults living with HIV/AIDS
Sub-Saharan Africa	late '70s early '80s	29.4 million	3.5 million	8.8%	58%	Hetero
North Africa & Middle East	late '80s	550 000	83 000	0.3%	55%	Hetero, IDU
South & South-East Asia	late '80s	6.0 million	700 000	0.6%	36%	Hetero, IDU
East Asia & Pacific	late '80s	1.2 million	270 000	0.1%	24%	IDU, hetero, MSM
Latin America	late '70s early '80s	1.5 million	150 000	0.6%	30%	MSM, IDU, hetero
Caribbean	late '70s early '80s	440 000	60 000	2.4%	50%	Hetero, MSM
Eastern Europe & Central Asia	early '90s	1.2 million	250 000	0.6%	27%	IDU
Western Europe	late '70s early '80s	570 000	30 000	0.3%	25%	MSM, IDU
North America	late '70s early '80s	980 000	45 000	0.6%	20%	MSM, IDU, hetero
Australia & New Zealand	late '70s early '80s	15 000	500	0.1%	7%	MSM
<b>TOTAL</b>		<b>42 million</b>	<b>5 million</b>	<b>1.2%</b>	<b>50%</b>	

\* The proportion of adults (15 to 49 years of age) living with HIV/AIDS in 2002, using 2002 population numbers.  
# Hetero (heterosexual transmission), IDU (transmission through injecting drug use), MSM (sexual transmission among men who have sex with men).

Such outcomes can be avoided. Implementation of a full prevention package by 2005 could cut the number of new infections by 29 million by 2010. It could also help achieve the target of reducing HIV prevalence levels among young people by 25% by 2010 (as set in the Declaration of Commitment on HIV/AIDS, which the world's governments adopted in June 2001). But any delay in implementing a full prevention package will slash the potential gains.

Responses that involve and treat young people as a priority pay off, as evidence from Ethiopia, South Africa, Uganda and Zambia shows. HIV prevalence levels among young women in Addis Ababa declined by more than one-third between 1995 and 2001. Among pregnant teenagers in South Africa, HIV prevalence levels shrank a quarter between 1998 and 2001. Prevalence remains unacceptably high, but these positive trends confirm the value of investing in responses among the young.

The future trajectory of the global HIV/AIDS epidemic depends on whether the world can protect young people everywhere against the epidemic and its aftermath.

Just as certain sectors of society are at particular risk of HIV infection, certain conditions favour the epidemic's growth. As the current food emergencies in southern Africa show, the AIDS epidemic is increasingly entangled with wider humanitarian crises. The risk of HIV spread often increases when desperation takes hold and communities are wrenched apart. At the same time, the ability to stall the epidemic's growth also suffers, as does the capacity to provide adequate treatment, care and support.

It is vital that HIV/AIDS-related activities become an integral part of wider-ranging efforts to prevent and overcome humanitarian crises, as this publication shows (see 'HIV/AIDS and humanitarian crises').

## ASIA AND THE PACIFIC

*The window of opportunity for bringing the HIV/AIDS epidemic under control is narrowing rapidly in Asia.*

Almost 1 million people in Asia and the Pacific acquired HIV in 2002, bringing to an estimated 7.2 million the number of people now living with the virus—a 10% increase since 2001. A further 490 000 people are estimated to have died of AIDS in the past year. About 2.1 million young people (aged 15–24) are living with HIV.

With the exception of Cambodia, Myanmar and Thailand, national HIV prevalence levels remain comparatively low in most countries of Asia and the Pacific. That, though, offers no cause for comfort. In vast, populous countries such as China, India and Indonesia, low national prevalence rates blur the picture of the epidemic.

Both China and India, for example, are experiencing serious, localized epidemics that are affecting many millions of people.

India's national adult HIV prevalence rate of less than 1% offers little indication of the serious

in the form of higher HIV/AIDS knowledge levels and condom use (see box). However, HIV prevalence among these key groups continues to increase in some states, underlining the need for well-planned and sustained interventions on a large scale.

The epidemic in China shows no signs of abating. Official estimates put the number of people living with HIV in China at 1 million in mid-2002. Unless effective responses rapidly take hold, a total of 10 million Chinese will have acquired HIV by the end of this decade—a number equivalent to the entire population of Belgium.

Officially, the number of reported new HIV infections rose about 17% in the first six months of 2002. But HIV incidence rates can soar abruptly in a country marked by widening socioeconomic disparities and extensive migration (an estimated 100 million Chinese are temporarily or permanently away from their

registered addresses), with the virus spreading along multiple channels.

Several HIV epidemics are being observed among certain population groups in various parts of this vast country. Serious localized HIV epidemics are occurring among injecting drug users in nine provinces, as well as in Beijing Municipality. The most recent reported outbreaks of HIV among injecting drug users have been in Hunan and Guizhou provinces (where sentinel surveillance among users has revealed HIV prevalence rates of 8% and 14%, respectively).

situation facing the country. An estimated 3.97 million people were living with HIV at the end of 2001—the second-highest figure in the world, after South Africa. HIV prevalence among women attending antenatal clinics was higher than 1% in Andhra Pradesh, Karnataka, Maharashtra, Manipur, Nagaland and Tamil Nadu.

New behavioural studies in India suggest that prevention efforts directed at specific populations (such as female sex workers and injecting drug users) are paying dividends in some states,

There are also signs of heterosexually transmitted HIV epidemics spreading in at least three provinces (Yunnan, Guangxi and Guangdong) where HIV prevalence in 2000 was as high as 11% among sentinel sex worker populations.

The onward sexual transmission of HIV by people who became infected when they sold

their blood to collecting centres that ignored basic blood-donation safety procedures poses a massive challenge, as does the need to provide them with treatment and care. Signalling the gravity of the situation, one 2001 survey in rural eastern China found alarmingly high HIV prevalence—12.5%—among people who had donated plasma. Most of the country's estimated

### Mixed lessons from India

A new national behavioural survey conducted in 2001–2002 in India highlights important facets of the country's bid to curtail its epidemic. The survey shows clearly that where interventions have occurred and been sustained, behavioural change has been possible. But it also points to the difficulties in reaching some key groups (such as men who have sex with men), and large sections of the wider population (notably women living in rural areas).

Countrywide, awareness of HIV/AIDS is high, with roughly three-quarters of adult Indians (aged 15–49) aware that correct and consistent condom use can prevent sexual transmission of HIV.

But, in general, awareness and knowledge of HIV/AIDS remain weak in rural areas and among women. More than 80% of urban men recognized the protective value of consistent condom use, compared to just over 43% of rural women. There are marked exceptions, though, such as in Andhra Pradesh and Kerala, where awareness levels among women and men are approximately the same. Yet, even in those states, women report low levels of condom use (37% and 22%, respectively)—an indication that many are not able to negotiate safer sex with male partners. The gender divide remains wide.

The survey data show that Indians who cannot read are six times less likely to use a condom during casual sex than are their compatriots who are educated beyond secondary school. And rural residents are half as likely as their urban peers to use a condom with casual partners.

Striking, too, are the high levels of awareness and knowledge about HIV/AIDS, and the evidence of high condom use among vulnerable populations in states that have mounted consistent prevention efforts. For example, Maharashtra is home to a longstanding, generalized epidemic. There, HIV/AIDS responses appear to have resulted in higher levels of awareness and behavioural change among female sex workers, their clients and injecting drug users (66%, 77% and 52% of whom, respectively, said they consistently use condoms—among the highest rates in India). This may have helped prevent the state's epidemic from spinning out of control.

Similarly, Gujarat's focused programmes have helped ensure that some three-quarters of female sex workers used condoms the last time they had sex with a commercial or casual partner. But the state also reminds that HIV/AIDS responses have to reach the wider population if the epidemic is to be kept under control. (Knowledge levels among women and rural inhabitants, for example, are very low: only about 8% had no misconceptions about how HIV is transmitted.) By contrast, where interventions for general and marginalized populations have taken place together—as in Kerala—they have helped keep HIV prevalence low.

The survey shows that a significant proportion of men who have sex with men in India also have sex with women (almost 31% had sex with female partners in a six-month recall period), and many (36% during a month's recall) have sex with commercial male partners—hitherto hidden facets of the epidemic. Condom use rates, though, were low both with commercial partners (39% during last sexual intercourse) and with female partners (36%). This points to the need for urgent action, given the potential for wider and more rapid HIV spread through such multiple sexual networks.

A major challenge for India now is that of rapidly expanding the coverage of its HIV/AIDS programmes to all vulnerable groups. Flanking that is the broader challenge of ensuring that the response reaches young, illiterate populations and rural communities, especially women.

*(Based on Nationwide Behavioural Surveillance Survey of general population and high-risk groups, 2001–2002, National AIDS Control Organization, India/ORG MARG)*

3 million paid blood donors live in poor rural communities, and those now living with HIV/AIDS in provinces such as Henan (as well as Anhui and Shanxi, where similar tragedies might have occurred) face limited access to health-care services while having to endure severe stigma and discrimination.

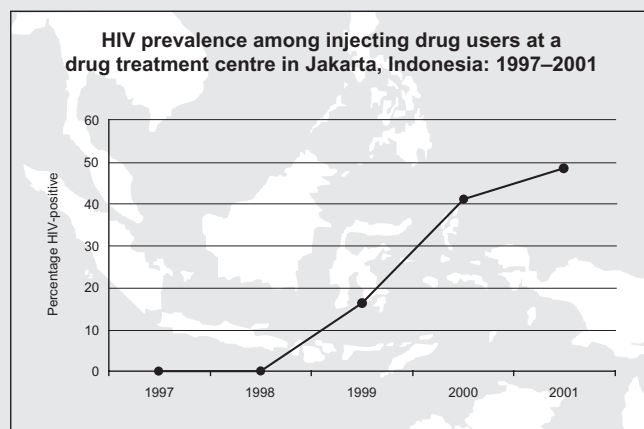
There is a clear need for urgent action. By expanding prevention, treatment and care efforts across the entire nation, China can avert millions of HIV infections and save millions of lives in the coming decade. The five-year AIDS action plan promulgated in mid-2001 signalled a growing commitment to take up that challenge, as did

### A dangerous new trend in Indonesia

Recent social and economic upheavals in Indonesia appear to be fuelling a sharp rise in injecting drug use—and, with it, the risk of rapidly increasing HIV spread.

Virtually unknown in Indonesia just a decade ago, drug injection is now a growing phenomenon in urban areas. Official estimates suggest that between 124 000 and 196 000 Indonesians are now injecting drugs. And data from the largest drug treatment centre in Jakarta reveal that HIV prevalence is rising very steeply in this population, as the graph below shows.

National estimates indicate that some 43 000 injecting drug users are already infected with HIV. With needle-sharing the norm, HIV is likely to spread much more widely throughout this population in the next few years. If current high-risk injecting behaviour continues, it is estimated that the number of injecting drug users living with HIV could almost double in 2003, accounting for more than 80% of new HIV infections nationwide.



Source: RSKO hospital and Indonesian Ministry of Health, Directorate General of Communicable Disease Control and Environmental Health, 2002.

The vast majority of injectors are male, and behavioural data indicate that over two-thirds of them are sexually active. Already, an estimated 9000 women have been infected sexually by men who inject drugs.

the recent moves towards negotiating affordable antiretroviral treatment with pharmaceutical companies.

High HIV infection rates are being discovered among specific population groups (chiefly injecting drug users, sex workers, and men who have sex with men) in countries across the length and breadth of Asia and the Pacific.

indicating that a broadened epidemic is under way in the city. Among people seeking treatment for other sexually transmitted infections in the capital, HIV prevalence was 7% in 2001 (double the level in 2000). Very low levels of condom use and wide sexual networking (amid low awareness and knowledge of HIV/AIDS) mean the country could be facing a severe epidemic.

### *Cambodia's epidemic appears to be stabilizing, thanks to sustained prevention programmes that link government and civil society and that span various sectors of society.*

Throughout the region, injecting drug use offers the epidemic huge scope for growth. Upwards of 50% of injecting drug users already have acquired the virus in parts of Malaysia, Myanmar, Nepal, Thailand and in Manipur in India, while HIV infections among Indonesia's growing population of injecting drug users is soaring (see box, page 9). Very high rates of needle-sharing have been documented among users in Bangladesh and Viet Nam, along with evidence that a considerable proportion of street-based sex workers in Viet Nam also inject drugs (a phenomenon detected in other countries, too). If the epidemic is to be stemmed, it is vital that injecting drug users gain access to harm reduction and other prevention services.

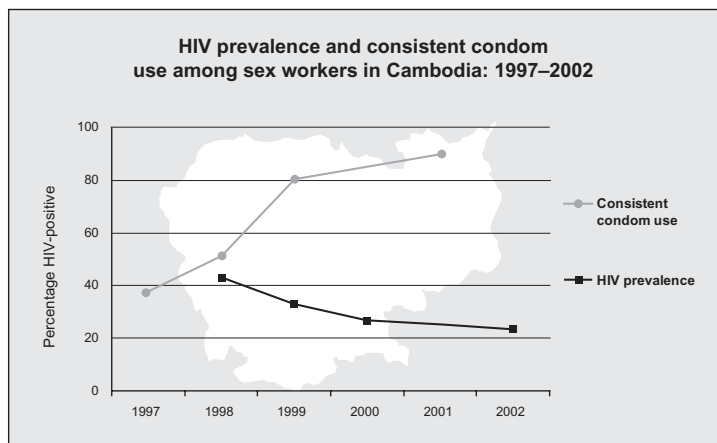
Male-to-male sex occurs in all countries of the region and features significantly in the epidemic. Countries that have measured HIV prevalence among men who have sex with men have found it to be high—14% in Cambodia in 2000 and roughly the same level among male Thai sex workers. Homophobia or dominant cultural norms mean that many men who have sex with men hide that aspect of their sexuality. Many might marry or have sexual relationships with women.

Among the Pacific Island countries and territories, Papua New Guinea has reported the highest HIV infection rates. New surveillance data reveal an HIV prevalence of 1% among women attending antenatal clinics in the capital Port Moresby,

Heightening that prospect are findings that 85% of surveyed sex workers in Port Moresby and in Lae did not use condoms consistently in 2001, and that rates of other sexually transmitted infections ranged as high as 36%. There is a dire need for rapid expansion of prevention efforts.

In Thailand, meanwhile, recent modelling suggests that the main modes of transmission have been changing. Whereas most HIV transmission in the 1990s occurred through commercial sex, half of the new HIV infections now appear to be occurring among the wives and sexual partners of men who were infected several years ago. There are also indications that unsafe sexual behaviour is on the increase among young Thais. This underlines the need to expand and revitalize strategies that can prevent this highly adaptable epidemic from spreading further in Thailand. In addition, adequate treatment and care should remain a priority.

The Asian country with the highest adult HIV prevalence—Cambodia—has reported stabilizing levels of infection, along with still-decreasing levels of high-risk behaviour. HIV prevalence among pregnant women in major urban areas declined slightly from 3.2% in 1996 to 2.8% in 2002, according to the latest available data. Prevalence among sex workers declined from 42% in 1998 to 29% in 2002, according to the latest surveillance data, with the decline most pronounced among sex workers under 20.



Source: National Center for HIV/AIDS, Dermatology and STDs, Cambodia, 2002.

Given the high turnover of sex workers in Cambodia (almost three-quarters engage in sex work for less than two years), this steady decline suggests that prevention efforts focused on sex workers are yielding positive results among the succession of new entrants into sex work. Consistent condom use by sex workers

everywhere extend also into the wider population, imparting the knowledge and providing the services that people need to protect themselves and each other against HIV/AIDS.

Given that many of the factors facilitating HIV transmission (including periodic economic up-

*Despite sweeping epidemics among injecting drug users, minimum services that can protect those drug users against HIV infection are not available in most of the region.*

appears to be the most important behavioural change achieved; it rose from 37% in 1997 to 90% in 2001.

Focussed efforts that protect vulnerable populations against HIV/AIDS are important and cost-effective. Alone, though, they cannot halt the epidemic. It is vital that AIDS responses

heaval and high rates of population mobility) are rife throughout this region, no country is immune to a rapidly spreading and wide-scale epidemic. Most countries, though, still have a window of opportunity for mounting and sustaining HIV/AIDS initiatives that could avert such an outcome.

## EASTERN EUROPE AND CENTRAL ASIA

*The epidemic continues to expand rapidly in most countries of this vast region.*

The unfortunate distinction of having the world's fastest-growing HIV/AIDS epidemic still belongs to Eastern Europe and Central Asia. In 2002, there were an estimated 250 000 new infections, bringing to 1.2 million the number of people living with HIV/AIDS.

In recent years, the Russian Federation has experienced an exceptionally steep rise in reported HIV infections. In less than eight years, HIV/AIDS epidemics have been discovered in more than 30 cities and 86 of the country's 89 regions. Up to 90% of the registered infections have been attributed officially to injecting drug use, reflecting the fact that young people face high risks of HIV infection as occasional or regular drug injectors. Indeed, almost 80% of registered new infections in the Commonwealth of Independent States between 1997 and 2000 were among people younger than 29. In the Russian Federation, the total number of reported

HIV infections climbed to over 200 000 by mid-2002—a huge increase over the 10 993 reported less than four years ago, at the end of 1998.

It must be noted that registered HIV cases likely underestimate the number of people living with HIV by a large margin. Indeed, the first community survey of injecting drug users—in Togliatti City—has revealed shockingly high HIV prevalence (see box). In addition, the reported cases might not accurately reflect the possible changes in the patterns of HIV transmission (in terms of the modes of transmission, and the gender and age groups of people who are being infected). The inadequacy of sentinel surveillance and voluntary counselling and testing services means that most HIV tests occur as part of routine screening of people who encounter the law enforcement system or use health-care services.

### A huge problem slips into focus

A clearer picture of the HIV epidemic has emerged in the Russian city of Togliatti, revealing the true scale of the country's HIV/AIDS epidemic.

A study in late 2001 among injecting drug users recruited from their communities (the first of its kind in the Russian Federation) has revealed a very recent and explosive HIV/AIDS epidemic among injecting drug users in this city of 1 million inhabitants. Fully 56% of the users participating in the study were found to be HIV-positive, and a large share of them had acquired the virus in the previous two years. The survey revealed that three-quarters of those found to be living with the virus were unaware of their status. In addition, 40% of female sex workers who injected drugs did not use condoms consistently with their regular partners, and about 25% failed to do so with commercial sexual partners.

The study lends further credence to concerns that the HIV/AIDS epidemic in Russian cities could be considerably more severe than the already-high official statistics indicate. Harm reduction and other HIV prevention programmes have proliferated in the past two years; yet, their coverage remains narrow and, in cases like Togliatti City, inadequate. Authors of the study have stressed the need to expand access to sterile injecting equipment, and to step up efforts to reduce the risk of sexual transmission of HIV between injecting drug users and their partners.



Throughout Eastern Europe and Central Asia, young people are particularly hard-hit by the epidemic. It is estimated that up to 1% of the population of those countries is injecting drugs, placing these people and their sexual partners at high risk of infection. Those injecting drugs can be very young—some a mere 13–14 years old. One study among Moscow secondary-school students revealed that 4% had injected drugs.

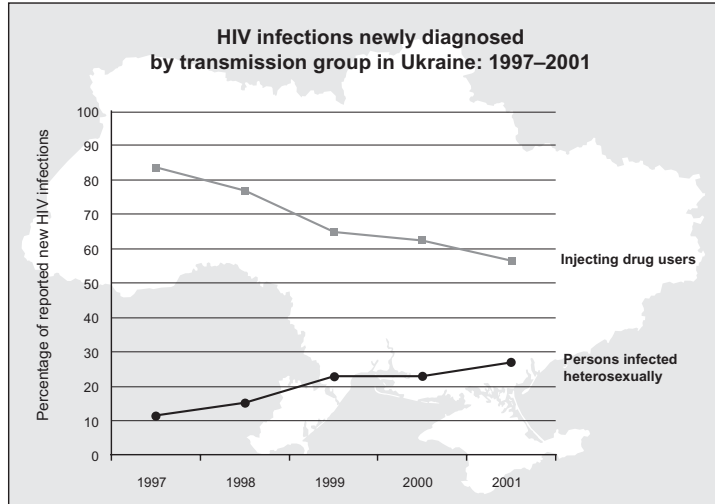
fold increase in world production of heroin in the past decade, along with the opening of new trafficking routes across Central Asia.

The epidemic is growing in Kazakhstan, where a total of 1926 HIV infections had been reported by June 2001. More substantial spread of HIV is now also evident in Azerbaijan, Georgia, Kyrgyzstan, Tajikistan and Uzbekistan. In the latter two republics, recent evidence of rising

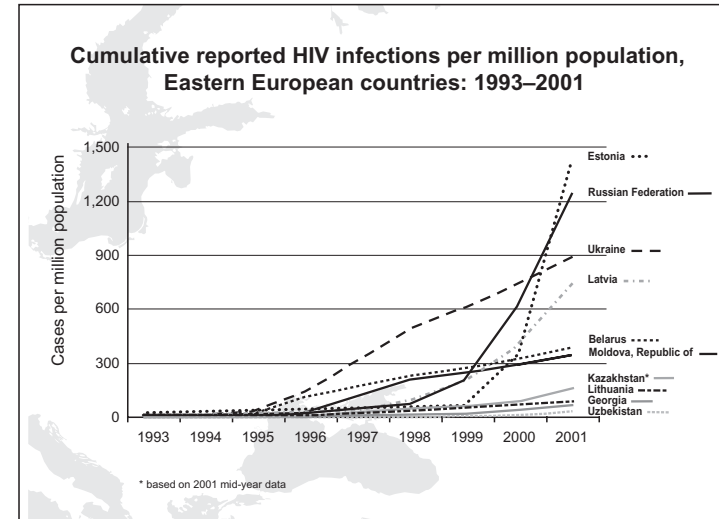
*Uzbekistan is experiencing explosive growth—in the first six months of 2002, there were almost as many new HIV infections as had been recorded in the whole of the previous decade.*

In the Russian Federation, and in many of the Central Asian Republics, the wave of injecting drug use is closely correlated with socioeconomic upheavals that have sent the living standards of tens of millions of people plummeting, amid rising unemployment and poverty levels. Another factor has been the four-

heroin use heightens concerns that they could be on the brink of larger HIV/AIDS epidemics. Already, a steep rise in reported HIV infections has been noted in Uzbekistan, where 620 new infections were registered in the first six months of 2002—six times the number of new infections registered in the first six months of 2001.



Source: National AIDS Programmes. Data compiled by the European Centre for the Epidemiological Monitoring of AIDS. HIV/AIDS surveillance in Europe. End-of-year report 2001. Saint-Maurice: Institut de Veille Sanitaire, 2001. No.66.



Source: European Centre for the Epidemiological Monitoring of AIDS. HIV/AIDS surveillance in Europe. End-of-year report 2001. Saint-Maurice: Institut de Veille Sanitaire, 2001. No.66.

Reported HIV incidence is rising sharply elsewhere. In Estonia, reported infections soared from 12 in 1999 to 1474 in 2001. (Relative to population size, Estonia now has the highest rate of new HIV infections in this region—50% higher than the Russian rate). A burgeoning epidemic is visible, too, in Latvia, where new reported infections rose from 25 in 1997 to 807 in 2001, and where a further 308 new HIV cases had been registered by the end of June 2002.

justice facilities, often marked by an abundance of drugs but a scarcity of HIV information, clean needles and condoms, provides fertile ground for the rapid spread of HIV among inmates and, upon their eventual release, into the wider population.

The other Baltic State, Lithuania, is experiencing a major HIV outbreak in one of its prisons, where 284 inmates (15% of the total) were diagnosed HIV-positive between May and August 2002. This confirms the important, though often overlooked, role of prisons in the spread of HIV in many countries of the region. The concentration of large numbers of young people in overcrowded prisons or juvenile

While injecting drug use among young people remains the predominant mode of HIV transmission in the Russian Federation and other countries of the region, heterosexual intercourse has now become a prominent mode of transmission in Belarus and Ukraine. The latter, with an estimated adult HIV prevalence rate of 1%, is the most affected country in the region (and, indeed, in all of Europe). New diagnoses of HIV in persons infected through heterosexual intercourse accounted for 28% of all new cases reported in the first six months of 2002—up from 15.3% in 1998 (see graph above).

In Belarus, the same proportion of new registered infections in 2001 was attributed to heterosexual transmission. Although many of these infections may occur in the sexual partners of injecting drug users, the trend may also indicate spread into the wider population of these countries.

In some cities of the Russian Federation and Ukraine, for example, up to 30% of female injecting drug users are also involved in commercial sex

against infection during sex. Recently, gay groups have started HIV prevention activities for men who have sex with men in Belarus, Ukraine and several Central Asian republics. Overall, though, coverage remains minimal.

In contrast, there is cause for moderate optimism in Central Europe, where countries continue to hold the epidemic at bay; HIV incidence overall remained exceptionally low in 2001

### *In Belarus and Ukraine, HIV/AIDS is steadily spreading into the wider population.*

work. More generally, recent studies in Donetsk, Moscow and St Petersburg have revealed HIV prevalence rates of 13–17% among sex workers.

There is evidence that young people in several countries are becoming sexually active at an earlier age and that premarital sex is increasing. Yet, awareness and knowledge of HIV/AIDS remain dismal in many places. In Azerbaijan and Uzbekistan, for example, one-third of young women (aged 15–24) had never heard of AIDS, according to a 2001 survey.

Meanwhile, very high rates of sexually transmitted infections continue to be found in Eastern Europe and Central Asia, pointing to widespread unsafe sex and increased odds of HIV infection. In the Russian Federation, between 200 000 and 400 000 cases of syphilis are reported annually.

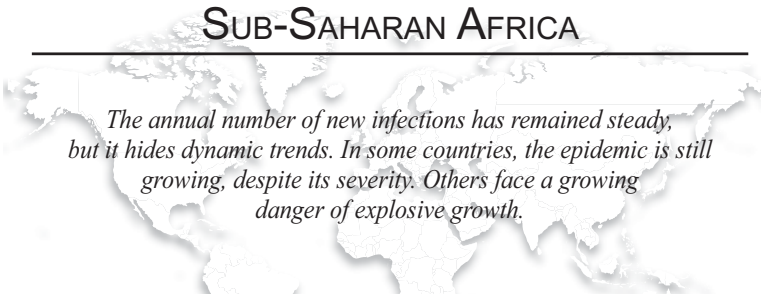
Men who have sex with men can face a significant risk of HIV transmission, especially where unsafe sex and injecting drug use overlap, as it appears to in some communities. A 2001 survey in Kazakhstan among men who have sex with men found that 9% also injected drugs and that only 3% regarded consistent condom use as the most effective way of protecting themselves

(7–10 reported infections per million persons). Prevalence remains low in countries such as the Czech Republic, Hungary, Poland and Slovenia, where well-designed national HIV/AIDS programmes are also in operation.

Recent, heartening efforts to boost HIV/AIDS efforts in Eastern Europe and Central Asia need to be expanded if the epidemic is to be brought under control. The regional Programme of Urgent Response launched by members of the Commonwealth of Independent States offers an important platform for progress at regional and national levels. So, too, do the partnerships that are being forged between governments, the private sector and nongovernmental organizations (following the earlier example set by Ukraine). Positive, too, are the wider efforts to expand access to treatment and care, including negotiations on price reductions for antiretroviral drugs, after the progress made in Moldova, Romania and Ukraine.

The challenge is to expand coverage, develop and implement more comprehensive approaches to reduce vulnerability among young people, and create better access to care for those who are becoming ill.

## SUB-SAHARAN AFRICA



*The annual number of new infections has remained steady, but it hides dynamic trends. In some countries, the epidemic is still growing, despite its severity. Others face a growing danger of explosive growth.*

By far the worst-affected region, sub-Saharan Africa is now home to 29.4 million people living with HIV/AIDS. Approximately 3.5 million new infections occurred there in 2002, while the epidemic claimed the lives of an estimated 2.4 million Africans in the past year. Ten million young people (aged 15–24) and almost 3 million children under 15 are living with HIV.

A tiny fraction of the millions of Africans in need of antiretroviral treatment are receiving it. Many millions are not receiving medicines to treat opportunistic infections, either. These figures reflect the world's continuing failure, despite the progress of recent years, to mount a response that matches the scale and severity of the global HIV/AIDS epidemic.

A fully-fledged epidemic is only now taking hold in many African countries—as much greater numbers of people who acquired HIV over the past several years fall ill. In the absence of massively expanded prevention, treatment and care efforts, the AIDS death toll on the continent is expected to continue rising before peaking around the end of this decade. This means that the worst of the epidemic's impact on those societies will be felt in the course of the next decade and beyond. It is not too late to introduce and augment measures that can reduce that impact, including wider access to HIV medicines and socioeconomic policy steps that genuinely shield the poor against the worst of the epidemic's effects.

The worst of the epidemic clearly has not yet passed, even in southern Africa where rampant epidemics are under way. In four southern African countries, national adult

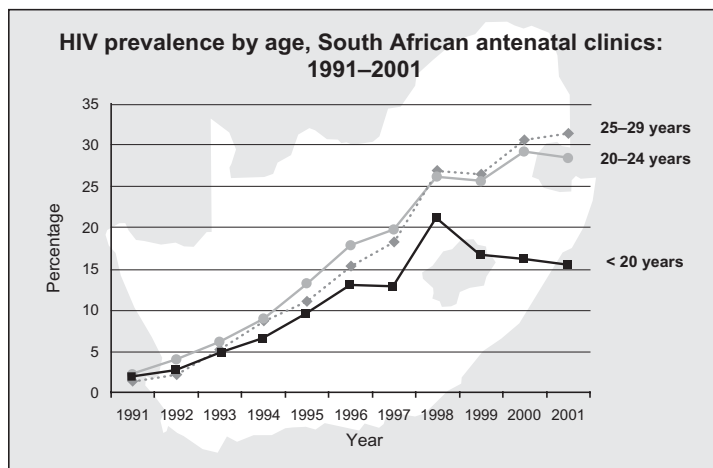
HIV prevalence has risen higher than thought possible, exceeding 30%: Botswana (38.8%), Lesotho (31%), Swaziland (33.4%) and Zimbabwe (33.7%). As this report shows, the food crises faced in the latter three countries are linked to the toll of their longstanding HIV/AIDS epidemic, especially on the lives of young, productive adults.

Yet, there are new, hopeful signs that the epidemic could eventually be brought under control. Positive trends seem to be taking hold among younger people in a number of countries.

In South Africa, for pregnant women under 20, HIV prevalence rates fell to 15.4% in 2001 (down from 21% in 1998). This, along with the drop in syphilis rates among pregnant women attending antenatal clinics—down to 2.8% in 2001, from 11.2% four years earlier—suggests that awareness campaigns and prevention programmes are bearing fruit. A major challenge now is to sustain and build on such tentative success, not least because HIV infection levels continue to rise among older pregnant women, as the graph below shows.

A decline in HIV prevalence has also been detected among young inner-city women in Addis Ababa in Ethiopia. Infection levels among women aged 15–24 attending antenatal clinics dropped from 24.2% in 1995 to 15.1% in 2001 (however, similar trends were not evident in outlying areas of the city, nor is there evidence of them occurring elsewhere in the country).

Uganda continues to present proof that the epidemic does yield to human intervention. Recent HIV infections appear to be on the



Source: Summary Report, National HIV and Syphilis Sero-Prevalence Survey of Women Attending Public Antenatal Clinics in South Africa, 2001. Department of Health, South Africa, 2002.

decline in several parts of the country—as shown by the steady drop in HIV prevalence among 15–19-year-old pregnant women. Trends in behavioural indicators are in line with this apparent decline in HIV incidence. Condom use by single women aged 15–24 almost doubled between 1995 and 2000/2001, and more women in that age group delayed sexual intercourse or abstained entirely.

*Evidence from Ethiopia and South Africa shows that prevention work is beginning to pay off for young women, with HIV prevalence rates dropping among pregnant teenagers.*

While giving cause for optimism, these positive trends do not yet offset the severity of the epidemic in these countries. All of them face massive challenges not only in sustaining and expanding prevention successes, but in providing adequate treatment, care and support to the millions of people living with HIV/AIDS or orphaned by the epidemic.

Elsewhere, in west and central Africa, the relatively low adult HIV prevalence rates in countries such as Senegal (under 1%) and Mali (1.7%) are shadowed by more ominous patterns of growth.

HIV prevalence is estimated to exceed 5% in eight other countries of west and central Africa, including Cameroon (11.8%), Central African

Republic (12.9%), Côte d'Ivoire (9.7%) and Nigeria (5.8%)—sobering reminders that no country or region is shielded from the epidemic. The sharp rise in HIV prevalence among pregnant women in Cameroon (more than doubling to over 11% among those aged 20–24 between 1998 and 2000), shows how suddenly the epidemic can surge.

**Why do young African women appear so prone to HIV infection?**

Despite recent positive trends among young people (especially females) in some African countries, overall about twice as many young women as men are infected in sub-Saharan Africa. In 2001, an estimated 6–11% of young women aged 15–24 were living with HIV/AIDS, compared to 3–6% of young men. This appears to be due to a combination of factors.

Women and girls are commonly discriminated against in terms of access to education, employment, credit, health care, land and inheritance. With the downward trend of many African economies increasing the ranks of people in poverty, relationships with men (casual or formalized through marriage) can serve as vital opportunities for financial and social security, or for satisfying material aspirations. Generally, older men are more likely to be able to offer such security. But, in areas where HIV/AIDS is widespread, they are also more likely to have become infected with HIV. The combination of dependence and subordination can make it very difficult for girls and women to demand safer sex (even from their husbands) or to end relationships that carry the threat of infection.

Studies have shown that young women tend to marry men several years older, and that their risk of infection increases if a husband is three or more years older than they are. Meanwhile, ignorance about sexual and reproductive health and HIV/AIDS is widespread. In countries with generalized epidemics in Africa, up to 80% of women aged 15–24 have been shown to lack sufficient knowledge about HIV/AIDS. This, combined with the fact that young women and girls are more biologically prone to infection (the cervix being susceptible to lesions), helps explain the large differences in HIV prevalence between girls and boys aged 15–19.

*Massive efforts—from the world at large—are needed to bring treatment and care to the millions of Africans in need, and to cushion the epidemic's impact.*

Nineteen African countries have set up national HIV/AIDS councils or commissions at senior levels of government, and local responses are growing in number and vigour. Across the region, 40 countries have completed national strategic AIDS plans—evidence of their determination to reach the targets outlined in the Declaration of Commitment on HIV/AIDS. Also encouraging is the active involvement of regional bodies, such as the Economic Commission for Africa, the Africa Union, and the Southern African Development Community, in tackling HIV/AIDS as a development issue.

Notwithstanding such progress, a lot of ground still needs to be made up. The vast majority of Africans—more than 90%—have not acquired HIV. Enabling them to remain HIV-free is a

massive challenge, with the protection of young people a priority.

Treating and caring for the millions of Africans living with HIV/AIDS poses an inescapable challenge to the continent and the world at large. Relatively prosperous Botswana has become the first African country to adopt a policy to ultimately make antiretrovirals available to all citizens who need them. However, comparatively few people (approximately 2000) are currently benefiting from this commitment. In addition, a handful of companies (such as AngloGold, De Beers, Debswana and Heineken) have announced schemes to provide antiretrovirals to workers and some family members. These are valuable efforts. Measured against the extent of need, however, they are plainly inadequate.



## LATIN AMERICA AND THE CARIBBEAN

*There are indications that the epidemic could be stabilizing in the Dominican Republic.*

The epidemics in Latin America and the Caribbean are well established. There is a danger that they could spread both more quickly and more widely in the absence of strengthened responses. An estimated 1.9 million adults and children are living with HIV in this region—a figure that includes the estimated 210 000 people who acquired the virus in 2002.

Twelve countries in this region (including the Dominican Republic and Haiti, several Central American countries, such as Belize and Honduras, and Guyana and Suriname) have an estimated HIV prevalence of 1% or more among pregnant women. In several Caribbean countries, adult HIV prevalence rates are surpassed only by

the rates experienced in sub-Saharan Africa—making this the second-most affected region in the world. HIV/AIDS is now a leading cause of death in some of these countries. Haiti remains worst affected (with an estimated national adult HIV prevalence of over 6%) along with the Bahamas (where prevalence is 3.5%).

It should be noted, however, that the quality of surveillance systems varies widely across the region, making it possible that serious, localized epidemics in other parts of the region might be escaping detection.

Sentinel surveillance data from 1991 to 2001 suggest that HIV prevalence among pregnant women has stabilized or perhaps begun to

### Fighting stigma and discrimination—the 2002–2003 World AIDS Campaign

HIV/AIDS-related stigma and discrimination rank among the biggest—and most pervasive—barriers to effective responses to the AIDS epidemic.

Stigma and discrimination target and harm those who are least able to enjoy their human rights: the poorest, the least educated, and the most marginalized. In fact, stigma, discrimination and human rights violations form a vicious circle, generating, reinforcing and perpetuating each other.

The outcome, in a world of AIDS, is life-threatening. Stigma and discrimination increase people's vulnerability and, by isolating people and depriving them of treatment, care and support, worsen the impact of infection.

This is why the 2002–2003 World AIDS Campaign is aimed at spurring worldwide efforts to remove the barriers of stigma and discrimination. Under the slogan, 'Live and let live', the World AIDS Campaign is:

- encouraging leaders at all levels, and in all walks of life, to visibly challenge HIV/AIDS-related discrimination, spearhead public action and act against the many other forms of discrimination that people face in relation to HIV/AIDS;
- involving people living with HIV/AIDS in the response to the epidemic;
- creating a positive legal environment for fighting discrimination;
- enabling people to challenge discrimination and receive redress through national institutions; and
- ensuring that prevention, treatment, care and support services are accessible to all.

decline in the Dominican Republic (where estimated adult HIV prevalence was 2.5% in 2001). These findings appear to correlate with evidence of increased condom use among female sex workers and a reduction in the number of sexual partners among men.

Over the past decade, the ratio of men with HIV infections to women with HIV infections has narrowed considerably—to about 3-to-1 in Latin America and 2-to-1 in the Caribbean. Paradoxically, men who have sex with men appear to feature prominently in the increasing feminization of the epidemic: recent research has shown that a large proportion of men who have sex with men also have sex with women. While

contexts and the extent to which a wide range of social sectors is involved. Brazil offers a particularly positive example on this front, with prevention efforts directed also at countering the vulnerability, stigma and discrimination experienced by men who have sex with men. Other examples include the prevention, care and support activities in Jamaica and in Trinidad and Tobago. However, many such initiatives are impeded by discriminatory laws on homosexuality.

The spread of HIV through the sharing of injecting drug equipment is of growing concern in several countries, notably Argentina, Brazil, Chile, Paraguay and Uruguay (in South America),

*Despite many constraints, the region has made admirable progress in provision of treatment and care, with Brazil continuing to show the way. Though now guaranteed in many countries, access to antiretroviral treatment is still unequal across the region, due largely to drug price discrepancies.*

HIV/AIDS programmes focusing on men who have sex with men are vital, sexual identities are more fluid than often assumed. Prevention efforts need to be tailored to apparently widespread—but hidden—bisexual behaviour in this region (as in many parts of Asia, too).

This is underscored by evidence that unsafe sex among men who have sex with men is rife across the entire region. For example, a recent study in two Honduran cities revealed an HIV prevalence level of 13%, very low rates of condom use, high numbers of sexual partners and low perceptions of risk. A seven-country study in Central America has revealed HIV prevalence rates of between 8% and 18% among men who have sex with men. Evidence of unsafe sex has emerged in a variety of studies in the Andean countries of South America, too. There, high HIV prevalence among men who have sex with men has ranged from 14% (Lima, Peru) to 20% (Bogotá, Colombia) and 28% (Guayaquil, Ecuador).

Most countries of the region have mounted prevention programmes oriented towards men who have sex with men. Their quality varies, however, and often depends on countries' legal

the northern parts of Mexico, and Bermuda and Puerto Rico (in the Caribbean). Injecting drug use accounts for an estimated 40% of reported new infections in Argentina and 28% in Uruguay; in both countries, an increasing number of women with HIV are either injecting drug users or sexual partners of male drug users.

Like Argentina, Brazil has adopted a less punitive approach to dealing with the dual challenge of injecting drug use and HIV infection—to good effect. Prevention programmes among injecting drug users have contributed to a substantial decline in HIV prevalence in this population in several large metropolitan areas. In addition, a national survey has shown increasing condom use among injecting drug users (from 42% in 1999 to 65% in 2000)—a sign that sustained education and prevention efforts are bearing fruit. Argentina authorized its Ministry of Health to introduce a national policy on harm reduction in 2001, and is collaborating with Chile, Paraguay and Uruguay to set up similar schemes.

New light is being cast on a hitherto hidden dimension of the epidemic: HIV infection among prisoners. A study in three urban prisons

in Honduras has revealed an HIV prevalence of almost 7% among male prisoners in general, and almost 5% among those aged 16–20 years (who, because of their young age, are likely to have become infected relatively recently). Less than 10% of the men reported regular condom use. The likelihood that similar patterns of transmission could be occurring in other countries of the region underscores the need for both more research and more systematic programmes that can protect prisoners and their partners against HIV/AIDS. Despite a clear need for focused HIV prevention work among prison inmates, institutional barriers impede the development and evaluation of such programmes.

Among the factors helping drive the spread of HIV in the region overall is a combination of unequal socioeconomic development and high population mobility. Central America's worsening AIDS epidemic, for example, is concentrated mainly among socially marginalized sections of populations, many of whom are compelled to migrate in search of work and income. Unless

overcome, the economic difficulties plaguing several countries in the region are likely to further entrench a socioeconomic context that can facilitate the epidemic's spread.

At the same time, though, countries' determination to stem the epidemic and limit its impact is more evident than ever—most obviously through their efforts to provide antiretroviral drugs to patients with HIV/AIDS-related illnesses. An estimated 170 000 people (most of them in Brazil) were receiving such treatment at the end of 2001. Countries such as Argentina, Costa Rica, Cuba and Uruguay now guarantee free and universal access to these drugs through the public sector, while sharp price reductions have recently been secured in Honduras and Panama. In mid-2002, the Pan Caribbean Partnership against HIV/AIDS signed an agreement with six pharmaceutical companies in a bid to improve access to cheaper antiretroviral drugs. However, actual access to these drugs remains unequal across the region as a whole, partly due to widely varying drug prices.

## THE MIDDLE EAST AND NORTH AFRICA

*Lingering denial among both social and political leaders in some countries provides the epidemic with an ideal environment for continued spread.*

Available data point to increasing HIV infection rates, with an estimated 83 000 people having acquired the virus in 2002. This brings to 550 000 the estimated number of people living with HIV/AIDS. The epidemic claimed about 37 000 lives in 2002.

However, systematic surveillance remains inadequate, making it very difficult to deduce accurate trends. It is possible that hidden epidemics could be spreading in this region. Better surveillance systems (such as those introduced in Iran, Jordan, Lebanon and Syria) will enable more countries to accurately track the development of the epidemic and mount effective responses.

Significant outbreaks of HIV infections among injecting drug users have occurred in about half the countries in the region, notably in North Africa and in the Islamic Republic of Iran.

Unless countries promptly introduce harm reduction and other prevention services for injecting drug users, the epidemic could grow dramatically and spread into the wider population.

Other infected groups include men who have sex with men, sex workers and their clients. In Morocco, the National AIDS Control Programme has noted the relatively high prevalence of other sexually transmitted infections—a sign that unsafe sex is more common than routinely assumed.

Overall, recognition of the need for more effective and far-reaching prevention efforts has grown in this region. Some countries are fashioning potentially potent responses. Examples include the mobilization of nongovernmental organizations around prevention programmes

*Poor surveillance systems in several countries of this region hinder an accurate assessment of the epidemic and the mounting of an effective response.*

In Iran, most HIV transmission is occurring among the country's estimated 200 000–300 000 injecting drug users, about 1% of whom are believed to be living with HIV. High-risk behaviour is widespread in this largely male population: about half of the users share injecting equipment, and as many are believed to have extramarital sexual relations. According to some estimates, a significant percentage (more than 30%) of them is married. Yet condom use is very rare. In addition, about 10% of prisoners are believed to inject drugs and more than 95% of them share needles. HIV prevalence among imprisoned drug injectors was 12% in 2001.

in Lebanon, and harm-reduction work among injecting drug users in the Islamic Republic of Iran.

But appropriate surveillance data on HIV infections and behaviours are in short supply, capacities are still limited, and HIV/AIDS responses are still concentrated almost exclusively in the health sector. A tendency to exaggerate the protective effects of social and cultural conservatism also continues to hamper an adequate response. In the absence of greater candour, political commitment and improved prevention programmes, wider HIV/AIDS spread can be anticipated.

## HIGH-INCOME COUNTRIES

*The epidemic continues to shift into marginalized populations that lack access to the services and information they need to protect themselves against HIV/AIDS.*

Approximately 76 000 people became infected with HIV in high-income countries in 2002. A total of about 1.6 million people are now living with the virus in these countries, where an estimated 23 000 people died of AIDS in 2002.

Several salient changes have emerged in recent years. The introduction of antiretroviral therapy since 1995/1996 has dramatically reduced HIV/AIDS-related mortality, although this trend has begun to level off in the past two years. Longer survival of people living with HIV/AIDS has led to a steady increase in the number of people living with the virus in high-income countries. About 500 000 people were receiving these drugs at the end of 2001—in a context, however, where complacency has become pervasive and where prevention efforts have dwindled. Both counselling and prevention services need to be stepped up if an increase in HIV transmission is to be avoided.

*A rise in unsafe sexual behaviour underscores the need to resist complacency and revitalize prevention programmes to access the millions of young people who reach sexual maturity each year.*

A larger proportion of new HIV diagnoses (59% more overall between 1997 and 2001) in several Western European countries is occurring through heterosexual intercourse. More than half of the 4279 new HIV infections diagnosed in the United Kingdom in 2001 resulted from heterosexual sex, compared to 33% of new infections in 1998. In Ireland, a similar trend is visible, with the number of heterosexually transmitted HIV infections increasing fourfold between 1998 and 2001. Although injecting drug use remains the main mode of transmission in Spain, about one-quarter of all HIV infections have been heterosexually transmitted.

In the United Kingdom, as in some other European countries, a large share of heterosexually trans-

mitted HIV infections are being diagnosed in persons who originate from, or who have lived in or visited, areas where HIV prevalence is high. Prevention, treatment and care activities need to become more culturally appropriate and socially relevant if they are to reach and benefit such diverse communities.

Most high-income countries are contending also with concentrated HIV epidemics, including in the United States of America where injecting drug use is a prominent route of HIV infection (accounting for 14% of all reported HIV diagnoses). Reported HIV prevalence among injecting drug users in Spain in 2000 was 20–30% nationwide, while, in France, prevalence rates ranged between 10% and 23%. Portugal's serious epidemic among injecting drug users accounted for more than half the newly diagnosed HIV infections in both 2000

and 2001, though the number of reported HIV infections among injecting drug users declined significantly in 2001.

Reported HIV infections among young people can indicate overall trends in incidence, since those persons are likely to have become exposed to HIV relatively recently. In the 34 areas of the United States with confidential HIV reporting, the bulk of HIV infections among 13–19-year-olds reported in July 2000–June 2001 were among females (56%), a disproportionate percentage of them African-American. Most young women had acquired the virus through heterosexual intercourse.

Latest available data show that the epidemic's shift into poorer and marginalized sections of society is continuing. African-Americans

accounted for an estimated 54% of new HIV infections in 2000 (but constitute only 13% of the population of the United States). According to a 2002 CDC report, AIDS-related illnesses

23–29-year-olds, according to one six-city survey. About 64% of the women diagnosed with HIV in 2001 in the United States were African-American. A significant number of these women

*Heterosexual transmission of HIV accounts for an increasing share of new infections, with young, disadvantaged people at particular risk.*

remained the leading cause of death for African-American men aged 25–44 and the third-leading cause of death for Hispanic men in the same age group. (In Canada, meanwhile, aboriginal persons accounted for 9% of new HIV infections in 1999, although they constituted less than 3% of the general population.) HIV prevalence levels are exceptionally high among African-American men who have sex with men—up to 30% among

acquired the virus from men who also have sex with men.

Sex between men remains a prominent transmission route in several countries, and accounts for a growing share of new infections in Japan. In most high-income countries, the almost-legendary successes achieved by, and among, men who have sex with men are clearly now a thing of the past.

### HIV subtypes: moving targets

HIV has shown a remarkable ability to exploit and adapt to changes in the social environment. At the molecular level, also, the virus is constantly changing.

In order to map the genetic variation of HIV-1, scientists have classified different strains of the virus into three groups: M (main), O (outlier) and N (non-M, non-O).

The main group (M) is further classified into a number of subtypes, as well as variants resulting from the combination of two or more subtypes, known as 'circulating recombinant forms' (CRF). Subtypes are defined as having genomes that are at least 25% unique. Eleven subtypes have been identified and each is designated by a letter (subtype A or C and so on). When subtypes blend with each other (for example, when an individual is infected with two different HIV subtypes), and the resulting genetic blend successfully establishes itself in the environment, it is known as a CRF. So far, 13 CRFs have been identified.

To date, some subtypes have remained largely limited to certain geographic areas. Subtype C, for example, is widespread in southern Africa, India and Ethiopia. Subtype B is common in Europe, the Americas and Australia. But nearly all subtypes can be found in Africa, together with a number of CRFs.

These unique genetic forms of HIV are providing molecular epidemiologists with valuable tools for tracking the spread of the epidemic.

The subtypes have been studied long enough for some key trends to be revealed. Subtype C is the most common subtype, accounting for approximately 50% of all new HIV infections. Subtype A is the second-most prevalent variant of HIV-1. This subtype accounts for about 30% of HIV infections in the east of the continent, but 80% in West Africa.

In Eastern Europe, subtype A featured in the epidemic that began in Kaliningrad in 1995/96, while elsewhere subtype B spread among injecting drug users. Both variants have now re-combined into a new CRF, known as AB, which is spreading eastwards in that region.

Another recombinant form, CRF02\_AG, is becoming prominent in West Africa—an area that had seen relatively stable HIV prevalence for several years, but where the epidemic recently began expanding rapidly (in Cameroon, for example). There, over 30% of new infections now involve CRF02\_AG.

And, in China, three variants have been identified. Subtype E settled along the coast (likely because of the sexual liaisons of passing sailors), while subtype C probably arrived from India, and subtype B

Prevention efforts appear not to be reaching the large numbers of men among whom increases in unsafe sex are being mirrored by higher rates of sexually transmitted infections—in Australia, Canada, the United States and countries of Western Europe. Quite telling is the ongoing trend of increasing unsafe sex that has been documented among men who have sex with men in San Francisco, for example. A survey of self-reported sexual behaviour has shown increases in unprotected anal sex (32% to 38% between 1999 and 2001), much of it between serodiscordant partners (i.e., one partner is HIV-positive). The survey also found rising rates of other sexually transmitted infections among the respondents.

Underscoring the need for renewed prevention efforts, especially among young people, are recent findings of increases in high-risk behaviours, less frequent condom use and higher rates of sexually transmitted infections in several countries. In the

United Kingdom, for example, rates of gonorrhoea, syphilis and chlamydial infections have more than doubled since 1995, while increases have been found in other Western European countries, too.

In Japan, where a record 621 people (most of them males) acquired HIV in 2001, the virus is spreading increasingly among young people. A reportedly growing trend of casual sex with multiple partners (known as *sukusutomo* or 'sex friends'), along with falling condom sales, suggests that new patterns of HIV spread could widen significantly. Nearly 40% of new HIV infections in 2001 were among people in their teens and twenties—a development that seems to match reports of increased rates of sexually transmitted infection among Japanese men (up 21% between 1998 and 2000) and women (up 14%) under 24.

initially circulated among injecting drug users. There is now evidence that B and C have re-combined and are spreading northwards in China.

It remains uncertain whether the existence of different subtypes has important implications for the transmissibility or treatment of HIV. Some scientists have postulated, for example, that the predominant strain in southern Africa is more aggressive than others. One study in the United Republic of Tanzania indicated that subtypes A and C might be more easily transmitted from mother to child. Another study claimed that female sex workers in Senegal were up to eight times more likely to develop AIDS when infected with subtypes C, D or G than with A. Studies elsewhere, however, have not confirmed such observations.

The good news is that nearly all subtypes identified so far are clearly responsive to antiretrovirals. While some studies have found some variation in the ways different subtypes and CRFs respond to antiretrovirals, there are other studies that have found no such differences. Further clinical evidence on whether different subtypes have different therapeutic implications (for example, in the combination of drugs used or in dosages), awaits a substantial increase in clinical access to antiretrovirals among populations where subtypes other than B predominate.

However, as well as variation between populations, HIV is constantly mutating within individuals, and this has important clinical and public health implications. Together with 'natural' variation, HIV genes also mutate in response to external pressures, such as the immune response a person's body musters or the use of antiretroviral drugs.

Since 1995/1996, when antiretrovirals were widely introduced, an increase in resistance mutations in newly infected people has been reported in the Americas and Europe. New multidrug-resistant strains are now being documented.

The genetic variability of HIV is one reason vaccine development has been such a scientific challenge. Some potential vaccines may work only against particular subtypes, so subtyping has influenced vaccine testing. In Thailand, for example, an experimental vaccine was modified when molecular epidemiologists reported that the dominant subtype B had been replaced with another—subtype E—in a population of injecting drug users among whom the trial was to be conducted. The vaccine-makers modified the vaccine by including two vaccine components, targeting both subtypes.

The hope now is that vaccine scientists can discover aspects of the virus that are consistent enough for a vaccine to provoke an effective immune response against multiple variants of HIV. If such viral features are found to exist, hope for a broadly effective vaccine grows. That search, however, continues.

## HIV/AIDS AND HUMANITARIAN CRISES

*Weakened by AIDS, traditional coping strategies become too frail to deal with further crises*

Humanitarian crises take many forms. Some involve violent conflict. Others result from a combination of natural and man-made disasters. Invariably they threaten lives through food shortages, and loss of shelter and basic security—on a scale and with a severity that defy people's capacities to cope.

Increasingly, it is becoming evident that the HIV/AIDS epidemic can be a potent factor in such crises. Indeed, the current food emergencies in southern Africa highlight the potentially dynamic interplay between HIV/AIDS and other crises—and the need to tackle them in unison.

In countries and communities where the prevalence of HIV is very high, the epidemic already constitutes a major crisis. Millions have died. If current trends continue, millions more will suffer the same fate.

Longstanding, severe epidemics are plunging millions of people deeper into destitution and desperation as their labour power weakens, incomes dwindle, assets shrink and households disintegrate. Weakened by AIDS, traditional coping strategies become too frail to cope with further threats such as armed conflict, crop failures or natural disasters. As is now evident in southern Africa, an ensemble of setbacks can then converge to create a crisis.

The epidemic can rob households and communities of the capacity to produce or afford food, turning a food shortage into a food crisis. If such an emergency is allowed to persist, it can generate further social displacement, disrupting education and health systems, spurring migration, and worsening the sexual exploitation of women and children—all factors that favour the further spread of HIV/AIDS.

But these are not inevitable outcomes. Human action and inaction have abetted them. Human action can also prevent them.

### HIV/AIDS AND SOUTHERN AFRICA'S FOOD CRISIS

The food emergencies sweeping through southern Africa highlight how vulnerable many countries are to shocks that disrupt food production and consumption. In each of the affected countries, the HIV epidemic itself constitutes a shock of considerable proportion.

As 2002 draws to a close, an estimated 14.4 million people are at risk of starvation in the six worst famine-affected countries: Lesotho, Malawi, Mozambique, Swaziland, Zambia and Zimbabwe.

#### A chain of links

The food-related crisis in southern Africa is not simply a 'natural' disaster caused by unfavourable weather patterns. It stems also from a complex web of mishaps and policy mistakes, which varies from country to country. Drought or floods; mismanagement and poor governance; misguided market reforms; a lack of extension and other support services for stricken farmers; the removal of consumer protection (allowing food prices to rocket as an emergency worsens); and political instability are among the factors involved. So is the HIV/AIDS epidemic—in every country now facing a food emergency.

Where the resulting lack of availability of, or access to, affordable food is greatest, the prevalence of HIV is also alarmingly high: adult HIV prevalence rates range from 15% in Malawi to 33% in Swaziland and Zimbabwe.

Since the major drought that swept across southern Africa in 1992, this subregion has become home to the worst HIV/AIDS epidemic in the world. Almost 15 million people in southern Africa were living with HIV at the end of 2001; an estimated 1.1 million died of AIDS last year, the majority of them in their productive prime.



According to the United Nations Food and Agricultural Organization (FAO), seven million agricultural workers in 25 severely affected African countries have died from AIDS since 1985. It warns that 16 million more could die in the next 20 years if massive and effective programmes are not mounted.

Generally, households are able to achieve food security when they can produce sufficient amounts of nutritious food, earn enough cash income to purchase food, sell or barter assets for food in hard times, and rely on social support networks for assistance. The HIV/AIDS epidemic is eroding each of these coping methods. It reduces households' capacities to produce and purchase food, depletes their assets, and exhausts social safety nets.

### The mounting toll

As the impact of the epidemic grows more severe, it strips households and communities of valuable labour power. Adults become ill and less able to attend to agricultural and other work, including wage labour. Some 60% of commercial and smallholder farmers in Namibia told researchers in 2001 that they had suffered labour losses due to HIV/AIDS. Others—typically women and children—are also drafted in to care for the ill, thereby reducing the time and energy they can devote to paid labour or farming tasks. In badly affected areas, regular funeral duties can have similar effects.

The agricultural output of family-based farmers and their supplementary incomes from wage and

### Focus on Malawi

Early in 2002, Malawi crossed the divide that separates seasonal food shortages from a full-scale food emergency that threatens more than 3 million people. The crisis is said to be the worst in living memory, with older farmers comparing it to that which followed the disastrous drought of 1949/1950.

Adverse weather conditions rank among the factors—including the HIV/AIDS epidemic—that have helped stoke this humanitarian crisis. The decision to sell off grain reserves left Malawi with hardly any safety net when crops failed. The scaling back of a successful free-seeds-and-fertilizer programme contributed to a slump in food production, while other government programmes that had supported farmers in growing and marketing their harvest have also been cut back. Underlying causes include chronic and deepening poverty, skewed access to land, poor management of farming resources, over-reliance on a single food crop (maize), and high levels of inflation.

Malawi's longstanding and severe HIV/AIDS epidemic is a powerful contributing factor to the food crisis in this country, where an estimated 70% of hospital deaths are now AIDS-related, and where some 470 000 children under the age of 15 have been orphaned by AIDS.

The epidemic has wrought drastic demographic changes in farming communities, with families now increasingly headed by women, children or grandparents. Many of them lack the skills and labour power to farm successfully. A 2002 field study in Malawi, carried out by FAO and the World Food Programme, identified a range of links between the epidemic and the onset of household food insecurity. These include the loss of able-bodied labour in households, the loss of remittances from working family members, the additional challenge of caring for orphans, child-headed families, and increased expenditures on health care and funerals.

Another 2002 study in central Malawi has shown that about 70% of surveyed households have suffered labour losses due to sickness. The study also found that more than 50% of poor households affected by chronic illnesses, such as HIV/AIDS, delayed their own farming in order to try to earn cash incomes elsewhere to cover basic expenses. Such delays usually reduce agricultural yields; in dry regions, it may mean no yield at all. In addition, opportunities for piecemeal cash labour are in short supply.

The epidemic is also sapping the government's capacity to support small-scale farmers. Despite increased mortality among extension workers, the training and recruitment of replacement workers all but halted in 1995.

other paid labour—so vital to food security in many low- and middle-income countries—cannot be sustained in such circumstances. Fields are more likely to be left fallow and smaller areas kept under cultivation, weeding is neglected, infrastructure (such as fences and irrigation ditches) falls into disrepair, and pest-control becomes too expensive.

Studies in east and southern Africa show that households make several adjustments in order to cope. In some cases, they switch from labour-intensive cash crops to less demanding and fast-maturing food crops. In central Malawi, for example, about a quarter of poor households have been switching their crop mixes, abandoning certain crops or leaving land fallow if household members are seriously ill.

The rewards, though, can be meagre, especially if other setbacks occur. Overall, these adjustments often lead to falling farming incomes, which, in turn, limit the ability to purchase food at market prices. In Kenya, for example, the death of a household head was associated with a 68% reduction in the net value of farming output—largely because labour losses had forced farmers to cultivate much smaller areas of land. In Zimbabwe, another study found that output on smallholder farms shrank by 29% for cattle, 49% for vegetables and 61% for maize if the household had suffered an AIDS-related death.

As income from farming activity shrinks, women and children often have to seek wage labour, which, in most countries of southern Africa, is in short supply. It becomes even tougher to cope, as a result. Usually, household and other assets constitute valuable insurance in rural communities. In times of hardship, such as during poor harvests, these can be sold or exchanged—enabling people to purchase food, for example. But HIV/AIDS-affected households are forced to dispose of those assets as medical, funeral and other expenses mount.

In sub-Saharan Africa, women and girls make up the majority of those living with HIV/AIDS. They are also responsible for 50–80% of food production, including the most labour-intensive work, such as planting, fertilizing, irrigating, weeding, harvesting and marketing. Their work

also extends to food preparation, as well as nurturing activities. The epidemic upends this division of labour—often with disastrous results.

Research in the United Republic of Tanzania has shown that women spend up to 60% less time doing farm work when their husbands are seriously ill. And when a husband dies, the wife may lose access to credit, agricultural inputs and distribution networks, and may even forfeit her rights to the land, house, livestock and other assets she had helped to develop and maintain.

The illness or death of an adult female can also threaten food security, often leading to the dissolution of the family. A survey carried out in two Zimbabwean districts in 2000 revealed that two-thirds of households that had lost a key adult female had disintegrated and dispersed.

The early death of farming parents disrupts the transfer of knowledge and skills from generation to generation. Children growing up as orphans have fewer opportunities to learn how to use and sustain land and to prepare nutritious food for family members. The widespread loss of this intangible, but essential, good could have severe and long-lasting consequences for food security in the region. At the moment, very few steps are being taken to counter this growing reality.

The sum effect is that multiple deaths and widespread hardship are steadily dissolving the traditional safety nets that, in the past, enabled households and communities to weather periodic adversity.

### Children and orphans

Children in households beset by illness and lack of food are severely affected. As parents fall ill and die, family burdens shift to the children. For many, neither money nor time is available for normal schooling to continue. Opting out of school may help with cash needs over the short term but, in the long term, it entrenches the household's poverty and puts the children at greater risk of becoming infected with HIV. The result is a vicious circle linking poverty, food insecurity and HIV/AIDS.

### Food insecurity also fuels the epidemic

Hunger and malnutrition are occurring in a region where access to HIV medicines is extremely rare. In such circumstances, good nutrition offers one of the few bulwarks against AIDS-related illnesses and early death. Yet it, too, can be a luxury; in September 2002, for example, it was reported that several patients were refusing to be discharged from a Zambian hospital (in Choma District Hospital), for fear of dying of hunger at home.

The food crisis also threatens to intensify and prolong the epidemic—by reinforcing some of the conditions in which the odds of HIV transmission increase. Bereft of food, people are compelled to adopt survival strategies that might further endanger their lives. Some migrate, often to urban slums where they are likely to live in marginalized circumstances and lack access to education and health facilities (including HIV prevention and care services). Women and children are being forced, as a last resort, to barter sex for jobs, food and other basic essentials. Large numbers of children are leaving school to find work or forage for food. Communities and social networks are breaking down. HIV/AIDS thrives amid such social displacement and disintegration.

### Coping with the crisis

Addressing the crisis requires an integrated response that prioritizes food assistance; expands HIV/AIDS prevention, treatment and care services; provides more support (such as subsidies and quick-response distribution schemes) to save the most vulnerable households (those headed by women, children and the elderly) from destitution or disintegration; and puts in place longer-term strategies that boost the lives and livelihoods of the rural poor.

United Nations agencies have launched a joint appeal to assist those facing famine in southern Africa, requesting more than US\$600 million from donors, including US\$507 million for food aid through the Emergency Operation of the World Food Programme (WFP).

Already some relief operations are targeting the most vulnerable families, such as those affected by

HIV/AIDS and those headed by women, children and the elderly. For example, in Lusaka, Zambia, where some 85% of the families living in the low-income outskirts of Lusaka are caring for orphans, WFP and local nongovernmental organizations are running urban school-feeding programmes to help children orphaned by AIDS to stay in school and to enable AIDS-affected families to cope with rising food prices. Many of the programmes mounted by the International Federation of Red Cross and Red Crescent Societies (IFRC), such as food distribution schemes, also target households affected by HIV/AIDS.

Working with the WFP, UNICEF is involved in several activities in affected countries, providing food to vulnerable children and households (including cooked meals at schools), mobilizing replacements for teachers lost to AIDS, advocating the elimination of school fees, and supporting HIV/AIDS education projects for humanitarian workers, as well as for truck drivers, the police and the military.

It is also evident that the long-term, structural factors fuelling such crises need to be redressed. Such measures would vary from country to country, but could include:

- improving access to affordable agricultural seeds, fertilizers and other inputs;
- providing equal access for women to health care and education, credit schemes, agricultural support programmes, and equality in employment, marital laws and inheritance;
- introducing income-generating projects, including public works schemes, so that households can replenish income losses;
- ensuring that the human capacity to provide agricultural extension programmes is maintained; and
- assessing the impact of policy adjustments—including agricultural, trade and macroeconomic interventions—on food security prospects and communities' capacities to avoid or cope with crises such as the HIV/AIDS epidemic.

### HIV/AIDS IN CONFLICT SETTINGS

The food emergencies in southern Africa highlight the interplay between HIV/AIDS and humanitarian crises—and the urgent need to adapt responses to this reality. But there are other instances where this linkage is neither sufficiently appreciated nor addressed.

Wars and armed conflict typically spiral into wider humanitarian crises as civilians are targeted or trapped in the crossfire, driven from their homes and towns, and left to fend with the elements, hunger and disease.

In the past decade, no region of the world has escaped serious armed conflict. The number of states engaged in war more than doubled from 11 in 1989 to over 22 last year. At the end of 2001, there were almost 20 million refugees and displaced persons in the world, according to the United Nations High Commissioner for Refugees (UNHCR). A large number of these people are displaced in, or flee to, countries where HIV prevalence is high.

These conflicts generate and entrench many of the conditions and the human rights abuses in which the HIV/AIDS epidemic flourishes. Poverty, powerlessness and social instability, all of which can facilitate HIV transmission, are exacerbated during wars and armed conflict. Physical and sexual violence, forced displacement and sudden destitution, the collapse of social structures and the breakdown of rule of law can put people at much greater risk of HIV infection.

A well-documented example is that of Rwanda, where genocide and war stoked an HIV/AIDS epidemic that spread from cities to the countryside. Prior to the 1994 genocide, studies had shown HIV prevalence rates to be high in some urban areas (10% and higher) but low (just over 1%) in rural areas. By 1997, a well-designed survey revealed a HIV prevalence of about 11% in both urban and rural populations. During the genocide, more than 3% of women had been raped, almost half of them teenagers. (Of the women who had been raped, 17% tested HIV-positive, compared to 11% of those who had not been raped).

Indeed, rape is frequently used as a weapon of war and terror, primarily against women and girls. In the Balkan conflict, for example, an

estimated 30–40 000 women were raped. A study in 2001 found that 9% of women displaced by armed conflict in 1997–1999 in Sierra Leone (50 000–64 000 women) had been sexually assaulted by combatants. The study concluded that war-related rape and other forms of sexual violence were committed on a widespread basis among internally displaced persons. A 1998 study revealed that the prevalence of war-related sexual assault was even higher in Liberia—15%.\*

The mixing of civilians with armed forces increases the risk of HIV transmission, particularly in times of conflict. UNAIDS estimates that HIV infection rates among armed forces personnel are, on average, higher than among their civilian counterparts. For example, a study in Uganda in 1997 found that the national adult prevalence rate was 9.5%, while prevalence among Ugandan soldiers was 27%.

Conflicts invariably disrupt access to basic necessities, and fragment families, forcing people to become displaced as they flee in search of security and sustenance. Amid such desperation, people (especially women and girls) are more prone to the sexual predation of men who can control access to property, food, shelter and protection. In the eastern and central parts of war-ravaged Sudan, for example, studies have shown that about a quarter of single mothers were selling sex in order to survive. Studies carried out in Sierra Leone in 1995, for example, revealed that female sex workers in Freetown had HIV infection rates of 26.7%. By 1997, with much of the country embroiled in fighting, rates had soared to 70.6%.

The cessation of fighting does not necessarily remove the heightened risk of HIV/AIDS spread. Typically, armies are demobilized without HIV testing, counselling or education, despite the fact that returning HIV-positive soldiers could place their sexual partners at serious risk of infection.

There is a serious lack of reliable, contemporary data on the spread of HIV in conflict settings. This is not surprising. Health systems are often severely damaged during armed conflict; in recent decades, hospitals and clinics, along with doctors and other medical personnel, have

\*The statute of the International Criminal Court has declared rape a crime against humanity.

been deliberately targeted by warring parties. As a result, the systems and structures (such as sexually transmitted infection and antenatal care clinics), normally used for sentinel surveillance, are often in disrepair. In Sierra Leone, almost two-thirds of rural health units were not functioning a year ago.

The paucity of reliable data hinders a better understanding of the complex ways in which HIV/AIDS takes root—or perhaps even fails to become lodged—in conflict settings. In the Balkans, for example, many of the risk factors commonly associated with HIV spread—mass displacement, sexual violence, large numbers of returning combatants and refugees, trafficking of women and more—have been present over the past decade. Yet available data show very low rates of HIV infection in this region. This may be due to the low level of HIV prevalence at the start of the conflict in the Balkans, or to other factors that are not yet fully understood.

Elsewhere, data collated from antenatal sentinel surveillance in eight Tanzanian refugee camps in 2001 indicated that median HIV prevalence among refugee women attending antenatal clinics was lower than in the women's countries of origin and the country in which the camps were located.

Clearly, better data collection, and more research and analysis are urgently needed to establish a better understanding of what countervailing factors might be at work in some settings.

The response from governments, donors, United Nations agencies and nongovernmental organizations to the dangers of HIV/AIDS spread in complex emergencies has been uneven. In camps of displaced persons where workers are hard-pressed to provide basic needs (such as food and shelter), health information and condoms are often unavailable, as are more sophisticated services such as those aimed at preventing mother-to-child transmission of HIV.

In some long-term and more stable refugee settings, however, sentinel surveillance is being carried out, and services that surrounding communities may often lack, such as voluntary counselling and testing, as well as prevention of mother-to-child transmission services, are being provided.

Recent moves promise to extend such improvements. Agreements have been reached with all humanitarian agencies to integrate HIV/AIDS components into their relief work. UNHCR, WHO and UNAIDS have developed a 'minimal initial services package' (MISP), which includes essential programmes for HIV/AIDS information, condom access, and materials for universal precautions in camps for refugees and internally displaced persons. In March 2002, the United Nations Inter-Agency Standing Committee Reference Group on HIV/AIDS was created to improve coordination between organizations' efforts to carry out HIV/AIDS-related activities in emergency settings. The group is currently revising the *Guidelines on HIV Interventions in Emergency Settings*, developed by UNAIDS, WHO and UNHCR in 1996, to include a minimum standard of HIV/AIDS intervention services in conflict and post-conflict situations.

Meanwhile, United Nations agencies such as UNICEF and UNHCR, for example, are training displaced young people in Eritrea, Ethiopia and Uganda as HIV/AIDS educators who travel from camp to camp. And, in Afghanistan, HIV education is part of a programme for children who have been separated from their parents.

Preventing armed conflict may be very difficult. But it is possible to reduce the increased risks of HIV/AIDS spread among people who have been forced from their homes by conflict—if HIV/AIDS control efforts are integrated more effectively into humanitarian, relief and peacekeeping efforts.

## MAPS

Global estimates for adults and children, end 2002

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

Estimated number of adults and children newly infected with HIV during 2002

Estimated adult and child deaths due to HIV/AIDS during 2002

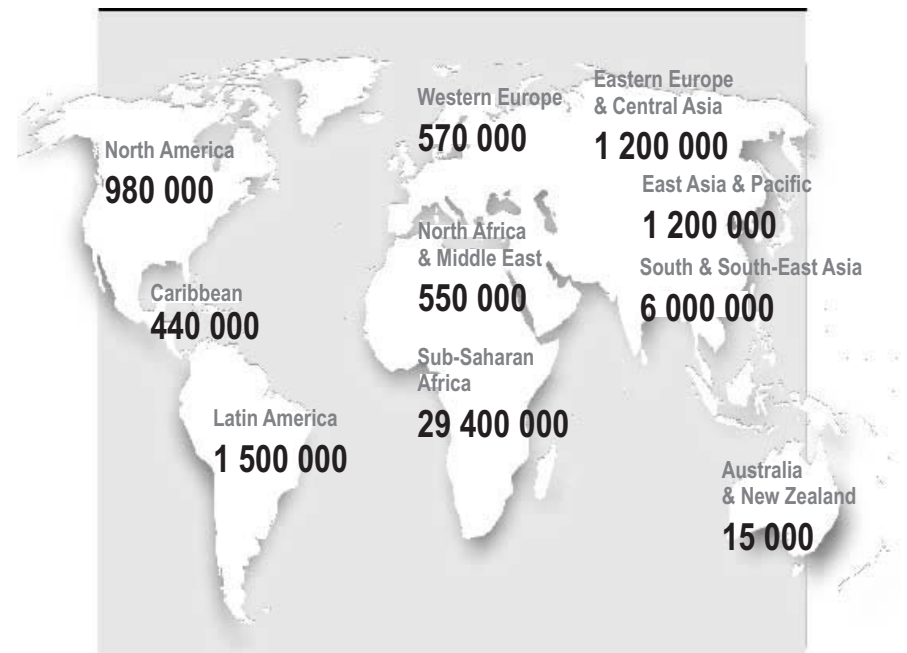
## GLOBAL ESTIMATES FOR ADULTS AND CHILDREN, END 2002



People living with HIV/AIDS .....	42 million
New HIV infections in 2002 .....	5 million
Deaths due to HIV/AIDS in 2002 .....	3.1 million



## ADULTS AND CHILDREN ESTIMATED TO BE LIVING WITH HIV/AIDS, END 2002

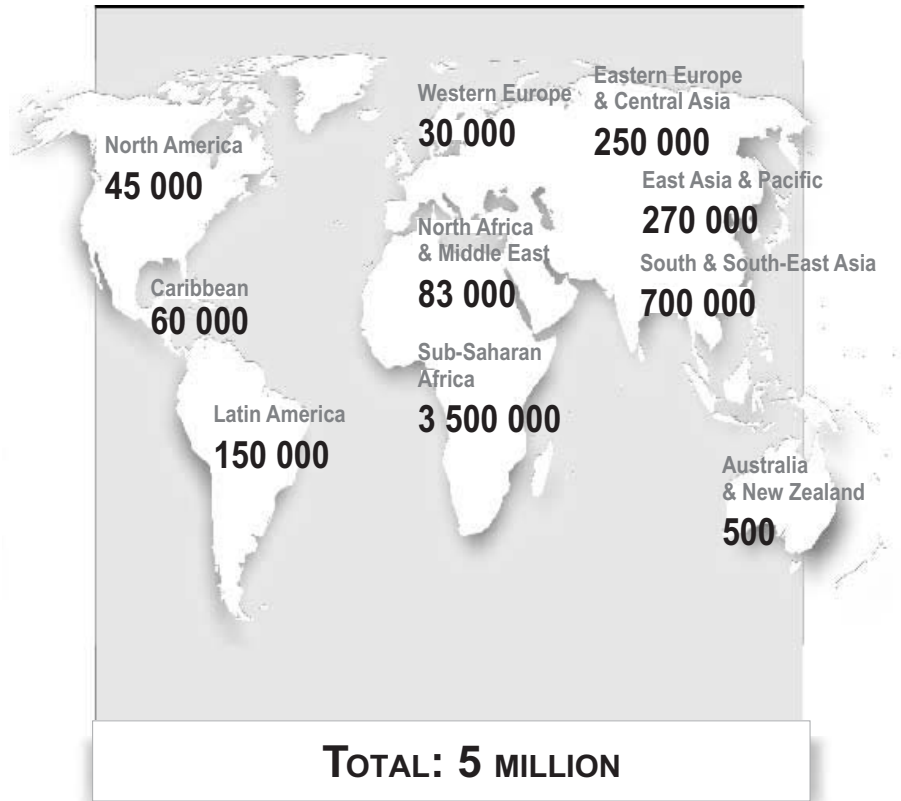


**TOTAL: 42 MILLION**

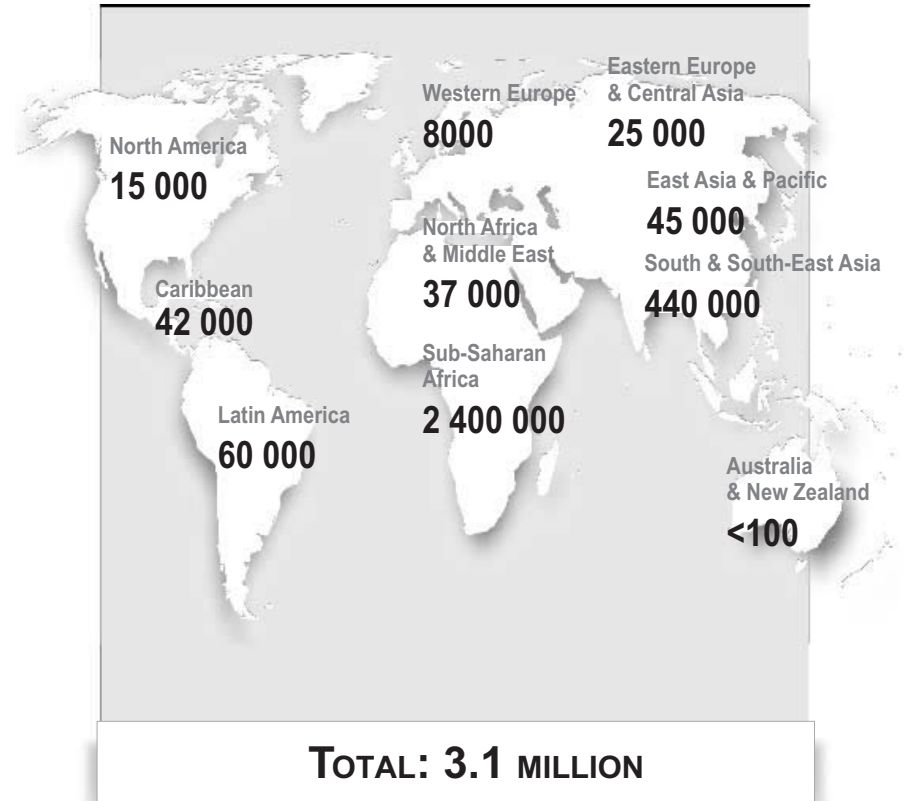




### ESTIMATED NUMBER OF ADULTS AND CHILDREN NEWLY INFECTED WITH HIV DURING 2002



### ESTIMATED ADULT AND CHILD DEATHS DUE TO HIV/AIDS DURING 2002



### Explanatory note about UNAIDS/WHO estimates

The UNAIDS/WHO estimates in this document are based on the most recent available data on the spread of HIV in countries around the world. They are provisional. UNAIDS and WHO, together with experts from national AIDS programmes and research institutions, regularly review and update the estimates as improved knowledge about the epidemic becomes available, while also drawing on advances made in the methods for deriving estimates. Because of these and future advances, the current estimates cannot be compared directly with estimates from previous years, nor with those that may be published subsequently.

The estimates and data provided in the graphs and tables are given in rounded numbers. However, unrounded numbers were used in the calculation of rates and regional totals, so there may be small discrepancies between the global totals and the sum of the regional figures.

UNAIDS and WHO will continue to work with countries, partner organizations and experts to improve data collection. These efforts will ensure that the best possible estimates are available to assist governments, nongovernmental organizations and others in gauging the status of the epidemic and monitoring the effectiveness of their considerable prevention and care efforts.

The annual *AIDS epidemic update* reports on the latest developments in the global HIV/AIDS epidemic. With maps and regional summaries, the 2002 edition provides the most recent estimates of the epidemic's scope and human toll, explores new trends in the epidemic's evolution, and features a special section examining the links between HIV/AIDS and humanitarian crises.

**These are some of the most painful symptoms of HIV/AIDS.**

**I'm not allowed to talk to you**  
**You disgust me**  
I trusted you **How could you do this to me?**  
You brought shame on our family  
**You deserve it**

**Help us fight fear, shame, ignorance and injustice worldwide.**

**Live and let live.**

UNAIDS - 20 avenue Appia - 1211 Geneva 27 - Switzerland  
Telephone: (+41) 22 791 36 66 - Fax: (+41) 22 791 41 87  
E-mail: [unaids@unaids.org](mailto:unaids@unaids.org) - Internet: <http://www.unaids.org>

## **Overview of the Global Fund to Fight AIDS, Tuberculosis and Malaria**

### **ABOUT THE GLOBAL FUND**

The Global Fund to Fight AIDS, Tuberculosis and Malaria is an independent, public-private partnership, established in January 2002 in response to a call for new and innovative ways to increase levels of funding and their impact on fighting these three devastating diseases. To date, US \$ 2.1 billion have been pledged to The Global Fund from developed and developing country governments, private corporations and foundations, and individuals.

The Fund was created to fight the global HIV/AIDS, TB and malaria epidemics by sharing resources and expertise across national boundaries, and between the private and public sectors. It supports interventions for the prevention, treatment, care and support of people with these three diseases.

### **SCOPE**

1.1. The Fund will balance its resources by giving due priority to areas with the greatest burden of disease, while strengthening efforts in areas with growing epidemics. The Board of the Fund will be responsible for defining clear eligibility criteria within the limitations of available resources.

1.2. Recognizing that the Fund's resources will be complementary to other programs, criteria will be identified to focus the choice of activities/programs/projects to be supported.

1.3. The Fund will support strategies that focus on clear and measurable results.

1.4. The Fund will focus its resources on increasing coverage of critical and cost-effective interventions against the three diseases.

1.5. The Fund will provide grants to public, private, and nongovernmental programmes, respecting country-level public-private formulation and implementation processes, in support of technically sound and cost-effective interventions, for the prevention, treatment, care and support of the infected and directly affected. Without binding the Board or indicating priorities, the sort of activities that could be supported, for example, are: increased access to health services; provision of critical health products including drugs ; training of personnel and community health workers; behaviour change and outreach; and community-based programs, including care for the sick and orphans.

1.6. The Fund will support programs that:

1.6.1. Address the three diseases in ways that will contribute to strengthening health systems.

1.6.2. Stimulate and are integral to country partnerships involving government and civil society

1.7. The Fund will provide resources for the purchase of appropriate commodities to prevent and treat the three diseases, and provide associated support for strengthening comprehensive

commodity management systems at country level, as a component of technically sound and reviewed programs.

1.8. The Fund will support public health interventions that address social and gender inequalities, as well as behavioural practices that fuel the spread of the three diseases, with an emphasis on health education.

1.9. The Fund could support operational research in the context of program implementation.

1.10. For areas in conflict or distress, the Fund will develop special criteria to support technically sound proposals designed to address critical HIV/AIDS, TB, and malaria problems.

### **FIRST ROUND PROPOSAL DISBURSEMENTS**

The Fund gives priority to effective proposals from countries and regions with the greatest need, based on highest burden of disease and the least ability to bring financial resources to address the problems of AIDS, tuberculosis and malaria. Proposals from countries and regions with a high potential for risk will also be considered.

The first call for proposals was issued in February this year, and in April the first set of applications was approved. For more information on the approved programs please visit the following website: [http://www.globalfundatm.org/files/Proposalslist\\_40.doc](http://www.globalfundatm.org/files/Proposalslist_40.doc)

The commitment of the Board to these programmes is US\$ 616 million over two years. Continued funding will add up to US\$ 1.6 billion over five years. 67% of this funding is for HIV/AIDS, 23% for tuberculosis, and 10% for malaria. The grants awarded will support programs in all regions of the world, with funds distributed across regions as follows: Africa 57%, Americas 11%, Eastern Mediterranean 1%, Eastern Europe and Central Asia 7%, Southeast Asia 18%, and Western Pacific 7%.

The Fund's grants were awarded to comprehensive proposals submitted jointly on behalf of governments, NGOs and private companies, forming so called Country Coordination Mechanisms (CCMs). Resources from the fund will go to expanding successful programmes, such as DOTS TB treatment and HIV prevention campaigns with condoms, and to building new ones, including treatment for resistant malaria and antiretroviral provision for AIDS patients.

<b>Pledges to the Global Fund to Fight AIDS, Tuberculosis and Malaria</b>		
<b>DONORS</b>	<b>PLEDGE CURRENCY OF ORIGIN</b>	<b>PLEDGE US \$*</b>
United States		500.000.000
United Kingdom	£138.000.000	215.600.000
Italy		208.100.000
Japan		200.000.000

Germany	€ 200.000.000	195.700.000
France	€ 150.000.000	146.800.000
Netherlands	€ 135.000.000	132.100.000
European Commission	€ 120.000.000	117.400.000
Canada		100.000.000
Sweden	SEK 600.000.000	64.500.000
Spain		50.000.000
Russia		20.000.000
Belgium	€ 18.000.000	17.600.000
Norway	NOK 130.000.000	17.300.000
Switzerland		10.000.000
Nigeria		10.000.000
Saudi Arabia		10.000.000
Ireland	€ 10.000.000	9.800.000
Thailand		5.000.000
Luxemburg	€ 3.000.000	2.900.000
Uganda		2.000.000
Kuwait		1.000.000
Rwanda		1.000.000
Austria		1.000.000
Zimbabwe		1.000.000
Andorra		100.000
Lichtenstein		100.000
Niger		50.000
Liberia		25.000
Zambia	ZMK 83.500.000	19.000
Kenya	KES 653.000	8.300
<b>Total, Governments and Multilateral Institutions</b>		<b>2.039.102.300</b>

#### **Foundations and Non-Profits**

Gates Foundation		100.000.000
Int'l Olympic Com.		100.000
Other Foundations and Non-Profit Organizations (18)		48.734

<b>Corporations</b>		
Winterthur		1.000.000
Eni S.p.A.		500.000
Other Corporations (19)		165.507
<b>Individuals</b>		
Mr. Kofi Annan		100.000
Amb. D. Fernandez		100.000
Other Individuals (371)		122.895
<b>Events</b>		
Real Madrid v AS Roma (Soccer Match)		112.487
<b>Other Pledges</b>		
People of Taiwan		1.000.000
Others		10.000
<b>Other Pledges (including foundations and non-profits, corporations, individuals, events and other pledges)</b>		103.259.623
<b>Total Pledges:</b>		2.142.361.923

\*UN Operational Rates of Exchange as of 1 October 2002

Finance

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# Report on Global Resource Needs



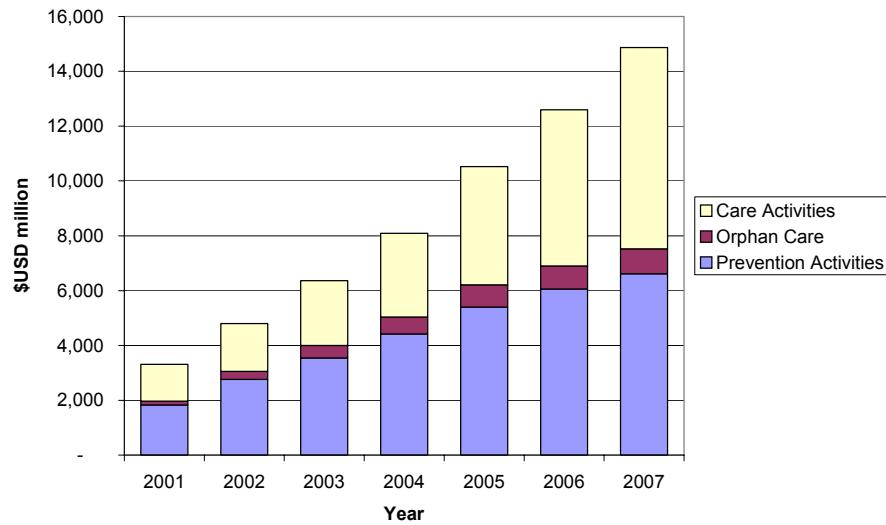
Joint United Nations Programme on HIV/AIDS

**UNAIDS**

UNICEF • UNDP • UNFPA • UNDCP  
ILO • UNESCO • WHO • WORLD BANK

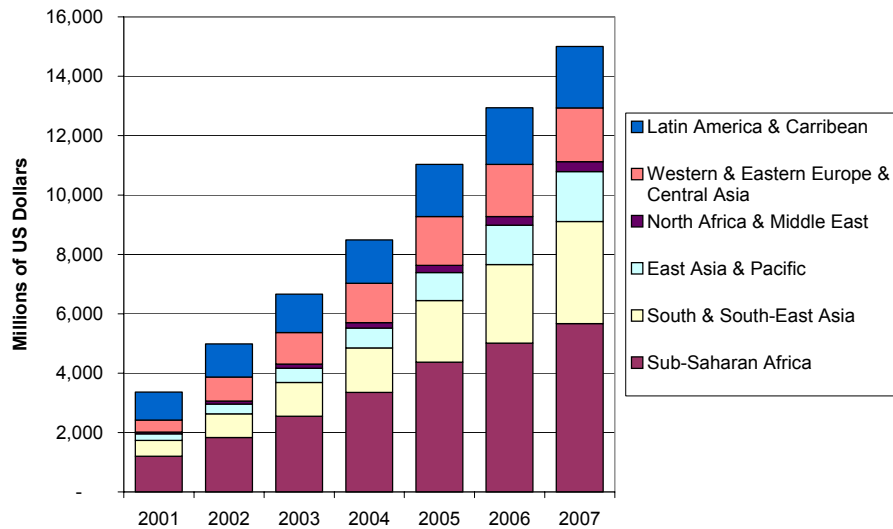
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**Figure 1. Global Resources Needed For Prevention and Care Activities**



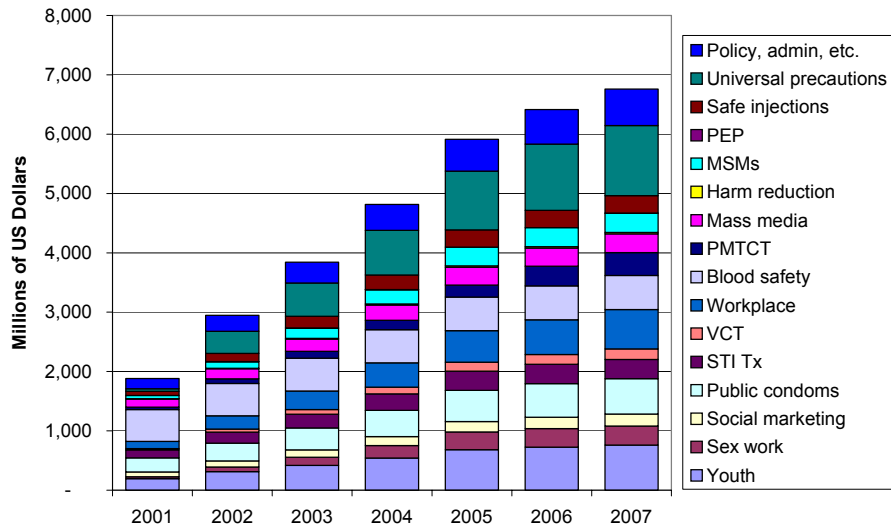
Total resources required for scaling up the response to will grow to US\$10.5 billion by 2005 and to US\$15 billion by 2007. This amount of funding assumes a rapid scale up of services within existing capacity as well as increases in capacity to deliver health care services. Cost for personnel, training, drugs and commodities are included but additional infrastructure costs (buildings, equipment) are not included in this estimate.

**Figure 2. Global Resources Needed by Region**



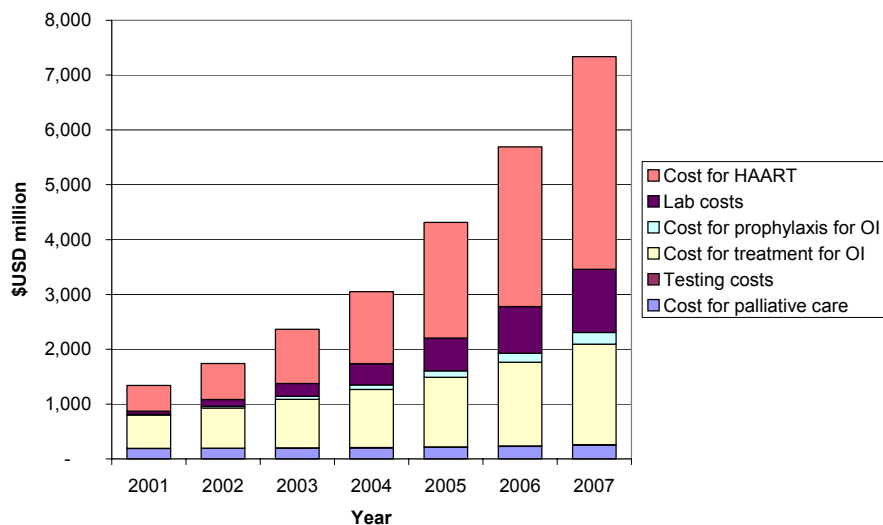
The largest share of resources will be required in Sub-Saharan Africa. That region will need US\$5.7 billion, more than a third of the global requirements in 2007. South and South-East Asia will need about one-quarter of the total (US\$3.4 billion) in 2007.

**Figure 3. Resources Required for Prevention Activities**



The total funding required for prevention activities increases from US\$ 1.8 billion in 2001 to US\$6.6 billion in 2007. The largest funding requirements are for universal precautions (16%); youth-focused services (11%); workplace programs (10%); policy, advocacy, administration and research (9%); public sector condoms (9%) and blood safety (8%). The remaining interventions each require 3-5 percent of the total funds except for harm reduction and post-exposure prophylaxis, which require less than one percent.

**Figure 4. Global Resources Needed for Care Activities**



The total funding required for care interventions increases from US\$ 1.3 billion in 2001 to US\$7.4 billion in 2007. The largest component for 2007 is HAART, at 44% of the total, while it represents just an estimated 14% of expenditures in 2001. The largest component for 2001 is OI treatment, requiring 46% of the total.

# **Global Taxes for Global Priorities**

James A. Paul & Katarina Wahlberg

Published by  
Global Policy Forum,  
the World Economy, Ecology and Development Association (WEED)  
and the Heinrich Böll Foundation

March 2002

## 1. Introduction

Many crises threaten a globalizing world, including international financial instability, growing worldwide poverty, global warming, and epidemic diseases that know no boundaries. Solutions require intense international cooperation and stronger global institutions. Progress will especially demand large new financial resources – tens of billions of dollars to finance global public health, take steps towards environmental sustainability, and build programs to insure education and livelihoods for all.

Unprecedented wealth and productive capacity are available today, more than ever before in human history. Since 1950, gross world product has multiplied seven times and product per capita nearly three times, both in real terms. Yet the global economy organizes a vastly unequal division of the world's resources, promoting private consumption and accumulation over public well-being. Development aid funds have declined, urgent global projects have stalled for lack of money and worthy international organizations like the UN have fallen prey to budget caps and assessment shortfalls.

Bold and innovative steps are urgently needed to tap the world's wealth. Global taxes offer the most promising approach. International projects and organizations cannot depend solely on contributions from nation states, much less rely on private char-

ity or business “partnerships.” They must develop independent revenue sources to fund public purposes at the global level.

Taxes amounting to just 1% of world GDP would raise over \$400 billion per year. Such a sum would meet many urgent needs while placing a very modest burden on the world's richest consumers.

Advocates have offered dozens of proposals for global taxes, but two have gained special attention: a tax on the carbon content of commercial fuels (often called a Carbon Tax), as a means to stop global warming, and a currency transaction tax (often referred to as a Tobin Tax), to reduce speculation and global economic instability.

Some day, an international political authority will levy global taxes, but at present a robust authority of this kind, with sufficient accountability *and* enforcement powers, does not exist. So initially, national governments must levy such taxes as part of an international tax agreement. Part of the funds levied will go towards global purposes, while part will be kept in the national treasury. Transition towards truly global taxation will await strengthened and democratized global institutions, sometime in the future, but today we must make a start along the road.

## 2. Background

Global taxes are not a new idea. Legal scholar James Lorimer referred to the idea in his 1884 book *Ultimate Problems of International Jurisprudence*. Many of the most famous economists of the earlier twentieth century likewise considered it, including Alfred Marshall, John Maynard Keynes, and James Meade.<sup>1</sup> Around the time of the United Nations' founding in 1945, economists and policy makers often spoke of the need for robust international economic policy to avoid the dangers of renewed depression and war. To them, global economic management and even global wealth redistribution seemed not only desirable but a logical necessity.<sup>2</sup>

In the 1950s and 1960s, global taxes receded from view, a casualty of the Cold War and fervent opposition from the United States government and many large companies. But in the 1970s the idea gained momentum again, among academics, NGOs and a few progressive governments, along with environmental concerns and the concept of a "global commons." Some economists proposed that taxes or fees on use of these resources could help manage and preserve the world's atmosphere, land and oceans.

The year 1972 proved a watershed. The UN Conference on the Human Environment recommended that the international community consider global taxes. In the same year, economist James Tobin first proposed his global tax on currency transactions, while the Club of Rome, in its famous *Limits of Growth* report, discussed global taxes to fund international organizations.<sup>3</sup>

<sup>1</sup> Frankman (1996).

<sup>2</sup> C. Wilfred Jenks, T.A. Sumberg, Jan Tinbergen, Gunnar Myrdal and many others shared these ideas.

<sup>3</sup> Tobin's proposal was first made in his Eliot Jane-way Lectures at Princeton. He elaborated on the idea

In 1977 the Washington-based Brookings Institution convened a number of meetings on the subject and that same year a UN conference referred to global taxes as a possible source of revenues to combat desertification.<sup>4</sup> Soon after, the United Nations Environment Programme (UNEP) published two major reports on global taxation<sup>5</sup> and in 1980 the Brandt Commission issued an important, widely-read report that reviewed a number of global tax proposals. The Commission favored taxes on international trade, and its report concluded that "a system of universal and automatic contributions would help to establish the principle of global responsibility, and would be a step toward co-management of the world economy."<sup>6</sup>

During the 1980s, nations actually established one global tax – a levy on deep seabed mining, incorporated in the UN Law of the Sea Convention.<sup>7</sup> Scholars and policy advocates continued to discuss other forms of global taxes in international conferences and other forums.<sup>8</sup> In 1992, Ruben Mendez of the United Nations Development Programme (UNDP) published a pioneering treatise on *International Public Finance*, giving prominence to tax proposals. Subsequently, a number of prestigious reform studies raised the issue as a step to strengthen global institutions.

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in a well-known later paper [Tobin (1978)]. For the Club of Rome report, see Meadows *et al* (1972).

<sup>4</sup> See Steinberg *et al* (1978) and United Nations Conference on Desertification (1978).

<sup>5</sup> See United Nations Environment Programme (1978) and (1980).

<sup>6</sup> Independent Commission (1980).

<sup>7</sup> The Convention was adopted in April 1982 and signed by 119 nations in December.

<sup>8</sup> Tobin's ideas were picked up by other economists, including Larry Summers, later US Treasury Secretary, who wrote an article in 1989 favoring a tax on financial transactions. [Summers and Summers (1989)].

The Commission on Global Governance (1995) proposed a tax on currency transactions, a tax on multinational corporations, and “user fees” for the global commons, including taxes on international airline tickets, ocean maritime transport and ocean, non-coastal fishing.<sup>9</sup> The Dag Hammarskjöld Foundation report on *Renewing the United Nations System* (1994),<sup>10</sup> the Independent Commission on Population and Quality of Life (1995),<sup>11</sup> the Global Commission to Fund the United Nations (1995)<sup>12</sup> and the South Centre report on UN reform (1996)<sup>13</sup> also offered proposals and analysis on the subject. Even within the precincts of the International Monetary Fund, a serious working paper on currency transaction taxes emerged.<sup>14</sup>

Several governments, including Austria and the Netherlands, studied the issue and quietly supported it. Within the UN system, UNEP organized a conference and UNDP set up a research project on global taxes, which soon resulted in an influential volume on *The Tobin Tax* (1996).<sup>15</sup> Secretary General Boutros Boutros-Ghali gave the subject a highly visible boost in a famous speech at Oxford University (1996) and the UN Economic and Social Council held a full debate on the subject (1996).<sup>16</sup>

<sup>9</sup> Commission on Global Governance (1995), 217-21.

<sup>10</sup> Childers with Urquhart (1994), 154-156.

<sup>11</sup> D’Orville and Najman (1995). The report’s preface states unequivocally “global problems demand global solutions and global resources.” Chancellor Helmut Kohl of Germany, among many others, endorsed the study.

<sup>12</sup> Harlan Cleveland *et al* (1995). The report was first published in the journal *Futures* in March, 1995.

<sup>13</sup> South Centre (1996), 88-92.

<sup>14</sup> Spahn (1995).

<sup>15</sup> Mahbub ul Haq *et al* (1996). The book emerged from a conference held on October 10, 1995 by the UNDP Office for Development Studies. ODS head Inge Kaul was a leader in this field. The UNEP conference was held in Nairobi in February 1995.

<sup>16</sup> Speech delivered January 15, 1996. The ECOSOC debate took place on 11 July 1996.

Finance ministries in many rich countries continued to react negatively, however. Corporate executives also looked askance and conservatives in the United States Congress, led by Senator Jesse Helms, strongly objected.<sup>17</sup> Many in Congress claimed global taxes threatened US sovereignty and they accused tax advocates of favoring authoritarian world government.<sup>18</sup> In 1996 Congress considered a bill making payment of US dues to the United Nations conditional upon the UN abandoning efforts that “develop, advocate, promote or publicize proposals” that impose taxes or fees on US citizens.<sup>19</sup> The bill eventually was signed into law on November 26, 1997.<sup>20</sup>

In a period of financial crisis for the United Nations, this threat immediately stifled discussion in UN forums. UNDP quietly ended its research into the issue. Secretary General Boutros Boutros-Ghali lost his bid for a second term (December, 1996), in part for this reason.<sup>21</sup> The United States also blocked European proposals for environmental taxes at the talks on global climate change. The US eventually imposed a weak alternative – an emissions trading system – in the pathmark Kyoto Protocol, of December, 1997.

<sup>17</sup> Even in nations where parliaments and some members of government are favorable, Finance Ministries have been cool. Canada is a well-known case, but the same is true of Germany and France.

<sup>18</sup> Conservative think tanks like the Heritage Foundation were particularly vocal on the matter.

<sup>19</sup> See US Senate Bill 1519, 104<sup>th</sup> Congress, 2<sup>nd</sup> Session, 22 January, 1996. The item banning UN advocacy for global taxes was added just days after the Secretary General’s Oxford speech.

<sup>20</sup> The Foreign Operations, Export Financing, and Related Programs Appropriations Act of 1998, Public Law No. 105-118.

<sup>21</sup> There are many theories about why the US so actively opposed Boutros-Ghali, but the furor in Congress in early 1996 over his Oxford speech on global taxes was certainly a significant factor.



But Washington, like the mythical King Canute, could not hold back the tide. Interest in the subject continued to grow in every country, including the United States itself, due to emerging awareness of AIDS, global warming, and other impacts of globalization on people's lives. Citizens increasingly understood that the agreements signed at the UN global conferences of the 1990s would remain meaningless without the large sums needed for implementation.<sup>22</sup>

Well-known NGOs, like Friends of the Earth and War on Want, took up the cause. Grassroots movements sprang up and soon found broad public support.<sup>23</sup> Trade unions developed a growing interest, including the worldwide Public Services International.<sup>24</sup> Scholars discussed it. Conferences proliferated. Parliamentarians held hearings. Even the influential U.S. journal *Foreign Affairs* gave it space.<sup>25</sup> Increasingly, parliaments and political leaders endorsed the idea.<sup>26</sup>

In the run-up to the UN Financing for Development (FfD) world conference, the Zedillo Panel Report of 2001 gave global taxes unexpected attention. Commissioned by the UN Secretary General and written by an international group of eminent persons, the Report concluded that "there is a genuine need to establish, by international consensus, stable and contractual new sources of multilateral finance" – that is, global taxes.

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<sup>22</sup> A recent UN report estimates that the extra cost of meeting global development targets agreed by all governments would be at least \$50 billion per year. See Zedillo (2001). Environment, health and security goals would push the figure considerably higher.

<sup>23</sup> See below for a discussion of the Paris-based AT-TAC movement and other grassroots initiatives.

<sup>24</sup> Public Services International, the international secretariat of workers in the public sector, was one of the first high-profile unions to support the idea, giving it backing as early as the mid-1990s.

<sup>25</sup> Cooper (1998).

<sup>26</sup> See below esp. in the section on carbon taxes for more details.

While recognizing the strong opposition to this idea, the panel stated bluntly that the alternative, short-sighted option, leads the world towards a far more dangerous and unhappy future. The report goes on to consider two proposals. It views a tax on international currency transactions as interesting but possibly flawed. It recommends instead a tax on carbon emissions, which it says would be based on the "sound and fair principle of 'make polluters pay.'"<sup>27</sup> Taking into account the cautious language of all such reports, one could say that the Zedillo Panel gave a solid endorsement to the idea of global taxes.

A *Technical Note* published about the same time by the UN Secretariat reviewed three of the most promising tax proposals.<sup>28</sup> Various side events and government reports have considered global taxes too, including an excellent report on "global public goods" by the Swedish Ministry of Foreign Affairs.<sup>29</sup>

The time for concerted action has come. The international community cannot allow the United States government to hold the world hostage and block vitally-important progress. Like-minded governments and citizen groups must advance together towards the goal of global taxes. The UN has the authority and capacity to address this agenda, and so to pave the way for a just and sustainable global future.

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<sup>27</sup> Zedillo (2001), 26-27.

<sup>28</sup> United Nations, General Assembly (2001). The three proposals reviewed were: currency transaction tax, carbon tax, and aviation fuel tax.

<sup>29</sup> Sagasti and Bezanson (2001), see esp. 42-45. Among the side-events, Global Policy Forum, WEED and the Heinrich Böll Foundation organized an International Roundtable in New York on May 5, 2001.

### 3. Major Proposals

Global taxes can have three parallel purposes: (1) policy steering, (2) revenue raising, and (3) income re-distribution. Tax proponents ordinarily give priority to one of these purposes over the other two. But we will consider the triad, because public support hinges on all three.

We will consider in detail the two major proposals – a carbon tax and a currency transaction tax – looking at the policy steering aspects, revenue raising potential, and redistribution impact of each, as well as their problems, prospects and progress.

Some of the most important tax proposals hope to create a *disincentive* – that is, to discourage harmful activities – as taxes on cigarettes and alcohol do. Taxes on carbon emissions and currency speculation are both of this type. Specialists refer to a “Pigovian” tax, after the economist A.C. Pigou who first theorized about it, pointing out that market prices do not reflect the true costs to society and the environment of these activities.

Such a tax has special features. If it succeeds very well in discouraging the unwanted activity, it will lose its effectiveness as a source of revenue. Further, it may produce its highest potential revenue at a relatively low percentage rate, creating a tradeoff between revenue and disincentive. As the rate rises, revenue is likely to fall because use of the taxed item will decline. The interaction between the tax rate and tax revenues will depend on what economists call demand elasticity: how quickly demand will decline as prices rise.

Demand for fuels like oil responds relatively quickly to price changes – when oil prices spiked in 1979-80, use declined significantly and world carbon emissions declined for

three years to a total 19% below the trend, before climbing again as oil prices fell.<sup>30</sup> As increasing carbon tax rates would push final prices ever higher, demand would fall, though we don’t know how far and how fast this would change.<sup>31</sup>

Other proposals do not have this Pigovian steering function. They tax activities that are considered positive, such as email traffic and world trade. Unlike the Pigovian proposals, whose advocates hope the taxes will have a direct policy impact such as reduced global warming, these proposals typically seek to raise revenue and may aim at policy goals on the spending side – for example, they may seek funds for development, environmental protection, poverty eradication, or other programs of the United Nations.

#### *Carbon Tax*

#### **Policy Goal: Combating Global Warming**

Global warming, caused by human activity, brings potentially far-reaching climatic and ecological disruption. If not halted, these changes will result in rising sea levels, desertification and increases in the frequency and severity of storms, floods and drought. Such new climate conditions will lead to the

<sup>30</sup> Emissions fell from 5.329 billion tons in 1979 to 4.933 in 1983. Trend would have produced a rise to 6.087 billion. For the data series see Dunn (2001), 53. Most of this decline appears to have resulted from reduced oil use, since coal use increased. See *UN Energy Statistics Yearbooks*, various years.

<sup>31</sup> European governments in particular have developed considerable experience with petroleum taxes that have been set at rates with a major price impact. High taxes on gasoline are believed to have contributed to higher European efficiency in energy use by comparison with the United States. For a discussion of demand elasticities see OECD (2001).

spread of disease, human displacement and even the disappearance of heavily-populated areas that will submerge below the rising oceans.<sup>32</sup>

The authoritative Intergovernmental Panel on Climate Change (IPCC) believes that average temperatures across the world will climb by several degrees over the century. The Panel notes that already icecaps and glaciers are melting, sea levels are rising, and extreme weather events are occurring more frequently. The IPCC concludes that most recent warming is “attributable to human activities.” It warns of “irreversible damage” and “rising socio-economic costs.”<sup>33</sup> UNEP estimates that negative effects of global warming could soar to a cost of \$300 billion per year.<sup>34</sup> Carbon dioxide, released from burning of hydrocarbon fuels like oil, coal and natural gas, is by far the most important “greenhouse gas” driving this process.<sup>35</sup>

A tax on carbon content of these commercial fuels could combat global warming by reducing carbon dioxide emissions.<sup>36</sup> Authorities would levy such a tax in proportion to a fuel’s carbon content. Companies extracting the fuels would pay the tax, passing it along to consumers as a price increase. The tax would fall most heavily on coal, the fuel with the most carbon content, while natural

gas would be taxed the least.<sup>37</sup> Since fuel use is sensitive to price, especially over time, higher prices would have considerable impact on consumption. The tax would be based on the “polluter pays” principle.

Depending on the tax rate, a carbon tax could substantially reduce the use of commercial carbon fuels and create price-incentives for transition to sustainable energy sources, such as wind, solar and geothermal power.<sup>38</sup> If phased in over twenty years or more and coordinated with other public policy measures, the tax could promote a steady transition to sustainable energy alternatives.

Global energy use has shifted in recent decades towards more efficient, lower-carbon fuels. But from 1950 to 1999, world GNP increased so dramatically that carbon release grew from 1.6 to 6.3 billion tons per year.<sup>39</sup> Scientists expect further emission increases in the decades ahead, unless nations adopt strong policies. An IPCC study projects 12 billion tons in 2020, doubling the present rate, in the absence of substantial new measures.<sup>40</sup>

Since carbon dioxide *accumulates* in the atmosphere, and it has already reached a dangerous level, carbon release should be reduced dramatically, as quickly as possible. Slowing or ending the *growth* of emissions is not enough. A high carbon tax could take

<sup>32</sup> Intergovernmental Panel on Climate Change (2001a).

<sup>33</sup> *Ibid.*

<sup>34</sup> United Nations Environment Programme (2001)

<sup>35</sup> Other greenhouse gasses include methane, nitrous oxide and chlorofluorocarbons, the latter having been reduced substantially by the Montreal Protocol of 1987 to protect the Ozone Layer.

<sup>36</sup> The tax applies only to “commercial” fuels, because fuels people collect and burn themselves, mainly wood, cannot be taxed. The tax would exempt non-fuel uses, such as petroleum used to produce pharmaceuticals and plastics.

<sup>37</sup> Cooper (1998). Coal has a carbon content of .30 tons per million BTU of energy output, oil .24 tons and natural gas .16 tons.

<sup>38</sup> See Wim C. Turkenburg, “Renewable Energy Technologies,” in United Nations Development Programme (2000), 220-272. For hydrogen-powered fuel cells, a possible transitional technology, see [www.fuelcells.org](http://www.fuelcells.org).

<sup>39</sup> Dunn (2001), 52-53. Carbon emissions have declined very slightly in the past three years, but the IPCC projects further growth unless reduction measures are in place.

<sup>40</sup> As cited in Cooper (2002), 2.

the emissions rate back down, especially if combined with eliminating subsidies for carbon fuels.<sup>41</sup> High taxes will be required to reach deep emissions cuts and to promote a rapid shift to sustainable energy, even as worldwide energy demand and use increases.

### Revenue Potential

A global carbon tax, levied at a rate that would substantially discourage carbon emissions, would produce very large revenue. There are many assumptions that enter revenue projections, notably the demand elasticities of carbon fuels and the time-lag that would allow alternative energy systems to come into widespread use.

A UN paper estimates that a tax amounting to \$21 per ton of carbon (the equivalent of 4.8 cents per gallon of gasoline) would yield \$125 billion annually.<sup>42</sup> This tax rate would not be high enough to stop worldwide growth of carbon fuel, but it might be the beginning of a phased-in tax that would rise steadily over a period of years.

According to the IPCC, taxes of \$100 per ton of carbon could reduce emissions up to 5 billion tons by 2020. Taking into account projected increases in use, however, that reduction would still leave the world with slightly more emissions than at present!<sup>43</sup> A higher tax rate, perhaps \$200 per ton or more, is required to produce real reductions.

Taking a \$200 tax, and then assuming a hypothetical world-wide 50% decrease of carbon emissions from present levels, we could project revenue of \$630 billion per year after a 15 year phase-in period.<sup>44</sup> This sum parallels a model by the Organisation for Economic Cooperation and Development (OECD) projecting carbon tax revenue of \$750 billion by 2020, or about 1.3 percent of gross world product in that year. Taxes raised in the US would represent about 20% of the world total.<sup>45</sup>

Nations have separately levied carbon-type taxes for many years, especially taxes on gasoline. According to an OECD study, petroleum tax revenues in Germany in 1998 totaled about \$38 billion, while in Britain in 1995, similar levies on transportation fuel came to \$14 billion.<sup>46</sup> This demonstrates the large revenue that a carbon tax can mobilize. And it shows that nations can move ahead with high-revenue joint carbon taxes without a universal global agreement.

A phased-in global carbon tax would probably produce its highest revenue in a stage when carbon fuel use remained high. Later, tax rates would rise and revenue eventually decline. Assuming a long phase-in time and continued residual use of carbon fuels, the tax would produce hundreds of billions of dollars in annual revenue over a period of several decades.

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<sup>41</sup> Reduction or elimination of subsidies must accompany the tax, since subsidies amount to an estimated \$150 billion per year, not including the transportation sector. [United Nations Development Programme (2000), 425]. The UK and Germany have reduced coal subsidies and seen their carbon emissions drop in the 1990s as a result [Dunn and Flavin (2002), 35].

<sup>42</sup> United Nations, General Assembly (2001), 3. Cooper (2002) estimates that \$23 is the cost of the first-round of Kyoto standards.

<sup>43</sup> Cooper (2002), 2

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<sup>44</sup> The tax of \$200 per ton of carbon would then fall on 3 billion tons of carbon fuel content.

<sup>45</sup> Cooper (1998).

<sup>46</sup> OECD (2001). According to the OECD, the revenue from environmentally-related taxes as a share of GDP varied from about 1% in the United States, to 2% in France, Canada and Germany, 3% in the UK, 3.5% in Norway and the Netherlands, and as high as 5% in Denmark in 1994-98 [page 50].

## Re-distribution

All taxes change the distribution of income and well-being. In a world of great poverty and huge income disparities, global taxes should aim to redistribute. Yet global tax advocates have not given enough attention to distributional issues, which include the initial levy, its policy steering aspect, and its spending results.<sup>47</sup>

The *levy outcome* of a carbon tax can be mildly regressive by raising the costs of cooking fuel, heating fuel, and transportation fuel for poor people. Higher fuel costs for farm equipment (such as irrigation pumps and small tractors) can also put pressure on marginal farmers.

There have been many distribution studies in rich countries. These suggest that distribution effects of carbon/energy taxes have ranged from mildly regressive to mildly progressive, depending on local patterns of energy use. Countries that have adopted these taxes, such as Denmark, the Netherlands and Germany, have typically included exemptions or re-distributional subsidies that lessen the impact on the poorest families and make the overall burden of the taxes mildly progressive<sup>48</sup>

Some critics also argue that poor countries depend more on inefficient energy systems which rich countries have already left be-

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<sup>47</sup> Far-sighted advocates urge us to pay more attention to this question and warn that public attitudes towards existing (national) taxes of this kind show potential pitfalls. Anderson (2002) raises this concern and demonstrates that in the case of Denmark the impact of the taxes has been mildly regressive.

<sup>48</sup> OECD (2001), 82. Studies suggest that weather may be a major factor. Warm-climate countries show more progressivity, while cold-climate countries show more regressivity. The poor must heat their homes, but they don't use air conditioners. See also Anderson (2002) for the distributional effects in Denmark.

hind, so that a tax of this kind would impose heavier transition costs on the economies least able to adapt. According to one set of projections from the mid-1990s, China by 2015 would be emitting as much greenhouse gases as the United States, and India would be emitting more than Japan.<sup>49</sup>

China has confounded standard assumptions, though, by rapidly decreasing its carbon emissions after 1996, including a major shift away from coal, even while achieving rapid economic growth.<sup>50</sup> This shows that poor countries can make major changes at an early stage of their industrial development and need not follow the European/US path of energy use.<sup>51</sup>

Distributional effects in the global economy are far more complex than distribution within a single country. Cold-weather regions are more likely to be negatively affected than warm-weather ones, thinly-populated than thickly-populated, and so on. The world's poorest two billion people scarcely use commercial fuels at all<sup>52</sup> and most poor countries import all or most of their commercial fuel. So carbon fuel use and income from fuel-extraction vary greatly from one country to another. A Saudi prince, a US coal miner, and an investor in Toyota would probably lose income from falling demand for carbon fuels. Gas producers would benefit in the short run at the expense of oil producers and especially coal producers.

To insure a more progressive levy outcome, a carbon tax could be raised on a multi-tier basis, with higher rates for rich countries

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<sup>49</sup> Cooper (2002), 3.

<sup>50</sup> China closed an estimated 50,000 coal mines from 1997 to early 2000 [United Nations Development Programme (2000), 425].

<sup>51</sup> Dunn and Flavin (2002), 35.

<sup>52</sup> United Nations Development Programme (2000), 419.

and lower rates for poor countries. Studies are needed to insure both effectiveness and fairness of the tax and to win the greatest public support for the tax plan.

The *policy outcomes* suggest a more strongly progressive effect of the tax, especially in the long term. By mitigating global warming, the tax would protect the poor who are especially exposed to negative effects such as disease, drought, storms, and flooding. Peasants living in flood-prone Bangladesh would certainly be great beneficiaries. Citizens of small island nations, threatened by the rise of sea levels, would benefit immeasurably. The IPCC has concluded unequivocally that “The impacts of climate change will fall disproportionately upon developing countries and poor persons within countries and thereby exacerbate inequities in health status and access to adequate food, clean water and other resources.”<sup>53</sup>

Other policy dimensions of distribution arise. As a carbon tax is imposed, prices of solar and wind generators of electricity would likely decline due to intensified research and longer production runs. This could help bring affordable energy to poor people in remote villages and raise their standards of living. Carbon taxes would lessen urban sprawl and so reduce pressure on the land of poor farmers. Carbon taxes could also lower health costs, by reducing, among other things, particulate pollution (the OECD report, in discussing distributional effects, notes that poor people are nearly always more exposed to the bad effects of emissions).<sup>54</sup>

The *spending outcomes* promise important re-distributional effects as well. Assuming

that the nations collecting the tax would agree to forward a substantial portion like 50% to a global fund, strongly redistributive effects could result. Such a fund could target support for low-income households. The fund could also help to better distribute world energy resources by helping poor communities obtain low cost solar panels and wind generators.

Considering all three aspects of the tax (levy, policy, spending), on a global basis, the tax promises to be progressive in its overall effect. Advocates must devote more attention and study to the distributional issue, however, to insure that progressive effects will be maximized and harmful regressive effects in local cases reliably overcome.

### Problems and Likely Opposition

Some opponents argue that the Kyoto regime of emissions trading takes care of carbon emissions, making the idea of a carbon tax obsolete. This is not true. Emissions trading is a seriously flawed concept, that gives advantages to the biggest polluter countries and the big energy companies.<sup>55</sup> At best it will have only a limited capacity to reduce worldwide greenhouse gas emissions. A carbon tax is a fairer, more efficient policy tool that would speed progress towards Kyoto and Rio goals.

By raising prices of commercial hydrocarbon fuels, the carbon tax theoretically might boost use of wood as an energy source, along with increases in demand for nuclear and hydroelectric energy, as substitutes for taxed fuels. Though wood is a carbon fuel, authorities cannot tax most of its use, be-

<sup>53</sup> Intergovernmental Panel on Climate Change (2001b), 88. The issue of distribution is raised in ch. 5, 87-90.

<sup>54</sup> *Ibid.*

<sup>55</sup> Emissions trading favors the status quo by giving out trading permits based on current emissions levels. An initial issuing price of the permits is the only occasion when public revenues can be raised. See Baumert (1998a), Cooper (1996), Cooper (2002).

cause consumers tend to harvest and use it directly for their own needs. Nuclear power and hydro-electricity are not carbon emission sources at all. A shift towards these three energy forms would put pressure on forests, raise the danger of radioactivity and dam more of the world's wild rivers. But other offsetting factors would likely enter the equation.

Carbon taxes would promote development of cheaper sustainable energy sources. Electricity prices from wind mills and solar thermal generators are now beginning to be competitive with carbon-fuel generated power. They may already be cheaper than some nuclear generated energy prices and may eventually be cheaper than hydroelectric.<sup>56</sup> Probably, then, falling prices for sustainable energy will undercut substitution effects from these unsustainable energy sources and steadily *lower* their use.

Some critics argue that carbon taxes would be difficult to collect, but few tax experts take this argument seriously. Tax authorities would levy carbon taxes directly on the sale of carbon fuels, thus collection of carbon taxes would be as easy as value-added taxes or sales taxes. Because VAT taxes are already in widespread use, and because sellers almost everywhere use computerized systems, adding this collection item would not impose much difficulty or extra cost. European experience suggests a collection

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<sup>56</sup> Flavin (2000), 56. Flavin cites estimates from the US Department of Energy that wind power now costs 4-6 cents per kilowatt hour, about the same as new gas- and coal-fired plants. In Flavin (2001a) the author claims that some wind power electricity was produced in 2000 in the western United States at half the price of electrical power from ordinary fuels. Photovoltaic power is more expensive than wind, but falling in price, while solar thermal electricity is now close to market prices. For broad cost comparisons, see United Nations Development Programme (2000).

cost of well under 1%<sup>57</sup> and a UN paper affirms that in most cases "administrative and compliance costs of the extra taxation would be negligible."<sup>58</sup>

The carbon tax's main problem is not technical but political – the staunch opposition of a number of enormously powerful global industries, notably transportation equipment manufacturers like General Motors and Ford, petroleum producers like ExxonMobil and Royal Dutch Shell, and energy producers like Enron and Dynegy, all closely tied to the carbon-energy system. Among the largest companies in the world, they have great political influence, particularly over two key players: the United States and Britain.<sup>59</sup>

These companies sell mass-consumption products, however, so they are vulnerable to consumer attitudes and pressures. BP's advertising campaign, which insists that the company is looking "Beyond Petroleum," reflects corporate awareness of this looming challenge and offers hope that mass campaigns and consumer pressure can blunt corporate opposition. A Greenpeace campaign against Shell in Europe provides a glimpse of this strategy, which may have caused Shell and some other companies to soften (though not abandon) their opposition to environmental policies.

Oil and gas producing nations also oppose this tax, which they see as a threat to their production revenues. Russia, Britain, Norway, Mexico, Nigeria, Indonesia, Iran and the United States are all producers with a big

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<sup>57</sup> See OECD (2001) for a discussion of tax administration issues and costs.

<sup>58</sup> United Nations, General Assembly (2001) 3-4, quote: 4.

<sup>59</sup> Enron is no longer a force, after its collapse in late 2001, but public inquiries have shown how intensely it lobbied for a carbon-friendly energy policy and against global agreements like Kyoto.

stake in the carbon energy system. But rents, taxes and other revenues from fuel extraction do not always better the lives of ordinary citizens. Further, most of the world's nations lack domestic coal, oil and gas. They have plenty of sun and wind, though, for sustainable power generation. They would clearly benefit from a shift in the global energy system and they might eventually prove to be strong supporters of a carbon tax proposal.

### Progress

The European Union has been interested in coordinated energy policies, including taxes on petroleum and even carbon taxes. For this reason, EU negotiators favored a tax-based regime at Kyoto, rather than the emissions-trading system that ultimately emerged. Because the EU is already relatively energy efficient, globally-agreed carbon taxes would be less of a burden than in the US.<sup>60</sup> In fact six European states, five of them EU members – Denmark, Finland, Germany, the Netherlands, Norway and Sweden, – have already levied energy/carbon taxes at the national level. The EU is some distance from implementing its own carbon tax, but its members, including even Britain, favor energy taxes as a path towards energy efficiency and environmental stewardship.

No mass campaign has emerged to promote a carbon tax, but the broad-based environment movement has shown considerable interest in this idea, lobbied for it and produced policy papers and proposals. Friends of the Earth, War on Want, and the Wuppertal Institute, among others, have actively promoted it. Networks of environmental groups have pressed for it at global conferences. A regular series of Global Conferences on Environmental Taxation have em-

<sup>60</sup> Baumert (1998a).

emerged.<sup>61</sup> The OECD, UNEP, UNDP, and the Commission on Sustainable Development have all made or commissioned studies.<sup>62</sup> Many scholars and environmental scientists have supported the idea, one of the most prominent being Richard Cooper, Boas Professor of International Economics at Harvard University, whose essay advocating a carbon tax appeared during 1998 in *Foreign Affairs*, an influential US foreign policy journal.<sup>63</sup>

The UN Zedillo Panel, whose members from a range of countries included Robert Rubin, former US Secretary of the Treasury, endorsed the carbon tax, saying that it had "promise" and that governments should give it serious consideration.

Public awareness of global warming is growing steadily. Political leaders are moving towards serious action. Pressure in favor of the carbon tax will continue to mount. Governments should see the World Summit for Sustainable Development in Johannesburg (August-September 2002) as an important opportunity for action. A political bloc is forming that will steadily overcome opponents and implement the tax.

### *Currency Transaction Tax*

#### **Policy Goal: Reducing Currency Speculation and Financial Instability**

Every business day, traders at banks around the world exchange more than \$1 trillion in currencies. Less than 20% of these transac-

<sup>61</sup> The Annual Global Conference on Environmental Taxation which brings scholars together from many countries. First held in Cleveland (USA) in 2000, it was held in Vancouver (Canada) in 2001 and will be held in Woodstock, Vermont (USA) in 2002.

<sup>62</sup> See, for example, OECD (1997) and OECD (2001).

<sup>63</sup> Cooper (1998).



tions are necessary to cover international trade and travel, long-term investment and financial liquidity. The remainder covers various kinds of speculation on currency price changes. This speculation often results in currency runs, financial crises, collapse of economies and hardship to millions of people, as well as dangerous instability in the whole world financial system.<sup>64</sup>

Currency speculation often drives down the price of local currencies, precipitating financial crises such as those in Mexico (1994), East Asia (1997-98), Russia (1998), Brazil (1999), Turkey (2000) and Argentina (2001). This has caused broad instability in the global economy and harmed millions of people, where local economies suffered deep declines.<sup>65</sup> Central Banks could not defend their own currencies during these speculative attacks, because speculators could mobilize enormous loans for short-term, high-profit moves in the markets.

Even the speculators could lose in this high-stakes gambling game, however. Baring Brothers, one of the most venerable London firms, collapsed in February 1995 after a single trader in its Singapore office took risky positions that ran up \$1 billion in losses.<sup>66</sup> The USA-based Long Term Capital Management hedge fund lost on an even larger scale in computer-driven currency trading schemes, and the whole firm suddenly collapsed with tens of billions in paper losses in October 1998. Last-minute intervention by the US Federal Reserve Bank, which organized a bailout by creditors,

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<sup>64</sup> Only 2% of the volume covers the needs of trade. Most transactions are unnecessary and damaging, in the view of Tobin and many other experts. Wahl and Waldow (2001), 5, estimate that 80% of the trading volume is accounted for by arbitrage and speculation. Annualized daily volume was over \$1.5 trillion in 1998 and in 2001 about \$1.3 trillion.

<sup>65</sup> See Hayward (1999).

<sup>66</sup> A Daiwa Bank branch in New York suffered \$1.1 billion in trading losses, also revealed in 1995.

barely prevented a serious international financial crisis.<sup>67</sup>

Nearly two decades earlier, in 1972, Professor James Tobin of Yale, later a Nobel laureate, first anticipated the dangers of open currency markets and proposed a small tax on currency trades in order, as he said, to “throw sand in the wheels” of the markets, slow down speculation, promote long-term investing, and give governments more autonomy in their monetary policy.<sup>68</sup> After the demise of the Bretton Woods currency-system in the early 1970s, new market conditions<sup>69</sup> and very high profits from currency trading pushed volumes steadily upwards – from a turnover of \$16 trillion per year in 1970 to nearly \$30 trillion in 1983.

As financial companies adopted computer-driven trading systems in the 1990s, the pace of trading grew still faster, because complex programs required huge trading volume to realize profits on small-margin trades. By 1992, annual trading had grown to \$148 trillion. In that year, speculation by George Soros’ Quantum Fund forced the devaluation of the British pound, while making a profit of more than \$5 billion in just a few

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<sup>67</sup> Dunbar (2000). LTCM’s positions were leveraged at 25-times the firm’s capitalization. When the firm collapsed, its exposure in the markets was about \$1 trillion, of which \$750 billion in interest rate swaps. [Tsatsaronis (2000), 67]. More recently, in February 2002, a trader at a Baltimore (US) affiliate of the Allied Irish Banks ran up \$750 million in currency trading losses before being discovered.

<sup>68</sup> Tobin (1974). The idea had its origin Keynes’ *General Theory* (1936), which discussed slowing down domestic markets through a transaction tax to encourage long-term investment values. See 1964 edition, 159-60.

<sup>69</sup> Governments deregulated their financial sector, lifted exchange controls and allowed currencies to “float.” International Monetary Fund (IMF) loan conditions imposed reforms of this type on many poor countries, with weak and undeveloped financial systems and shaky currencies.

days.<sup>70</sup> By 1998, feverish speculation by computer-driven investors had pushed the level of transactions to \$373 trillion.<sup>71</sup>

Since then, trading has fallen to about \$322 trillion by 2001, due to the introduction of the Euro, banking concentration and other factors.<sup>72</sup> Growth will probably resume, though. Even if future growth slows, overall volume will remain dangerously high and prone to speculative runs and damaging volatility.

A Currency Transaction Tax (CTT or “Tobin Tax” as it is often called) could lower trading volume, speculation and volatility by imposing a small tax of less than 1% on each trade.<sup>73</sup> Such a tax would not slow world trade in goods and services or long-term investments, but it would reduce much of the arbitrage trading that seeks profits from very small differences in currency prices. Some think that a tax as low as 0.1% could substantially reduce arbitrage activity.

Paul-Bernd Spahn<sup>74</sup> contributed an important new element to the proposal in 1996 by suggesting that the tax should include a second, much-higher rate that would come into force whenever signs of major speculation arise – when price movement exceeds a pre-established limit. This second-tier tax would act like stock market “circuit-breakers” that

stop trading when sudden large price movements occur. This tier would discourage speculative currency runs, for which a low rate would not be sufficient disincentive.

The two-tier tax would favor long-term investments and loans, discouraging short-term activity and sudden, destabilizing price changes. Rapid, irrational “herd behavior” by speculators could no longer do serious damage. The tax would provide stability to the global financial system and promote conditions more favorable for development.

### Revenue Potential

Taxes on currency transactions could raise large revenue, even if they lowered transactions by 50% or more. Researchers have estimated revenue based on various assumptions such as different tax rates and different impacts on trading levels. Estimates also make different assumptions about how many transactions would escape taxation (through use of new financial instruments, tax havens, etc.). A tax of 0.2%, with a hypothetical 50% reduction in transactions from the current level of about \$300 trillion would result in annual revenue of about \$300 billion. A tax of just 0.05% with a 50% tax-induced reduction of transactions and non-participation by the U.S. and the U.K. (further 50% reduction) would still produce a hefty \$38 billion.<sup>75</sup>

Eventually currency transactions may diminish as the dollar and the euro gain wider use and national currencies decline. In the meantime, the CTT will prove a very large source

<sup>70</sup> Tsatsaronis (2001), 66.

<sup>71</sup> Wahl and Waldow (2001), 5, citing the *1998 Annual Report* of the Bank for International Settlements.

<sup>72</sup> Galati (2001). One factor, the pullback of hedge funds after the meltdown of Long Term Capital Management, resulted from huge losses in Russia for Quantum, Tiger and others. For hedge funds see Tsatsaronis (2001).

<sup>73</sup> Tobin initially proposed 0.5% but some advocates now favor rates as low as 0.1% [the rate would be doubled by a “round-trip” speculative transaction].

<sup>74</sup> Spahn is a professor of economics at Frankfurt University and an IMF consultant. See Spahn (1995) as well as his later papers Spahn (1996) and (2002).

<sup>75</sup> A number of different revenue figures have been projected, based on different assumptions. Spahn (2002) estimates a tax levied throughout the EU and Switzerland (including the UK), at the rate of 0.1%, to yield 17-20 billion euros or about \$16 billion, while the UN study [United Nations, General Assembly (2001)] estimates a universal tax at the 0.1% rate yielding \$132 billion.

of revenue, yielding tens of billions annually for global public purposes.

### Re-distribution

The *levy outcome* of a currency transaction tax would yield far more progressive results than the carbon tax, because the CTT directly affects mostly financial companies. Travelers and workers sending remittances would pay an extremely small sum towards the tax, a sum that would be more than offset by falling currency exchange transaction costs as banks wire themselves together across the globe. While non-financial firms can be expected to pass along some of the tax's effect in the form of higher prices, it appears that only very slight additional costs would be borne by poor persons.

The *policy outcome* of the CTT would be strongly redistributive, since the tax would dampen speculation and avoid financial and economic instability that impose such a heavy cost on ordinary people in affected countries.

The *spending outcome* has a problematic aspect anticipated by Tobin, since currency exchange transactions are concentrated in just a few countries. Britain accounts for 32% of all global currency trades, the United States ranks second at 18%, Japan third at 8% and Singapore fourth at 7%. The US, Japan and the European Union together account for about 75% of global trades, with Switzerland, Hong Kong and Singapore accounting for another 15%.

A tax entirely kept by these governments would not promote *global* re-distribution, though it would promote re-distribution within their borders. An effective plan for a global CTT should incorporate national contributions to a global fund that would redistribute tax revenue away from Britain and

the other financial center countries in favor of projects in low-income nations. If 25-50% of the revenue would benefit citizens of poor nations, the result would be strongly progressive on a global basis.

Overall, then, this tax promises progressive re-distributional effects in all three of its outcomes.

### Problems and Opposition

Critics sometimes insist that tax authorities would find it difficult to collect a CTT, especially because traders would invent means to avoid it through (1) creation of non-taxable instruments, such as special derivatives, and (2) use of tax-free havens such as offshore centers to shelter their trades. Rodney Schmidt and other proponents of the tax have made convincing proposals that would block these and other avoidance schemes, by, among other things, (1) taxing inter-bank or "wholesale" transactions in the major vehicle currencies at the point of settlement and (2) imposing a penalty tax on transactions with jurisdictions not imposing the tax. The literature on this subject is very substantial.<sup>76</sup>

Because the tax could be levied by making small changes in computer program at a few major financial institutions, the cost of setting up and administering the tax would be small and compliance easy to monitor.<sup>77</sup> A UN paper concludes that this tax would be "administratively inexpensive" and that its "compliance costs would be low."<sup>78</sup>

<sup>76</sup> See Mahbub ul Haq *et al* (1996), 109-158 and particularly Schmidt (1999).

<sup>77</sup> Wahl and Waldow (2001), 9-10, discusses feasibility, calling attention to the increasingly centralized interbank payments system, using such vehicles as Target (Germany), Fedwire (US) and CHAPS (UK) as well as the international SWIFT system.

<sup>78</sup> United Nations, General Assembly (2001), 5.

Could the tax be levied in the absence of the United States and the UK, where opposition seems most intractable? Some believe that only a universal tax would be possible, but many advocates think that a group of countries could introduce the tax, just as stock transfer taxes were unilaterally introduced some years ago. Because the European Union and Japan-Singapore-Hong Kong together represent about 75% of global transactions, advocates hope that this zone could begin with a joint tax, which many other countries would join. More modestly, the German Development Ministry has published a report proposing a currency tax within the EU and Switzerland.<sup>79</sup>

The tax faces strong opposition from financial institutions, especially those most actively engaged in currency trading. These institutions make very large profits each year through their currency desk operations – perhaps as much as \$150 billion according to Wahl and Waldow<sup>80</sup> – including both the lower-margin arbitrage profits and the higher-margin profits from speculative transactions. The bankers fear much of these profits would disappear under such a tax, if it were to be universal. Since these financial institutions are among the world's most powerful companies, they can mobilize great political resources in opposition. Many of these companies depend on mass consumer markets, though, so pressure from consumer campaigns might lessen their opposition, tilting the balance towards tax proponents

### Progress

Though Tobin first proposed the idea thirty years ago, it has only recently gained worldwide attention. A large and growing

<sup>79</sup> Spahn (2002).

<sup>80</sup> Wahl and Waldow (2001), 13, assume an average profit of 0.005% on turnover of \$300 trillion

NGO movement has propelled the proposal forward, eliciting increasing support from political leaders, parliamentarians, trade unionists, journalists and intellectuals.

NGO initiatives sprang up almost simultaneously within a short period.<sup>81</sup> ATTAC, a mass membership campaign, has now grown faster than even optimistic advocates expected. Affiliates have sprung up in 26 countries and ATTAC now boasts thousands of members and it wields noticeable political influence. Other organizations with strong programs and leadership roles on CTTs include the Halifax Initiative (Canada), the Tobin Tax Initiative (US), War on Want (UK), International Cooperation for Development and Solidarity (Europe), 11.11.11 (Belgium), WEED (Germany), AFRODAD (Africa) and Focus on the Global South (Thailand).<sup>82</sup>

The NGO alliance includes a large presence of trade unions and church groups. The World Council of Churches endorsed the currency transaction tax at its world assembly in 1998. The German and US trade union confederations and the International Confederation of Free Trade Unions now support the tax, as do Public Services International and the International Metalworkers' Confederation.

As the movement has picked up steam and gained mass backing, politicians and public figures have expressed growing interest. Jacques Delors, former President of the European Commission has commented favorably, as has Gareth Evans, former For-

<sup>81</sup> Global Policy Forum's web information program on the Tobin Tax in the spring of 1998 coincided with the foundation of the Tobin Tax Initiative (US) and ATTAC (France).

<sup>82</sup> Hundreds of NGOs have endorsed the CTT, including Mani Tese, Third World Network, Oxfam Great Britain, Earth Action, Christian Aid, EURO-DAD, WILPF, and the World Federalists.

eign Minister of Australia; and Barber Conable, former President of the World Bank.<sup>83</sup> President François Mitterrand of France promoted it at the World Summit for Social Development in 1995.

More recently, the Finnish and Belgian governments have backed it. The President of Brazil and the Prime Minister of India have given it their blessing.<sup>84</sup> The German government has shown an interest and the Swedish Central Bank has said it may be necessary.<sup>85</sup> Even the UK Chancellor of the Exchequer has said his government has an “open mind” on the matter.<sup>86</sup> And George Soros, the man who made billions by speculating against currencies, has now come out in favor.<sup>87</sup>

French Prime Minister Lionel Jospin announced in a television speech on August 2001 that his government supports the CTT. A cartoon in a Paris satirical weekly showed Jospin’s rival, the French president, saying contentedly “Chirac rhymes with ATTAC!”<sup>88</sup>

More than 800 parliamentarians from five continents have signed an international appeal favoring the tax. In March, 1999, the Canadian parliament voted overwhelmingly for a CTT motion.<sup>89</sup> In November 2001, the French National Assembly passed a law

adopting the tax in principal.<sup>90</sup> In a number of other European countries, parliamentary questions and draft bills call for the tax or for a study of its feasibility. The UK House of Commons has held several debates on the matter and a six-party coalition of backbenchers pressed the government for action.<sup>91</sup> In the European Parliament, a draft resolution favoring a CTT missed a majority by only six votes in early 2000.<sup>92</sup> Even members of the US congress have introduced a supportive bill.<sup>93</sup>

Governments are clearly getting serious about the possibility of this tax. It has moved into the realm of expert ministry studies and preparatory investigations. The Finance Ministries of France and Finland published studies in 2000 and the UK Treasury is doing its own investigation (2001-02). In early 2002, the German Development Ministry published an important report by Paul-Bernd Spahn on the CTT and the European Commission issued a major study on globalization that referred at length to the potential of a currency tax.<sup>94</sup>

Though many powerful forces still stand opposed to taxing currency transactions, the movement is gaining ground. Those that formerly opposed it unconditionally, like the IMF and the Bank for International Settlements, now grudgingly admit that it may have merits. A softening position by the UK Treasury shows how far we have come. Each new currency crisis adds momentum and a sense of urgency. Soon, perhaps, a serious move towards adoption may get under way.

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<sup>83</sup> Ul Haq, *et al*, p. i.

<sup>84</sup> ATTAC (2001).

<sup>85</sup> For the Swedish Central Bank statement see Reuters (2002).

<sup>86</sup> Brown (2001). The UK government remains officially opposed to a CTT, but Development Secretary Clare Short favors the idea and Chancellor of the Exchequer Gordon Brown appears to be cautiously considering it. See *Financial Times* (2001) and Barnes (2002).

<sup>87</sup> Islam (2001).

<sup>88</sup> *Le Canard Enchaîné*, November 7, 2001.

<sup>89</sup> The vote was 164-83. Finance Minister Paul Martin voted in favor.

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<sup>90</sup> Galut (2001).

<sup>91</sup> Barnes (2002).

<sup>92</sup> The vote took place on January 20.

<sup>93</sup> Rep. Peter DeFazio and Sen. Paul Wellstone introduced on April 11, 2000 their “Concurrent Resolution on Taxing Cross-Border Currency Transactions to Deter Excessive Speculation” (H. Con. Res. 301).

<sup>94</sup> Spahn (2002) and European Commission (2002).

## 4. Other Proposals

### *Aviation Fuel Taxes*

Although airplane travel currently accounts for only about 3% of global carbon emissions, it is the fastest growing source of emissions. The Intergovernmental Panel on Climate Change (IPCC) expects airplane travel to account for 15% of all carbon emissions in 2050.<sup>95</sup> Currently, aviation fuel used in international flights is exempted from fuel taxes under an international convention, putting other less polluting forms of transportation like sea and rail at a disadvantage.<sup>96</sup>

A number of studies by the Organization for Economic Cooperation and Development (OECD), the International Civil Aviation Organization (ICAO) and the IPCC have examined taxes on aviation fuel as a means to mitigate global warming and other negative effects on the atmosphere including the ozone layer. They have concluded that a tax on aviation fuel would make passenger and freight charges somewhat more expensive, though a 25% fuel tax, if entirely passed along to customers would only add only about 5% to user costs and reduce demand by 5-10%. Such increased fuel costs would, however, create a powerful incentive to airlines to use fuel-efficient engines and more efficient aircraft design. Higher fuel prices would also increase incentives for a more efficient air traffic control system and other factors affecting airline emissions.<sup>97</sup>

<sup>95</sup> *ENDS Environmental Daily* (1999).

<sup>96</sup> *ENDS Environmental Daily* (1998). Aircraft fuel is exempted from tax under the international Chicago Convention of 1944, setting up the International Civil Aviation Organization.

<sup>97</sup> Intergovernmental Panel on Climate Change (2001a). This study of *Aviation and the Global Atmosphere* contains a very useful survey of the field.

The EU has actively discussed an aviation fuel tax, beginning with the Dutch Presidency of 1997. Dutch transport minister Annemarie Jorritsma suggested that the European Union introduce an aviation fuel tax unilaterally. In December 2000, the European Parliament's Economic and Monetary Affairs Committee confirmed its support for a recommendation to allow the Member States to impose a tax on domestic and intra EU flights. The Committee also urged the Commission to pursue negotiations through the International Civil Aviation Organization with a view to amending the 1944 Chicago Convention, which allows an exemption from taxes on air fuel.<sup>98</sup> Australia and the US oppose a worldwide levy on aviation fuel, but many other countries have expressed interest.

ICAO data shows fuel costs to be somewhat less than 20% of total airline turnover, which in 1998 was close to \$300 billion per year. This would suggest a fuel cost of about \$50 billion per year. A 1998 study cited by the IPCC found that a tax of 25% would halve the rate of growth of fuel use, while not having substantial impact on passenger demand.<sup>99</sup> Such a tax would produce revenues of \$12.5 billion per year.

This tax would generate only modest revenue compared to the carbon tax, but such may be its attraction. It would certainly generate far less opposition and might be a low-profile precedent for later, more ambitious tax plans. The decline of air travel in the wake of September 11, 2001, increased existing industry difficulties world wide. Until the finances of the industry improve,

<sup>98</sup> *European Report* (2000).

<sup>99</sup> Intergovernmental Panel on Climate Change (2001a).

governments are unlikely to agree to a new tax on aviation fuel. But projections of rapid growth and consolidation of the industry suggest that it will soon again emerge as highly profitable, at which time, a tax may again seem promising.

### ***Email/Internet Taxes***

An email or internet tax, sometimes known as a “bit tax,” seeks to introduce a tax on the amount of data sent through the internet. A person sending 100 emails a day, each containing a 10-kilobyte document, would pay a tax of just 1 cent, according to one proposal.

This tax does not seek to discourage use of email (though it would to some degree). Rather, its proponents hope to raise funds that would be spent to narrow the “digital divide” between rich and poor. Revenues would help make email and web access available in poor communities and low-income countries.

The UNDP *Human Development Report 1999* mentioned such a tax.<sup>100</sup> UNDP estimated that globally in 1996, such a tax would have yielded \$70 billion.<sup>101</sup> Since internet users now frequently send data-rich photos and large documents, transfer rates are far higher than in 1996 and the number of internet users has grown enormously. For these reasons, a tax should be set at a rate well below the one UNDP first proposed. Still, it could produce a large revenue and impact users only modestly.

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<sup>100</sup> United Nations Development Programme (1999), 66.

<sup>101</sup> *Ibid.* The Report brought a sharp rebuke from the United States government in the form of a letter to UNDP Administrator Mark Malloch Brown. Malloch Brown felt compelled to reply that “UNDP does not advocate and will never advocate the establishment of this or any other kind of global tax.” See Bureau of International Organization Affairs (1999) and Winfield (1999).

In 1998, the United States persuaded the OECD countries to impose a moratorium on internet taxation, but the idea continues to stir interest and on February 12, 2002, EU finance ministers approved *sales* taxes on internet transactions.<sup>102</sup> New technology and changing politics may bring this proposal swiftly forward.

### ***Tax on World Trade***

The Brandt Commission proposed this tax two decades ago, seeking to raise revenues on the value of world trade. William Evan, Professor Emeritus at the Wharton School of Business, revived the idea in an article published in 1997 in the *New York Times*.<sup>103</sup> Like the email tax, this tax does not seek to discourage the activity it taxes. Rather, it hopes to raise international revenue based on the idea that international trade and prosperity relies on international institutions working for peace and general well being.

With volume of world trade at \$7.3 trillion in 1998, a tax of 0.5% on the value of all trade activity in both goods and services would result in \$37 billion of total annual revenue.

### ***Tax on Use of the Oceans and Earth’s Atmosphere/International Air Transport Tax***

Environmental advocates favor taxes that impose costs on the use of the “global commons.” These taxes could reduce the negative impact of heavy human use of the oceans and the atmosphere and create funds for research and preservation of these precious resources. Such taxes could levy international air traffic, international maritime traffic, and possibly also the military use of the oceans and atmosphere, since military

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<sup>102</sup> Associated Press (2002). See also Glasner (2001).

<sup>103</sup> Evan made his proposal specifically to fund the UN regular budget. See Evan (1997).

use causes considerable damage and pollution.

Advocates have most often proposed a tax on international air tickets and airfreight charges. All the major studies have raised this idea and a recent UN paper included it among the three most promising proposals.<sup>104</sup> Such a tax is already in force at the national level. Governments and airport authorities commonly levy charges that airlines pass along in ticket prices or airfreight bills. Such charges amounted to \$6.7 billion in the United States alone in 1998. One estimate based on 1989 data, suggested that a 1% tax could yield revenue of \$1 billion.<sup>105</sup> The Air Transport Action Group reports total 1998 world airline industry revenues at \$307 billion (including both domestic and international flights), of which international revenues were somewhat over half.

According to our calculations, a tax of 1% on all air transport revenues would yield about \$3 billion while a tax on international flights alone would yield approximately \$1.2 billion.<sup>106</sup> A UN study arrives at a somewhat smaller revenue conclusion, estimating that 1% tax on all international passenger tickets and airfreight charges would yield \$2.2 billion, of which \$800 million on passenger tickets alone.<sup>107</sup>

### ***Tax on the International Arms Trade***

Disarmament advocates have long proposed a tax on the international arms trade, in hopes of reducing its volume and raising revenues to promote disarmament and other peaceful purposes from this deadly merchandise. Proposals for this tax have come

from various sources over the years including the government of Saudi Arabia, UNEP, the UN Committee for Development Planning, the Brandt Commission and the UNDP *Human Development Report*.<sup>108</sup> The international arms trade, only a very small fraction of overall world trade, totaled approximately \$25-30 billion in the period 1990-2000, if we take the trade in "major conventional weapons" as the benchmark.<sup>109</sup> A tax of 5% on this trade would yield about \$1.2 billion, assuming a small trade reduction due to the effects of the tax.

The United Nations Register of Conventional Arms, decided in 1991 by the General Assembly, gathers information on the arms trade that could plausibly be used as a basis for such a tax levy, though information would have to be gathered on a mandatory basis and with sales value as well as volume.

### ***Fines for Ocean Dumping***

Oil tankers flush out their tanks with seawater, polluting the oceans with great amounts of oil each year. Cruise liners dump polluting refuse into pristine seas. Coastal cities dump garbage at sea. These and many other forms of dumping are causing growing pollution of the world's oceans, accelerating the decline of fish stocks, causing the death of coral reefs and leading to many other serious problems.<sup>110</sup>

Advocates have proposed fines, to be imposed on those who dump – very severe fines that would make dumping extremely expensive, even if only sporadically discovered. When set at high rates, the total revenues collected from this source would still

<sup>104</sup> General Assembly, United Nations (2001), 2-3.

<sup>105</sup> d'Orville (1995), 51.

<sup>106</sup> See [www.atag.org/ECO/default.htm](http://www.atag.org/ECO/default.htm)

<sup>107</sup> General Assembly, United Nations (2001), 2.

<sup>108</sup> Mendez (1992), 229. See UNDP (1994), 56 and d'Orville and Najman (1995), 47-48.

<sup>109</sup> Stockholm International Peace Research Institute ([projects.sipri.se/armstrade/facts\\_and\\_figures.html](http://projects.sipri.se/armstrade/facts_and_figures.html))

<sup>110</sup> Independent World Commission on the Oceans (1998).



probably not be large. If each year international authorities imposed five thousand fines of \$100,000 each, the total revenue would reach \$500 million. This proposal would require a complex global monitoring process that would itself be expensive, reducing net revenue from the tax to a modest level, though doubtless also making progress against the plague of dumping and ocean pollution.

### ***Other Proposals***

Advocates have advanced many other proposals for global taxes. These include: a tax (or fee) for commercial deep-sea fishing; a “parking fee” for earth-orbiting satellites, a fee for the use of the electronic spectrum (for radio/television/mobile phones/etc.), a tax on the profits of transnational corporations, and a tax on international advertising.

## 5. Common Issues and Themes

While global tax proposals include many widely different ideas, they share certain common themes. In what follows, we address some of the most important issues, to explore the problems and potential of global taxes as a policy tool.

### *Organization and Oversight*

#### **Harmonization & Sovereignty**

Global taxes can only gain legal standing through a treaty agreement between nation states, in an “internationally-harmonized tax regime.” Each participating nation will raise the taxes through its own taxing authority, based on a globally agreed tax rate and taxing policy plan. Each will then pass an agreed portion of the revenue along to an international organization for spending at the global level. This arrangement does not require fundamental changes in international law and so it avoids a direct challenge to state sovereignty that a global taxing authority would pose. States can keep jealous control over their taxing powers.

A treaty body that supervises a tax will assume authority that is partly in competition with the authority of national legislatures and tax authorities, but it will remain subject to the will of participating governments.

#### **Accountability and Oversight**

Though nation states will initially collect and decide (through inter-governmental consultation) on the spending of global taxes, new citizen pressures for global oversight will emerge. Citizens in diverse nations will want robust institutions (not just traditional diplomacy) to oversee tax policy, decide on spending priorities and, most impor-

tantly, provide accountability. These citizens will ask for a more representative system, more democratic global political institutions, on the principle of “no taxation without representation.”

Critics of global taxes often focus on the kind of institution that would supervise and spend the funds at the global level. US Congressional critics warn that the institution(s) would be bureaucratic, corrupt, and authoritarian. These concerns are exaggerated but they are not entirely unreasonable. A successful global tax system must provide assurances that monies will be efficiently administered, well protected from dishonesty, carefully accounted-for, responsive to public feedback, and disbursed with care in the very best traditions of public service.

We should oppose any plan that would put the monies in the hands of the International Monetary Fund, the World Bank, or some other secretive agency unduly influenced by Washington. A strong accountability plan must guard against creating a Frankenstein monster that we would later sadly regret.

#### **Administrative Costs, Enforcement Issues**

The cost of raising revenue and the difficulty of enforcement vary greatly from one tax to another. Authorities find income taxes complex and expensive to administer and increasingly difficult to enforce, while sales or value-added-taxes are simpler and far cheaper (though less progressive).

The main global tax proposals meet the criteria of cost-effectiveness and ease of enforcement. Many experts believe that a currency transaction tax would be extremely simple and cost-effective, because it would be levied through a computer program in-

stalled in a relatively small number of banks and financial institutions. A carbon tax would be more complex because it would involve more different transactions and more varied reporting. But levied on the initial sale of just three basic fuels (coal, petroleum, natural gas), tax authorities should find it relatively simple, as it would be similar to the sales taxes that nearly every tax authority imposes. Aviation fuel taxes, a levy on airline tickets, and a tax on seabed mining would similarly appear to be simple and cost-effective. More complex and costly proposals, such as email taxes and fines for ocean dumping, have understandably attracted less support.

A system of collection based on national tax authorities would run into problems in states beset by national crisis, war, or a collapsing central authority. States like the Democratic Republic of Congo, Angola, Sierra Leone, Somalia, Sudan, and Afghanistan would doubtless not be able to collect taxes as part of a global tax regime. No tax regime manages a perfect collection record, however, and these weak-points would arise in places where generally only very small amounts of tax would be owed. A well-developed tax regime could, in any case, provide international assistance in cases (for example, oil taxes levied in Angola) where national authorities would be weak and major revenue leakage possible.

### **Must Global Taxes be Universal?**

In light of strong opposition from the United States and to a considerable extent from Britain as well, global taxes will not at first include all nations. Global taxes would function better if levied universally, though, minimizing avoidance and the “free rider” effect.

Non-participant countries may offer tax-avoidance opportunities. Some experts fear that currency traders would migrate to tax-free locations, including offshore centers, to escape the CTT, or that energy buyers would favor markets in tax-free jurisdictions to avoid the carbon tax. Well-designed tax plans can minimize these problems, though, as experts like Schmidt have shown.

There remains the “free rider” effect, that offers tax-related benefits to the non-participant nation at no cost to its citizens. US citizens, for example, would benefit from reduced global warming created by a global carbon tax regime that the U.S. government did not join and that its citizens did not pay for. Still, U.S. buyers of French wines, German automobiles, and British raincoats would all indirectly pay for the taxes. In a globalizing world, no rider can be absolutely “free.”

Global taxes must include as many nations as possible. But experts believe that avoidance and free-rider problems would not wreck the tax regime or even greatly disadvantage the participants. In the case of a global but non-universal carbon tax, participant nations would promote their own economic efficiency, convert towards a renewable energy system, improve their land-use and build new industries of the future like solar cells and hydrogen-powered motors. They would act with a future prospect, in contrast to non-participant nations that would mortgage their future in favor of a few years’ profligate energy consumption.

Within international law, very few treaties, conventions and bodies embrace all nations. The International Criminal Court and the Kyoto Protocol are important initiatives that will go forward without the participation of the United States and some other significant parties. Global taxes are likely to follow a

similar path. Advocates now recognize this and develop proposals based on non-universal options. On the carbon tax, a recent Swedish study comments optimistically: “the absence of universal agreement would not make the operations impossible or necessarily unacceptable for those otherwise willing to take part.”<sup>111</sup>

Non-participant states may eventually join the tax regimes, for a variety of reasons. They may come to see advantages or shift when pressured by their own citizens. Tax regimes may be set up with mild penalties for non-participants. Non-participants may also be lured into joining because they would want to take part in the goal-setting, oversight and benefits of the resulting global funds.

### **Tied Revenues vs. a Common Pool**

Global tax proposals often suggest uses for the resulting revenues, like an environmental protection fund, debt reduction, or a universal education fund. Some proposals go further and propose that revenues be tied (or earmarked) for a specific purpose. Such tied revenues may build public support for a tax proposal and reassure skeptics that revenues will not eventually be spent on unanticipated and unwanted projects, like colonization of Mars or global military forces.

A “common pool” approach to revenues, which many tax experts favor, separates taxes (as a source of revenue) from spending programs. At the national level this has many advantages and avoids tax-driven projects like the gasoline taxes in the United States that automatically build more highways. But at the global level, in the absence of a common pool budget and parliamentary institutions, the advantages of tied revenues may outweigh the disadvantages. Tax pro-

posals should thus consider a package of spending projects that can inspire the public and guarantee financial support for positive policy goals.

### ***Policy Aspects***

#### **Multiple Purposes**

As we have seen, global taxes (like national taxes) may have three simultaneous purposes: (1) revenue-raising, (2) policy steering, and (3) income redistribution. Global tax proposals must consider the relations and tradeoffs between these purposes. Clearly, no tax can meet all three purposes equally well, but proponents must carefully develop projections, to discover the interplay of factors and the best policy and political results.

The carbon tax best illustrates this issue. Conflict may arise between those who favor maximum revenue (for whom a low tax rate is optimal) and those who favor sharp reductions in carbon emissions (who favor high tax rates). Those concerned most with income redistribution may favor low rates and strong redistributive spending programs.

Advocates must understand very well the tradeoffs and likely distribution of benefits. With different constituencies favoring or opposing different aspects of the taxes, they offer an especially complex political landscape. The tax on currency transactions appears to satisfy all three criteria the best, which is why it attracts the broadest-based support. Currency transaction turnover is so large that the a tax might diminish trading by as much as 75% while still raising an enormous amount of revenue and creating substantial opportunities for global redistribution.

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<sup>111</sup> Sagasti (2001), 44.

## Re-distribution

The global economic system is highly unequal and very disadvantageous to poor countries and poor people. More than half the world's population lives in serious poverty and income disparities have been steadily growing wider. In such a setting, global taxes would be inconscionable if they did not result in strongly progressive re-distribution.

National tax systems in rich countries tend to re-distribute income and the European Union re-distributes from richer to poorer regions. But the international system, though it has a much steeper level of inequality, has presently no system of re-distribution other than Official Development Assistance, which amounts to only about 0.1% of global GDP.

Fortunately, most proposed global taxes appear to be progressively re-distributive, especially when policy steering and revenue spending are considered. The taxes themselves levy commodities or services that mainly the richer inhabitants of the globe consume. This is especially true of the currency transaction tax. It is true for taxes on air fuels and taxes on air tickets. Taxes on carbon-based energy would also mainly impact the energy hungry consumers of the global North, with their automobiles, air conditioners and home appliances. Taxes of the airwaves would raise the cost of cell-phone users, while bit-taxes would raise the costs of email. All these items of consumption are rare among the world's poorest billions.

The most strongly redistributive global tax would probably be a tax on consumption, assuming that taxes on income or wealth would be too difficult to administer. This could be a global sales or VAT tax. It

would recognize that consumption is a privilege that uses global resources, some small part of which should be returned to global purposes, including development and redistribution. A few advocates have proposed consumption taxes on luxury goods while others prefer general consumption taxes. Global consumption taxes might not find sufficient political support at present, but they are a promising idea that may find support in the future.

For progressive redistribution to succeed most completely, an international tax agreement must include firm obligations for contributions from participant tax authorities to a global fund. At first this may be only a modest percentage of the total revenue, but over time it must rise to half or more. Spending of this global fund must favor the poorest citizens. Funds should thus be targeted at poverty eradication, including health care, housing, provision of clean water and waste treatment, education for all, and similar programs. To make sure that the funds would not disappear into corruption and waste, oversight authorities at the national, regional and global levels must keep careful watch.

## Revenue Neutrality?

Some advocates of new taxes favor an approach that is "revenue neutral" – that is, the new levies should be adopted while at the same time diminishing other taxes, so that no new net revenues are raised. This position treats taxes as inherently unpopular and likely to weaken the vigor of private markets. Plans for environmental taxes in the European Union are proceeding on this basis, which proposes to make natural resources more costly and labor cheaper by shifting taxes between the two.

Global taxes could theoretically be revenue neutral, by harmonizing national tax *reductions* that would offset the new globally-negotiated levies. Harmonization, in short, can work both ways. But national tax authorities will presumably not be willing to give up national revenue for global projects. For this reason, global taxes are unlikely to be revenue neutral.

To succeed, global taxes must address new needs and fund global public purposes. This means that they will reduce private incomes, especially in rich countries, if only very slightly. The affected public must see a strong benefit, for which personal income will be traded for global public well being.

### Complementing Existing Fund Sources

Like the proponents of revenue neutrality, some experts propose that global taxes should *substitute* for existing national funding for Official Development Assistance or for assessments and contributions to international organizations like the UN. This swap might leave resources for these purposes at the same level or even less than before. Such a scheme would offer savings for national budgets, but it would scarcely generate major new global resources. As such, it would be contrary to the spirit of the new tax idea. Funds generated by global taxes should be available to finance *new* programs, not substitute for monies that would be withdrawn back into national treasuries.

Complementary funds would enable total global public resources to grow quite rapidly in an early phase of the tax regime. Eventually, of course, if the flow of global taxes reached a high level, the old system of contributions and assessments might be phased out over a period of years. But initially, the old and the new must exist side-by-side.

Official Development Assistance (ODA) in 2000, according to OECD data, amounted to \$53.7 billion, while in that same year, the UN Regular Budget was about \$1.1 billion. The total UN system budget for 1997, the last year for which complete data is available, was \$10.3 billion. The sums required to provide environmental protection, schooling for all, safe drinking water and other vital goals amount to further tens of billions of dollars per year. The potential revenue of some tax proposals, though quite substantial, is certainly not enough in an early phase to meet these many needs. We will need complementary national fund contributions if the full promise of the taxes is to be realized.

### Global Public Goods

The concept of “global public goods,” which has recently attracted increasing attention,<sup>112</sup> offers a theoretical support for global taxes. It provides a clear framework for understanding that markets do not and cannot provide many important things we need. Private markets may be efficient producers of toothpaste and washing machines. But markets cannot produce public goods like fire departments, lighthouses, public parks, and clean air. These public goods can only be produced and enjoyed collectively.

Citizens with money to spend can buy market commodities, but they may prefer to have public goods, which are not on offer in the store. Public goods can only be created through a political process, assembling the needs and wishes of thousands, millions or even billions of people. Public goods emphasize public, democratic citizen action. The idea of *global* public goods shifts the concept to the global level, implying an even larger field of political action, collective thinking and solidarity. Global public goods

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<sup>112</sup> Mendez (1995b), Kaul *et al* (1999), Sagasti (2001), Haugen (2001).

would include a sustainable global environment, a far better global public health system, and better maintenance of world peace. In a sense, it is a transformational line of thought. To pay for these “goods,” citizens must agree to tax themselves and they must create responsive political institutions that will fulfill their collective aspiration.

### **Living with Uncertainty in Tax Planning**

Global taxes attempt to change the world for the better. Advocates must approach such an ambitious project with a mixture of enthusiasm and humility, because there are very many unknowns. Even the most careful and responsible planning can have unintended consequences. Gunnar Myrdal, the Swedish Nobel laureate warned that “Taxation is a most flexible and effective but also a dangerous instrument of social reform. One has to know precisely what one is doing lest the results diverge greatly from one’s intentions.”<sup>113</sup>

Inaction in the face of global problems may have greater and more serious consequences, such as global climate change. But a tax regime that will impact six billion people, across some two hundred nations, even if very carefully planned, is bound to have unanticipated and partially negative results. For this reason, it would be wise to begin global taxes at a low rate and to phase them in gradually. It also would be advisable to create feedback mechanisms that would swiftly introduce modifications and provide resources to help vulnerable people who may be harmed. Such a flexible plan will be stronger, more responsible and more likely to inspire public confidence.

## ***Strategic Issues***

### **Starting Small?**

Taxes producing large revenue are likely to stir up major opposition from those who will lose income, such as financial institutions opposing CTTs or oil companies opposing carbon taxes. These institutions are extremely influential and they have a clear vision of how their interests would be damaged. Global tax schemes that take aim at such huge concentrations of power must be prepared for difficult political struggles and a high possibility of failure.

By contrast, a first global tax might be a small measure that sets important precedents while evoking few powerful opponents because it produces only small amounts of revenue and has only very modest policy steering and re-distributional effects. CTTs and carbon taxes set at a very low level might meet this requirement. International excise taxes would be an interesting, low-target alternative – for example, a tax on tobacco products. A global tobacco tax would complement the anti-tobacco campaign of the World Health Organization, advocates could promote it as a health tax and it would add a small additional increment to nearly-universal national taxes already imposed on these products.

The first global tax established was the tax on seabed mining in the form of royalties payable to the International “Seabed Authority. Doubtless it was adopted as part of the Law of the Sea because at the time there was no seabed mining to tax! Nor has there been any since, resulting in zero revenue. With this in mind, global tax advocates might consider a next step that aims above zero, but not in the stratosphere. When nations and citizens find they are comfortable with this tax, steps towards more ambitious or

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<sup>113</sup> Mendez (1992), 213-14.

high-revenue taxes may find a smoother course to adoption.

On the other hand, broad public campaigns depend for their success on large visions and bold approaches. The two most prominent proposals are clearly not modest ones, and still they appear to have the best chance for success. So starting big may be better than starting small. But even the big proposals may succeed best if they begin with a small rate and phase in over several years, beginning modestly (though boldly) the great transition.

A planned phase-in, beginning with a low rate, can help to avoid errors and ease transitions. This is particularly important with the carbon tax, which will cause large shifts in energy investments, research programs, transportation systems and the built environment – shifts that can only occur over many years. A phase-in with increments known far in advance can avoid backlash, promote effective forward planning and smooth the whole transition process.

### **An Adjustment Fund**

Though global taxes will have many very positive results, they may also have negative effects for certain groups of people, some of whom may be poor and vulnerable. For this reason, advocates should propose an adjustment fund to help out those most vulnerable and least able to adapt.

Let us imagine the case of a small farmer who uses a simple tractor, powered by a gasoline or diesel engine. A carbon tax might increase costs so much that the farmer's crop sales could no longer cover expenses, forcing the family into poverty. An adjustment fund might offer loans for new and more fuel-efficient tractors, sustainable energy motors and other farm pur-

poses such as solar-panels for heating the barn. An adjustment fund might also help poor people insulate their homes and develop alternative cooking devices powered by solar energy.

The adjustment fund would combine money with expertise to help millions of people (and governments, too) cope with the changing energy markets and their impact on human life. An adjustment fund would also serve as a gesture of good faith towards the hundreds of millions (or even billions) of poor people for whom even small change carries very serious economic risk.

### **Assembling Political Blocs and Advocacy Campaigns**

As global taxes come closer to political reality, advocates must begin to think about assembling political blocs or coalitions to press forward towards enactment. We already can see the outlines of such coalitions.

In the case of the carbon tax, the coalition includes environmental groups, small island states and other coastal nations threatened by rising ocean levels, advocates of the UN and global institutions, intellectuals, sustainable energy industries, and insurance companies. This forms already a very substantial alliance. The CTT has managed to attract broad publics with a concern about globalization and the ills of the global financial system. The CTT also appeals to trade unions, countries negatively affected by currency speculation, economists, UN advocates, and others.

Tied revenues provide a means to enlarge coalitions by offering benefits to targeted constituencies. Suppose that a carbon tax revenue would be earmarked for sustainable development purposes, including clean water and energy access for all. Beneficiaries



might be very numerous and they might provide key elements of a broadening support bloc to press for the tax adoption.

The time has come to build unstoppable worldwide campaigns, because coordinated international public pressure yields results. In the case of the CTT, a campaign is already under way. Many national and regional NGO groups have coordinated their efforts globally since March 1999 and the positive results are clearly visible. The carbon tax now needs a campaign of its own. Both must strategize very broadly. Coalition building implies careful thought about logical allies on a world scale. The campaign for an International Criminal Court provides interesting precedents of wide NGO coalitions and nation-specific campaigns.

As the process moves forward, we will see the earliest steps in a new global political process. Global citizenship will at last take form, not as a dream or ideal, but as a real process involving common political tasks across national borders, to create a common future.

## 5. Conclusion

In a globalizing world, the United Nations and other international agencies must find substantial new funding to address emerging crises and promote global public purposes. Taxes can raise tens or even hundreds of billions of dollars annually for projects to protect the environment, measures for public health, programs to overcome poverty, and initiatives to prevent wars and civil conflicts.

Global taxes can have powerful policy steering effects. A carbon tax can reduce carbon dioxide emissions, slowing the dangerous effects of global warming. A currency transaction tax can throw “sand in the gears” of the currency trading system, reducing volatility and speculation that can harm millions of people. Other taxes can diminish pollution of the oceans or reduce the arms trade.

Global taxes can also help overcome the world’s growing inequality by systematically redistributing revenue, helping the world’s poorest people escape from poverty. Such redistribution would follow the pattern of income redistribution that national tax systems introduced nearly a century ago.

A tax amounting to just 1% of global GDP could address many of the most serious international problems and create a much more healthy, humane world for succeeding generations, while placing only a modest burden on consumers in rich countries.

As recently as the mid-1990’s, global taxes seemed a distant hope – bedeviled by technical concerns, opposed by powerful interests and blocked by an intractable United States government. But today the political balance has shifted. NGOs have built a worldwide mass movement and put

global taxes on the political agenda. Politicians and governments in Europe and in major countries of the global South such as Brazil and India now back a currency transaction tax. Implementation seems a lively possibility.

Much remains to be solved, though, before governments agree to an effective international tax program. Advocates must consider how best to phase in the taxes, how to assure broad re-distribution, how to promote democratic accountability and oversight of the funds, and how to balance the demands of state sovereignty and global action. Difficult as these challenges may seem, they can and will be overcome.

Though the global tax movement has made great gains, its future is still not assured. We need bold leadership and imaginative strategy to bring global taxes – and the better world they promise – finally to reality.

## Bibliography

- Anderson, Mikael Skou (2002) "Environmental, Economic and Political Effectiveness of Green Taxes," Paper delivered at the Third Annual Global Conference on Environmental Taxation, Woodstock, Vermont, April, 2002.
- Associated Press (2002). "EU Approves Net Tax Rules," February 12.
- ATTAC (2001). "Indian Prime Minister in Favor of a Tobin Tax," ATTAC web site, February 14.
- Barnes, Harry (2002) "Cross-Party Support for Tobin Tax: Senior MPs from 6 Parties Urge Gordon Brown," Press release from the Office of Harry Barnes MP.
- Baumert, Kevin (1998a) "Carbon Taxes vs. Emissions Trading: What's the Difference, and Which is Better?" Global Policy Forum, web site.
- Baumert, Kevin (1998b) "Global Taxes and Fees: recent developments and overcoming obstacles," Global Policy Forum web site.
- Brandt Commission (1980) [Independent Commission on International Development Issues] *North-South: A Program for Survival*. Cambridge, MIT Press.
- Brown, Gordon (2001). *Speech to the Federal Reserve Bank of New York, November 16*. London: HM Treasury.
- de Brunhoff, Suzanne and Jetin, Bruno (2000). "The Tobin Tax and the Regulation of Capital Movements," ATTAC web site.
- Bureau of International Organization Affairs, US Department of State (1999). "UN's Human Development Report 1999 Raises International Tax Proposal" July 21
- De Carvalho, Fernando J. Cardim (2001). "Remarks Presented to the Session on 'Strategies for Success'" at the Roundtable on Global Taxes for Global Priorities," New York, May 5.
- Cassimor, Danny (1999). "Taxing Excessive Currency Speculation to Prevent Social Crisis and Finance Global Challenges," CIDSE website.
- Cecil, Ruthanne (2001). "Sovereignty, Automaticity and International Trust Funds: a proposal for implementation of Tobin-style taxes," Center for Environmental Economic Development, September
- Childers, Erskine with Urquhart. Brian (1994) *Renewing the United Nations System* Stockholm: Dag Hammarskjöld Foundation.
- Cleveland, Harlan, Henderson, Hazel and Kaul, Inge (1995). *The United Nations: Policy and Financing Alternatives – Innovative Proposals by Visionary Leaders*. Washington DC: Global Commission to Fund the UN.
- Commission on Global Governance (1995). *Our Global Neighbourhood*. New York: Oxford University Press.
- Cooper, Richard N. (1998) "Toward a Real Global Warming Treaty: The Case for a Carbon Tax," *Foreign Affairs*, (March/April).
- Cooper, Richard N. (2002) "The Double-Dividend of Emissions Taxes: greenhouse gas reduction and revenue," Background Paper, Dinner Meeting on Financing Global

Public Goods, Office of Development Studies, UNDP, January 15.

Dunbar, Nicholas (2000). *Inventing Money: the story of Long Term Capital Management*. New York: Wiley.

Dunn, Seth (2001). "Decarbonizing the Energy Economy," in Worldwatch Institute, *State of the World 2001*. New York: Norton, 82-102.

Dunn, Seth and Flavin, Christopher (2002). "Moving the Climate Change Agenda Forward," in Worldwatch Institute, *State of the World 2001*, New York: Norton, 24-50.

*ENDS Environmental Daily* (1998) "No Obstacles to EU Aviation Pollution Charge" (March 23).

*ENDS Environmental Daily* (1999) "Aviation Climate Effect Could Grow Four Fold" (June 3)

European Commission (2002) *Responses to the Challenge of Globalisation: a study of the International Monetary and Financial System and on Financing for Development*. Brussels: European Commission.

*European Report* (2000) "European Parliament Supports Move to Tax Aircraft Fuel," (December 13)

Evan, William M. (1997) "To Help the UN, A Tax on Trade," *New York Times*, (July 6)

Felix, David (1995). *The Tobin Tax Proposal: Background, Issues and Prospects*. UNDP (1995)

Financial Times (2001). "UK at Loggerheads with France Over Tax on Speculators," September 11.

Flavin, Christopher (2000). "Wind Power Booms," in Worldwatch Institute, *Vital Signs 2000*. New York: Norton, 56-57.

Flavin, Christopher (2001a). "Solar Power Market Surges," in Worldwatch Institute, *Vital Signs 2001*. New York: Norton, 46-47.

Flavin, Christopher (2001b). "Wind Power Growth Continues," in Worldwatch Institute, *Vital Signs 2001*. New York: Norton, 44-45.

Frankman, Myron J. (1996) "International Taxation - The Trajectory of an Idea from Lorimer to Brandt," *World Development*, vol. 24 (May).

Galati, Gabriele (2001). "Why has global FX turnover declined? Explaining the 2001 triennial survey," *BIS Quarterly Review*, December, 39-47.

Galut, Yann (2001). "French Parliament Adopts Tobin Tax Amendment," ATTAC web site, December.

Glasner, Joanne (2001), "Americans Say Yes to Net Taxes," *Wired News*, July 11.

Halifax Initiative (2000). *Taxing Currency Transactions for Development*. Submission to the Preparatory Process for the International Conference on Financing for Development.

Haugen, Hans Morten (2001). "A Global Public Goods Approach to a Currency Transaction Tax," Paper presented at the conference "Taxing Currency Transaction," Vancouver, October 4-6.

Hayward, Helen (1999). "Costing the Casino: the real impact of currency speculation in the 1990s," *War on Want*, London.

Independent World Commission on the Oceans (1998). *The Ocean our Future*. Cambridge: Cambridge University Press.

Intergovernmental Panel on Climate Change (2001a). *Aviation and the Global Atmosphere*. Geneva [esp. ch. 10: "Regulatory and Market Based Mitigation Measures"]

Intergovernmental Panel on Climate Change (2001b). *Synthesis Report*, Geneva.

Islam, Faisal (2001). "Soros: Tax My Speculation Profits," *The Guardian*, March 11, 2001.

Kaul, Inge, Grunberg, Isabelle and Stern, Marc A. (1999) *Global Public Goods: international cooperation in the 21<sup>st</sup> century*. New York: Oxford University Press, 1999.

Majocchi, Alberto and Missaglia, Marco (2002). "Energy Taxation and Border Tax Adjustment" Paper delivered at the Third Annual Global Conference on Environmental Taxation, Woodstock, Vermont, April, 2002.

Meadows, Donella H. *et al.* (1972) *The Limits to Growth: a report for the Club of Rome's project on the predicament of mankind*. New York: Universe Books.

Mendez, Ruben P. (1992) *International Public Finance*. New York: Oxford University Press.

Mendez, Ruben P. (1995a) "Paying for Peace and Development," *Foreign Policy*, No. 100 (Fall), 19-31.

Mendez, Ruben P. (1995b) "The Provision and Financing of Universal Public Goods," in Mehgnad Desai and Paul Redfern (eds.), *Global Governance: Ethics and Economics of the World Order*. London: Pinter, 1995.

Mendez, Ruben P. (1997) "Financing the United Nations and the International Public Sector: Problems and Reform," *Global Governance*, vol. 3, 283-310.

OECD (web-database) "Database on Environmentally-Related Taxes" <http://www1.oecd.org/env/policies/taxes/index.htm>

OECD (1997). *Environmental Taxes and Green Tax Reform*. Paris: OECD.

OECD (2001) *Environmentally Related Taxes in OECD Countries: issues and strategies*. Paris: OECD.

d'Orville, Hans (1999). "Capitalizing Virtual Reality," *The WorldPaper* online, July.

d'Orville, Hans and Najman, Dragoljub (1995). *Towards a New Multilateralism: Funding Global Priorities – Innovative Financing Mechanisms for Internationally Agreed Programmes*. Paris/New York, Independent Commission on Population and Quality of Life.

Panayotou, T. (1995) "Economic instruments for environmental management and sustainable development," *Environmental Economics Series Paper* no. 16, Harvard Institute for International Development.

Patomäki, Heikki (2001a). *Democratizing Globalization: The Leverage of the Tobin Tax*. London, Zed.

Patomäki, Heikki (2001b). "Making the Tobin Tax Real in a Democratic Way," *AT-TAC*, October 8, 2001.

Paul, James A. (1997) "Alternative Financing for Global Peace and Development" *Global Policy Forum* web site.

Paul, James A. (2001) "Global Taxes: Some Key Issues," Global Policy Forum.

Reuters (2002). "Sweden: Tobin Tax, Regulation May Win Favour – Swede Cbanker," February 11.

Sagasti, Francisco and Bezanson, Keith (2001). *Financing and Providing Global Public Goods: expectations and prospects*. Sussex: Institute for Development Studies/for the Ministry of Foreign Affairs of Sweden.

Schmidt, Rodney (1999) "A Feasible Foreign Exchange Transactions Tax," Paper presented to the North-South Institute. Ottawa, March.

South Centre (1996). *For a Strong and Democratic United Nations: a South perspective on UN Reform*. Geneva: South Centre.

Spahn, Paul Bernd (1995). "International Financial Flows and Transaction Taxes: Survey and Options," *IMF Working Paper* 95/96 (June).

Spahn, Paul Bernd (1996). "The Tobin Tax and Exchange Rate Stability," *Finance and Development*, vol. 33, no. 2 (June), 24-27.

Spahn, Paul Bernd (2002). *On the Feasibility of a Tax on Foreign Exchange Transactions*. Frankfurt: Report to the German Federal Ministry for Economic Cooperation and Development.

Steinberg, Eleanor B and Yager, Joseph (1978) *A. New Means of Financing International Needs*. Washington DC: Brookings Institution.

Stiglitz, Joseph E. (1989) "Using Tax Policy to Curb Speculative Short-Term Trading,"

*Journal of Financial Service Research*, vol. 3 (2-3), 101-115.

Summers, Lawrence H. and Victoria P. (1989) "When Financial Markets Work Too Well: A Cautious Case for a Securities Transaction Tax," *Journal of Financial Services Research*, vol. 3 (2-3), 163-188.

Tobin, James (1974). *The new economics, one decade older. The Eliot Janeway lectures on historical economics in honor of Joseph Schumpeter, 1972*. Princeton: Princeton University Press.

Tobin, James (1978) "A Proposal for International Monetary Reform," *Eastern Economic Journal* vol. 4 (July/October), 153-88.

Tsatsaronis, Kostas (2000). "Hedge Funds," *BIS Quarterly Review*, November, 61-71.

ul Haq, Mahbub, Kaul, Inge and Grunberg, Isabelle (1996). *The Tobin Tax – Coping with Financial Volatility*. New York: Oxford University Press.

United Nations Conference on Desertification (1998). *Conference Nairobi Kenya, 29 August-9 September, 1977: Round-Up, Plan of Action and Resolutions*. New York: United Nations

United Nations Development Programme (1994). *Human Development Report 1994*. New York: Oxford University Press.

United Nations Development Programme (1999). *Human Development Report 1999*. New York: Oxford University Press.

United Nations Development Programme (2000). *World Energy Assessment: Energy and the Challenge of Sustainability*. New York: UNDP.

United Nations Environment Programme (1978). *Additional Measures and Means of Financing for the Implementation of the Plan of Action to Combat Desertification*. New York: United Nations.

United Nations Environment Programme (1980). *Study on Financing the United Nations Plan of Action to Combat Desertification*. New York: United Nations.

United Nations Environment Programme (2001) Press Release: "Impact of Climate Change to Cost the World \$US 300 Billion a Year" (February 3).

United Nations, General Assembly (2001). [Preparatory Committee for the International Conference on Financing for Development] *Technical Note No. 3: Existing Proposals for innovative sources of Finance*, 20 September.

*Vancouver Sun* (1999). "New Tax on Financial Dealings Backed By All Political Stripes," March 25.

Wahl, Peter and Waldow, Peter (2001). *Currency Transaction Tax - a Concept with a Future – Chances and Limits of Stabilising Financial Markets Through the Tobin Tax*, Bonn, WEED, February.

Wilford, John Noble (2000), "Ages-Old Polar Icecap Is Melting, Scientists Find" *New York Times* (August 19).

Winfield, Nicole (1999). "UN Distances Itself from Report Recommending Email Tax" *Boston Globe*, July 16.

Zedillo, Ernesto (2001). *Technical Report of the High-Level Panel on Financing for Development*. New York: United Nations.

## Web Resources

ATTAC  
[www.attac.org](http://www.attac.org)

Center for Economic and Policy Research  
<http://www.cepr.net/globalization/speculation/index.htm>

Center for Environmental Economic Development (CEED)  
<http://www.ceedweb.org/iirp/>

CIDSE  
<http://www.cidse.org/en/tg2/taxation.html>

Friends of the Earth  
[www.foe.org/envirotax/index.htm](http://www.foe.org/envirotax/index.htm)

Global Policy Forum  
[www.globalpolicy.org/socecon/glotax/index.htm](http://www.globalpolicy.org/socecon/glotax/index.htm)

Green Skies  
[www.aef.org.uk/GreenSkies/](http://www.aef.org.uk/GreenSkies/)

Halifax Initiative  
[www.halifaxinitiative.org](http://www.halifaxinitiative.org)

Mani Tese  
<http://www.manitese.it/tt/tt.htm>

Third Annual Global Conference on Environmental Taxation  
<http://www.vermontlaw.edu/elc/envirotaxcoinfo.cfm>

Tobin Tax Initiative  
[www.ceedweb.org/iirp/](http://www.ceedweb.org/iirp/)

War on Want  
[www.tobintax.org.uk](http://www.tobintax.org.uk)

Wuppertal Institute  
[www.wupperinst.org](http://www.wupperinst.org)

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May 5, 2001 - "Global Taxes for Global Priorities" (New York)

October 22, 2001 - "Quo Vadis IMF? A Reform Debate" (Wash-  
ington)



# Targeting

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## AIDS Hits the Americas' Most Vulnerable Populations

Posted on Wed, 27 Oct 1999 13:39:32 GMT

Written by [Stephanie Kriner](#), Staff Writer, [DisasterRelief.org](#)

As new AIDS cases begin to plateau or decrease in developed nations, the pandemic has taken alarming aim at the developing world. Throughout sub-Saharan Africa, Southeast Asia, the former Soviet republics and the Americas, new cases are on the rise, especially among the poor, the young and females.

With a rate that could be compared to some of Africa's most out-of-control AIDS epidemics, one in every 20 Haitian residents is infected with the HIV virus. The tiny country accounts for only 24 percent of the population in the Caribbean but shoulders a massive 61 percent of the region's AIDS cases, according to the most recent statistics from the United Nations AIDS program (UNAIDS). Officials worry that Haiti is leading the way to a rapid spread of the virus throughout the Caribbean and Latin America in a pattern that reflects the epidemic's tragic toll on sub-Saharan Africa.



In many sub-Saharan African countries, as much as 25 percent of the population has succumbed to the disease, reducing life expectancies, wiping out the working class and leaving behind thousands of orphans. But experts warn that Africa is not the only region where AIDS is becoming a crisis.

AIDS prevention programs that target the young have proved successful in combating HIV infections.-- Courtesy [British Broadcasting Corporation](#)

After sub-Saharan Africa, the Americas suffer the highest rate of HIV in the world. A recent study by the Trinidad and Tobago-based Caribbean Epidemiological Center indicates that nearly two in every 100 Caribbean residents between the ages of 15 and 50 are infected with HIV, the virus that leads to AIDS. In some major hospitals throughout the region, AIDS already is the No. 1 killer. And new cases will develop even more quickly as the virus, which first struck urban middle class adults, spreads to rural communities and to poorer and younger population groups.

Originally associated with homosexual men and intravenous drug users, the AIDS epidemic in recent years has shifted to younger people, especially girls and babies, and from middle-class victims to poor populations with little or no access to health services. "This is what is worrisome," said Dr. Fernando Zacarias, coordinator of the AIDS/STD program for the Pan American Health Organization. "Once it becomes the disease of the poor, the people with the resources won't see it as their problem."

Officials in poor American countries are particularly concerned that women are increasingly becoming the victims of the disease. AIDS used to claim two men for every woman in Trinidad and Tobago. Today, seven out of eight young AIDS victims are female. In Honduras, 58 percent of all new AIDS cases between 1994 and 1997 were female. No other region in the world, aside from sub-Saharan Africa, boasts higher ratios of female AIDS victims.



In some hospitals in sub-Saharan Africa, AIDS patients fill all the beds. Officials worry the trend could spread to the Americas.

Led by Africa and the Americas, the trend is reaching global proportions. Worldwide, women aged 15 to 49 represented 43 percent of all new HIV infections in 1998, up from 40 percent a few years ago. In some areas of the Americas, younger girls are at particular risk of infection by older men who rape or molest them. In Trinidad and Tobago, most male victims are aged 40 to 50 and most females are 15 to 25, suggesting that "older men are having sex with young girls and infecting more than one of them," Trinidad Health Minister Hamza Rafeeq said at a recent meeting of American nations.

For anatomical reasons, women are about four times more vulnerable than men are to sexually transmitted diseases, including HIV. But their lower social and economic status in many societies also increases their risks. And nowhere, perhaps, is this more obvious than in Latin America and the Caribbean where a culture of "machismo" makes it acceptable for married men to have more than one sexual partner. Women who speak out against their husbands' infidelity may be beaten.

They are often at the mercy of their husbands to use condoms, according to Germaine Hanquet, an AIDS adviser for Doctors without Borders in Honduras. Only 14 percent of Brazilian heterosexual men used condoms in 1996, according to AIDSCAP, an AIDS-prevention program. To make matters worse, the Catholic Church, a major influence in many American nations, discourages the use of condoms.

"It's very much connected to machismo and the position of women in society," Hanquet said. "We have to teach them they don't have to accept everything from a man. They should be able to protect themselves." Many married women, and women of childbearing age in the Americas are being infected -- a situation which leads to the infection of newborns and to an increase of AIDS orphans.

In some American nations, up to 15 percent of AIDS patients are children infected by their mothers and born with the disease, according to the Pan American Health Organization. In Antigua, the chances that a child will be born HIV-positive are put at one in three.



Once drug addicts and homosexuals were most at risk of becoming HIV-infected. Now the virus is beginning to spread to the general population in some American countries.

The cycle continues as children orphaned by parents who die of AIDS take to the streets, adding to an already high population of street children. In countries such as Haiti, where there are 40,000 AIDS orphans, the consequences are having serious social consequences. Once on the streets, AIDS orphans are more likely to become HIV-infected themselves by using intravenous drugs or engaging in the commercial sex business to survive. On the streets, girls again are most vulnerable as they become victims of prostitution or rape.

As the nations of Latin America and the Caribbean struggle to stop the spread of AIDS, developed countries, are beginning to see the virus plateau or even decrease. For example, the United States -- which leads the world in AIDS cases -- saw its AIDS mortality rate drop 21 percent in 1998, according to the National Center for Health Statistics.

But developing nations lack the resources to carry out the prevention programs that could lead to a downturn of the epidemic. These countries already are over burdened with costly natural disasters. And at an estimated cost of \$15,000 per year to treat one patient, supporting an entire AIDS population could easily consume the health budget of many developing countries. As a consequence, most people who have AIDS in these countries never receive medications that could keep them alive longer or prevent mothers from passing HIV on to their newborns.

Despite the grim situation, some American countries are providing hope that the virus is not unstoppable. In Brazil last year, the government began promoting the women's condom -- a program that has begun to decrease the rate of HIV infection there, according to Dr. Zacarias. And throughout the Americas non-governmental organizations (NGOs) and others are finding ways to combat the illness.



Most developing nations in the Americas, and around the globe, can not afford AIDS drugs.--  
Courtesy [British Broadcasting Corporation](#)

UNAIDS is developing plans for countries throughout the region to target populations most affected. "Gender is being given special emphasis," said Tale Kvalvaag, a spokesperson for UNAIDS in Latin America.

In Guatemala, the government has realized that it can't cure everyone of the virus. Instead, it is using its few resources to target newborns by treating pregnant women with

AZT, a drug that helps prevent HIV from spreading to the fetus. Doctors without Borders is working with schoolchildren to discourage machismo among young men and to encourage women to protect themselves and to use condoms. A similar program decreased the AIDS rate in Uganda from 24.5 percent to 13.4 percent between 1989 and 1998.

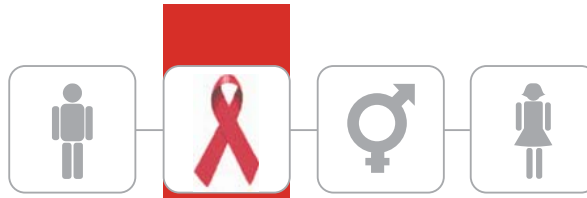
But for some cities in the Americas, it is almost too late, according to Dr. Zacarias. For example, in San Pedro Sula, one of Honduras' largest cities, five percent of the population -- excluding commercial sex workers, drug addicts and homosexuals -- is infected. It has already begun to destroy the city's workforce and to cause an explosive orphan problem. Still, for most of the America's there still is time to fight the epidemic.



AZT and Cesarean sections can help prevent mothers from passing the HIV infection on to their children.

"We have a window of opportunity that now is no longer than five years," Zacarias said.

"We know exactly what needs to be done from the scientific and technical aspects. What is needed is more resources, political commitment and NGO support ... Everybody needs to take this threat seriously."



# HIV/AIDS and Gender

- an awareness raising folder

Published by the Norwegian Working Group on HIV/AIDS and Gender



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### WHAT?

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### This Awareness Raising Folder on HIV/AIDS and Gender is written by representatives of the following Norwegian organisations:

- FOKUS - Forum for women and development <http://www.fokuskvinner.no>
- The Living for Tomorrow Project, The Nordic Institute for Women's Studies and Gender Research (NIKK) <http://www.nikk.uio.no>
- Section for Medical Anthropology and International Health, Institute of Community Medicine, University of Oslo <http://www.med.uio.no/ism/inthel/>
- Norwegian People's Aid <http://www.npaid.no>
- Norwegian Church Aid <http://www.nca.no>
- Norwegian Agency for Development Cooperation <http://www.norad.no>
- Norwegian Students' and Academics' International Assistance Fund - SAIH <http://www.saih.no>
- The Norwegian Conservative Women's Network <http://www.hoyre.no/org/kvinnenett/kvinnenettverket.html>

### Working group on HIV/AIDS and Gender

In order to raise awareness and exchange knowledge and experience the Norwegian Ministry of Foreign Affairs and the Norwegian Agency of Development Cooperation (NORAD) took initiative to establish AIDSNETT - a Norwegian network of several working groups on HIV/AIDS on different topics. HIV/AIDS and Gender is one of them. This group consists of members of different NGOs and research institutions.

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# WHY?

Women and men are affected differently by the HIV/AIDS epidemic. This Awareness Raising Folder aims to highlight the consequences of gender inequality in terms of risks of infection and living with HIV/AIDS. It is envisaged as a work in process to be amended and expanded as new suggestions reach us and seem appropriate.

- 36.1 million people were living with HIV/AIDS as of the end of 2000. About 6 million people are now newly infected with HIV every year.
- The vast majority of HIV infections are caused by the unprotected sex between men and women.
- The number of people living with HIV/AIDS has tripled from 1990 to 2000 in Sub-Saharan Africa and South-East Asia. New medication has reduced the AIDS death rates in Western countries – but all over the world, from Russia to the Caribbean, Europe to China, US to India, Chile to Estonia, HIV infection-rates continue to rise.
- About 15.000 people were infected daily in 2000. Of these more than 95% live in developing countries. Over 60% are under 25 years old.
- The proportion of adults living with HIV/AIDS who are women has been steadily increasing. In 1997, 59% people with HIV/AIDS were men and 41 % were women; by 2000, however, 47 % were women.
- In Sub-Saharan Africa 55% of the infected are now women, and girls are five times more likely to be infected than boys.

Ref. UNAIDS, WHO and UNIFEM

## Examples:

### Individual risks to HIV/AIDS are gender specific

- unequal power-relations give women a subordinate position and make them socially dependent on male family members: women have less access to health care, employment, education, information, etc. Thus women are in a poorer position to control when, with whom, or in what circumstances they have sex
- the ideology of fidelity, love and trust within marriages/ relationships often leads couples of all ages to neglect or abandon condom use. Resuming condom use without a crisis following any infidelity, can put the relationship at risk. Marriage and long term relationships are proving high-risk conditions for long term partners, especially women, to contract HIV
- acceptance of double standards for men and women normalises men seeking multiple partners and encourages men to go into sexual circulation without commitment to sexual safety
- early marriage forces girls to have sex before their bodies are fully developed
- young women are kept ignorant about sexual matters as this is often viewed as a sign of purity and innocence - in sexual relations, both men and women often learn to prioritise men's sexual pleasure and disregard women's sexual agency. This unequal participation in sexual exchange heightens the risk
- many myths about men's and women's bodies and about sexual intercourse override HIV factual information e.g.: there is a mistaken belief in some countries that taking birth control pills can protect women and men from getting HIV; young girls are being forced or lured into unsafe sex with HIV+ men, because the men assume the girls are not HIV+ and/or they mistakenly believe that sex with a virgin can cure HIV
- common attitudes about gender differences that associate masculinity with risk-taking, aggression and disregard for possible damaging consequences reinforce men's neglect of sexual safety and promote sexual irresponsibility
- the need for men to 'put sperm' into someone else's body is not a biological necessity for sexual pleasure, but a social expectation for masculinity. The belief that men 'need' to perform penetrative sex, centres the high risk HIV transmission activity at the heart of sexual relations
- expected 'masculine' behaviours interfere with boys/ men's clarifying incomplete knowledge about sex, discourage them from expressing uncertainty and exploring safer sexual behaviours
- both men and women often have expectations of 'masculine' behaviour, that discourage boys/ men from discussing problems and feelings, and exclude them from active participation in caring practices (for the young, the elderly, the ill). As a result men more readily deal with sexual and HIV/AIDS situations using violence, force or with high risk actions, dissociating themselves from both the problem and the solution
- some Western men hold myths that girls in other cultures are 'more mature' sexually and use the 'cultural difference argument' to justify casual sexual relations that they would never consider at home
- homophobia inhibits many men from taking responsibility for their sexual practices, associating unsafe practices with 'other kinds of men', rather than the risk activity of sexual intercourse itself. Men who live as 'heterosexuals', but also have sex with men, are often ill prepared to practice safer sex<sup>1</sup>
- certain forms of female genital circumcision or any other harmful practices that can increase risk of bleeding during sexual intercourse (e.g. 'dry sex') may increase the risk

Examples:

**Living with HIV/AIDS is gender specific**

- HIV+ women and men encounter different forms of stigmatization and discrimination; women are particularly vulnerable to being ostracised because of their already subordinate position and attitudes that judge them 'improper' women; men face loss of their respectable masculine status when HIV infection reveals former private practices
- the majority of drug users infected with HIV are men, and many, marginalized and criminalized by their drug practices, are unable to access or sustain treatment
- women are often less mobile, have less economic possibility of seeking treatment, and often need the approval of husband and family for health visits
- people in vulnerable situations (especially some women, young people and gay/ bisexual men) face greater personal stress, social isolation and discrimination in accessing health care, education, employment, accommodation and enjoyment of other rights<sup>2</sup>
- some widowed HIV+ women are stigmatised and blamed for their husband's death, losing their social status and living security
- polygamy's marriages where the wives or the husband also have sexual relations outside the marriage, can increase the circulation of HIV in the family and the community

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Examples:

**Gender specific impacts of HIV/AIDS at family, community, national and international levels**

- patriarchal structures leave women and girls more exposed to violence and abuse and require boys and men to exercise power over women, and this promote the spread of HIV/AIDS
- the AIDS epidemic activates and reinforces gender inequality within the family and community
- the AIDS epidemic escalates the unequal sexual division of labour: women's central role as carers dealing with HIV/AIDS inhibits their access to education, health care, income generating activities, and in turn destabilises the family's food provision; the loss by death of the central carers and providers is leaving an indigestible number of orphans adrift from a sense of home, nurturing, responsibility and security
- the more vulnerable are being further stigmatised: HIV+ women are considered promiscuous and often isolated. While women are often seen as guilty agents of infection, men's active role in spreading the virus is often neglected (e.g. in the family, in prostitution)
- an expanding sex industry and sex market, with black economies linked to drugs and crime and facilitated by globalisation, is expanding the number of male consumers of 'sex products'. This more widespread accessibility and normalisation of a sex market primarily targets men and primarily exploit women and young people. It is radically undermining the possibility of attitudes promoting gender equality and fostering the increased spread of HIV in many different echelons of society

Examples:

**Individual risks to HIV/AIDS are gender specific**

- Poverty is a major cause of infection – poverty and gender inequality intersect
- men frequently earn more than women – even for the same work. The gender wage gap has not decreased and increases women's vulnerability
- lack of economic freedom and independence give women little power to negotiate safe sex or prevent unwanted sexual relations
- women's poor economic position can force them into exchanging sex for goods or services and/ or into prostitution. Trafficking in women and children leads to sex under coercive conditions with disregard for their human rights and health. This sex industry and its traumatic conditions are facilitating the spread of HIV for both the men and women involved
- disempowerment from poverty can accentuate men's vulnerability, desperation and loss of masculine self-esteem, reinforcing disregard for sexual health and provoking reactive abuse of women and young people
- men who buy sex or exchange goods or favours for sex often do not practice safer sex and put either themselves, the person they 'purchase' sex from or their partner at home at high risk of HIV infection
- economic migration increases the spread of HIV/AIDS through the fragmentation of families and relationships

FACTOR: Economy

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Examples:

**Living with HIV/AIDS is gender specific**

- Many people in developing countries, and those living in poverty in industrialised countries, do not have access to treatments for opportunistic infections, or dietary and food supplements to strengthen the immune system
- women often have less economic possibility of seeking treatment, and often are dependent on a husband's approval
- if the husband dies first, the widow may lose access to her house, land and other material belongings
- if the wife dies first, the need to reconstitute families or sexual relations can involve the husband in spreading HIV
- men and women with HIV often lose their job or cannot sustain work once AIDS develops, falling off the edge of economic viability
- women's opportunities as sole providers are further limited by the unequal gender wage gap
- HIV+ women often have multiple care-burdens (herself, the family and in the community)



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Examples:

**Gender specific impacts of HIV/AIDS at family, community, national and international levels**

- HIV/AIDS is undermining development gains and poses a threat to social and economic progress of the most affected countries. Poverty and gender inequality intersect
- increased need for care-taking in the home gives women less time for income generating activities and for agricultural food production
- families are deprived of breadwinners, and an increasing number of poor households are headed by women
- sectors of the economy where women's labour (e.g. in healthcare) or men's labour (e.g. in business management) prevail are all being weakened
- household economy is impacted by a man with HIV/AIDS risking infecting his wife and future children
- it is relatively cheap to prevent medically vertical infection from mother to child, but this treatment does not give longer life expectancy to the woman
- money spent on the new HIV/AIDS drugs risks draining the national health budget or increasing international economic dependency or debt, risks undermining funding of HIV prevention education (that can also address other sexual and reproductive health issues and gender equality concerns) while not preventing continued transmission of HIV

Examples:

**Individual risks to HIV/AIDS are gender specific**

FACTOR: Legal rights

- absence of laws prohibiting or penalizing sexual violence or inadequacy in implementing penalization for rape or sexual abuse, place women at higher risk of infection and inhibit them for obtaining medical care. This legal failure more easily lets men get away with sexual violence
- beliefs and practices that contravene national laws (like marital rape, 'wife inheritance', and exchange of women linked to land ownership) may in reality often reproduce the conditions for spreading HIV
- women working in the informal sector or part-time in the formal sector are often more vulnerable to sexual harassment and often lack legal protection and medical insurance. Their marginalization from full legal and economic rights increased their risk of contracting HIV<sup>3</sup>
- lack of legal rights for homosexuals makes their lives more vulnerable to HIV-infection and HIV-related discrimination

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Examples:

**Living with HIV/AIDS is gender specific**

- women and men who are poor or illiterate are often not aware of their legal rights when dealing with HIV/AIDS
- lack of legal protection for people with HIV/AIDS affects both men and women
- where women have less legal rights than men (e.g. right of inheritance, land, housing and social security), HIV+ women are often abandoned and can lose their rights to residence and their children, while men's legal privileges give men with HIV more support
- in some places, if the husband dies first, the widow can be deprived of the rights to inherit the home, agricultural land and other belongings
- where women cohabit with men without the legal protection of marriage, the death of their partner or their own illness can place them in a particularly vulnerable situation. Gay couples also face this problem
- when it is not illegal to fire employees associated with HIV/AIDS, male breadwinners can be denied their source of income
- a majority of women work in the informal sector and thus lack legal protection against being fired if associated with HIV/AIDS or accessing social security
- in the formal sector women predominate in work such as part-time employment that falls outside most legal protections and increases their vulnerability while more men work full time with legal protection
- women's legal right to maternity leave is often violated and affects her health and well-being

Examples:

**Gender specific impacts of HIV/AIDS at family, community, national and international levels**

- the lack or the inadequate implementation of legislation supporting gender inequality or insuring the legal rights of people with HIV/AIDS, have deep impact on families, communities and many social and economic contexts



Examples:

**Individual risks to HIV/AIDS are gender specific**

FACTOR: Reproductive health and rights<sup>4</sup>

- unequal power relations make it difficult for women to negotiate safer sex
- women and girls often experience opposition to or neglect of their right to information and education about reproductive sexual rights and health. This threatens their ability to protect themselves and demand sexual relations on collaborative terms with men
- the vast majority of women who acquire HIV sexually are infected by their male regular partner/ husband<sup>5</sup>
- expectations and pressure on men to set sexual agendas, take control and not express vulnerability often mean they engage in sex with limited information about men's and women's bodies and with only fragmented understanding about sexual health and safety
- sexual and reproductive health education often exists devoid of discussion of gender inequality and neglects how gender inequalities and gender beliefs in each society affect sexual attitudes and behaviours
- the right to reproductive and sexual health, which involves responsibility, caring and communication, is often not part of normative upbringing of boys and girls' learnt expectations of them, nor a central part of sexual education
- boys' concerns and perspectives are often lacking in reproductive and sexual health education (where it actually exists), so they find it hard to identify with its concerns and practice
- prevention method dilemmas: condoms are often prioritised as prevention; but many men never learn how to use them correctly or resist using them; women cannot control correct condom-use nor insist on their use; partners who do not use condoms but use fidelity as their safer sex strategy are at risk when one partner (more often the man) does not adhere to this agreement. This is often a taboo subject within couples of all ages; a lack of female or dual controlled prevention technologies like microbicides<sup>6</sup>
- traditional harmful practices like female circumcision, early marriages and 'wife inheritance', and common practices like sexual abuse and myths like 'sex with a virgin cures AIDS' remove women's reproductive health and rights, cement gender inequality and lock men into practices that assert male power over women

Examples:

**Living with HIV/AIDS is gender specific**

- carrying a child and giving birth put pressure on an HIV+ pregnant mother's immune system and can hasten the advance of HIV or AIDS in her body
- during pregnancy and child delivery HIV+ women are at risk of complications and need special health care and obstetric aid because of weakened immune system
- HIV+ women are sometimes forced to be sterilized and forced to terminate the pregnancy
- abortion is illegal or unacceptable in many countries or within certain religious beliefs, and 'free choice' is not an option for a pregnant HIV+ women. Illegal abortions put women's health and life at risk
- lack of pre- and post-natal care and insufficient maternity leave put the woman at greater risk of exhaustion and opportunistic infections
- once a man is HIV infected, he can only consider having a child by risking infecting the mother of his future child, and risking his child be born with HIV and die of AIDS
- pressure on men to prove masculinity, or on women to prove their worth by having children, can lead people into spreading HIV

Examples:

**Gender specific impacts of HIV/AIDS at family, community, national and international levels**

- inequality of social conditions and rights of men and women regarding sexual and reproductive health locks gender inequality into the heart of social norms, expectations and behaviours
- a lack of equal sexual and reproductive rights in a society sabotages collaboration between men and women on a key terrain of social and relational interaction
- gender inequality in sexual and reproductive relations significantly increases the conditions for the spread of HIV and the traumatic consequences of HIV and AIDS
- insufficient maternity leave put the woman at risk of opportunistic infections that may also affect the infant and other family members
- condoms (male and female) are the only means for making sexual intercourse between men and women, and men and men safer from HIV
- unavailability and relative high costs of condoms and inadequate information about their correct use sabotage the HIV prevention strategies and the implementation of reproductive health and rights

Examples:

**Individual risks to HIV/AIDS are gender specific**

- HIV is found in most dense quantity in blood and sexual fluids (vaginal fluid, men's clear liquid before ejaculation and the semen itself) of an infected person
- heterosexual vaginal intercourse allows semen fluid of infected men to come easily into contact with the women's sexual organs and thus infect her<sup>7</sup>
- in an infected woman HIV is in the ordinary daily fluid keeping her vagina moist – heterosexual intercourse allows these fluids to make contact with the man's penis and so he can get infected
- men having anal sex with men or with women have a high risk of contracting the virus from an infected partner, or infecting him/ her if it is not practiced safely
- menstruation increases the risk of infecting for both men and women during sexual intercourse
- the bodies of teenage girls are not fully developed (immature genital tract) and are therefore more easily infected
- some sexual transmitted diseases (STDs) and genital infections increase the risk of infection in both women and men. STDs and RTIs (reproductive tract infections) are more often asymptomatic in women than in men
- sexual activity involving force or violence hugely increases the risk of infection because of risk of bleeding

Examples:

**Living with HIV/AIDS is gender specific**

- pregnancy and breastfeeding weaken an HIV+ mother's own immune system
- men and women have greater chances of developing AIDS when reinfected with HIV
- a pregnant woman can pass on HIV to the baby: the baby has a 10% to 30% chance of being infected in situations of affluence, and a 20 to 50% chance in situations of poverty, depending upon access to nutrition, medicine and health care
- HIV is in the breast milk of an infected mother – breast feeding appears to increase the risk of the child acquiring HIV, but the biological and social implications in poorer conditions have not yet been fully understood
- HIV/AIDS make men and women vulnerable both to the same symptoms, and to gender specific different symptoms
- an HIV infected man risks infecting his wife from unprotected sex, thus placing any baby she carries at risk of infection

Examples:

**Gender specific impacts of HIV/AIDS at family, community, national and international levels**

- the health of the nation is eroded as the physical and mental well-being of the population declines
- life expectancy is declining dramatically in countries with high infection levels
- HIV+ women have higher risk of having babies who will die of AIDS
- symptoms of HIV/AIDS weaken the bodies and energy of providers, nurturers, protectors and cares



Examples:

**Individual risks to HIV/AIDS are gender specific**

**FACTOR: Men's violence against women**

- low social and economic status of women can be both a cause and a consequence of men's violence against women, and is one of the crucial mechanisms by which women become situated or forced into positions subordinate to men
- domestic violence increases women's risk of exposure to HIV. It can coerce them into having sex against their will; and trap them into being unable to negotiate safer sex, refuse sex or leave a dangerous relationship
- rape and sexual abuse, because they can cause bleeding, increase the risk of HIV infection for women/ girls – and some boys/ men (both victims and perpetrator)
- a significant percentage of women who are sexually exposed to the risk of HIV/AIDS encounter this risk due to physical assault by an intimate, male partner<sup>6</sup>
- sexual abuse in childhood may have long-term HIV infection consequences as many victims of abuse take greater sexual risks (because of lower self-esteem, etc.)
- women's poor economic position and poverty can sometimes force or trap women into prostitution for their own survival or survival of those they care for and are rarely in the position to prevent male sexual violence or negotiate for safer sex; the poorer women are the higher risk they face
- trafficking of women and children into the sex industry is a globalized contemporary form of slavery. It deprives women and children of their human rights, and creates abuse situations where HIV transmission is facilitated
- Western and more wealthy men often benefit from the anonymity of travel abroad and being away from home to form casual sexual liaisons with younger women in poorer countries. Given the extent of trafficking in women and young people for sex, the men often become naively complicit in encouraging and normalising forms of sexual exchange that have devastating wider emotional, health and HIV effects on the young women in these countries. Men themselves and their families are at risk
- rumours like 'sex with a virgin cures AIDS' lead to rape and forced marriage of young girls

Examples:

**Living with HIV/AIDS is gender specific**

- because of gender beliefs about 'proper' or 'deviant' femininity, women living with HIV/AIDS are especially prone to being victimised and vulnerable to violence (abused, abandoned, killed)
- the fear of exposure and violence limits HIV infected women's ability and access to resources and basic activities
- men living with HIV or AIDS also are stigmatised and fear violence from other men. Most 'gay-bashing' is carried out by men, motivated by anxieties and fears that make them 'bond' to uphold social norms of heterosexual masculinity

Examples:

**Gender specific impacts of HIV/AIDS at family, community, national and international levels**

- stereotypical gender roles often reproduce and encourage discrimination and violence against women
- violence against women deprives them of social, economic, educational and general human rights and fundamental freedoms. It polices and reinforces gender inequality, and fertilises the spread of HIV
- when violence is uncontestedly associated with masculinity, it becomes a lynch-pin in a culture's imaging of male power and female dependency
- commercial and media exploitation of gendered violence underscores relationships of inequality between men and women and provides fertile ground for HIV sexual transmission



**FACTOR: War and conflict**

Examples:

**Individual risks to HIV/AIDS are gender specific**

- war and conflict threaten all aspects of human security, and greatly increase vulnerability for contracting HIV/AIDS for all involved
- rape and violence against women are often a strategic weapon, a brutality tactic, in war and conflict, spreading HIV indiscriminately
- women can be abducted as sexual slaves by armed forces on either side of the conflict
- war and conflicts cause migration and refugee-populations. Female refugees and especially young girls without relatives are at greater risk for sexual exploitation, sexual abuse and HIV-infection
- war increases poverty, which can lead women/ girls into prostitution
- peacekeeping missions and the presence of military forces increase prostitution and trafficking and the possibility of infection
- war takes men into situations of high risks activities and facilitates risk taking, aggression and unsafe sexual behaviour



Examples:

**Living with HIV/AIDS is gender specific**

- health care, sanitation and food security worsen the situation for people living with HIV/AIDS, and particularly women
- higher rates of STDs among refugee populations can increase vulnerability to HIV

Examples:

**Gender specific impacts of HIV/AIDS at family, community, national and international levels**

- social security and infrastructures collapse (including development and financing of HIV/AIDS monitoring, prevention and treatment programmes) during war and conflict, leading to increased vulnerability for all parties involved, opening the way for HIV to spread through new routes of interaction
- military deployment mobilizes a predominantly male institution that is known to foster sexism, objectifies 'the enemy' and often has inadequate education about sexual safety and HIV prevention
- the presence and movement of military forces swell the population of commercial sex workers, and disabling gender relations develop
- a high HIV prevalence rate among military forces poses threats of HIV infection to the local community
- a high HIV prevalence rate among civilian population poses threats of HIV infection to soldiers engaging in sex with them, causing HIV to be brought back into the soldiers' families, home communities, thus increasing HIV spread in their home country
- wars today are often accompanied by a rapid increase in illegal drug use, fostering criminality/ poverty/ drug links that in turn increase risk of HIV infection
- rape as strategic weapon of war greatly escalates the infection rate

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Examples:

**Individual risks to HIV/AIDS are gender specific**

- teenage girls are infected at a rate of five to six times greater than their male counterparts because: young girls are biologically more prone to infection than mature women; when young girls have older partners they lack options to negotiate for safer sex, they presume that the men have responsibility and knowledge for the activities; female genital mutilation, early marriages, sexual abuse and myths like 'sex with a virgin cures AIDS' make young girls in particular vulnerable to infection
- conditions of poverty and vulnerability place young girls and boys at greater risk of sexual commerce and sexual violence, for example street children, homeless youth, domestic workers (girls), orphans and refugees
- men sometimes seek out younger women or men because they can feel more in control of the sexual and relational situation with them, and see themselves not at risk of sexual infections from younger partners
- young girls are more at risk of sexual abuse and risk sexual violence in schools by fellow students and teachers, and from men they know in daily life
- boys can be anxious about their actual sexual performance or focused on 'getting sex' – thus neglecting sexual safety or health
- most young men and women lack access to good learning processes regarding sexual behaviours and safety: HIV prevention education usually does not engage with the gender issues surrounding sexual behaviours (as in this folder)
- drink and drug use increase risk sexual behaviours. This particularly affects young men
- where youth are involved in risk taking linked to crime, their marginal position makes them more vulnerable to being infected and infecting others. This particularly affects young men

FACTOR: Youth

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Examples:

**Living with HIV/AIDS is gender specific**

- young girls' access to education is often not prioritised compared to boys in the family, and HIV escalates this negative pattern
- adolescence, and in particular girls, have limited access to health care, sexual education and treatment
- young men and women have to deal with different complicated reactions from parents, family, friends – and they can face isolation at a vulnerable age
- young men and women with HIV/AIDS have to face symptoms, sickness and their own approaching death – all issues foreign to youth culture. Male culture often traps boys in silence about personal traumas and anxieties



Examples:

**Gender specific impacts of HIV/AIDS at family, community, national and international levels**

- AIDS brings a dramatic loss of future generations of potential parents, educators and workers. This has a huge economic and demographic impact on society
- society faces increased numbers of young men and women disconnected from stable structures of support and security
- when parents or other family members get ill, girls become caretakers and are the first to be taken out of school
- girl orphans are more at risk to be exploited as house-girls both in terms of work load and in terms of sexual exploitation
- Western media consumerism and popular culture, with wide global circulation now has a central focus on sex, while minimal concern with imaging sexual safety and health. Young people are made vulnerable to infection through risk behaviours from absorbing sexual media images
- the right of young women and men to clear, detailed and graspable information about reproductive health and rights is neglected and often actively resisted (by parents, older generation attitudes, religious beliefs)
- child headed households are vulnerable, girl headed households even more so

Examples:

**Individual risks to HIV/AIDS are gender specific**

- stigmatisation and discrimination against people living with HIV/AIDS inhibits efforts aimed at promoting HIV/AIDS prevention<sup>9</sup>
- women generally have less access to treatment than men and when given treatment they are often given drugs that have been tried out on men in the Western world
- as the focus of treatment in developing countries now is linked to mother-to-child-transmission, one runs the risk that HIV will be conceptualised as a women's disease
- due to the fact that HIV was first identified in gay men's communities in the West, men had a head start when it came to treatment, and women have been excluded from clinical trials until very recently. Research is still mostly being done under Western conditions

FACTOR: Treatment and health care



Examples:

**Living with HIV/AIDS is gender specific**

- most people in developing countries do not have access to treatments for opportunistic infections, or dietary and food supplement to strengthen the immune system
- gender inequality regarding access to medical treatments and health services limit women's access to HIV/AIDS treatment, care and support, including anti-retroviral therapies<sup>10</sup>
- women suffer side-effects from AIDS-drugs that health personnel have no experience with (e.g. loss of monthly period)
- HIV+ pregnant women may be given drugs during pregnancy, but taken off medication after delivery, and thus suffer additional complications

Examples:

**Gender specific impacts of HIV/AIDS at family, community, national and international levels**

- women have less economic possibility of seeking treatment, and often need the approval of her husband and his family
- stigmatisation and discrimination of people living with HIV/AIDS inhibits efforts aimed at promoting HIV/AIDS prevention

## HOW?

- Conduct more gender specific and gender sensitive research.
- Mainstreaming of gender issues and implementation of gender sensitive training in all affected areas mentioned above.
- Implement the Beijing Platform for Action in order to empower women's social, economic, cultural, political and sexual position.
- Enhance preventive and risk-averse activities, such as sexual education at all levels, free male and female condoms, train teachers and health personnel. Assertiveness and empowerment must be included in sex and HIV/AIDS education for girls.
- Support ways of empowering women, and informing men, of the need and right for women to have control over their own body. This is a prerequisite for all protection work against HIV/AIDS.
- Address men's and boys' attitude to sexual behaviour and reproductive choice in HIV and reproductive health programmes.
- Ensure non-discrimination of workers on the basis of real or perceived HIV-status through implementation of ILO code of practice on HIV/AIDS and the world of work (June 2001), ILO conventions 100 ('equal pay for equal work') and 111 ('non-discrimination at work'). Most countries have ratified these conventions, and are thus obliged to incorporate them into national jurisdiction.
- Provide easier and cheaper access to medication and health services.
- HIV+ women and men should be actively involved in developing, decision-making and implementation of policies and programmes.
- Multidisciplinary approach situating and contextualizing problem with special local context, with emphasis on participatory empowering methods.
- Specific targeting of economic empowerment of weaker economic groups – both women and men.
- Legislation to ensure rights of widows and orphans.

## Notes and Web-sites

1 Heterosexual men erroneously associate HIV/AIDS with a 'gay disease'

2 See The HIV/AIDS pandemic and its gender implications, Report of the expert group meeting Windhoek, Namibia, November 2000 (DAW, WHO, UNAIDS)

3 ibid

4 Definition of reproductive health and rights: 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 relation to the reproductive system and to its functions and processes. Reproductive health implies that people are able to have a satisfying and safe sex life and that they have the capacity to reproduce and the freedom to decide if, when and how often to do so. Implicitly are the right of women and men to be informed and to have access to safe, effective, affordable and acceptable methods of family planning of their choice and other methods for regulating fertility and protect against sexual transmitted diseases. It also implies the right of access to appropriate health-care services that will enable women to go safely through pregnancy and childbirth. The human right of women include their right to have control over and decide freely and responsibly on matters related to sexuality, including sexual reproductive health, free of coercion, discrimination and violence (Beijing Platform for Action, 1995, §94 and §96)

5 with at least 70% of youth in Norway not using a condom during casual sex, this indicates the vulnerability to HIV and STI infection among sexual active youth even in wealthy countries

6 A 'microbiocide' is any substance that can substantially reduce transmission of sexually transmitted infections (STIs) when applied either in the vagina or rectum. Like today's spermicide, a microbiocide could be produced in many forms, including gels, creams, suppositories, films, or in the form of a sponge or a vaginal ring that slowly release the active ingredient over time. See: <http://www.global-campaign.org>

7 Semen fluid has a higher concentration of the virus than vaginal fluid. For a variety of reasons there can be small tears or cuts in the woman's mucous membrane causing bleeding and greater vulnerability to infection

8 See Women's global network for reproductive rights, <http://www.wgnrr.org>

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9 See ILO code of practice on HIV/AIDS and the world of work, Geneva, June 2001.

10 See note 2

### WEB-SITES

UNAIDS Joint United Programme on HIV/AIDS <http://www.unaids.org>

UNIFEM United Nations Development Fund for Women <http://www.unifem.undp.org/>

WHO World Health Organisation <http://www.who.int/home-page/>

ICW International Community of Women Living with HIV/AIDS <http://www.icw.org>

Pluss-LMA Norway <http://www.pluss-lma.no>

NORAD Norwegian Agency for Development Assistance <http://www.norad.no>

Red Ribbon Campaign <http://www.redribbon.co.za>

Treatment Action Campaign <http://www.tac.org.za>

International Women Tribune Centre <http://www.iwtc.org>

### Training packages:

Stepping Stone. A training package on Hiv/aids, communication and relationship skills, By Alice Welbourn, Strategies for Hope, Action Aid, - <http://www.stratshope.org>

A positive women's survival kit, International Community for Women living with HIV/AIDS, <http://www.icw.org> or [info@icw.org](mailto:info@icw.org)

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## WHY THIS FOLDER?

Women and men are affected differently by the HIV/AIDS epidemic. This awareness raising folder aims to highlight the consequences of gender inequality in terms of risk of infection and living with HIV/AIDS. It is envisaged as a work in process, to be amended and expanded as new suggestions reach us and seem appropriate.

This folder provides examples of the **WHY's**, the **WHAT's** and some of the **HOW's** in relation to HIV/AIDS in a gender perspective. The main focus is the factors influencing the risks of HIV-infection, living with HIV/AIDS, and the impact of HIV/AIDS at family, community, national and international levels.



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### The Global Impact of HIV/AIDS on Youth

May 2002

While HIV/AIDS has always been an epidemic of young people, current trends indicate that this may well be but the tip of the iceberg. The current impact is expected to worsen, with projected numbers of people living with HIV/AIDS in hard hit countries rising steadily over the next two decades.<sup>1</sup>

#### CURRENT & PROJECTED IMPACT

HIV/AIDS prevalence among young people is already high in many countries around the world, and young people continue to make up a significant proportion of new infections:

- There are an estimated 40 million people living with HIV/AIDS worldwide, more than a third of whom (38%) are under the age of 25. Teens and young adults between the ages of 15 and 24 represent almost a third of the 40 million people living with HIV/AIDS.<sup>2</sup>
- Of the 5 million people newly infected with HIV in 2001, almost 6 in 10 (58%) were under the age of 25. Those in the 15-24 year old age group represented 4 in 10 of these new infections (see Figure 1). Young people ages 15-24 account for half of all new infections among adults ages 15-49. This amounts to almost 6,000 infections per day among 15-24 year olds, or approximately one every 15 seconds.<sup>2,3</sup>
- Most (77%) young people living with HIV/AIDS live in sub-Saharan Africa,<sup>4</sup> as do over 90% of the world's AIDS orphans (some 12.1 million children).<sup>5</sup> About 15% of young people living with HIV/AIDS are in the East/South Asia and Pacific region of the world (see Figure 2).<sup>4,6</sup>
- High rates of HIV infection among young people are, for the most part, occurring in countries with very young populations. Over half the population of sub-Saharan Africa, for example, is estimated to be under 18 (with one in four between 10 and 19).<sup>4,7</sup>
- The confluence of high HIV/AIDS prevalence and disproportionately young populations results in a concentration of new infections among youth.

The HIV/AIDS epidemic is expected to have far reaching demographic and multisectoral impacts on many nations:

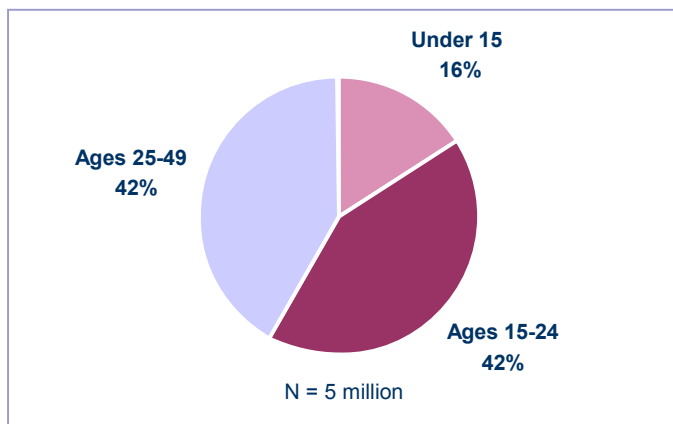
- Due to HIV/AIDS, life expectancy in many hard-hit countries has already been reduced and could drop below age 35 by the year 2010, reversing steady gains over the last century.<sup>8</sup>
- In countries where 15% or more of all adults are estimated to be infected with HIV—eight countries in the year 2000—it is projected that at least 35% of boys now aged 15 will die of AIDS.<sup>6</sup>
- Rising HIV/AIDS prevalence is projected in hard hit countries at least until 2010.<sup>1</sup>

#### ADOLESCENT VULNERABILITY

Several factors make youth particularly vulnerable to HIV/AIDS, including their age, biological and emotional development and their financial dependence. For example:

- Surveys indicate that although many more young people across the world have now heard about the HIV/AIDS epidemic, awareness is not universal and many are still unaware of how to protect themselves or harbor misconceptions about HIV transmission.<sup>4,7,9-11</sup>
- Many sexually active young people at risk for HIV do not perceive themselves to be at risk, even those in countries with very high prevalence.<sup>7</sup> Moreover, most young people living with HIV do not know they are infected.<sup>2</sup>
- Being infected with another sexually transmitted disease (STD) increases the likelihood of both acquiring and transmitting HIV. Studies indicate that the prevalence of STDs other than HIV among youth is high.<sup>2,12,13</sup>
- Most young people at risk for HIV infection or already living with HIV/AIDS reside in the world's poorest regions; their vulnerability to HIV operates within a broader context of poverty, which may include lack of access to education, economic opportunities, and health-related services.<sup>3,4,10,14,15</sup>

**Figure 1: New HIV Infections in 2001 by Age Group (with % of total)**  
Source: UNAIDS<sup>2</sup>



#### THE MOST VULNERABLE

Certain subpopulations of youth have been identified as bearing a disproportionate share of HIV's proliferation and/or being at increasing risk:<sup>2</sup>

##### Young women and girls:

- Women comprise an increasing proportion of those living with HIV/AIDS, rising from 41% in 1997 to 47% in 2001.<sup>10,14,16</sup> The rate of new infections among girls is as much as 5 to 6 times higher than those of boys in some hard hit countries<sup>3,14</sup> and young women represent the majority of young people living with HIV/AIDS in sub-Saharan Africa and Asia (see Figure 2).<sup>2</sup> Biologically, the risk of becoming infected with HIV during unprotected vaginal intercourse is greater for women than men<sup>6</sup> and on average, women are infected at younger ages than men.<sup>8</sup>

##### Young men who have sex with men (MSM):

- Stigma, social exclusion, and lack of information can result in increased risk-taking among men who have sex with men.<sup>6,17</sup> Male-to-male sexual transmission is a predomi-

nant risk factor for HIV in several countries, including the U.S., Brazil, Costa Rica, and Mexico, and may be playing an increasing role in Eastern Europe.<sup>6,14</sup> Risky behaviors and HIV infection rates among young MSMs may again be on the rise in the developed world.<sup>6,18-21</sup>

**Injection drug users (IDU):**

- Injection drug use continues to be a risk factor for many young people, particularly in Eastern Europe, Central Asia, and the Russian Federation.<sup>6,22</sup>

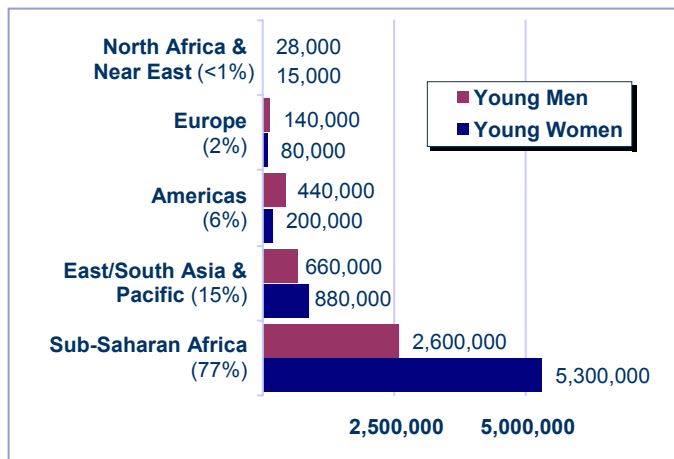
**Children orphaned by AIDS:**

- An estimated 13.2 million children—most of whom live in the developing world—have lost their mothers or both parents to AIDS,<sup>5</sup> a number that could rise to 44 million by 2010.<sup>5</sup> Without support systems and resources, they are at substantially increased risk of malnutrition, abuse, illness—and HIV infection.<sup>6</sup>

**Sexually-exploited children:**

- Prostitution, trafficking, child pornography and forced marriages all bring increased likelihood of HIV infection for the children and the communities within which such practices occur.<sup>23</sup> Approximately 1 million children enter the world's sex trade every year,<sup>23</sup> placing them at greater risk for HIV infection.<sup>24</sup> Rates of HIV infection among young sex workers can be high.<sup>10,12,15,16,24</sup>

**Figure 2: Young People Ages 15-24 Living With HIV/AIDS by Region and Gender as of end of 1999**  
Source: UNICEF<sup>4</sup>



**PREVENTION**

Several recent prevention reviews demonstrate effectiveness in reducing risky behaviors and HIV transmission.<sup>25-28</sup> Few large-scale efforts, however, have been geared toward youth, and youth may need different prevention strategies than older adults.

- Where they do exist, such efforts have been shown to lead to increased knowledge, delays in sexual activity, and increased condom use among those having sex for the first time, and to reductions in transmission for some populations.<sup>25,26</sup>
- In addition, projection models demonstrate that interventions such as increased condom use and STD treatment can significantly reduce HIV/AIDS prevalence.<sup>29</sup> Analyses also indicate that because most HIV infections occur among young people, HIV prevention directed at youth is a crucial and effective strategy.<sup>30</sup>

**CONCLUSION**

The impact of the epidemic on young people is expected to grow, particularly in hard hit countries which already have very young populations. Therefore, the level of available resources and how resources are used will continue to challenge global and national leaders.<sup>3,31</sup> Prevention interventions directed at youth will be critical to altering the future course of the epidemic.

**REFERENCES**

- U. S. Census Bureau. Unpublished data; 2002.
- UNAIDS. *AIDS epidemic update*. December 2001.
- Piot P. Testimony to a hearing on "Halting the Global Spread of HIV/AIDS: the Future of U.S. Bilateral and Multilateral Responses." *Committee on Foreign Relations of the United States Senate*; 2002.
- UNICEF. *Progress of Nations 2000*.
- Hunter S, Williamson J. *Children on the brink*. USAID; 2000.
- UNAIDS. *Report on the global HIV/AIDS epidemic*. June 2000.
- Population Reference Bureau. *Youth in sub-Saharan Africa: a chartbook on sexual experience and reproductive health*. April 2000.
- Stanecki KA, (U. S. Census Bureau). The AIDS pandemic in the 21st century: the demographic impact in developing countries. Paper presented at: 13th International AIDS Conference; July, 2000; Durban, South Africa.
- UNAIDS. *Together we can: leadership in a world of AIDS*. June 2001.
- UNAIDS. *Children and young people in a world of AIDS*. August 2001.
- Henry J. Kaiser Family Foundation. *Hot prospects, cold facts: national survey of South African youth*. 2001.
- Panchaud C, Singh S, Feivelson D, Darroch JE. Sexually transmitted diseases among adolescents in developed countries. *Fam Plann Perspect*. Jan-Feb 2000;32(1):24-32, 45.
- Henry J. Kaiser Family Foundation. *Sexually transmitted diseases in the United States (fact sheet)*. February 2000.
- UNAIDS. *Global crisis--global action*. June 2001.
- Rao Gupta G. Gender, sexuality, and HIV/AIDS: The what, the why, and the how (plenary address). Paper presented at: International AIDS Conference, 2000; Durban, South Africa.
- Human Rights Watch. *Scared at school: sexual violence against girls in South African schools*. March 2001.
- CDC. HIV-related knowledge and stigma--United States, 2000. *MMWR Morb Mortal Wkly Rep*. Dec 1 2000;49(47):1062-1064.
- CDC. HIV incidence among young men who have sex with men--seven U.S. cities, 1994-2000. *MMWR*. June 1 2001;50(21):440-444.
- CDC. Need for sustained HIV prevention among men who have sex with men. March 11, 2002. Available at: [www.cdc.gov/hiv/pubs/facts/msm.htm](http://www.cdc.gov/hiv/pubs/facts/msm.htm).
- CDC. Resurgent bacterial sexually transmitted disease among men who have sex with men--King County, Washington, 1997-1999. *MMWR*. Sep 10 1999;48(35):773-777.
- CDC. Outbreak of syphilis among men who have sex with men--Southern California, 2000. *MMWR Morb Mortal Wkly Rep*. Feb 23 2001;50(7):117-120.
- Burrows D, Holmes D, Schwalbe N. Drug use injects HIV/AIDS into former Soviet Union. *Global AIDS Link (Global Health Council)*. Vol 72; 2002:12-13.
- UNICEF. *Profiting from abuse: an investigation in to the sexual exploitation of children*. 2001.
- Population Council, Asia Foundation. *Prevention of trafficking and the care and support of trafficked persons (in the context of an emerging HIV/AIDS epidemic in Nepal)*. February 2000.
- Rosenfeld A, Myer L, Merson M, (Henry J. Kaiser Family Foundation). *The HIV/AIDS pandemic: the case for prevention*. June 2001.
- Low-Beer D, Stoneburger R, (Henry J. Kaiser Family Foundation). *In search of the magic bullet: evaluating and replicating prevention programs*. June 2001.
- Marseille E, Morin S, Collins C, Summers T, Coates T, (Henry J. Kaiser Family Foundation). *The cost-effectiveness of HIV prevention in developing countries*. June 2001.
- Center for AIDS Prevention Studies (UCSF). Can cost-effectiveness analysis help in HIV prevention?
- Henry J. Kaiser Family Foundation. *The impending catastrophe: a resource book on the emerging HIV/AIDS epidemic in South Africa*. 2000.
- Kiragu K. Can we avoid catastrophe? *Population Reports*. Vol 12; 2001.
- Alagiri P, Collins C, Summers T, Morin S, Coates T, (Henry J. Kaiser Family Foundation). *Global spending on HIV/AIDS: tracking public and private investments in AIDS prevention, care, and research*. July 2001.

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# The Global Strategy Framework on HIV/AIDS

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Joint United Nations Programme on HIV/AIDS

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# The Global Strategy Framework on HIV/AIDS

June 2001

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# THE SECRETARY-GENERAL

## FOREWORD

### The Global Strategy Framework on HIV/AIDS

June 2001

AIDS is an unprecedented global crisis. It requires an unprecedented response from each and every one of us. Turning back the HIV/AIDS epidemic is a task beyond individual efforts, no matter how outstanding or heroic. It requires communities, nations and regions to come together in concerted, coordinated action.

The best of the global AIDS response to date has shown us the absolute necessity of both leadership and of teamwork. This Global Strategy Framework on HIV/AIDS provides guidance for the next phase. It draws on lessons from the past to map out the path for the future. Above all, it calls on all sectors of society to show leadership in galvanizing the response to HIV/AIDS — among towns and villages, young people and those not so young, companies and community organizations, countries and continents. Only when all these forces join in a common effort will we be able to expand our fight against the epidemic to decrease risk, vulnerability and impact.

Just as individuals must change their personal behaviour to halt the spread of HIV/AIDS, so does the Global Strategy Framework call for profound change in the conduct of community, national and international affairs. This challenge requires a new kind of commitment that goes beyond the ordinary. For the future of humanity, we must be willing to make that commitment.



Kofi Annan

# Preface

The world has known about AIDS for twenty years. During that time the disease has spread to every continent. In the worst affected countries, it has set back human progress by decades. But over the past twenty years we have also learnt a great deal about how to tackle AIDS. The most important lesson has been that half-measures do not work against this epidemic.

The only way the epidemic can be reversed is through a total social mobilization. Leadership from above needs to meet the creativity, energy, and leadership from below, joining together in a coordinated programme of sustained social action.

This Global Strategy Framework is guided by an understanding of the epidemic in its totality, driven by a vicious cycle of risk, vulnerability and increasing impact of the epidemic. To replace this dynamic with a virtuous cycle of risk reduction, vulnerability reduction and impact mitigation, requires society-wide action against AIDS. It needs to focus equally on preventing the further spread of the epidemic, supporting better care for those infected and affected by HIV, and building capacity and resilience to withstand the impact of AIDS.

The core of the Global Strategy Framework is a set of twelve leadership commitments. These set out the essential elements and priorities that are the building blocks of an effective and comprehensive AIDS response. They are addressed not only to national leaders and policy-makers, but also to leaders and activists in community, religious, private sector, and social movement settings.

The Global Strategy Framework is not a detailed blueprint, because that will vary depending on the local context of the epidemic. But it offers the distilled wisdom, based on experience, of essential elements of an effective AIDS response no matter what stage the epidemic is at. The leadership commitments provide a yardstick against which responses to the epidemic can be measured, and a tool for the continuous improvement and refinement of strategic responses to the epidemic.

AIDS is an emergency, but it is a long-term emergency. We are facing the most devastating epidemic humanity has ever known. Our response must therefore be equally unprecedented: the most concerted, sustained, coordinated, full-scale assault on a disease the world has ever known.



Peter Piot  
Executive Director  
UNAIDS

# The Global Strategy Framework on HIV/AIDS

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# I. A New Global Strategy Framework

HIV continues to spread world wide. Its increasing impact has made it more important than ever before to halt the pandemic. At the 21st Special Session of the United Nations General Assembly in July 1999, Member States adopted the first specific global target against HIV. They committed themselves to achieving major reductions in HIV infection rates among young people in the most affected countries by 2005, and globally by 2010<sup>1</sup>.

The Special Session on AIDS of the United Nations General Assembly in June 2001 expands upon this commitment by setting goals and targets addressing an expanded response to the epidemic.

The Global Strategy Framework provides a common strategic approach for achieving these global targets and encourages the many actors engaged in the response to formulate additional goals at national and local levels to bring the AIDS epidemic under control. Leadership is required from the many actors engaged in the fight against AIDS, in all spheres of life: community, political, religious, media, and the private sector.

The AIDS pandemic is diverse, but a common understanding of its causes and dynamics will help to promote a shared sense of the urgency and scale of the response needed.

The Global Strategy Framework puts forward a set of guiding principles and leadership commitments that together form the basis for a successful response to the epidemic. Global, national and community bodies will still need to formulate their own specific strategies concerning particular themes or regions. The Global Strategy Framework is designed to help in setting priorities and in achieving harmony and synergy between these various strategies.

<sup>1</sup> Governments, with assistance from UNAIDS and donors, should, by 2005, ensure that at least 90 per cent, and by 2010 at least 95 per cent, of young men and women aged 15 to 24 have access to the information, education and services necessary to develop the life skills required to reduce their vulnerability to HIV infection. Services should include access to preventive methods such as female and male condoms, voluntary testing, counseling and follow-up.

Governments should use, as a benchmark indicator, HIV infection rates in persons 15 to 24 years of age, with the goal of ensuring that by 2005 prevalence in this age group is reduced globally, and by 25 per cent in the most affected countries, and that by 2010 prevalence in this age group is reduced globally by 25 per cent.

## Aim of the Global Strategy Framework

- **To support communities and countries to reduce risk and vulnerability to infection,**
- **to save lives and alleviate human suffering, and**
- **to lessen the epidemic's overall impact on development.**

## Guiding Principles

The Global Strategy Framework is founded on the respect, protection and fulfilment of human rights. It is guided by four fundamental principles:

- **It is the role of national governments, working with civil society, to provide the leadership, means and co-ordination for national and international efforts to respond to country and community needs.**
- **in communities around the world, support for the active engagement of people living with and affected by HIV/AIDS is central to the response.**
- **gender inequalities fuelling the epidemic must be explicitly addressed, and**
- **prevention methods, life saving treatments and the results of scientific breakthroughs need to be equitably and affordably available to all.**

Applying these guiding principles to the most urgent priorities in responding to the epidemic gives rise to a set of essential Leadership Commitments for the future, which constitute the core of the Global Strategy Framework.

## II. Lessons Learned

The first Global AIDS Strategy was prepared by the World Health Organization in 1986. In 1991 the Global Strategy was expanded and updated in response to the epidemic's evolution and major scientific and policy advances. The updated Strategy was endorsed in January 1992 by the WHO Executive Board, and thereafter by the World Health Assembly and the Economic and Social Council of the United Nations.

A number of the basic principles and objectives of the first and updated Global Strategies remain valid today. However, a critical refocusing is needed, because in some areas the epidemic has become dramatically worse in scale and impact, in contrast to the equally significant success in addressing it in others.

*The scale of the HIV/AIDS epidemic is now far greater than a decade ago, exceeding the worst-case projections made then.*

By the end of the 1980s, HIV had infected an estimated 10 million people, and approximately 1.5 million had died. In the decade of the 1990s, over 40 million additional people were infected with HIV worldwide and there were over 15 million deaths due to HIV/AIDS.

The HIV/AIDS pandemic presently consists of multiple, concurrent epidemics. At the end of 2000, 36.1 million men, women and children around the world were living with HIV or AIDS, 25.3 million in sub-Saharan Africa alone. There are 11 countries in Latin America and the Caribbean where prevalence in the adult population is above 1%. In parts of Eastern Europe there were more infections in 2000 than in all previous years combined, while in parts of southern Africa, the number of people living with HIV/AIDS has increased by 50% in the last three years. In Asia, 5.8 million people are living with HIV/AIDS and the number of new infections is increasing.

In just 20 years, nearly 58 million people have been infected with HIV. Countless others have become more impoverished as a consequence: children have lost their parents; families have lost their property; communities have lost teachers, health workers, business and government leaders; nations have lost their investments in decades of human resource development; and societies have lost untold potential contributions to social, economic, political, cultural and spiritual life.



## *The major impact of the pandemic is yet to come.*

HIV/AIDS has caused a development crisis in sub-Saharan Africa and made deep inroads into Asia, Latin America and the Caribbean, and Eastern Europe. Such is the destruction and destabilization caused by AIDS that it has been declared a global security issue.

The epidemic's future spread is difficult to predict, but the impact of existing infections on health and life expectancy is clear. Without access to effective treatment and care, an additional 15 million people currently infected with HIV will develop AIDS and die in the next five years.

In many countries, the AIDS epidemic has undermined the institutions and human resources on which a society's future health, security and progress depend. In the hardest hit countries, over one-quarter of the medical staff who are needed to help those living with HIV/AIDS are themselves infected with the virus. Experienced teachers are dying faster than new teachers can be trained. Heavy industry and the military suffer, because men who have to work away from their homes often have higher rates of infection than the general population.

Where high prevalence and poverty coincide, the impact is greatest. The burden on women is particularly great, as they are often the primary care givers within families. The rapidly increasing number of children orphaned by AIDS poses major challenges for their well-being, as well as for the development of the communities in which they live. The epidemic's expansion into rural settings has significant implications for the agricultural sector. Morbidity and mortality have already cut the production of many crops by more than 40% in households affected by AIDS.

## *Considerable success has been demonstrated in addressing the epidemic.*

Collective experience with HIV/AIDS has evolved to the point where it is now possible to state with confidence that it is technically, politically and financially feasible to dramatically reduce the spread and impact of the epidemic. The first two decades of the pandemic have generated unprecedented learning and mobilization throughout the world. With the knowledge that a virus – HIV – causes AIDS, and the knowledge of how this virus is passed from person to person, it has been possible to intervene to slow its spread.

Success in curbing the epidemic has come from government and civil society working together, ensuring the epidemic is visible while at the same time decreasing the stigma associated with HIV/AIDS. In an increasing number of countries, partnerships bring together government and international resources with those of the community of interested activists: people living with HIV/AIDS, NGOs, community-based organizations, religious and academic institutions, and the commercial sector.

*An even greater pandemic can be prevented in the future.*

Vigorous measures taken now to reduce the rate of HIV infections will pay substantial dividends in years to come in countries with high and low prevalence alike. Prevention works. Large-scale prevention programmes in virtually all settings have clearly demonstrated that the spread of HIV can be reduced, especially among young people. In Asia, Australia, Europe, Latin America and the Caribbean, North America and sub-Saharan Africa, there is strong evidence of the decline of HIV incidence in populations with access to effective prevention programmes. The documentation and dissemination of these successful experiences has enabled new partners in the response to more rapidly adopt similar approaches.

*Capacity and commitment to act has increased.*

Over the past few years, increasing political mobilization focused on AIDS has resulted in broader responses. More money is being spent on AIDS by governments in the worst affected countries and by bilateral and multilateral development agencies, the commercial and foundation sectors, and through debt relief efforts. The Internet is enabling partners to interact and access information at a pace unimagined even a decade ago. HIV/AIDS has been prominent in subregional, regional and global political forums – including the United Nations Security Council – strengthening political commitment and solidarity among national leaders. Common ground is increasingly replacing the ideological divides that often hampered earlier efforts.

## *HIV/AIDS care and support have become more effective.*

The most effective responses to the epidemic have integrated education, prevention and care strategies. Experience has shown communities are more active in mobilizing against the epidemic when they are motivated by concerns about prevention, care and support together. Care approaches which have voluntary counselling and testing as their entry point constitute effective prevention strategies in their own right.

Through advances in the management of opportunistic infections, and more recently through the development of more effective antiviral therapies, HIV/AIDS has become increasingly treatable, although not yet curable. Recent and anticipated breakthroughs to extend access to life-saving drugs have the potential to improve people's health and assist them in sustaining their normal lives within their communities. These, in turn, can further reduce the stigma associated with HIV/AIDS.

## *Successful responses to the epidemic have their roots in communities.*

It is at the community level that the outcome of the battle against AIDS will be decided. Containing and reversing the HIV/AIDS epidemic within this decade requires dramatically increased efforts in communities with increasing and/or high HIV prevalence, and in low prevalence areas where the preconditions exist for a rapid rise in HIV transmission. Local capacity for prevention, care and support efforts need to be recognized, affirmed and strengthened.

Effective community-centered efforts have generally been both *empowering*, strengthening the capacities of communities to make decisions, and *enabling*, assisting them to mobilize the resources required to act on those decisions. Community leaders who are properly informed are able to assess the reality of HIV/AIDS within their particular community and to analyse the determining factors of risk and of vulnerability affecting them. On this basis, local actors can determine their priorities for action.

Partnerships of key social groups, government service providers, nongovernmental organizations, people living with HIV/AIDS, community-based groups and religious organizations are the basis of successful strategies addressing HIV/AIDS at the community level.

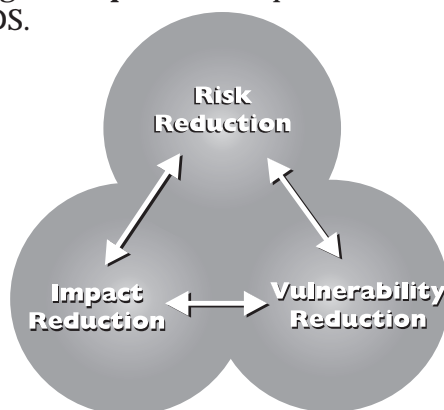
*People living with HIV/AIDS are central to the response.*

At every level, from community to national to international, the benefits of a greater involvement of people living with HIV/AIDS have been shown. Stigma and discrimination towards people living with HIV/AIDS has been reduced by their visibility and involvement in local, national and international organizations. Their participation in policy, programme design and implementation has been instrumental in reorienting priorities, ensuring relevance and effectiveness, and increasing accountability. As advocates for intensified prevention efforts, people living with HIV/AIDS have been successful in bringing a human face and voice to the epidemic, challenging complacency and denial, strengthening the call for urgency in the response, and moving governments and their leaders to action.

### III. Reinforcing Strategies of Risk, Vulnerability and Impact Reduction: The Expanded Response to the Epidemic

**Though the complexity of addressing HIV/AIDS has far exceeded all expectations, we have come to recognize the interrelationship of the basic dynamics of the epidemic:**

- decreasing the **risk** of infection slows the epidemic,
- decreasing **vulnerability** decreases the risk of infection and the impact of the epidemic, and
- decreasing the **impact** of the epidemic decreases vulnerability to HIV/AIDS.



**An “expanded response” to the epidemic is one that simultaneously acts on reducing risk, vulnerability and impact.** These reinforcing strategies enable programmes to address both *what* places individuals at risk and *why* they are at risk.

An expanded response creates major synergies by placing prevention strategies alongside care and support strategies. At the same time, an expanded response also aims to shift social norms, lessen stigma and increase political commitment to address the deep-seated gender and economic disparities which fuel the epidemic.

Impact, vulnerability and risk act on one another to shape the dynamics of the epidemic. Where the HIV/AIDS epidemic is worsening, a negative spiral is established: the impact of the epidemic causes increasing vulnerability – which increases the risk of HIV infection – which in turn increases impact. An expanded response reverses this dynamic: if the impact of the epidemic is reduced this enables vulnerability to be reduced, and in turn the risk of infection falls.

## A. Decreasing the Risk of Infection Slows the Epidemic

HIV infection is associated with specific **risks**<sup>2</sup>, including:

- **behaviours** where there is a risk of HIV infection, most commonly unprotected sexual intercourse, and, in some parts of the world, the use of infected injecting equipment,
- **situations** where there is a risk of HIV infection, such as needing a blood transfusion in a setting where blood safety precautions are not implemented, or being forced to have sex.

Risk reduction interventions have been the mainstay of HIV/AIDS prevention programmes to date. They include the provision of information, the development of relevant skills and the promotion of supportive values and attitudes. As well many specific prevention methods focus on changing risk-taking behaviours and decreasing the occurrence of risk situations.

What outcomes are needed to reduce risk, vulnerability and impact?

Ways of reducing the risk of HIV infection:

- postponing first sexual intercourse;
- safer sexual practices such as consistent condom use;
- reducing the number of sexual partners;
- preventing and treating sexually transmitted infections;
- the avoidance of traumatic sexual intercourse;
- preventing transmission from HIV infected mothers to their infants;
- reducing the harm associated with drug use, especially among young people;
- the avoidance of unsafe injections;
- preventing HIV transmission through blood and blood products;
- preventing HIV transmission within the health care setting.

What outcomes are needed to reduce risk, vulnerability and impact?

Reducing vulnerability with a focus on protecting youth:

- positive relations with trusted adults;
- peer relations that model safer behaviours;
- participation in family, religious and community activities;
- positive orientation to education and health;
- the development of schools as more inclusive, protective and gender sensitive community-based organizations.

## B. Decreasing Vulnerability Decreases Risk of Infection and the Impact of the Epidemic

Poverty, underdevelopment, the lack of choices and the inability to determine one's own destiny fuel the epidemic. **Vulnerability to HIV is a measure of an individual's or community's inability to control their risk of infection.** Different patterns of infection are accounted for by personal factors, access to relevant information and services, and societal factors.

<sup>2</sup>UNAIDS Best Practice reference: *Expanding the Global Response to HIV/AIDS through focused action: Reducing risk and vulnerability: definitions, rationale and pathways.*

In many settings, women — and in particular young women — are especially vulnerable to HIV infection. They may be less able than men to avoid non-consensual or coercive sexual relations. Some cultural practices and stereotypes may dictate that women should not appear to influence the sexual behaviour of male partners. In contrast, many cultural norms promote responsible behaviour and ethical values.

Rural communities may be vulnerable because of lower levels of literacy and less access to information and services. When people become refugees or are internally displaced because of war, conflict or emergency situations, their vulnerability to HIV infection can increase because social support mechanisms are disrupted, services become inaccessible, and non-consensual or coercive sexual relations may increase.

Vulnerability is the result of dynamic social processes. To counter vulnerability, individuals and communities can be supported to take greater control over their own lives and the risks they face. Social exclusion undermines this sense of control.

Vulnerability reduction strategies seek to replace social exclusion with inclusion.

Programme and policy interventions can reduce vulnerability at individual, community and societal levels. Protecting and supporting individuals promotes social inclusion, particularly for young people. Access to essential community services enables individuals to act on decisions to reduce their risk to HIV and to access care and support. Supportive legal and social norms decrease vulnerability by enhancing realization of human rights – civil, political, economic, social and cultural. Social inclusion strategies help to reduce both the risk of infection and its negative consequences.

*What outcomes are needed to reduce risk, vulnerability and impact?*

### Reducing vulnerability through access to services:

- sexual health information, education and services including information and access to male and female condoms;
- schools and other organized education programmes through secondary level;
- life-skills based HIV/AIDS education to develop the knowledge, attitudes and values needed to respond to the epidemic;
- voluntary counselling and testing services;
- antenatal care that includes treatment to reduce mother-to-child transmission;
- clean needles, syringes and drug abuse treatment in communities;
- rehabilitation and legal services, and
- essential protection, prevention and care services for populations in complex emergencies, especially women and girls at greatest risk.

*What outcomes are needed to reduce risk, vulnerability and impact?*

### Supportive legal and social norms:

- the reduction of gender and economic disparities that fuel the epidemic;
- greater equity in educational, vocational training and employment opportunities;
- increased participation in community, religious and political activity;
- the reduction of stigma associated with sex, sexuality, sex work and drug use;
- attention to policies or programmes which have the effect of perpetuating HIV within particular communities;
- the promotion and protection of human rights.



### Reducing the impact on individuals and families:

- direct support to reduce the catastrophic financial impact of HIV/AIDS on families;
- early support to children, especially those orphaned by AIDS, focusing on their health, nutrition and education;
- vocational training opportunities for young people;
- improved access to quality care for people living with HIV including peer group support, voluntary counselling and testing, essential drugs and commodities, antiretrovirals, and to social support services, including appropriate supportive roles for traditional practitioners;
- improved access to legal services, and human rights protection.

The same things that cause HIV vulnerability also lie behind many other diseases and social problems, including discrimination, gender inequality, violence, substance use, unwanted pregnancies and many communicable and noncommunicable diseases. Consequently, vulnerability reduction strategies have positive benefits on health and development far beyond HIV/AIDS.

## C. Decreasing Impact Decreases Vulnerability

The AIDS epidemic has a negative impact on the physical, mental, and social well-being of individuals, and on the social, economic, cultural and political life of communities. The greater the impact of the epidemic on individuals, families and communities, the less they are able to respond effectively. Impact mitigation strategies help those who are most affected by the epidemic to become stronger.

Prolonging the productive lives of individuals infected with HIV increases their ability to contribute to the well-being of their families, also helping to decrease the discrimination and pauperization which can make surviving family members more vulnerable to HIV. Similarly, increasing investments in education, care, social support and general development efforts within affected communities strengthens their capacity to respond to the epidemic.

These strategies contribute to creating an environment where human rights are realized, stigma is reduced, and the frank discussions required to address AIDS can take place. A more supportive and open environment helps to reduce the vulnerability of community members to HIV infection.



<p><b>National action to reduce impact:</b></p> <ul style="list-style-type: none"> <li>● sound economic development programmes in communities most affected by the epidemic;</li> <li>● strengthened national AIDS programmes and improved co-ordination of HIV/AIDS policy and programme responsibilities across all sectors of government;</li> <li>● appropriate allocation of national resources to cover prevention, care and impact reduction activities matched with increased international financial and technical support;</li> <li>● agreements to focus part of debt relief proceeds on high prevalence communities and impact reduction activities;</li> <li>● preferential access to essential commodities through price or trade concessions.</li> </ul>	<p><i>What outcomes are needed to reduce risk, vulnerability and impact?</i></p>	<p><b>Community action to reduce impact:</b></p> <ul style="list-style-type: none"> <li>● empowering communities to respond to issues at local level;</li> <li>● improving the capacity of community organizations to carry out their activities, including outreach, and the provision of care and social support to affected families;</li> <li>● enhancing the role of schools as centres for family and community service;</li> <li>● assurance that community consultation occurs in HIV/AIDS policy and programme design and implementation;</li> <li>● increased community and external investments in essential infrastructure in key sectors including health, education, social services and agriculture.</li> </ul>
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## IV. Strategy Development in Different Settings

The global pandemic is composed of multiple epidemics, each with its own particular dynamic. The optimal response will therefore need to reflect the particular opportunities and constraints of different settings.

National strategic planning has stimulated central and local governments, NGOs, communities, and international partners in many countries to define strategies that are tailored to the different contexts within which HIV/AIDS evolves. Strategic responses to the epidemic are most urgent in settings with low but increasing HIV incidence, and those with high prevalence. Regional and subregional strategies further complement and add value to national responses.

**In both low and high endemic settings,** reducing the vulnerability of young people to HIV infection is the principal defence against the epidemics of the future. Vulnerability reduction strategies take a long-term view of the epidemic but nevertheless require near-term investments to achieve their outcomes, such as increasing primary school enrolments and extending schooling for adolescents. Increasing political support for HIV/AIDS efforts, reducing stigma, and maintaining awareness among the general public must also be addressed in all settings. Because the epidemic can seem less urgent

where prevalence is low, these essential elements for programme sustainability can present major challenges, and so require ongoing investment in advocacy and public information.

**In low endemic settings**, populations with the highest risks for infection can include: those with high STD rates; sex workers and their clients; injecting drug users and their sexual partners; men who have sex with men; and men and women in occupations that separate them from their communities, such as transit and migrant workers and the military. Strategies addressing the needs of these populations should receive the highest priority. In communities with relatively few people infected by HIV/AIDS, care and support strategies require less financial investment and merit high priority from policy-makers. Care and support strategies create incentives for early detection and reducing the stigma of HIV infection, thus reinforcing prevention efforts.

**In high endemic settings**, strategies focused on particular populations with higher risks for infection continue to be relevant, but are of more limited value. When the epidemic has become generalized, impact reduction becomes more important. Communities with highest HIV prevalence, and within them, individuals and families affected by HIV, demand particular priority. In especially hard-hit communities, strategies must take into consideration that existing services have been crushed under the burden of AIDS. The education, health, social welfare, and judicial sectors are most directly involved in slowing the spread or mitigating the impact of HIV/AIDS and require urgent investment to reinforce their human resources and institutional capacities, and support their frontline workers.

**In virtually every community, institution, sector, country and region affected by AIDS**, there is a profound and widening gap between what is needed to contain the epidemic and what is being done. If this gap is to be closed and the epidemic is to be contained, there must be a concerted shift from pilot and demonstration projects to a full-scale expanded response.

Leadership in responding to the epidemic is the most essential ingredient for success. Within governments and civil society, legislators and community, religious, media, youth and private sector leaders have an opportunity and responsibility to assure success by creating an environment of:

- **understanding**, based on reasoned public dialogue and supportive public policy;
- **accountability**, where responses to the epidemic are underpinned by learning from experience through periodic situation assessments, analysis and performance monitoring; and
- **commitment**, by substantially increasing those efforts within their mandates and areas of influence which have the most direct impact on the course of the epidemic.

## V. Leadership Commitments and Core Actions

The Global Framework proposes commitments together with a set of essential actions through which leaders and policy-makers at global, regional, national and community level can mobilize their societies to more fully respond to the epidemic. Achievement of the overarching aim of the global response requires leadership commitments:

1. **To ensure an extraordinary response** to the epidemic which includes: the full engagement of top-level leaders; measurable goals and targets; effective policies and programmes supported by improved epidemiological and strategic information; adequate and sustained financial resources; and integration of HIV/AIDS prevention and care strategies into mainstream planning and development efforts.
2. **To develop policies, legislation and programmes which address individual and societal vulnerability to HIV/AIDS and lessen its socioeconomic impacts**, by focusing on enabling strategies which operate in the context of overall poverty reduction strategies and human development priorities and to develop the coping strategies required to address the impact of the epidemic in productive sectors.
3. **To reduce the stigma** associated with HIV and AIDS and to protect human rights through personal and political advocacy and the promotion of policies that prevent discrimination and intolerance and enable more open discussion of sexuality as an important part of human life.
4. **To expand efforts to support community-focused action** on the epidemic by affirming and strengthening the capacity of local communities to be assertively involved in all aspects of the response.
5. **To protect children and young people from the epidemic and its impact** through universal access to quality primary education and increased secondary school attendance, particularly for girls; life-skills education approaches for in-school and out-of school youth which are free of harmful gender stereotypes and include sexual education and the promotion of responsible sexual behaviour; the promotion of the rights of children, including their to access to information and youth-friendly reproductive and sexual health services; services to prevent mother-to-child transmission of HIV; education on ways to prevent harmful drug use and to reduce the consequences of abuse; and early support to children affected by HIV/AIDS, in particular orphans.
6. **To meet the HIV/AIDS-related needs of girls and women** and to address the circumstances that disadvantage women with respect to HIV/AIDS while enhancing their abilities to contribute their knowledge and voice as a force for change. In particular, to promote the rights of girls and women and to address

gender-based inequalities in access to information and services and to improve access for women to male and female condoms and voluntary counselling and testing within family planning clinics and other reproductive health settings, and to assure equitable access for HIV infected women to care and social support.

7. **To expand efforts directly addressing the needs of those most vulnerable to, and at greatest risk of HIV infection.** In particular, to advance a participatory approach to the development of specific strategies, policies and programmes which promote and protect the health of children in especially difficult circumstances; sex workers and their clients; injecting drug users and their sexual partners; men who have sex with men; persons confined in institutions and prison populations; refugees and internally displaced persons; and men and women separated from their families due to their occupations or conflict situations.
8. **To provide care and support to individuals, households and communities affected by HIV/AIDS,** ensuring access to voluntary counselling and diagnostic services and the continuum of affordable clinical and home-based care and treatment (including antiretroviral therapy), essential legal, educational and social services, and psychosocial support and counselling.
9. **To promote the full participation of people living with and affected by HIV/AIDS** in the response to the epidemic by ensuring safe opportunities for people to speak out and give testimony to their experience, to participate in national and local advisory bodies, and in planning and implementation of HIV/AIDS programmes.
10. **To seek out actively and support the development of partnerships required to address the epidemic** among the public sector and civil society, including the private sector. In particular, to foster those alliances required to improve access to essential information, services and commodities – including access to condoms, care and treatment including treatment of sexually transmitted infections – and to the technical and financial resources required to support prevention, care and treatment programmes.
11. **To intensify efforts in sociocultural, biomedical and operations research** required to accelerate access to prevention and care technologies, microbicides, diagnostics and HIV vaccines, and to improve our understanding of factors which influence the epidemic and actions which optimally address it.
12. **To strengthen human resource and institutional capacities required to address the epidemic,** and in particular to support service providers engaged in the response to the epidemic within the education, health, judicial and social welfare sectors.

## VI. The Way Forward

The guiding principles, expanded response approach and leadership commitments, and essential actions of the Global Strategy Framework on HIV/AIDS are designed to be universally applicable. There is a universal need for local, national and international leadership to guide the response to the epidemic. However, the specific form and content of this leadership will depend on the particular context of the epidemic in different parts of the world.

The Global Strategy Framework should help to guide the development of particular strategies needed across diverse fields and institutions in different settings and at different levels – community, national and regional. Adapting and incorporating the guiding principles and leadership commitments within these many strategies will enable greater synergies, and increase their success.

Within the United Nations system, the Global Strategy Framework will guide a more proactive response to the epidemic through the development of the United Nations System Strategic Plan on HIV/AIDS and the institutional strategies for the various Funds, Programmes and Specialized Agencies.

It is envisaged that Member States will build on their commitment to achieve major reductions in HIV infection rates among young people with additional commitments at the highest levels to achieve agreed goals. The Global Strategy Framework on HIV/AIDS will guide and support the development of these additional goals and commitments.

This Framework therefore represents a starting-point and a set of guiding principles rather than the last word in strategic response to HIV/AIDS. Government, political, religious and community leaders, policy makers, people living with HIV/AIDS, and community activists – wherever they are located – are encouraged to take the Global Strategy Framework and use it as a guide in the development and re-evaluation of their own strategies for action.



Joint United Nations Programme on HIV/AIDS

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## Articles

# Cost-effectiveness of HIV/AIDS interventions in Africa: a systematic review of the evidence

Andrew Creese, Katherine Floyd, Anita Alban, Lorna Guinness

## Summary

**Background** Evidence for cost-effectiveness of interventions for HIV/AIDS in Africa is fragmentary. Cost-effectiveness is, however, highly relevant. African governments face difficult choices in striking the right balance between prevention, treatment, and care, all of which are necessary to deal comprehensively with the epidemic. Reductions in drug prices have raised the priority of treatment, though treatment access is restricted. We assessed the existing cost-effectiveness data and its implications for value-for-money strategies to combat HIV/AIDS in Africa.

**Methods** We undertook a systematic review using databases and consultations with experts. We identified over 60 reports that measured both the cost and effectiveness of HIV/AIDS interventions in Africa. 24 studies met our inclusion criteria and were used to calculate standardised estimates of the cost (US\$ for year 2000) per HIV infection prevented and per disability-adjusted life-year (DALY) gained for 31 interventions.

**Findings** Cost-effectiveness varied greatly between interventions. A case of HIV/AIDS can be prevented for \$11, and a DALY gained for \$1, by selective blood safety measures, and by targeted condom distribution with treatment of sexually transmitted diseases. Single-dose nevirapine and short-course zidovudine for prevention of mother-to-child transmission, voluntary counselling and testing, and tuberculosis treatment, cost under \$75 per DALY gained. Other interventions, such as formula feeding for infants, home care programmes, and antiretroviral therapy for adults, cost several thousand dollars per infection prevented, or several hundreds of dollars per DALY gained.

**Interpretation** A strong economic case exists for prioritisation of preventive interventions and tuberculosis treatment. Where potentially exclusive alternatives exist, cost-effectiveness analysis points to an intervention that offers the best value for money. Cost-effectiveness analysis is an essential component of informed debate about priority setting for HIV/AIDS.

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## Introduction

HIV/AIDS accounts for about 20% of all deaths and disability-adjusted life-years (DALYs) lost in Africa, which makes it the biggest single component of the continent's disease burden.<sup>1</sup> The epidemic has reduced life expectancy in the worst affected countries by more than 10 years, and its social and economic consequences have been devastating.<sup>2</sup>

Substantial new resources are becoming available for prevention, care, and support. The European Commission is committed to a major increase in spending on the diseases of poverty, including HIV/AIDS.<sup>3</sup> A global fund to fight AIDS, tuberculosis, and malaria became operational in January, 2002; so far pledges are in the region of US\$2 billion ([www.globalfundatm.org](http://www.globalfundatm.org)).

To ensure that any new resources have the maximum possible effect on the epidemic, cost-effectiveness should be considered in the design of strategies for prevention, care, and support. As Kahn and Marseille have pointed out,<sup>4</sup> the scale of the HIV/AIDS epidemic combined with scarcity of resources makes cost-effectiveness especially important in developing countries. Up to now, however, cost-effectiveness has been well documented only for industrialised countries.<sup>5,6</sup> For low-income and middle-income countries, we could identify only one detailed review, which addressed interventions to reduce mother-to-child transmission.<sup>7</sup> For Africa, investigators focused on individual HIV/AIDS-related interventions. We could not identify any published report that brought together the evidence base in a standardised way that allowed comparison among interventions.

We report a critical assessment of studies of the cost-effectiveness of HIV/AIDS interventions in Africa, and present their results in a standard form.

## Methods

### Review of published work

We searched Medline, Popline, and EconLit databases for 1984–2000 using the key words HIV, AIDS, and HIV/AIDS in combination with each of the terms: costs; cost-effectiveness; cost-benefit analysis; economics; and Africa. Citations and reference lists were then reviewed to identify any additional relevant studies. Abstracts from international conferences were searched but were not included because they provided insufficient detail. Unpublished data were obtained through contact with experts in HIV/AIDS. A total of 57 studies and nine reviews were identified, including several unpublished reports and presentations.

### Criteria for inclusion and exclusion of identified studies

We assessed each study using a standard checklist (panel 1). We then decided in three stages about inclusion in our review. First, we included any study that met all these five criteria: (i) the report contained data for Africa; (ii) it measured both cost and effectiveness; (iii) it seemed

### Panel 1: Checklist for summary and assessment of each study

Definition of intervention(s)  
 Countries of intervention  
 Questions addressed  
 Year of evaluation  
 Year of prices  
 Discount rate  
 What costs are included?  
 (total/average/marginal/incremental, capital/recurrent)  
 Are all important costs included or does the study focus on only one or two cost items, such as drugs?  
 Do standard costing methods (ingredients or step-down method) seem to have been used?  
 What outcome measures are used?  
 Are assumptions transparent?  
 List main assumptions  
 Target group, risk group or general population?  
 Type of study  
 Sensitivity analysis done?  
 Which assumptions are tested?  
 Main results

to use standard methods for estimating costs and outcomes,<sup>8,9</sup> (iv) it seemed to include all major cost items, and (v) it allowed a generic measure of outcome (either HIV infections prevented or DALYs gained) to be calculated. We focused on studies in which investigators had analysed costs and effects together, rather than reviewing evidence on costs and effects separately, because the two items are not independent of each other.

Second, studies that met these inclusion criteria were excluded if (a) they were about regimens that are now out of date, such as long-course zidovudine for prevention of mother-to-child transmission; (b) they had estimated the effectiveness of an intervention before clinical trial results were available, and subsequent cost-effectiveness studies had used clinical trial results in their effectiveness estimates; or (c) drug prices had altered substantially since publication. We therefore excluded three studies of interventions to reduce mother-to-child transmission (table 1).<sup>10-12</sup>

Third, we identified interventions not covered by studies meeting the five initial inclusion criteria, but for which some cost and effectiveness data existed. We identified two such interventions—highly active antiretroviral treatment (HAART) for HIV-positive

	Place and year of publication	Reason for exclusion	Cost per HIV infection prevented	Cost per DALY gained
<b>Intervention</b>				
MTCT by short course ZDV	Sub-Saharan Africa, 1996 <sup>10</sup>	Outcomes modelled, clinical trial data subsequently became available. Drug costs subsequently fell	4527	155
MTCT by short course ZDV+3TC	Sub-Saharan Africa, 1998 <sup>11</sup>	Outcomes modelled, drug costs subsequently fell	1280–5822	44–199
MTCT by ZDV and ZDV+3TC	South Africa, 1997 <sup>12</sup>	Outcomes modelled, drug costs subsequently fell	2739–6381	94–218*

3TC=lamivudine. MTCT=mother-to-child transmission. ZDV=zidovudine. \*In US\$ for year 2000, the cost per DALY figure falls to \$30–54 if present day prices (which are 10% of those in 1997) are considered.

Table 1: Standardised cost-effectiveness results for studies that met initial inclusion criteria but were subsequently excluded

	Standardised value	Method/assumptions used for standardisation	Reference
Year of prices	US\$ for year 2000	All costs converted to 2000 prices with standard correction factors	34
Costing perspective	Provider costs*	Any patient costs excluded from calculations	n/a
Cost savings associated with averted treatment costs	All cost savings excluded	Value of cost savings identified from study, or directly from authors, and excluded from calculations	n/a
Cost savings associated with averted productivity losses	Productivity losses excluded	As above for cost savings associated with treatment	n/a
Discount rate for present value of future health gains	3%	Recalculation of figures wherever 3% discount rate was not used	35
Life expectancy at birth	50 years	Effects recalculated. 50 was the average life expectancy in Africa in 1998	36
Average age at HIV infection	25 years	Effects recalculated	n/a†
Average life expectancy at age 25	66 years	Effects recalculated	37
Tuberculosis mortality rate in absence of treatment for HIV-negative patients	64%	Effects calculated/recalculated with value of variable in combination with other TB-related variables and methods used in earlier study	31
HIV-1 mortality rate in absence of treatment	1	As above	38
Years of life gained per cured HIV-positive patient with tuberculosis	3	As above	39–41
Years of life gained per cured HIV-negative patient with tuberculosis	24	As above	31
Deaths averted in treated patients as a percentage of all deaths averted by treatment of a tuberculosis patient‡	18%	As above	24,31
Cure rate in tuberculosis patients who default or transfer from their district of registration during treatment	65%	As above	24,31
HIV prevalence among tuberculosis patients	30–75%	As above—values chosen to accord with range in Africa	39–41, et al
Disability weighting for AIDS	0.505	Effectiveness of 1 year of home-based care assumed to be 0.495	42
Frequency of home-based care visits, where not cited in original study	1 per month	Cost per year of care calculated as 12× cost per visit	Author assumption
Cost of antiretroviral drugs for 1 year	\$350	Replaces pre-2000 prices	14

n/a=not applicable. TB=tuberculosis. \*We recognise that it can be important to consider patient and household costs in a cost-effectiveness analysis. However, these were only documented in a few of the studies reviewed, so we were unable to include such costs. †Walker N, personal communication. ‡Including secondary deaths averted by prevented transmission.

Table 2: Variables that were standardised, methods and assumptions used, and sources of evidence



adults, and promotion of female condoms. In view of the current importance of antiretroviral treatment, we decided to include a study that used only drug costs,<sup>13</sup> even though drug prices have fallen since its publication, and we could only calculate a cost per life-year gained rather than a cost per DALY gained from the data presented. To provide a more recent estimate of cost-effectiveness, we used laboratory test costs for antiretroviral therapy in adults enrolled in the HIV drugs access initiatives in Uganda and Côte d'Ivoire, and the cost of drugs cited by Médecins Sans Frontières in 2001.<sup>14</sup> An unpublished study of promotion of female condoms was included only after written communication with its authors.

#### Standardisation of studies meeting inclusion criteria

Thus, we included 24 of the initial 66 studies identified (Homan RK, Visness C, Welsh M, Schwingl P, personal communication; Kumaranayake L, Mangtani P, Boupda-Kuate A, et al, personal communication; Watts C, Goodman H, Kumaranayake L, personal communication; Guinness L, personal communication).<sup>13,15-33</sup> Data from these studies spanned 13 years (1988–2000), and differed widely in their methods and assumptions. A few studies had primary data for both costs and outcomes, but most used epidemiological models to estimate effectiveness. In the modelling, some studies included analysis of the secondary infections prevented by an intervention, whereas others did not; and different values were used for some variables (eg, the efficiency of HIV transmission) that determine effectiveness. Several studies included an analysis of treatment-cost savings but most did not; others also included savings from averting loss of productivity in their calculations. In most studies, investigators focused on costs from a provider perspective only, but a few also looked at costs incurred by patients. Different prices were used, particularly for antiretroviral drugs, whose prices and regimens have changed substantially in the past 5 years. Discount rates, effectiveness measures, the reporting of costs and effects, assumed life expectancy at birth, and the year in which costs were assessed also varied.

To ensure the widest possible comparability among interventions, we standardised both cost and effectiveness data; therefore, the figures we report differ from the results shown in the original publications. Standardisation of cost data included the year of prices, the price of 1 year of triple combination therapy, how costs were assessed, and savings related to averted treatment costs and productivity losses. For effectiveness, we undertook no new modelling. However, we standardised the discount rate used to estimate the present value of future health gains; life expectancy at birth; average age at HIV infection; assumptions for tuberculosis treatment, including years of life gained through cure and death rates in the absence of treatment; the disability weighting associated with years of life lived with AIDS; and the frequency of home-based care visits (table 2).<sup>14,24,31,34-42</sup>

For all studies we calculated unit costs and effectiveness. Once both had been standardised, we calculated two measures of cost-effectiveness: (1) cost per HIV infection averted (for the preventive interventions) and (2) cost per DALY gained (for all interventions). Sensitivity analyses were excluded if they were based on variable measurements (eg, life expectancy at birth, discount rate) for which we had already standardised results, or if there was too little detail to allow recalculation of figures. Panel 2 shows a worked example of how the data in tables 3, 4, and 5 were calculated from the results of one study.

### Panel 2: Cost-effectiveness of universal nevirapine administration in sub-Saharan Africa. Standardisation of data presented by Stringer et al<sup>32</sup>

The authors present data per 10 000 women (in US\$ for year 1999) as \$4.64 per maternal dose, \$0.18 per infant dose, \$0.42 cost of counselling for mass therapy, 0.69 rate of adherence, 0.058 rate of delivering outside hospital, and 0.2 probability of repeat (maternal) dose due to prodromal labour. Effectiveness was given as 160 HIV infections averted. The financial correction factor to correct 1999 US\$ to 2000 US\$ is 1.032.

Counselling costs in US\$ for year 2000 are:

$$10\,000 \times \$0.42 \times 1.032 = \$4334.4$$

Treatment costs are:

$$[(6900 \times (\$4.64 + 0.18)) \times (1 - 0.058)] + [(6900 \times 0.2 \times 4.64) \times [1 - 0.058]] \times 1.032 = \$38\,556.4$$

Total cost is: \$42 890.80 (table 3, column 4)

160 HIV infections averted = 4672 DALYS (table 3, column 7 based on our standard 29.2 disability-adjusted life years gained, discount rate of 3% per infant case prevented). This gives cost per HIV infection prevented in US\$ for year 2000 of \$42 891/160 = \$268 and cost per DALY gained of \$42 891/4672 = 9.20, rounded to \$9 (table 5).

## Results

For information about the costs included in each study and the principal assumptions used in measuring effectiveness see webtable 1 (<http://image.thelancet.com/extras/01art9117webtable1.pdf>) and webtable 2 (<http://image.thelancet.com/extras/01art9117webtable2.pdf>). Tables 3 and 4 show the HIV prevalence rates that applied to the study populations, and unit costs and unit effectiveness for prevention (table 3) and treatment and care (table 4).

#### Cost per HIV infection prevented

There was a wide range in the cost per HIV infection prevented (table 5). Costs for condom distribution ranged from as little as \$11 to over \$2000. Measures to improve blood safety cost between just under \$20 and about \$1000 to prevent one case of HIV. There was especially large variation in the different strategies to reduce mother-to-child transmission. Breastfeeding and formula-feeding interventions cost from around \$4000 to over \$20 000 per infection prevented, whereas single-dose nevirapine cost much less—about \$20–341. Diagnosis and treatment of sexually transmitted infections cost just over \$270 per infection prevented, and the figure for voluntary counselling and testing (VCT) was higher, at around \$400–500.

#### Cost per DALY gained

The cost per DALY gained by interventions ranged from around \$1 for a combined treatment of sexually-transmitted disease (STD) and condom promotion programme and for blood screening, to well over \$1000 for HAART in adults. Blood safety measures, and single-dose nevirapine for prevention of mother-to-child transmission, cost as little as \$10 per DALY gained. Tuberculosis treatment could also be less than \$10 per DALY gained, but as high as \$68 when inpatient care was involved. VCT and co-trimoxazole prophylaxis for HIV-positive patients with tuberculosis cost around or below \$20. Home-based care varied from around \$100 to \$1000, with community based care programmes having a lower cost per DALY than programmes organised from health facilities.

	Place and year of publication	HIV prevalence	Unit cost, year 2000 prices (US\$)	Unit	Effectiveness, HIV infections averted per unit	Effectiveness, DALYs gained per unit*
<b>1. Condom distribution</b>						
Condom distribution plus STD treatment for prostitutes	Sub-Saharan Africa, 1991 <sup>22</sup>	Prostitutes: 80% Clients: 90%	217.76 0.18	Per prostitute reached Per contact	12.8–19.25	283.5–425.2
Female condoms targeted to:						
prostitutes	Kenya, 1999†	F: 55% M: 14%	237.38		0.86	19.10
high-risk women	Kenya, 1999†	F: 28% M: 14%	5.33	Per woman	0.005	0.11
medium-risk women	Kenya, 1999†	F: 15% M: 14%	5.47		0.002	0.06
<b>2. Blood safety</b>						
Strengthening blood transfusion services through:						
Rapid test	Zimbabwe, 1995 <sup>21</sup>	19%	11.5	Unit of blood transfused	0.187	4.14
Test and defer high-risk donors	Zimbabwe, 1995 <sup>22</sup>		9.1–14.3		0.189–0.193	4.13–4.27
Defer high-risk donors	Zimbabwe, 1995 <sup>22</sup>		0.42–8.6		0.023–0.081	0.52–1.78
Hospital-based screening	Zambia, 1995 <sup>18</sup>	16%	15.0	Usable unit of blood	0.140	3.1
Hospital-based screening	Tanzania, 1999 <sup>43</sup>	12%	1.3	Usable unit of blood	0.071	1.6
Improved blood collection and transfusion safety, excluding screening	Tanzania, 1999 <sup>43</sup>	12%	14.7	Usable unit of blood	0.015	0.3
Improved transfusion safety with outreach	Zimbabwe, 2000‡	Donors: 7% Recipients: Adults: 25–50% Children: 5–9%	33.31	Usable unit of blood	0.13–0.16	2.9–3.5
<b>3. Peer education for prostitutes</b>						
	Cameroon, 1998§	21%	60.84	Per prostitute covered per year	0.38–0.77	8.32–17.01
<b>4. Prevention of mother-to-child transmission</b>						
Single-dose nevirapine (universal coverage)	Uganda, 1999 <sup>20</sup>	5–30%	85 999	Per 20 000 women treated	603	17 607
Single-dose nevirapine (targeted coverage)			146 463		476	13 899
Single-dose nevirapine (universal coverage)	Sub-Saharan Africa, 2000 <sup>32</sup>	5–30%	42 891	Per 10 000 pregnant women	160	4672
Single-dose nevirapine (targeted coverage)			1750– 48 455		89–142	467–4146
Zidovudine/CDC Thai regimen	South Africa, 2000 <sup>27</sup>	6–27%	187–330	Per HIV-positive pregnant woman treated	0.15–0.20	4.4–5.8
Zidovudine/CDC Thai regimen	South Africa, 1999 <sup>25</sup>		377 095		160	4672
Petra regimen	South Africa, 1999 <sup>25</sup>		33 279	Per 20 000 women	124	3621
Formula recommendation	South Africa, 1999 <sup>25</sup>		99 684		26	759
Formula provision	South Africa, 1999 <sup>25</sup>	0.1–40%	125 138		25	730
Breast feeding 3 months	South Africa, 1999 <sup>25</sup>		106 777		5	146
Breast feeding 6 months	South Africa, 1999 <sup>25</sup>		235 130		37	1080
<b>5. Diagnosis and treatment of STDs</b>						
	Tanzania, 1997 <sup>19</sup>	4%	12.66	Per client	0.047	1.03
<b>6. Voluntary counselling and testing¶</b>						
	Kenya, 2000 <sup>26</sup>	20%	28.76	Per client per year	0.073	1.6
	Tanzania, 2000 <sup>26</sup>	20%	30.89	Per client per year	0.068	1.5

F=female. M=male. STD=sexually transmitted disease. \*Rounding errors mean that DALYs gained per infection averted (column 7 divided by column 6) do not always appear consistent; †Homan RK, Visness C, Welsh M, Schwingl P, personal communication; ‡Watts C, Goodman H, Kumaranayake L, personal communication; §Kumaranayake L, Mangtani P, Boupda-Kuate A, et al, personal communication; ¶voluntary counselling and testing is considered in the literature as an intervention related to both prevention and care. However we have classified it as a prevention activity in accordance with the study.

Table 3: Unit costs and estimated effects for intervention groups (numbered) and individual interventions aimed at prevention

## Discussion

Our results show that there are few studies of the cost-effectiveness of HIV/AIDS prevention, treatment, and care interventions in Africa, and there is considerable variability in the cost-effectiveness of such interventions. The most cost-effective interventions are for prevention of HIV/AIDS and treatment of tuberculosis, whereas HAART for adults, and home based care organised from health facilities, are the least cost effective. For some interventions, such as prevention of mother-to-child transmission, tuberculosis treatment, and home based care, there are particular strategies that provide the best value for money (best buy).

This review has several limitations. For five interventions, only one study was identified, and the maximum number of studies—for mother-to-child transmission—was four. In no one country were all interventions assessed, which made unbiased comparison of interventions difficult. Cost data were not always comprehensive, and were sometimes too few for standardised sensitivity analysis. The cost of HAART was

underestimated, because data for only a very restricted subset of costs were considered. There were no data for the costs of use and strengthening of general health services necessary for provision of HAART. The effect of some interventions on HIV prevention might have been underestimated because some potential effects that are difficult to measure—such as reduced stigma arising from increased knowledge of status—were not accounted for. None of the studies on interventions to reduce vertical transmission looked at the effect of VCT on horizontal transmission. The effectiveness of HAART might have been underestimated because we had insufficient data to measure its effect on transmission through lowering viral loads. It could also have been overestimated. First, its use might increase transmission since risky behaviour by HIV-positive people with improved life expectancy could be encouraged. Second, side-effects mean that the value of 1 year of life is likely to be less than the 1 DALY assumed here. Some studies are based on project implementation at only a few sites (for example the study of VCT), or on theoretical analyses of interventions (eg, some studies of

	Place and year of publication (reference)	HIV prevalence (%)	Unit cost, 2000 prices (US\$)	Unit	Effectiveness, DALYs gained per unit
<b>1. Short-course treatment for new sputum-smear positive tuberculosis patients</b>					
Ambulatory care	Malawi, Mozambique, Tanzania, 1991 <sup>24,31</sup>	HIV prevalence among tuberculosis patients not quoted in original studies. Assumed to vary from 30–75% in standardised analysis	101–129	Per patient treated	37–61
	Uganda, 1995 <sup>23</sup>		113	(applies to all studies)	32–47
	South Africa, 1997 <sup>17</sup>		485		31–60
IUATLD model (involves 2 months' stay at hospital at treatment outset followed by monthly visits to a health clinic to collect drugs during the remainder of treatment)	Malawi, Mozambique, Tanzania, 1991 <sup>24,31</sup>		226–306		37–61
	Uganda, 1995 <sup>29</sup>		134		32–47
	South Africa, 1997 <sup>17</sup>		2078		31–60
Community-based directly observed treatment	South Africa, 1997 <sup>17</sup>		760		36–55
<b>2. Co-trimoxazole prophylaxis for HIV-positive tuberculosis patients</b>					
	Hypothetical low income country*	Not relevant to analysis	14.76	Person year of treatment	2.5
<b>3. Home-based care for people with AIDS</b>					
Community-based programme	Zambia, 1994 <sup>15</sup>	Not relevant to analyses	49	Person year of care	0.495
	Tanzania, 2000 <sup>23</sup>		38		
Health-facility-based programme	Zambia, 1994 <sup>16</sup>		337		
	Tanzania, 2000 <sup>23</sup>		389		
	Zimbabwe, 1998 <sup>30</sup>		232 (urban) 609 (rural)		
<b>4. Preventive therapy for tuberculosis</b>					
Isoniazid, 6 months	Uganda, 1999 <sup>15</sup>	Not stated	25	Person treated	0.15
Isoniazid plus rifampicin, 3 months	Uganda, 1999 <sup>15</sup>		40		0.14
Rifampicin plus pyrazinamide, 2 months	Uganda, 1999 <sup>15</sup>		48		0.17
<b>5. Antiretroviral therapy for adults</b>					
	Senegal and Côte d'Ivoire, 2000	11% Cote d'Ivoire	1100	Person year of treatment	1
	South Africa, 2000 <sup>13</sup>	12–16% South Africa	350	Person year of treatment, 25% of HIV-positive adults	5–7 life years gained

IUATLD=International Union Against Tuberculosis and Lung Disease. \*Guinness L, personal communication.

Table 4: Unit costs and estimated effects for intervention groups (numbered) and individual interventions, aimed at treatment and care

mother-to-child transmission). Thus, costs and effects in practice and on a large scale might be different from those shown. Finally, some interventions may complement each other in ways that are missed in analyses of individual interventions.

These limitations mean that both generalisability and interpretation should be viewed with caution. Ideally, we would have data for every intervention from several studies in similar settings—both income levels and prevalence rates can distort comparisons within and between countries. Salaries are linked to average national income and can thus affect costs. HIV prevalence does not affect the cost-effectiveness of every intervention but, where costs are incurred in diagnosis of a case of HIV (such as with VCT), the lower the prevalence, the higher the cost per HIV-positive case detected. For example, all studies of prevention of mother-to-child transmission show a relation between prevalence rates and cost-effectiveness.

Our review includes data from low-income countries in each intervention group, typically with high HIV prevalence. For mother-to-child transmission and tuberculosis treatment, we included data from both low-income and middle-income countries with a wide range in HIV prevalence, and the rankings of the types of intervention were consistent. For some other interventions, such as tuberculosis prevention, costs are likely to be higher in wealthier countries with lower rates of HIV infection. Two possible exceptions are blood safety and VCT. For blood safety, the major costs are probably supplies and equipment, which are likely to be similar across countries. For VCT, the estimated cost was similar to other estimates that have been made for Africa.<sup>43</sup> A drawback to the VCT data is that the study used an index for HIV transmission efficiency that was ten times

that typically used by the UN programme on HIV/AIDS. Together with very high rates of reported behaviour change, we might have overstated the effectiveness of this intervention elsewhere.

The evidence base could be improved by more cost-effectiveness studies that included all economic costs and used standard methods. Guidelines for cost-effectiveness analysis, including those for HIV/AIDS prevention, should be more widely and rigorously used. Ideally, analyses for several interventions in a single setting should be undertaken. In view of the powerful advocacy for access to antiretroviral therapy for HIV-infected adults, and the poor evidence currently available, work on the cost and effectiveness of such treatment in African settings is a priority. But in five other intervention areas—peer education for prostitutes, diagnosis and treatment of STDs, VCT, prevention therapy for tuberculosis, and co-trimoxazole prophylaxis for HIV-positive patients with tuberculosis—we depend on the results of only one study. Moreover, apart from tuberculosis, there are no data for treatment of opportunistic infections. New analysis could initially focus on interventions for which we have effectiveness data, but for which costs are not documented, and vice versa.

How can the existing data be used to inform policy? Cost-effectiveness rankings do not, on their own, indicate which health interventions are priorities for public funding. A recent framework based on seven questions<sup>1,44</sup> has proposed that an intervention should be publicly funded if it is cost effective and it is (1) a public good; or (2) associated with important externalities and demand is inadequate; or (3) represents a catastrophic cost and insurance is not available; or (4) beneficiaries are poor.

Intervention groups (numbered) and individual interventions	Place and year of publication	Cost per HIV infection prevented	Cost per DALY gained <sup>§§§</sup>
<b>Prevention</b>			
<b>1. Condom distribution</b>			
Condom distribution plus STD treatment for prostitutes*	Sub-Saharan Africa, 1991 <sup>22</sup>	11-17	1
Female condoms targeted to:			
Prostitutes	Kenya, 1999	275	12
High-risk women	Kenya, 1999	1066	48
Medium-risk women	Kenya, 1999	2188	99
<b>2. Blood safety</b>			
Hospital based screening	Tanzania, 1999 <sup>20</sup>	18	1
	Zambia, 1995 <sup>16</sup>	107	5
Strengthening blood transfusion services through:			
Defer high risk donors	Zimbabwe, 1995 <sup>24</sup>	18-107	1-5
Test and defer high risk donors†	Zimbabwe, 1995 <sup>21</sup>	48-74	2-3
Rapid test	Zimbabwe, 1995 <sup>21</sup>	62	3
Improved transfusion safety with outreach‡	Zimbabwe, 2000***	208-256	10-12
Improved blood collection and transfusion	Tanzania, 1999 <sup>33</sup>	950	43
<b>3. Peer education for prostitutes§</b>			
	Cameroon, 1998†††	79-160	4-7
<b>4. Prevention of mother-to-child transmission</b>			
Single dose nevirapine-targeted	Sub-Saharan Africa, 2000 <sup>32</sup>	20-341	1-12
	Uganda, 1999 <sup>20</sup>	308	10
Single-dose nevirapine-universal¶	Uganda, 1999 <sup>20</sup>	143	5
	Sub-Saharan Africa <sup>32</sup>	268	9
Petra regimen	South Africa, 1999 <sup>26</sup>	268	9
ZDV CDC Thai regimen**	South Africa, 2000 <sup>27</sup>	949-2198	33-75
	South Africa, 1999 <sup>25</sup>	2356	81
Formula recommendation	South Africa, 1999 <sup>25</sup>	3834	131
Breastfeeding 3 months	South Africa, 1999 <sup>25</sup>	5006	171
Formula provision	South Africa, 1999 <sup>25</sup>	6355	218
Breastfeeding 6 months	South Africa, 1999 <sup>25</sup>	21 355	731
<b>5. Diagnosis and treatment of STIs  </b>			
	Tanzania, 1997 <sup>10</sup>	271	12
<b>6. Voluntary counselling and testing††</b>			
	Kenya and Tanzania, 2000 <sup>26</sup>	393-482	18-22
<b>Treatment and care</b>			
<b>7. Short-course tuberculosis treatment for new sputum-smear positive pulmonary patients††</b>			
Ambulatory care	Malawi, Mozambique, Tanzania, 1991 <sup>24, 31</sup>	n/a	2-3
	Uganda, 1995 <sup>29</sup>	n/a	2-4
	South Africa, 1997 <sup>17</sup>	n/a	8-16
IUATLD model (involves 2 months hospitalisation at treatment outset followed by monthly visits to a health clinic to collect drugs)	Uganda, 1995 <sup>29</sup>	n/a	3-4
	Malawi, Mozambique, Tanzania, 1991 <sup>24, 31</sup>	n/a	4-8
Community-based DOT	South Africa, 1997 <sup>17</sup>	n/a	34-68
	South Africa, 1997 <sup>17</sup>	n/a	14-21
<b>8. Co-trimoxazole prophylaxis for HIV+ tuberculosis patients§§</b>			
	Hypothetical low income country, sub-Saharan Africa†††	n/a	6
<b>9. Home-based care</b>			
Community-based programme	Tanzania, 2000 <sup>23</sup>	n/a	77
	Zambia, 1994 <sup>16</sup>	n/a	99
Health facility based programme¶¶	Zambia, 1994 <sup>16</sup>	n/a	681
	Tanzania, 2000 <sup>23</sup>	n/a	786
	Zimbabwe, 1998 <sup>30</sup>	n/a	469-1230
<b>10. Preventive therapy for tuberculosis  </b>			
Isoniazid for 6 months	Uganda, 1999 <sup>15</sup>	n/a	169
Rifampicin plus pyrazinamide, 2 months	Uganda, 1999 <sup>15</sup>	n/a	282
Isoniazid plus rifampicin, 3 months	Uganda, 1999 <sup>15</sup>	n/a	288
<b>11. Antiretroviral therapy for adults</b>			
	Senegal and Côte D'Ivoire, 2000	n/a	1100
	South Africa, 2000 <sup>3</sup>	n/a	1800¶¶¶

DALY=disability-adjusted life year. DOT=directly observed treatment. n/a=not applicable. IUATLD=International Union Against Tuberculosis and Lung Disease. STD=sexually-transmitted disease. ZDV=zidovudine. Ranges reflect: \*Sensitivity analysis for variation in condom use, HIV transmission and efficacy; †Sensitivity analysis undertaken within the study to explore implications of the changes in HIV prevalence, STD incidence, and prevalence of STD history; ‡Sensitivity analysis done to explore the effect of adding outreach services to identify donors and varying HIV prevalence in the donor and recipient populations; §Sensitivity analysis undertaken within the study to explore the effect of changes in coverage, HIV prevalence, condom use, and transmission probabilities; ¶Ranges show results of analysis undertaken to explore all plausible scenarios of costs and effects including targeted versus universal coverage; ||Sensitivity analyses were carried out for Uganda,<sup>14</sup> South Africa, 1999,<sup>25</sup> and Tanzania, 1997.<sup>10</sup> However, in the first two studies, it was not possible to recalculate the cost-effectiveness ratios with the information provided; in the third, the variables tested were those used in our recalculation of the cost-effectiveness ratios, eg, discount rate and life expectancies. For these reasons, ranges are not presented. \*\*Analysis was undertaken for each province and cost-effectiveness varied among provinces, principally due to variation in HIV prevalence (which affects the costs per pregnant women identified to be eligible for the intervention). The differences in the cost-effectiveness ratios for universal and targeted coverage were also explored; ††Study undertaken in two countries; †††Range in possible HIV prevalence among tuberculosis patients (table 2), range in plausible cure rates, and that some studies were done in more than one setting; §§Plausible variation in mortality, morbidity, drug resistance, wastage, and cost; ¶¶Variation in cost-effectiveness between rural and urban areas; |||Homan RK, Visness C, Welsh M, Schwingl P, personal communication; \*\*\*Watts C, Goodman H, Kumaranayake L, personal communication; †††Kumaranayake L, Mangtani P, Boupda-Kuate A, et al, personal communication; †††Guinness L, personal communication; §§§Rounding errors mean that cost-effectiveness ratios may differ slightly from unit cost divided by unit effectiveness; ¶¶¶Cost per life year gained, not DALY, used. Reported value of \$15 000 (based on annual drugs cost of \$2900) recalculated using drugs costs in reference 14.

Table 5: HIV/AIDS intervention groups, individual interventions, and standardised cost-effectiveness results, US\$ for year 2000

	Public good?	Important externalities	Adequate demand?	Catastrophic cost?	Voluntary insurance available for catastrophic cost?	Benefit group poor?	Cost-effective? (US\$ cost per DALY)
Condom distribution	No	Yes	No	No	N/a	Yes	1-99
Blood safety	No	Yes	Yes	No	N/a	Yes	1-43
Peer education for prostitutes	No	Yes	No	No	N/a	Yes	4-7
MTCT	No	No	?	No	N/a	Yes	1-731
STDs	No	Yes	No	No	N/a	Yes	12
VCT	No	Yes?	No	No	N/a	Yes	18-22
TB short course	No	Yes	Yes	Yes	N/a	Yes	2-68
Co-trimoxazole prophylaxis	No	No	?	No	N/a	Yes	6
Home care	No	No	?	Yes	No	Yes	77-1230
TB preventive therapy	No	Yes	No	?	No	Yes	169-288
ARV therapy	No	?	Yes	Yes	No	Yes	1100-1800

Reading from left to right, answers to the seven questions included in the framework<sup>1,2</sup> are suggested, in the order in which they should be asked. ARV=antiretroviral therapy. MTCT=mother-to-child transmission. TB=tuberculosis. VCT=voluntary counselling and testing. N/a=not applicable.

Table 6: Economic factors affecting priority of health interventions for public funding

Table 6 shows how this economic framework supplements the cost-effectiveness data we have collated. The use of a more comprehensive framework makes little difference. No intervention is ruled out with the first six questions, and the determining factor for public finance is cost-effectiveness.

Despite the limitations of our review and difficulties with generalisation, cost-effectiveness can be used for some broad prioritisation among interventions. The World Development Report of 1993<sup>15</sup> suggested that any intervention achieving a DALY gain for \$50 or less (\$62 in year 2000 prices) was highly cost effective in the context of the poorest countries. The general inference was that these interventions should be made available to all those in need before less cost-effective options are provided to a few. On this basis, several preventive interventions (targeted condom distribution, blood screening, nevirapine for the prevention of mother-to-child transmission and STD treatment), and two treatment interventions (co-trimoxazole prophylaxis for patients with HIV and tuberculosis) and tuberculosis treatment should have first call on new funds for HIV/AIDS in Africa. Within intervention categories first priority should be given to the intervention that is a clear best buy—for example, short-course nevirapine treatment for mothers and babies, and targeted condom distribution.

In practice, cost-effectiveness will need to be balanced with several other considerations. Affordability is one important issue; in the context of health budgets, a cost-effective intervention is not necessarily affordable when it is relevant to many people, and public funding will result in high demand. In Africa, this concern is most likely to apply to interventions to prevent mother-to-child transmission. Even with only restricted provision of antiretroviral treatment to HIV-positive adults, it could also become relevant for VCT services. Antiretroviral treatment for HIV-positive adults may not be as cost-effective as some other interventions, but the overwhelming pressure being placed on governments to provide such care is impossible to ignore. Recent estimates are that 20%, 40%, and 50% of health resources are already being consumed by HIV infected persons in Malawi, Zambia, and Zimbabwe, respectively.<sup>16-18</sup>

In addition, HIV-infected people and the non-governmental organisations assisting them represent an increasingly important political force. Therefore, provision of care and support is more politically attractive, at least in the short term. Furthermore, care and support are essential parts of an enabling environment (in which people are empowered to address their difficulties) that is required to reduce discrimination and stigmatisation. By contrast, people at risk of becoming infected, the young in particular, are a more disparate and less easily organised

group, with no clear cut or well articulated interests, and weak advocates. Prioritisation of care can be reinforced by difficulties in implementing or expanding the more cost-effective preventive interventions. Effective prevention strategies for the most vulnerable populations are still not scaled up to levels that could have a major impact on the HIV epidemic, even where funds are available.

The kind of cost-effectiveness evidence presented here can, however, help to inform policy decisions on resource allocation between prevention and care. For example, the results and estimates of the reachable population (ie, the population size that is feasible to cover with each intervention) have been used to explore the consequences of alternative ways to use an additional \$400 million per year. At a WHO workshop (HSI/WHO/HQ, WHO/AFRO, UNAIDS. Costing and prioritisation of WHO's contribution to the International Partnership Against AIDS in Africa. Geneva, Sept 4-5, 2000), participants estimated that with this increase in funding, about 750 000 more people with HIV/AIDS in Africa could be treated every year, and almost one million infections prevented (17.9 million DALYs gained). A 10% spending reallocation from treatment towards more prevention (defined as management of STDs, blood safety, VCT, prevention of mother-to-child transmission, and preventive programmes among prostitutes) would increase the total DALYs gained by over 15%.

Allocation of new funds for HIV/AIDS requires more than rankings of cost-effectiveness. Nevertheless, value for money is important, especially in African countries, where resources are particularly scarce and needs are so great. Existing cost-effectiveness data are few, and much more high quality research is needed for detailed planning and programming. Yet even the available data make it clear that a spending programme for HIV/AIDS relief in Africa that neglects to bring cost-effectiveness evidence into the consultation process risks unnecessary sacrifice of hundreds of thousands of prevention opportunities, treatment opportunities, and lives.

#### Contributors

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#### Conflict of interest statement

None declared.

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## References

- WHO. World Health Report 2000: Health systems: Improving performance. Geneva: WHO, 2000.
- Guinness L, Alban A. The Economic Impact of AIDS in Africa: a review of the literature. UNAIDS background paper for ADF 2000. AIDS: the greatest leadership challenge, Addis Ababa, December, 2000. [www.unaids.org](http://www.unaids.org).
- UNAIDS. European Commission, World Health Organization and Joint United Nations Programme on HIV/AIDS take a united stand against killer diseases. [www.unaids.org/whatsnew/press/eng/pressarc00/geneva280900.html](http://www.unaids.org/whatsnew/press/eng/pressarc00/geneva280900.html) (accessed Feb 12, 2002).
- Kahn JG, Marseille E. Fighting global AIDS: the value of cost-effectiveness analysis. *AIDS* 2000; **14**: 2609-10.
- Schrappé M, Lauterbach K. Systematic review on the cost-effectiveness of public health interventions for HIV prevention in industrialised countries. *AIDS* 1998; **12**: S231-38.
- Pinkerton SD, Johnson-Masotti AP, Holtgrave DR, Farnham PG. Using cost-effectiveness league tables to compare interventions to prevent sexual transmission of HIV. *AIDS* 2001; **15**: 917-28.
- Newell M-L, Dabis F, Tolley K, Whyne D. Cost-effectiveness and cost-benefit in the prevention of mother-to-child transmission of HIV in developing countries. *AIDS* 1998; **12**: 1571-80.
- Drummond MF, O'Brien B, Stoddart GL, Torrance GW. Methods for the economic evaluation of health care programmes, 2nd edn. New York: Oxford University Press, 1997.
- Gold MR, Siegel JE, Russell LB, Weinstein MC, eds. Cost-effectiveness in health and medicine. New York: Oxford University Press, 1996.
- Mansergh G, Haddix A, Steketee RW, et al. Cost-effectiveness of short course zidovudine to prevent perinatal HIV type 1 infection in a sub-Saharan African developing country setting. *JAMA* 1996; **276**: 139-45.
- Marseille E, Kahn JG, Saba J. Cost-effectiveness of antiviral drug therapy to reduce mother-to-child HIV transmission in sub-Saharan Africa. *AIDS* 1998; **12**: 939-48.
- Wilkinson D, Floyd K, Gilks C. Antiretroviral drugs as a public health intervention for pregnant HIV-infected women in rural South Africa: an issue of cost-effectiveness and capacity. *AIDS* 1998; **12**: 1675-82.
- Wood E, Braitstein P, Montaner JSG, et al. Extent to which low-level use of antiretroviral treatment could curb the AIDS epidemic in sub-Saharan Africa. *Lancet* 2000; **355**: 2095-100.
- Médecins Sans Frontières. AIDS triple therapy for less than \$1 per day. [www.msf.org/content/page.cfm?articleid=994F25C0-B3F7-415D-943186A5D0F6E1BA](http://www.msf.org/content/page.cfm?articleid=994F25C0-B3F7-415D-943186A5D0F6E1BA) (accessed Feb 12, 2002)
- Bell JC, Rose DN, Sacks HS. Cost effectiveness of tuberculosis preventive therapy for HIV-infected people in sub-Saharan Africa. *AIDS* 1999; **13**: 1549-56.
- Chela CM, Msiska R, Sichone M, Mwinga B. Cost and impact of home-based care for people living with HIV/AIDS in Zambia. 1994. Global Programme on AIDS/WHO. Geneva: WHO, 1994.
- Floyd K, Wilkinson D, Gilks CF. Costs and cost-effectiveness of community-based DOTS vs conventional treatment in Africa. *BMJ* 1997; **315**: 1407-11.
- Foster S, Buve A. Benefits of HIV screening of blood transfusions in Zambia. *Lancet* 1995; **346**: 225-27.
- Gilson L, Mkanje R, Grosskurth H, et al. Cost-effectiveness of improved treatment services for sexually transmitted diseases in preventing HIV-1 infection in Mwanza Region, Tanzania. *Lancet* 1997; **350**: 1805-09.
- Marseille E, Kahn JG, Mmiro F, et al. Cost effectiveness of single dose nevirapine regimen for mothers and babies to decrease vertical transmission in sub-Saharan Africa. *Lancet* 1999; **354**: 803-09.
- McFarland W, Kahn JG, Katzenstein DA, Mvere D, Shamu R. Deferral of blood donors with risk factors for HIV infection saves lives and money in Zimbabwe. *J Acquir Immune Defic Syndr Hum Retrovirol* 1995; **9**: 183-92.
- Moses S, Plummer FA, Ngugi EN, Nagelkerke NJD, Anzala AO, Ndinya-Achola JO. Controlling HIV in Africa: effectiveness and cost of an intervention in a high-frequency STD transmitter core group. *AIDS* 1991; **5**: 407-11.
- Msobi N, Msumi Z. HIV/AIDS and other chronic conditions: home based care cost study, Bagamoyo District - Tanzania. [www.iaen.org/conferences/durbansym/papers/42Msobi.pdf](http://www.iaen.org/conferences/durbansym/papers/42Msobi.pdf) (accessed Feb 12, 2002).
- Murray C, DeJonghe E, Chum HJ, Nyangulu DS, Salomao A, Styblo K. Cost effectiveness of chemotherapy for pulmonary tuberculosis in three sub-Saharan African countries. *Lancet* 1991; **338**: 1305-08.
- Soderlund N, Zwi A, Kinghorn A, Gray G. Prevention of vertical transmission of HIV: analysis of cost effectiveness of options available in South Africa. *BMJ* 1999; **318**: 1650-56.
- Sweat M, Gregorich S, Sangiwa G, et al. Cost-effectiveness of voluntary HIV-1 counselling and testing in reducing sexual transmission of HIV-1 in Kenya and Tanzania. *Lancet* 2000; **356**: 113-21.
- Wilkinson D, Floyd K, Gilks CF. National and provincial estimated costs and cost-effectiveness of a programme to reduce mother-to-child transmission in South Africa. *S Afr Med J* 2000; **90**: 794-98.
- Winsbury R. Safe blood in developing countries. Brussels: European Commission, 1995.
- Saunderson P. An economic evaluation of alternative programme designs for tuberculosis control in rural Uganda. *Soc Sci Med* 1995; **40**: 1203-12.
- Hanson K, Woelk G, Jackson H, et al. The cost of home-based care for HIV/AIDS patients in Zimbabwe. *AIDS Care* 1998; **10**: 751-59.
- De Jonghe E, Murray CJL, Chum HJ, Nyangulu DS, Salomao A, Styblo K. Cost-effectiveness of chemotherapy for sputum smear-positive pulmonary tuberculosis in Malawi, Mozambique and Tanzania. *Int J Health Plann Manage* 1994; **9**: 151-81.
- Stringer JSA, Rouse D, Vermund SH, Goldenberg RL, Sinkala S, Stinnett A. Cost-effective use of nevirapine to prevent vertical HIV transmission in Sub-Saharan Africa. *J Acquir Immune Defic Syndr* 2000; **24**: 369-77.
- Jacobs B, Mercer A. Feasibility of hospital-based blood banking: a Tanzanian case study. *Health Policy Plan* 1999; **14**: 354-62.
- Kumaranayake L. The real and the nominal? Making inflationary adjustments to cost and other economic data. *Health Policy Plan* 2000; **15**: 230-34.
- Russell LB, Gold MR, Siegel JE, Daniels N, Weinstein MC. The role of cost-effectiveness analysis in health and medicine. *JAMA* 1996; **276**: 1172-79.
- WHO. World health report 1999: Making a difference. Geneva: WHO, 1999.
- The AIDS Epidemic and its Demographic Consequences. Proceedings of the United Nations/World Health Organization Workshop on Modelling the Demographic Impact of the AIDS Epidemic in Pattern II Countries: Progress to Date and Policies for the Future. New York: United Nations Population Division, 1989.
- Dye C, Garnett GP, Sleeman K, Williams BG. Prospects for worldwide tuberculosis control under the WHO DOTS strategy. *Lancet* 1998; **352**: 1886-91.
- Glynn J, Warndorff DK, Fine PEM. Measurement and determinants of tuberculosis outcome in Karonga District, Malawi. *Bull World Health Organ* 1998; **76**: 295-305.
- Elliot AM, Halwindi B, Hayes RJ et al. The impact of human immunodeficiency virus on mortality of patients treated for tuberculosis in a cohort study in Zambia. *Trans R Soc Trop Med Hyg* 1995; **89**: 78-82.
- Harries AD, Nyangulu DS, Kang'ombe C et al. Treatment outcome of an unselected cohort of tuberculosis patients in relation to human immunodeficiency virus serostatus in Zomba hospital, Malawi. *Trans R Soc Trop Med Hyg* 1998; **92**: 343-47.
- Murray CJL, Lopez A, eds. The global burden of disease: a comprehensive assessment of mortality and morbidity from diseases, injuries and risk factors in 1990 and projected to 2020. Harvard School of Public Health, on behalf of WHO and the World Bank, Boston: Harvard University Press, 1996.
- Kumaranayake L, Watts C. Economic costs of HIV/AIDS prevention activities in sub-Saharan Africa. *AIDS* 2000; **14** (suppl): S239-52.
- Musgrove P. Public spending on health care: how are different criteria related? *Health Policy* 1999; **47**: 207-23.
- World Bank. World Development Report 1993: Investing in Health. New York: Oxford University Press, 1993.
- World Bank. Malawi AIDS assessment study. Washington DC: World Bank, 1998.
- Bail R, Mwikisa C, Kaambwa B, Masiye M. Costing the Zambia national HIV/AIDS strategic framework. Lusaka, Zambia: 2000.
- HIV/AIDS in Zimbabwe: background, projections, impact, interventions. National AIDS co-ordination programme. Harare: Ministry of Health and Child Welfare, 1988.

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## **PATENTS, INTERNATIONAL TRADE LAW AND ACCESS TO ESSENTIAL MEDICINES**

BY RICHARD ELLIOTT AND MARIE-HÉLÈNE BONIN

### **What is the issue?**

More than 85% of the world's population live in developing countries, and the vast majority of them have no or limited access to drugs that have saved and extended the lives of people in richer, developed countries. In the developing world, where 95% of the 40 million people with HIV/AIDS live, 20 million people have already died from AIDS. Every day, over 8,000 more people die and another 15,000 are infected with HIV. The global epidemic is devastating entire countries and regions. Similarly, tuberculosis (TB) and malaria kill massively and mainly among the poorest and most vulnerable of the global population, given their extremely limited access to effective forms of treatment.

### **What does this document tell me?**

This document answers some frequently asked questions about patents and international trade laws. The rules on drug patents in domestic laws and international trade agreements affect the availability and affordability of medicines to treat diseases such as HIV/AIDS, TB and malaria. This document explains the connection between patent issues and access to affordable drugs, so that they can be informed advocates for the basic rights of people in developing countries.

### **What do patents have to do with access to medicines?**

Depending on the patent laws in place, conditions will be created to favour more or less competition between manufacturers of patented and generic drugs (definitions of these terms are offered below). Increased competition is proven to result in lower prices, which in turn contribute to improved access to medicines. Although access depends on numerous factors, high prices of drugs constitute a key obstacle that cannot be addressed in a comprehensive and sustainable manner through foreign aid and drug donations alone.

### **What is a patent?**

A patent is an "intellectual property right" in an invention. Intellectual property rights (IPRs) are rights given to a person or a corporation over mental creations, such as: an author's *copyright* in their book or the rights of musicians in their recordings; a company's distinctive *trademark* on its products; or a *patent* on a technological invention.

A patent gives its owner (the "patentee") the right to prevent others from making, using, importing, or selling the invention. In other words, patenting an invention gives the patent owner a monopoly over the invention. A patent is usually granted for a limited time, such as 20 years. A patent is granted under a country's domestic laws, which may be affected by international laws. A patent may come with conditions or exceptions, depending on what the law in a given country says.

## What is the World Trade Organization?

Established in 1995 after a decade of trade negotiations, the WTO has become the central institution in the world trading system, with a secretariat located in Geneva.

The WTO administers dozens of international trade agreements covering a wide range of areas, including intellectual property. These agreements set out "ground rules" for international trade that all WTO member countries must observe.

The WTO also monitors countries' national trade policies, and provides a forum for trade negotiations and for settling trade disputes.

144 countries are members of the WTO, accounting for over 97% of world trade. Several other countries are currently negotiating joining the WTO.

Being a WTO member gives a country:

- access, at least in theory, to the markets of other member countries on terms set out by the WTO agreements;
- the option of invoking a mechanism for settling trade disputes; and
- participation in future trade negotiations.

In order to be a member, a country must sign on to the whole package of WTO Agreements.

## What can be patented?

A patented invention can be either an actual *product* or a new *process* for making a product. In order to qualify for a patent, an invention must satisfy three criteria: it must be something new, it must not be obvious but actually involve some sort of "inventive step", and it must be usable. Medical drugs are inventions that can be patented.

## What is a patented drug? What is a generic drug?

A drug that is patented can only be made, used, imported/exported or sold by the patent holder. According to the World Health Organization's Action Programme on Essential Drugs, a drug that is patented is usually marketed under a proprietary or brand name reserved exclusively to its owner, i.e. the individual or firm granted a patent on that invention.

A generic drug is a pharmaceutical product usually intended to be interchangeable with the original patented drug ("bioequivalent") because it does the same thing. Unless there is a prior agreement with the patent owner, a generic drug is usually made and marketed after the expiry of patent rights held by the patentee. A generic drug is marketed either under a non-proprietary or approved name rather than a proprietary or brand name.

Generic drugs should not be confused with counterfeit drugs. "Counterfeit goods are generally defined as goods involving slavish copying of trademarks. According to WHO, a counterfeit medicine is one which is deliberately and fraudulently mislabelled with respect to identity and/or source. Counterfeiting can apply to both branded and generic products and counterfeit products may include products with the correct ingredients, wrong ingredients, without active ingredients, with incorrect quantity of active ingredients or with fake packaging."<sup>1</sup>

## What is "TRIPS" or the "TRIPS Agreement"?

This is a shorthand way of referring to the *Agreement on Trade-Related Aspects of Intellectual Property Rights*. The TRIPS Agreement is one of a series of trade agreements administered by the World Trade Organization (WTO). It sets out rules for intellectual property rights that all countries belonging to the WTO members must reflect in their own domestic laws.

## What does the TRIPS Agreement require?

The TRIPS Agreement contains a number of requirements that WTO member countries must satisfy in their national laws.

Before the TRIPS Agreement, most industrialized countries granted patents on drugs, but many developing countries did not. In some cases, countries only granted patents for the *process* of producing an invention (e.g., the method of producing a drug) but not for the *product* (i.e., the drug itself). Because in some countries pharmaceutical products could not be patented, generic copies of these drugs could be made or imported into those countries without first getting

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<sup>1</sup> World Health Organization - Action Programme on Essential Drugs. *Globalization and Access to Drugs: Perspectives on the WTO/TRIPS Agreement*, DAP Series No. 7, 1997 & 1999.

permission from a patent-holder. This meant prices of medicines were often lower because of generic competition against the patented drugs. The TRIPS Agreement ends this.

**Exclusive patent rights:** Under the TRIPS Agreement (Article 28), governments are required to recognize patents on products and processes in (almost) all fields of technology, and to give the patent holder the exclusive right to make, use, sell or import the product in their country for a given period of time. (During this time, a patent holder may choose to grant another individual or corporation the right to do these things. This authorization is called a “voluntary license”.)

**Minimum 20-year patent term:** All WTO member countries are now required to grant patents on pharmaceutical inventions for at least 20 years from the date of filing for the patent (Article 33). This prevents someone other than the patent-holder from making, using, selling or importing a drug during the period it is still under patent. The patent owner's monopoly often results in significantly higher prices for patented medicines than in a situation of market competition.

**“Non-discrimination”:** The TRIPS Agreement (Article 27) also says countries must make patents, and all patent rights, available “without discrimination” on certain grounds. Under TRIPS, countries are not allowed to treat national and foreign inventions differently. Some also claim countries are not allowed to discriminate between types of products (e.g. having special rules about pharmaceuticals as opposed to computers). Finally, TRIPS says countries’ patent laws cannot discriminate between imports and products made locally.

#### **Which countries are bound by TRIPS and when?**

All countries that belong to the WTO are bound by the TRIPS Agreement. All “developed” countries were required to bring their domestic laws into line with TRIPS rules no later than January 1, 1996. “Developing” countries had until January 1, 2000 to comply - although they have until 2005 for patents on pharmaceutical products if they did not previously recognize these. Those countries considered “least developed” have until January 1, 2006 to change their laws, and may ask for extensions of time.

#### **What if a country doesn’t meet its obligations under TRIPS?**

If a country doesn’t comply with an agreement such as TRIPS, other countries can take it before a trade tribunal. One function of the WTO is to provide a forum for countries to settle trade disputes. One of the WTO agreements, the Dispute Settlement Understanding (DSU), sets out a procedure to be followed when a country wishes to challenge the laws or practices of another country.

If a WTO tribunal rules that a country has breached a trade agreement, it “shall recommend” that the country bring its laws or policies into line and may suggest ways to do this. The country can comply with the “recommendations” by changing its laws or policies. Or, it can decide not to comply with the ruling, and pay “satisfactory compensation” to the country that brought the complaint, presumably on an ongoing basis. If it does not receive satisfactory compensation, the country with the complaint can request WTO authorization to impose trade sanctions in retaliation, including in other areas of trade. By default, the WTO

#### **How does the WTO work?**

In theory, the WTO is run by all its member countries. Every two years, the WTO has a Ministerial Conference, a gathering of government ministers, to discuss trade issues and set the agenda for future discussions.

In between these meetings, governments’ diplomatic missions in Geneva continue the day-to-day business.

While decisions are theoretically “taken by consensus” among all member countries, in practice decision-making tends to be concentrated with a handful of the wealthiest and most powerful countries – including the group of four referred to as the “Quad” (the United States, the European Union, Japan and Canada).

However, in recent months, developing countries have started to demand flexibility in the international trading system to allow them to respond to their health needs. This was evident at the most recent Ministerial Conference, in Doha, Qatar in November 2001, where the issue of TRIPS and access to medicines was a key issue.

## **The Generic Medicines case at the WTO (2000)**

In 1997, the European Union (EU) challenged a section of Canada's *Patent Act* intended to make it easier for cheaper, generic drugs to come to market as soon as possible. The section in no way limited an original drug company's market monopoly during its 20-year patent term, but simply allowed generic drug companies to stockpile their product for the last 6 months of the patent term, for sale as soon as the patent expired.

Among other things, Canada argued that the public interest in earlier access to more affordable drugs was a legitimate basis for this limited exception to exclusive patent rights.

Theoretically, these exceptions are allowed under Article 30 of TRIPS. The EU dismissed these arguments, complaining of "discrimination" against the pharmaceutical industry.

The WTO panel ignored Canada's public interest argument. It took a very narrow approach to deciding what were acceptable limitations on patent rights, looking only at the private patent owner's expectation of profits and not considering what other, social benefits were to be gained by limiting this monopoly.

will accept this request to authorize sanctions, unless every member country (other than the ones involved in the dispute) rejects it. Countries are not supposed to impose sanctions without going through this process. The country facing sanctions may have an arbitrator decide whether the sanctions are fair.

### **What does TRIPS say about protecting health?**

The TRIPS Agreement says the monopoly rights created by patents need to be balanced against other important interests. It says that protecting and enforcing intellectual property rights should contribute to promoting technological innovation and to the transfer and dissemination of technology. Furthermore, TRIPS says that this should be to the benefit of both producers and users of technological knowledge, and should occur "in a manner conducive to social and economic welfare, and to a balance of rights and obligations" (Article 7).

The TRIPS Agreement also sets out some basic principles that should guide how it gets interpreted (Article 8). It says that, in shaping their own laws, countries "may take measures necessary to protect public health." It also recognizes that countries may need to take "appropriate measures" to prevent the "abuse" of patent rights by patent-holders or to prevent practices which "unreasonably" restrain trade or negatively affect the international transfer of technology. These measures, however, must be "consistent" with the provisions of TRIPS.

These provisions in TRIPS support the argument that countries are entitled to flexibility in how they meet their obligations to protect patent rights.

### **Does TRIPS leave options for increasing access to affordable medicines?**

Yes and no. There are some parts of TRIPS that countries can use to promote access to affordable medicines for people living with HIV/AIDS and other diseases (see below). And at the last WTO Ministerial Conference (Doha, November 2001), member countries issued a *Declaration on the TRIPS Agreement and Public Health* stating that TRIPS "can and should be interpreted and implemented in a manner supportive of WTO Members' rights to protect public health and, in particular, to promote access to medicines for all."

However, there are still areas of uncertainty in the interpretation of the TRIPS Agreement. Whether the Doha Declaration will have any positive, concrete effect remains to be seen, and there are still problems in the TRIPS Agreement that have not been addressed (see below). Advocacy is still needed to ensure the maximum flexibility in interpreting and implementing the agreement. If the necessary flexibility cannot be found, it may be necessary to amend the Agreement to ensure that countries can protect the health and human rights of their people. But formally renegotiating the text of the agreement is a process that may take years before yielding unknown outcomes, while there is an urgent need for access to medicines now.

### **What are countries' options under TRIPS?**

There are four main aspects of TRIPS that may be useful for countries to promote access to affordable drugs.

**Exclusions from patent admissibility:** A country may prevent the commercial exploitation of some inventions if “necessary” in order to protect human life and health, by refusing to recognize their patent admissibility (Article 27). How to determine whether this is necessary, and who decides, are not clear.

**Exceptions to patent rights:** Under Article 30, a country may include in its patent laws “limited exceptions” to the rights of a patent owner to exclude others from making, using, importing or selling an invention, taking into account the legitimate interests of others. These exceptions must not “unreasonably conflict with the normal exploitation” of the patent, and may not “unreasonably prejudice” the patent owner’s legitimate interests. There has only been one WTO ruling interpreting this article, the *Generic Medicines* case involving Canada's patent laws. That case set a bad precedent for flexible interpretation of TRIPS favouring increased access to affordable generic medicines (see previous page).

**Parallel importing:** Manufacturers often charge lower prices for a drug in one country than in another. This means a country with limited resources can sometimes afford more of a patented drug by purchasing it abroad and importing it, rather than buying it directly at home from the manufacturer at a higher price.

Patent laws in most countries say that once a patent-holder sells its goods, it has no right to control the resale of those goods. In other words, the patent-holder has “exhausted” its property rights in that sold product. (The patent-holder still has the exclusive right to make the product in the first place, preserving its monopoly on the “know-how” behind the invention.) So an intermediary could buy a patented drug in one country at the lower price being charged by the manufacturer, and then resell that drug in another country at a price lower than what the manufacturer is charging for its product in that other country. This is called “parallel importing”. The TRIPS Agreement (Article 6) says that nothing in it prevents a country from allowing parallel imports.

**Compulsory licensing:** Under TRIPS, a country’s laws may allow the state or the courts to issue a “compulsory license,” which permits either the government, an individual or a company to use a drug (i.e. produce or import a generic drug) without the authorization of the patent owner. Compulsory licenses are usually granted on grounds of general interest such as public health, economic development, national defence and the absence of working (i.e. when the holder is not “exploiting” its patent). The TRIPS Agreement does not limit the grounds on which governments or courts may issue compulsory licences.

But there are restrictions on the use of compulsory licenses:

- Usually there must be an effort to negotiate a voluntary license with the patent owner “on reasonable commercial terms” within a “reasonable period of time.” Importantly however, this attempt at negotiation with the patent holder is not required if the drug is to be used for “public non-commercial use,” if there is a “national emergency” or other situation of “extreme urgency,” or if a legal process has determined that the patent owner has engaged in “anti-competitive” practices.

### **Parallel importing and price variations for HIV/AIDS drugs**

A recent survey by MSF, UNAIDS, UNICEF and WHO found worldwide variations in the price of fluconazole, an antifungal drug used to treat oral and vaginal candidiasis (yeast infection) and the deadly cryptococcal meningitis, ranging from a high of US \$7.25 to a low of US \$0.20 for a 200 mg tablet.

The anti-retroviral drug lamivudine (3TC) ranged from a maximum price of US \$0.43 to a low of US \$0.14 for a 150 mg tablet.

For poor countries with very limited health budgets and millions of people with HIV/AIDS, or for poor people with little income to spend on medicines, obtaining drugs at the lowest possible world price through parallel importing can make a significant difference.

Obtaining lower prices through parallel importing would also mean that any grants obtained from the new Global Fund to fight AIDS, TB & Malaria (established in June 2001) could be used to provide medicines to more people.

## Universal Declaration of Human Rights

*Everyone has the right to a standard of living adequate for the health and well-being of himself and of his family, including... medical care.*  
- Article 25

*Everyone has the right... to share in scientific advancement and its benefits.*  
- Article 27

## States' Obligations

*The States Parties to the present Covenant recognize the right of everyone to the enjoyment of the highest attainable standard of physical and mental health. The steps to be taken by the States Parties... to achieve the full realization of this right shall include those necessary for... the reduction of... infant mortality and for the healthy development of the child; ...and the prevention, treatment and control of epidemic diseases.*

- International Covenant on Economic, Social & Cultural Rights, Article 12

- If a compulsory license is issued, the patent owner is entitled to be paid "adequate remuneration" (e.g. either a symbolic fee acknowledging the inventor or a proper royalty in lieu of financial compensation for lost sales). The competent authority may also decide that the license should be granted free of charge. The TRIPS Agreement does not say how "adequate remuneration" should be determined.
- Furthermore, the license must be used "predominantly" for supplying the domestic market in the country issuing the license (unless the license is issued to remedy "anti-competitive" practices by the patent owner). This presents a likely barrier to accessing affordable drugs: many developing countries don't have the ability to produce their own generic drugs and would need to import them from other countries that do. But those countries that do have a generic drug industry are not permitted under TRIPS to issue a compulsory license authorizing someone to make a patent-protected drug primarily for export to other countries. The WTO is currently debating proposals for solving this restriction on exports of quality generic drugs to countries that need cheaper medicines but must import them because they cannot make their own. (This issue is discussed in more detail below).

### **Don't countries have an obligation to protect the health of their people?**

Yes. In addition to governments' ethical duty to act in the public interest, countries have an obligation under international human rights treaties to take steps, individually and collectively, to fully realize the universal human right to health. This includes making laws that will protect and promote this right.

According to the UN Committee on Economic, Social & Cultural Rights, in respecting the right to health, States should also ensure that this right is given consideration in international agreements (such as TRIPS) and should ensure that these agreements do not negatively affect the right to health. A separate body, the UN Commission on Human Rights, has also recognized that access to medication in the context of pandemics such as HIV/AIDS "is one fundamental element" for realizing everyone's right to health.

### **Aren't patent rights necessary for drug companies to recover their costs of researching and developing drugs?**

This argument is often used to justify a 20-year patent protection over innovative processes and products. But it is an inaccurate generalization and does not address the criticisms that overly strict international trade agreements on patents create barriers to poor countries accessing affordable medicines.

The pharmaceutical industry remains by far the most profitable in the world, well ahead of companies in all other sectors.<sup>2</sup> Current profits far exceed what is necessary for a "reasonable" return on their R&D. This is particularly the case if we consider that drugs commercialised by multinational companies have often been developed with significant public subsidies, both through tax breaks for R&D and by direct government investment in pharmaceutical research.

<sup>2</sup> "The 2002 Fortune 500". *Fortune Magazine*, April 2002.

Furthermore, the revenues they gain from poor countries are exceedingly small. For example, all of Africa accounts for about 1% of global pharmaceutical sales, even though millions of people need medicines for numerous conditions. Limiting or overriding patents in such countries will have no significant effect on drug company profits, which is their incentive for research and development (R&D).

In any event, a profit-driven system based on private patent rights provides an incentive only to develop drugs that will be most profitable. Diseases that affect predominantly poor people, who cannot pay high prices for medicines, will not be profitable areas for research, unless there is enough of a wealthy market to make the research investment worthwhile.

A global patent system with one set of rules does not work when countries are at different levels of development or choose different development paths. Most industrialized countries did not adopt their current patent laws until *after* reaching a certain stage of economic, social and technological development. Canada's own generic drug industry developed because of flexibility in drug patent laws (which were amended in the late 1987 and 1993 to almost completely abolish any sort of compulsory licensing). Imposing the industrialized world's rules on all countries will present an additional barrier to socio-economic development for poorer countries, which can ill afford the high costs of accessing technologies (including medicines) when multi-national corporations hold monopolies on that knowledge. The vast majority of patent-holders are in industrialized countries. World-wide monopolies on that knowledge will "lock in" the existing disparity.

According to Indian experts who spoke to MSF, "the Indian generic industry has been able to supply many developing countries with affordable medicines, largely because it has been able to develop to an advanced stage under protective legislation tailored to India's needs. India's 1970 patent law, which granted 'process' but not 'product' patents for pharmaceuticals, was the backbone that allowed the industry to mature to the point where it is today – a leading global producer of quality generic drugs and raw materials, that has the ability to invent new manufacturing processes of drugs through reverse-engineering, and can carry out original R&D [research and development]. Evidence from the Indian pharmaceutical industry indicated that since TRIPS was negotiated, the Indian drug industry has increased R&D but for *diseases of the West*, not for those endemic to India. As with all market-driven companies, Indian R&D priorities were driven by the size of potential markets rather than medical needs. The example is telling, as India is one of the few developing countries with domestic R&D capacity."

### **What can be done?**

TRIPS itself contains many ambiguities. Much remains unclear about just how much flexibility there is in interpreting and applying the TRIPS Agreement. Few cases have been brought to the WTO that offer clear interpretations, although the decision in the *Generic Medicines* case (see side box above) is cause for concern. But how the TRIPS Agreement is legally interpreted, and how it is used politically, will have a significant impact on whether and how countries can protect and promote access to affordable medicines. Despite some recent

*"People no longer accept that the sick and dying, simply because they are poor, should be denied drugs which have transformed the lives of others who are better off."*

- Kofi Annan, UN Secretary General, 26 April 2001

*"Discussions on access to medicines come at a time when even access to food is being questioned as a right. We must always remember that access to medicines is a right, not something that should be determined by charity or subsidies for the poorest of the poor."*

--Mira Shiva, *All India Drug Action Network*

encouraging developments, there is still a need for vigorous advocacy in support of maximum flexibility under TRIPS for countries to address health needs.

## **Doha Declaration**

*"We agree that the TRIPS Agreement does not and should not prevent Members from taking measures to protect public health. .. the Agreement can and should be interpreted and implemented in a manner supportive of WTO Members' right to protect public health and, in particular, to promote access to medicines for all."*

- Declaration on the TRIPS Agreement and Public Health, Fourth WTO Ministerial Conference, Doha (Qatar), 14 November 2001

### **What is the Doha Declaration and why is it important?**

In November 2001, at the WTO Ministerial Conference in Doha, Qatar, member countries issued a "Declaration on the TRIPS Agreement and Public Health." It states that the TRIPS Agreement "does not and should not" prevent countries from taking measures to protect public health, and "can and should" be interpreted in a way that supports countries' rights to protect public health and, in particular, to promote access to medicines for all.

The Doha Declaration represents an important step forward. The Ministerial Conference is the highest body with the authority to adopt interpretations of WTO treaties. Therefore, the Doha Declaration should, as a matter of law, guide the interpretation of the TRIPS Agreement in a more "health-friendly" direction in future disputes over patents. Those interpretations should also take into account countries' obligations under international law to protect and promote the right to health. The Doha Declaration may also help developing countries fend off pressure tactics by rich countries who invoke the TRIPS Agreement and threaten trade sanctions when developing countries limit exclusive patent rights in order to make medicines more affordable. It remains to be seen whether the promise of the Declaration will be realized.

The Doha Declaration also extended until 2016 the deadline for "least developed countries" to implement the sections of TRIPS that require them to grant exclusive, 20-year patent rights to pharmaceutical products.

### **What happens after the Doha Declaration?**

While asserting that a more pro-health interpretation of the TRIPS Agreement is in order, the Doha Declaration also acknowledged a further restriction imposed by the TRIPS Agreement.

As noted above, under Article 31(f), compulsory licenses authorizing the production of generic drugs must be limited to "predominantly" supplying that country's domestic market. During the 20-year patent term on a drug, this section restricts the freedom to grant a compulsory licence so that a company could produce generic medicines principally or solely for export to developing countries that don't have the capacity to make their own.

This represents a serious problem: without a source of supply, and without their own domestic manufacturing capacity, many developing countries are effectively unable to make use of safeguards such as compulsory licensing to access affordable generic medicines. The full effects may be felt soon if no solution is found. There is a handful of developing countries with a generic pharmaceutical industry who are not yet fully subject (until 2005) to the TRIPS requirement to grant exclusive patent rights on medicines, and so can still export cheaper, quality generic drugs.

But even if the political and industry leadership in these countries were willing, they cannot supply the entire need for drugs for HIV/AIDS and other illnesses



throughout the developing world. As of 2005, they will be subject to Article 31(f) of TRIPS, meaning that a compulsory license would need to be issued to produce generic versions of patented medicines. Even then, production of generic medicines would be limited to "predominantly" supplying their domestic market, rather than exporting to developing countries in need.

The WTO's Council for TRIPS, which oversees the agreement, has been instructed to find an "expeditious solution" to this problem and report back before the end of 2002. A coalition of non-governmental organizations has put forward proposals that would ensure maximum flexibility in ensuring developing countries' access to quality, affordable generic medicines.

But some rich countries (especially the US) are working hard to promote "solutions" that are very restrictive, merely temporary, and limited to addressing "pandemics" or public health "crises". So far, Canada is supporting these restrictive conditions on any solution.

These kinds of restrictions on compulsory licensing are not imposed by the TRIPS Agreement itself, so it would be unfair to impose them on developing countries who need to import medicines in order to make effective use of compulsory licensing, when other countries do not face this barrier. This violates the spirit of the Doha Declaration, which was to find a solution that would allow developing countries in need to make effective use of compulsory licensing. Rather than restricting the use by developing countries of the safeguards that do exist in the TRIPS Agreement, developed countries should be supporting practical options that would most benefit poor people living with HIV/AIDS and other serious health conditions in developing countries.

### **What needs to be done?**

The Doha Declaration affirmed the primacy of states' public health obligations, and the right to promote access to medicines for all, over intellectual property rights. Advocates should use this to push for the wider recognition that states' obligations to protect and promote human rights (including the realization of the highest attainable standard of health for all) take precedence over trade agreements.

People concerned about access to medicines in developing countries need to ensure that the promise of the Doha Declaration is realized in good faith. Advocates must work toward a solution that deals quickly and fairly with the issue of authorizing production of quality generic drugs for export to developing countries, and that does not impose restrictive conditions that will lead to more preventable deaths by denying access to more affordable medicines.

Advocates also need to ensure that the gains reflected in the Doha Declaration are not undermined by political pressure on developing countries if they pursue the measures allowed under the TRIPS Agreement to promote access to medicines. Other regional or bilateral trade agreements dealing with patents must also include these safeguards, and should not go beyond TRIPS in strengthening private patent rights at the expense of poor people who need medicines.

### **What about other trade agreements?**

TRIPS is one international trade agreement that affects access to affordable drugs, and affects the majority of the world's countries. But other regional trade agreements are being negotiated, and there is a real danger that these agreements could go even further than TRIPS in hindering access to essential medicines. For example, some countries negotiating the Free Trade Agreement of the Americas (FTAA) are pushing for sections in the final treaty that go even further than TRIPS in granting exclusive patent rights and limiting countries' options for balancing patents against promoting public health and human rights.

Similarly, MSF, the World Health Organization and the UN's Joint Programme on AIDS (UNAIDS) have warned that a treaty signed in February 1999 between several French-speaking countries in central and west Africa is more restrictive than necessary under TRIPS. The Bangui Agreement imposes even stricter conditions on the use of compulsory licences and prohibiting parallel imports from countries outside the bloc of countries that sign the agreement. Advocates have urged these countries not to ratify the Bangui Agreement, and certainly not before they are fully bound by TRIPS.

Governments must ensure that trade agreements do not hinder access to affordable medicines, especially in developing countries.

## Taking action

Canadian labour and non-governmental organizations concerned with HIV/AIDS, human rights, and international development have been working on the issue of global access to medicines and the right to health.

The **Global Treatment Action Group (GTAG)** came together in mid-2001. These organizations have taken a variety of initiatives to raise public awareness of the issue and to raise these concerns with the Canadian government. GTAG has also addressed the need for increased Canadian contributions to the Global Fund to fight AIDS, TB & Malaria, and to foreign aid to develop health infrastructures where these are under-funded or inadequate. The GTAG will take up other issues related to global access to health care in the future.

For more information about GTAG, contact:

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## WHERE CAN I GET MORE INFORMATION ABOUT GLOBAL ACCESS TO HIV/AIDS DRUGS AND OTHER ESSENTIAL DRUGS?

**Médecins Sans Frontières / Doctors Without Borders Canada** is the Canadian branch of the international medical relief organization. MSF is leading a global *Campaign for Access to Essential Medicines* ([www.accessmed-msf.org](http://www.accessmed-msf.org)) that includes action taken in Canada ([www.msf.ca/access/index.htm](http://www.msf.ca/access/index.htm)).

The **Canadian HIV/AIDS Legal Network** ([www.aidslaw.ca](http://www.aidslaw.ca)) focusses on legal and human rights issues related to HIV/AIDS. Its website includes a list of key resources on the issue of access to treatment for people living with HIV/AIDS in developing countries ([www.aidslaw.ca/Maincontent/issues/cts/selectedresources.htm](http://www.aidslaw.ca/Maincontent/issues/cts/selectedresources.htm)).

The **Interagency Coalition on AIDS and Development (ICAD)** brings ([www.icad-cisd.com](http://www.icad-cisd.com)) together HIV/AIDS and development organizations. ICAD has produced several factsheets on international development issues relating to HIV/AIDS, including "Access to HIV/AIDS Treatment in Developing Countries."

The **International Council of AIDS Service Organizations (ICASO)** ([www.icaso.org](http://www.icaso.org)) has produced a background paper on compulsory licensing and parallel importing.

**Oxfam** is a global NGO focussing on health and food security and democratic rights, and has been active in lobbying for global trade rules that put patients before profits. See their reports on-line ([www.oxfam.org.uk](http://www.oxfam.org.uk) and [www.oxfam.ca](http://www.oxfam.ca)).

The **Global Treatment Access Campaign (GTAC)** is a network for communication and advocacy efforts for access to essential medications. The website ([www.globaltreatmentaccess.org](http://www.globaltreatmentaccess.org)) is maintained by the Health GAP Coalition in the US, and provides action tools and updates, with a focus on the US government.

The **Consumer Project on Technology** ([www.cptech.org/ip/health](http://www.cptech.org/ip/health)) is a public interest advocacy organization in the US with a project on intellectual property and health issues. The website contains a wealth of materials, particularly detailed information about the pharmaceutical industry, and a listserv on pharmaceutical policy issues.

The **Joint UN Program on HIV/AIDS (UNAIDS)** website ([www.unaids.org](http://www.unaids.org)) includes numerous documents on global HIV/AIDS issues, including a report on the patent situation of HIV/AIDS-related drugs in 80 countries and an infosheet on "Pharmaceuticals and the WTO TRIPS Agreement: Questions & Answers."

The website of the **World Trade Organization** ([www.wto.org](http://www.wto.org)) provides access to the full text of the TRIPS Agreement (and other WTO treaties) and a searchable database of documents, including decisions of panels and the Appellate Body.

The **World Health Organization** ([www.who.int](http://www.who.int)) maintains an on-line catalogue of publications, some of which are themselves on-line, including its above-cited report on *Globalization and Access to Drugs* and a sheet on TRIPS and access to drugs.

The **International Centre for Trade & Sustainable Development (ICTSD)** ([www.ictsd.org](http://www.ictsd.org)) produces weekly and monthly reports on development issues in international trade law and maintains a web-page with resources on IP issues.

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# DEVELOPMENT, TRADE, AND THE WTO

*A Handbook*

Bernard Hoekman, Aaditya Mattoo, and Philip English, editors



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Selected readings:

## BOX 35.2 COMBATING DISEASE WORLDWIDE: FOSTERING THE REQUIRED R&amp;D

A critical task facing the global economy is to develop mechanisms that encourage research aimed at developing treatments for diseases which are common in poor countries and, at the same time, achieve widespread distribution of those treatments at affordable prices. The issue has become prominent because of the severe epidemic of HIV/AIDS, in particular in Sub-Saharan Africa, South Asia, and Southeast Asia. But HIV/AIDS is not the only disease plaguing poor nations; malaria, tuberculosis, and other maladies are equally debilitating. In fact, HIV/AIDS is unusual in that it affects both rich and poor countries. Pharmaceutical firms therefore have incentives to develop HIV/AIDS medicines for sufferers in high-income economies, and what is being debated is how to transfer these medicines to poor countries. In contrast, malaria and other diseases endemic to impoverished nations are “neglected” in that they attract little research and development (R&D). For example, the World Health Organization (WHO 1996) has estimated that of the US\$56 billion spent globally on medical R&D in 1994, less than 0.2 percent was spent on tuberculosis, diarrheal maladies, and pneumonia, and virtually all of this research was carried out by public agencies and military authorities. R&D on antimalarial vaccines and drugs is meager. Some research is going on under the auspices of the Multilateral Initiative on Malaria, involving the United Nations Development Programme (UNDP), the World Bank, and WHO, and by the Medicines for Malaria Venture, a public-private sector cooperative initiative. Funding for the Multilateral Initiative comes to perhaps US\$3 million per year, and Medicines for Malaria is soliciting support from foundations in the hope of raising US\$30 million per year. These amounts are inadequate for the job, given the costs of developing and testing new drugs.

There are two main reasons for this low rate of R&D. Most important, the low purchasing power in poor countries gives pharmaceutical companies insufficient incentives to introduce new drugs into those markets. A second reason is that in the past many developing countries did not

recognize or enforce patent protection for pharmaceutical products. Regarding the latter problem, the TRIPS agreement requires that developing WTO member countries provide patents for new pharmaceutical products by 2005 at the latest (by 2016, for least-developed countries). There is concern, however, that the provision of product patents in pharmaceutical products could confer considerably greater market power on rightsholders by delaying the entry of generic competitors for new products. Then such firms might reduce sales or output in particular markets, supporting higher monopolistic prices in key medical therapies.

Considerable pressure has been exerted on pharmaceutical companies to provide drugs to poor countries at marginal production cost (or less). For example, Merck & Co. recently announced that it would cut the prices of two AIDS-controlling drugs in Africa by 40 to 55 percent, adding to sharp price cuts announced a year earlier. Abbott Laboratories offered to sell its two AIDS drugs, Norvir and Kaletra, at prices that would earn the company no profit. Many other firms, including the Bristol-Myers Squibb Co. and GlaxoSmithKline PLC, have announced similar price cuts. These research-intensive firms have three concerns about low-cost distribution programs. First, provision at marginal cost adds nothing to their ability to cover the costs of R&D. Second, while they may be willing to supply their medicines cheaply, they wish to retain the exclusive distribution rights inherent in patents. Indeed, this preference underlay the recent lawsuit by several firms against the South African government, challenging the constitutionality of its 1997 Medicine and Related Substances Control Act. Third, drug manufacturers are concerned that the availability of far cheaper medicines in poor countries could erode their ability to sustain higher prices in rich countries.

Under Article 68 of Brazil's Industrial Property Law (Law 9.279/96), foreign firms must manufacture patented drugs within Brazil before three years have elapsed from the grant of the patent. Failure to meet these “working requirements”

## BOX 35.2 (CONTINUED)

could result in an order by the Brazilian authorities to local firms to manufacture generic substitutes under compulsory license—a threat that recently faced the makers of the AIDS drugs Efavirenz (Merck & Co.) and Nelfinavir (Roche). This issue was raised by the United States at the WTO, but a bilateral settlement was arrived at, and the case was withdrawn.

In economic terms, to address effectively the diseases endemic to poor countries through development of and access to new treatments requires separation of the dynamic incentives for R&D from the need for widespread distribution at low cost. Because paying for the required R&D is beyond the means of poor countries, any comprehensive solution to the problem requires significant increases in assistance from industrial countries and financial support from multilateral organizations and private donors. These monies would be used for two purposes. An immediate task would be to build effective health care delivery systems in poor countries, where health infrastructures are weak. The second task would be to provide incentives for firms to engage in R&D in new and effective vaccines and medicines. Most likely, these incentives would involve purchase by governments or international public agencies of bulk amounts of targeted drugs from manufacturers at negotiated prices and the dis-

tribution of the drugs to designated countries at low cost, while preventing backflow of cheap medicines to higher-income nations. If such negotiations are unfeasible or ineffective, it may be advisable to establish a system of royalties under which countries could acquire licenses to produce and distribute the drugs. For this system to be effective, small countries without production facilities may need to be given the right to import drugs from generic producers in third countries.

Ganslandt, Maskus, and Wong (2001) estimate the annual cost of such an international strategy at between US\$8.2 billion and US\$12.1 billion. While this commitment would represent a substantial portion of current aid funding (which amounted to US\$84.9 billion in 1999), it would correspond to only 0.03 to 0.05 percent of the OECD's 1998 GDP. Indeed, if the US\$12.1 billion were paid by the United States, the European Union, and Japan it would come to only US\$13.50 per person per year. For a final perspective, the US\$12.1 billion may be compared with the anticipated loss in South African GDP, if the current epidemic continues unchecked, of US\$22 billion in 2010.

*Source:* Prepared by the volume editors, based on Ganslandt, Maskus, and Wong (2001).